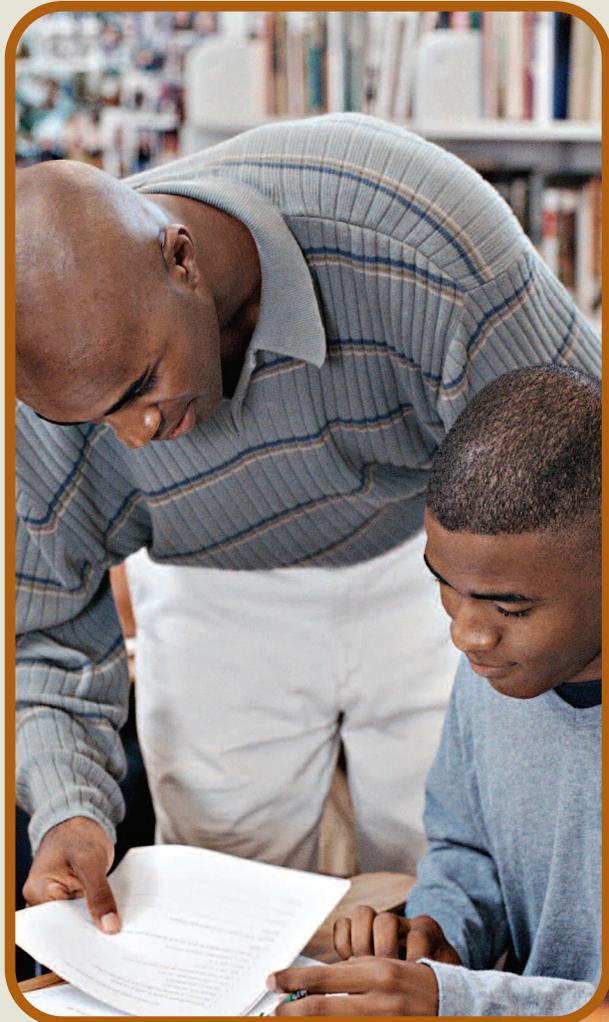


Executive Summary: Evaluation of the Bill & Melinda Gates Foundation's High School Grants, 2001–2004



Prepared by:
The American Institutes for Research

SRI International



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Introduction

A team of researchers from the American Institutes for Research (AIR) and SRI International (SRI) has been conducting a national evaluation of the Bill & Melinda Gates Foundation's high school initiative since 2001. The goals and methods of the evaluation are described in detail in *Charting a Course: Evaluation Design of the National School District and Network Grants Program* (AIR/SRI, 2003a). This document summarizes evaluation findings that were published this summer in three reports.

The first evaluation report, *Creating Cultures for Learning: Supportive Relationships in New and Redesigned High Schools* (2005), examined the progress of foundation-supported schools in implementing close, supportive communities focused on learning, paying special attention to the relationships between and among students and teachers.

The second report, *Rigor, Relevance, and Results in New and Conventional High Schools* (2005), investigated whether the school-level changes described in the first report have corollaries in the classroom. By examining the rigor and relevance of teacher assignments and student work, the report examined teaching in foundation-supported schools to see whether school-level changes found in the first report set the stage for classroom innovation. The second report then examined learning in these schools, describing the nature and quality of the work students produced.

The final report, *Getting to Results: Early Student Outcomes in New and Redesigned High Schools* (2005), examined student outcomes in foundation-supported schools during the early years of the initiative, drawing upon a number of different data sources, including extant district demographic and achievement data, surveys of teachers and students, and site visits to schools. This report focused on the characteristics of students attending foundation-supported schools and selected student outcomes (e.g., assessment scores, attendance) in the foundation-supported schools compared to other high schools in the same district.

About the Bill & Melinda Gates Foundation's High School Grants

The Bill & Melinda Gates Foundation's theory of change addresses the need for whole K–16 system change, stressing the importance of the individual relationships high school students forge with each other and with the adults in their schools. Building on its experience and recent research, the foundation has established key partnerships with state education agencies, school districts, and other organizations to improve high school graduation rates by promoting the new “three R’s”—rigor, relevance, and relationships. The three R’s are derived from a number of key attributes of effective schools. These attributes are common focus, high expectations, personalization, respect and responsibility, time to collaborate, performance-based learning, and technology as a tool. The foundation believes high schools should become places that combine rigorous academic programs with relevance to students’ interests and potential career opportunities, supported by positive relationships that can motivate students both academically and personally.

The foundation recognizes that there are multiple models for fostering the three R’s. By supporting a variety of high schools, the foundation is striving to improve graduation rates and other outcomes for high school students, including students who have traditionally fallen through the cracks. Across this wide spectrum, the foundation supports a variety of strategies, including two basic approaches to reform at the school level. Some foundation-supported organizations are creating brand new high schools by replicating the core designs of existing, successful high schools, while others are redesigning existing comprehensive high schools into smaller learning communities that share a building or campus. Generally speaking, foundation-supported schools are expected to be inviting places, where students and adults know each other well and pursue a common mission of high academic achievement for all students, and where the professional community is collaborative and student-focused. (See the technical appendices of each of the reports for details about the construction of measures described in this document.)

In working toward these goals, the evaluation has identified promising examples of success combined with several challenges. Key overarching findings include the following:

- ◆ Teachers and students at both newly established and redesigned schools are making progress in developing a positive culture that supports student learning.

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- ◆ Compared to comprehensive high schools, the quality of student work in new and redesigned high schools is higher in English/language arts, but slightly lower in mathematics.
 - ◆ Initial student achievement levels are promising for English/language arts, but not for mathematics.

The remainder of this report identifies and discusses key findings generated from each of the three evaluation reports. This is followed by a discussion of implications. The report concludes with information about the evaluation and a brief description of the data collected by school type.

Creating Cultures for Learning

The first report in this series, *Creating Cultures for Learning: Supportive Relationships in New and Redesigned High Schools* (2005), found the following:

- ◆ Students and teachers at newly established schools reported a very positive learning culture, characterized by close interpersonal relationships, common focus, and mutual respect and responsibility (see Table 1 for components of school learning culture).
- ◆ Redesigned high schools are also seeing progress as they work to change existing structures, cultures, and beliefs, but at a slower rate than new schools.
- ◆ Though new and redesigned high schools have made progress in creating positive learning environments compared to comprehensive high schools, both have faced serious challenges in creating and sustaining more effective learning environments.

Data from surveys administered to students and teachers in 24 new schools during the year in which they opened indicated that the schools had a much more positive climate—in terms of both personalization of the learning environment and a common focus among teachers and students—than was found in the comprehensive high schools we studied (see Figure 1). Although we cannot rule out the possibility that these new schools attracted self-selected groups of motivated, like-minded students and staff, it is clear that they have established an environment marked by stronger relationships between students and teachers and by more staff collaboration and participation in decision-making than is typical of traditional high schools.

Table 1. Cultures for Learning—The Foundation’s Attributes of High-Performing Schools

<i>Attribute</i>	<i>Description</i>
Common Focus	Staff and students are focused on a few important goals. The school has adopted a consistent, research-based instructional approach based on shared beliefs about teaching and learning. The use of time, tools, materials, and professional development activities are aligned with instruction.
High Expectations	Staff members are dedicated to helping students achieve state and local standards; students are engaged in an ambitious and rigorous course of study; and students leave school prepared for success in work, further education, and citizenship.
Personalization	The school is designed to promote sustained student relationships with adults; every student has an adult advocate and a personal plan for progress. Schools are small—no more than 600 students (fewer than 400 is strongly recommended).
Respect and Responsibility	The environment is authoritative, safe, ethical, and studious. The staff teaches, models, and expects responsible behavior, and relationships are based on mutual respect.
Time to Collaborate	Staff has time to collaborate and develop skills and plans to meet the needs of all students. Parents are recognized as partners in education. Partnerships are developed with businesses to create work-based opportunities and with institutions of higher education to improve teacher preparation and induction.
Performance-Based	Students are promoted to the next instructional level only when they have achieved competency. Students receive additional time and assistance to achieve this competency when necessary.
Technology as a Tool	Teachers design engaging and imaginative curriculum linked to learning standards, analyze curriculum’s results, and have easy access to best practices and learning opportunities. Schools publish their progress for parents and engage the community in dialogue about continuous improvement.

Source: Bill & Melinda Gates Foundation. (no date). *Helping All Students Achieve* [Pamphlet]. Seattle: Author.

New high schools, however, can expect a “second-year slump,” which our data suggest is primarily due to a significant increase in student and teacher population from year 1 to year 2 (growth from a 9th-grade school to a 9th- and 10th-grade school) with a recovery in year 3 in these attributes.

While redesigned high schools are seeing slower progress than new schools, they too are showing gains over time, most notably in the implementation of personalized school cultures in which students feel that their teachers know and support them both academically and personally (see Figure 2).

The most significant positive change reported by students and staff during interviews and focus groups at redesigned schools was an improvement in interpersonal relations. Students reported feeling better known and supported by staff after school redesign. Some students talked about their teachers as having higher expectations for them because of their

Figure 1. Higher Mean on Implementation Index and School Attributes in New Schools Than Pre-Redesign and Comparison Schools

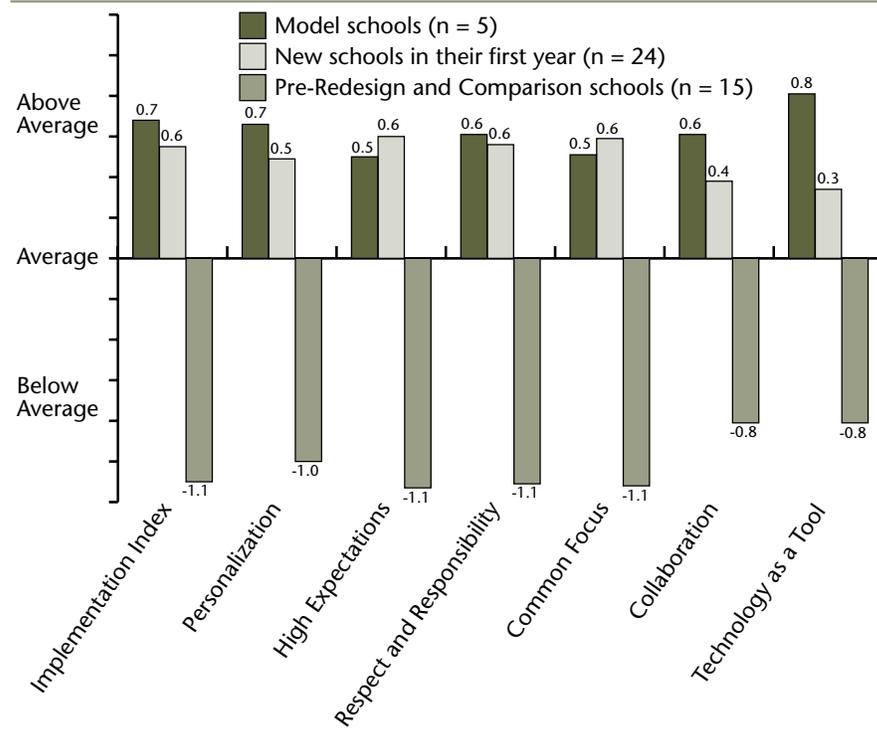
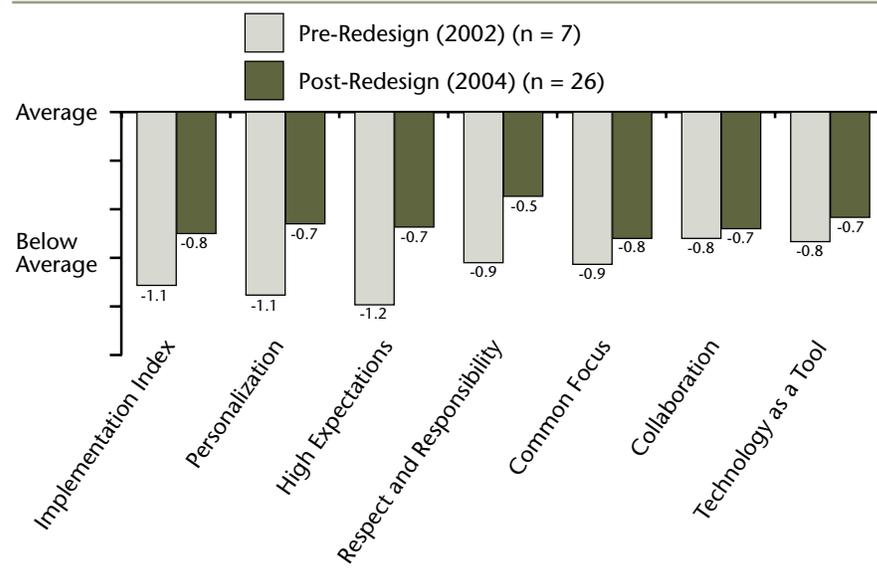


Figure 2. Improvement in Implementation Index and School Attributes in Redesigned High Schools



increased knowledge of the students' capabilities. Teachers reported having closer relationships with their students and working more collaboratively with other teachers within their small learning communities (SLCs). One negative note was mentioned by some math and science teachers who expressed a sense of loss caused by the breaking up or weakening of the comprehensive schools' departmental structure when the SLCs were created.

The report offered a number of cautionary remarks regarding the creation and long-term sustainability of new and redesigned high schools. With respect to new schools, challenges included the following:

- ◆ Severe cuts and deficits in education budgets in many states and districts had deleterious effects on schools in general and on still-developing, innovative schools in particular. In some districts, layoffs hit new schools very hard because so few of their teachers had seniority within the system. Budget cuts and associated changes in staffing formulas forced many of the schools to increase their class sizes.
- ◆ Teacher capacity and burnout threatened the viability of new schools. Many faculty accepted unwieldy teacher workloads as a temporary price to pay to establish a more effective school, but many are now finding that these workloads may be endemic to the staffing structures of many small high schools.

The challenges of transforming an existing school culture and organization within the same building and with largely the same population of teachers and students are often very different from those faced by new school teams. Challenges faced by redesigned schools include the following:

- ◆ Logistical issues, most notably scheduling, often delayed and risked preventing the paradigm shifts often required to instill a culture of high academic expectations for all students. As a result, changes in teaching and learning have generally lagged behind structural changes.
- ◆ Creating high-quality choices for all students within a large campus requires a dramatic change in the structural and organizational features of the comprehensive high school, but just as importantly, it requires a commitment and capacity to change the inequalities that are endemic to such schools. There are notable differences in the quality of the learning culture across small learning communities, even among those created from the same comprehensive school. At times, these differences can be attributed to pre-existing special or magnet programs. In other cases, the divergent approaches to redesign segregated different kinds of students and teachers into particular SLCs. Educators voiced concerns that not all choices available to students would lead to the selection of an SLC that provided a high-quality education.

Rigor, Relevance, and Results

The *Rigor, Relevance, and Results in New and Conventional High Schools* report (2005) found the following:

- ◆ Assignments in the new high schools were more relevant to the real world and to students' lives than those given in the comprehensive high schools planning a redesign.
- ◆ Assignments that are relevant are also more likely to be rigorous.
- ◆ Teacher assignments in the English/language arts involved more rigor at new high schools than at the other schools in the study.
- ◆ Rigor was poor in mathematics across new and redesigned schools.
- ◆ The quality of student work across new and redesigned schools was low.

This report examines the rigor and relevance of assignments that teachers give to students, and, in project-based learning schools, examines the assignments that students give to themselves, with assistance from and negotiation with teachers and mentors (see Table 2 for definitions of rigor and relevance). The report examines rigor and relevance scores for assignments given in new high schools and compares them to redesign high schools in the planning year prior to their reformation into smaller learning communities.

Table 2. Instructional Rigor and Relevance

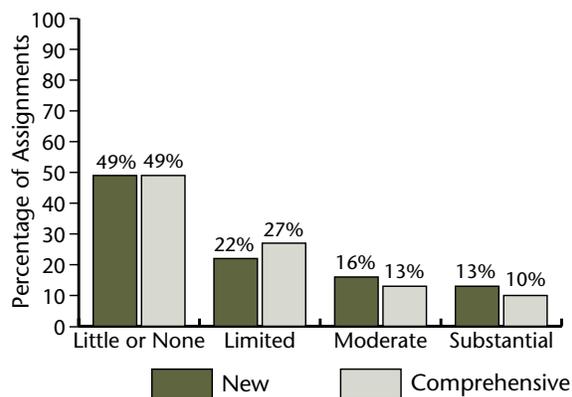
Rigor	Relevance
Assignments ask students to <ul style="list-style-type: none">• Use their existing knowledge and skills to create or explore new ideas rather than reproduce information.• Demonstrate conceptual understanding of important content.• Organize, interpret, evaluate, and synthesize information.• Communicate clearly and well.• Revise work based on informative feedback.	Assignments ask students to <ul style="list-style-type: none">• 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.

Our findings for new schools suggest that changes in teaching and learning tend to lag behind structural change in foundation-supported schools—both for new schools and redesign efforts. Initially, the nuts and bolts of designing and putting in place the small-school structure take precedence over curriculum and teaching. It takes time to develop the curriculum and teaching approaches being adopted by a school.

We begin with the clear and unambiguous results for relevance. Not surprisingly, assignments in the new high schools were more relevant to the real world and to students' lives than those given in the comprehensive high schools planning a redesign. Students in new schools had more choice in what they would learn and how they would learn it. This was the case both for English/language arts and for mathematics. We found that in English/language arts, students' learning opportunities at new high schools involved more rigor than at the other schools in the study; teachers at the new high schools were more than twice as likely to provide assignments with substantial rigor as their counterparts at the comprehensive high schools.

In mathematics, however, our analysis showed that rigor looked similar across the two school types—similarly poor. Half of the assignments at both types of schools exhibited little or no rigor (see Figure 3). This means we saw little opportunity for students to exhibit deep conceptual knowledge of important mathematical content or to formulate problems from situations, make generalizations, or judge the validity of arguments.

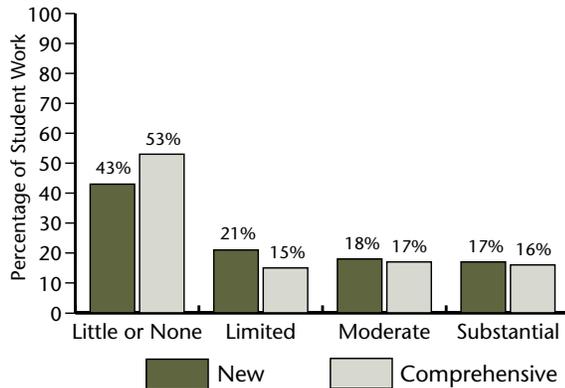
Figure 3. Lack of Rigor in Mathematics Assignments in Both New and Pre-Redesign High Schools



In addition to teacher assignments, we also reported results regarding the quality of students' work. Specifically, we found that the quality of students' work in new high schools is higher in English/language arts, but slightly lower in mathematics, when compared to the comprehensive high schools (see Figure 4 for English/language arts results). More importantly, we concluded that the quality of student work in all of the schools we studied is alarmingly low. This is not surprising, however, because students cannot demonstrate high-quality work if they have not been given assignments that require deep understanding and exploration, demonstration of conceptual thinking, ability to interpret and synthesize information, and other

such skills. This clearly reflects the lack of rigor found in teacher assignments related to mathematics. While progress is occurring with respect to English/language arts, more rigor is still needed.

Figure 4. Slightly Higher-Quality Work in New High Schools Compared to Pre-Redesign High Schools



Getting to Results

Findings from the *Getting to Results: Early Student Outcomes in New and Redesigned High Schools* report (2005) addressed student outcomes in four urban school districts. After completing this report, we carried out similar analyses in four additional school districts. We include these additional districts in the discussion below. In addition to analyzing district enrollment and achievement data, the *Getting to Results* report explored the relationship between performance on state assessments and the measures of school culture examined by *Creating Cultures for Learning: Supportive Relationships in New and Redesigned High Schools* (2005).

Foundation-supported schools are enrolling students from traditionally underserved populations. In the eight urban school districts examined, we found foundation-supported schools enrolling a higher proportion of students who were eligible for free or reduced-priced lunch and who were members of a racial/ethnic minority group than other high schools in the same district. Compared to other schools in their districts, redesigned schools generally enrolled a greater percentage of students with special education or language acquisition needs as well. New schools tended to enroll fewer students from these populations than other schools in the same district, but this was not the case in all districts. Perhaps even more important than the student demographic characteristics, both new and redesigned schools generally enrolled students who began high school academically behind students attending other schools in the same district.

Challenge of Assessing Student Outcomes

Assessing student outcomes for students attending foundation-supported schools has been challenging. The schools included in these analyses have been serving students for 3 or fewer years. While we concentrated our analysis on districts that had a relatively large number of foundation-supported schools, the number of schools that had been open long enough to have assessment data is limited. Many schools initially enroll only grade 9 students, and assessments are generally administered in grades 10 or 11. Therefore, these results should be interpreted with caution as they reflect only the initial results for the subset of schools where data are currently available.

Our ability to gauge the effectiveness of redesigned high schools is also limited. The data currently available for many of these schools are from their planning year(s) and do not yet reflect the impact of changed instructional practices. Consequently, we analyzed data from redesign and pre-redesign high schools separately. For the schools that had broken out into smaller learning communities, test results for the initial cohorts often reflect the cumulative effectiveness of instruction received before and after the school redesign.

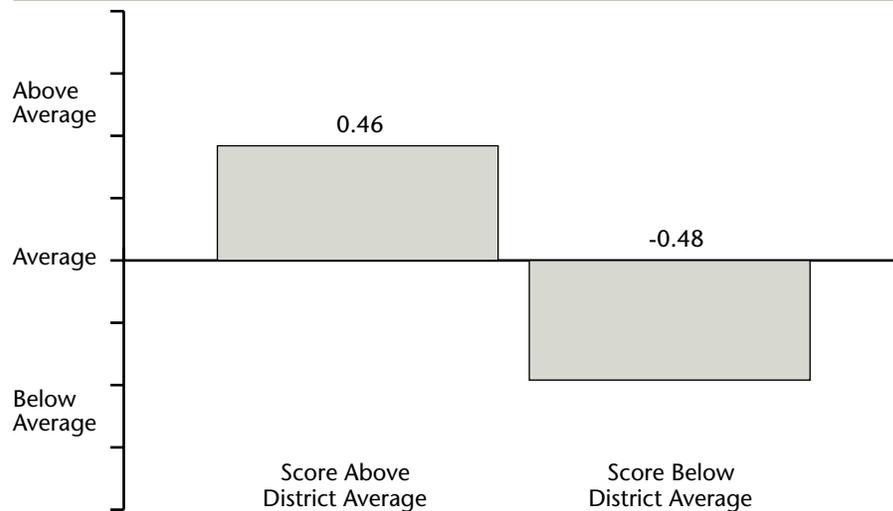
Based on the data currently available, it appears that new schools have been successful with respect to attendance, test scores, and the quality of students' work in English/language arts. The attendance rates at new schools have been generally higher than rates at other schools in the same districts. While the average reading scores of students attending new schools lag behind the district average in some districts, this difference is generally reversed after statistically controlling for level of students' prior achievement. In the subset of districts where we can examine reading scores over multiple academic years, new schools are exhibiting a more positive trend in reading scores than nonsupported schools in the same district. We have not been able to find similar positive results for math performance on a consistent basis. In general, the math achievement level of students attending new schools is on par with or lagging behind other schools in the same district.

It is important to point out that the disparity in assessment results in redesigned high schools was greatly reduced when we statistically controlled for prior achievement level. In order to improve, redesigned high schools in many districts will need to address attendance problems. In half of the districts with large high schools that have converted into SLCs, we detected poorer attendance levels than in other schools in the district.

The degree to which schools had implemented the three new R's was positively related to school-level English/language arts performance. We found a significantly higher level of implementation of the foundation's school attributes in those foundation-supported high schools that scored above their district's mean on English/language arts assessments than in those that scored below the district mean (see Figure 5). However, we

found no such positive relationship for math. In fact, all the associations we observed were negative. That is, implementation levels, reform instruction, and positive student attitudes tended to be higher in foundation-supported high schools that scored *below* their district's mean on math assessments than in schools that scored above their district's mean. None of these negative relationships were statistically significant, however.

Figure 5. Implementation of Desired Characteristics Tied to Student Achievement



In summary, the first returns are promising for English/language arts but worrisome for mathematics. Our concerns for mathematics are heightened because the implementation data we have collected through surveys and site visits point to challenges in this subject area.

Implications

In the future, the evaluation will continue to inform the foundation's emerging theory of change that builds on additional district- and state-level efforts. We envision the theory of change will reflect the interrelated parts of whole-system change, including policy, school restructuring, instruction, and student outcomes aligned with college readiness.

Over the past 3 years, we have reported mounting evidence that the new and redesigned high schools created through the foundation's initiative provide a more positive learning culture for both students and teachers. As the initiative has been rolled out, three critical issues have emerged:

(1) the effectiveness of teaching and learning, (2) the potential for long-term sustainability, and (3) initial student outcomes. This year's report series offers a number of key insights into these three issues.

Teaching and Learning

The following key implications for teaching and learning are drawn from our research:

- ◆ Teachers in nearly all schools are calling for more useful professional development materials, offerings, and coaching, particularly in math.
- ◆ Many grantees lack the capacity to meet these professional development needs.
- ◆ Additional assistance from the foundation may be needed to help schools develop effective instructional strategies and materials for math. This assistance should strive to leverage existing resources.

The *Rigor, Relevance, and Results in New and Conventional High Schools* report (2005) stresses the importance of professional development around teaching practices that incorporate both rigor and relevance, as well as the availability of compelling illustrations of rigorous, relevant work. In almost every school, teachers asked for help in developing and honing their practice. Especially important is professional development on the implementation of innovative practices within the context of current standards and accountability requirements.

One source of this professional development support could be the intermediary organizations that the foundation has funded to work with the schools. However, these organizations vary markedly in their histories and the nature of their expertise (AIR/SRI 2003b, 2004). In cases where schools did not receive curriculum resources from their grantee organization, they had the added burden of developing their own curriculum while also starting or reforming a school. This led all too often to reverting back to packaged software or traditional district textbooks.

The report stresses the equal importance of supplementary academic support in these schools. As described in the report, school staff cited lack of tutoring services and appropriate opportunities to do homework as a barrier for many of the students in foundation-affiliated schools. In some sites, business and community partners have provided mentors or tutors. Existing public and private initiatives offer potential partners and sources of funding for these activities.

All three reports suggest that mathematics instruction is particularly problematic for new and redesigned schools. In the *Getting to Results*:

Early Student Outcomes in New and Redesigned High Schools report (2005), we found no evidence of foundation-supported schools making progress in mathematics achievement. This lack of progress may reflect some foundation-supported schools' stress on individualized learning programs built around student interests; some students treat mathematics in a cursory manner in this climate. In addition, some foundation-supported schools have struggled with hiring and retaining qualified math teachers. Teachers have reported that good mathematics curricular materials consistent with their instructional philosophies are hard to find; multidisciplinary resources are particularly elusive.

Many of the schools started under this initiative stress a project- or problem-based approach that is theoretically compatible with teaching mathematics concepts and skills, but is difficult to reconcile with the specifics of district and state standards for algebra and geometry courses. Rather than expecting individual grantees or schools to solve this problem for themselves, the foundation could fund an organization with instructional development expertise in secondary mathematics to develop materials and offer training for teachers. Many examples of fruitful curriculum and instruction combining mathematics and science (and even mathematics and social studies) exist, and many of them are funded by the National Science Foundation. Either the foundation or its grantees may want to consider providing technical assistance and professional development specifically for math and science teachers working in small innovative high schools. The foundation could also make a contribution in the recruitment, preparation, and placement of teachers with high-level mathematics knowledge and skills to help high-need students succeed in college-preparatory mathematics.

Sustainability

The following key implications for sustainability are drawn from our research:

- ◆ Successful schools recognize that close partnerships with outside organizations can be essential in terms of sustaining the reform effort beyond the grant period.
- ◆ The foundation and its grantees need to help shape the policy environment in which schools are nested.
- ◆ In most cases, sustaining foundation-supported reform at the school level will require direct and indirect support beyond 3 years.

Our evaluation work suggests that new and redesigned schools are vulnerable organizations, with limited internal capacity and numerous external challenges. To mitigate these obstacles, we suggested in the *Creating*

Cultures for Learning: Supportive Relationships in New and Redesigned High Schools report (2005) that schools develop multiple partnerships early in their design process as an important supplement to internal capacity. To carry out the vision of the foundation's initiative, schools and teachers are going far beyond the traditional notion of an academic education to help students, in the words of one teacher, not just get through their classes but to "get through their life."

Although the intermediary organizations funded through this initiative offer many supports (AIR/SRI, 2004), few offer the full range of services needed to carry out all school functions. Some schools are benefiting from additional partnerships targeted to a particular curricular need, such as a biotech company sponsoring equipment for a specialized course that meets the school's theme. Other partnerships are deeply integrated into the school design, such as those with teaching colleges or with counselors who provide personal social services to students.

Moreover, the *Creating Cultures for Learning: Supportive Relationships in New and Redesigned High Schools* report (2005) suggests that the foundation and its grantees should continue active support of the initiative's schools in the face of district and state actions that undercut fundamental components of their designs. Most school districts are experiencing difficult financial times. Both new and redesigned schools must be considered fragile entities well beyond the first 3 years of their existence. A critical role for the foundation and its grantees is to garner support for the incubation of these schools. Changes in funding formulas that force drastic increases in class size or that require schools to lay off a large portion of their teaching staff can easily destroy the special quality of these schools. Advocacy against district and state policies that hamper new independent schools more than established schools is one important activity. Grantee support of schools as they negotiate for more supportive district policies is another. The foundation and its grantees may want to focus more of their energy and resources on protecting the schools that have already been started, even if it means starting fewer new schools.

Finally, grant decisions made under this initiative should take into account plans for school sustainability. Most schools in this program receive direct funding and support for the first 3 years. Although both new and redesigned schools typically make progress in that time, the extremely complex processes of institution building and school transformation take more than 3 years to complete, as demonstrated by the still-evolving status of schools whose foundation funding has ended. Strategies for continued support for reform—potentially by providing funds to involve more mature schools in the mentoring and support of new school staff

—should be explored. In addition, as the foundation moves toward focusing its education investments in specific districts or states, it can catalyze local partnerships that will support reforming schools over the longer term.

Student Outcomes

Our research produced the following key implications in terms of student outcomes:

- ◆ Evaluation of secondary schools' performance should focus as much as possible on a "value added" definition of success.
- ◆ While the positive findings for English/language arts are encouraging and the lack of positive finding for math are discouraging, it is too early in the initiative to draw definitive conclusions concerning student outcomes.

The final report in the series, *Getting to Results: Early Student Outcomes in New and Redesigned High Schools* (2005), concludes that judgments of secondary schools' performance should take into account the different levels of academic and attitudinal preparation students bring to high school. Foundation-supported high schools are successfully enrolling the populations targeted by the initiative. Research on classrooms suggests that teachers of classes with large numbers of low-achieving students perceive constraints on the instructional content and techniques they can use (e.g., the need to focus more on basics and discipline and less on deep content and student initiative). Similarly, research on schools suggests that high concentrations of low-achieving students are associated with problems such as higher levels of delinquency (for a review of the literature, see Lee et al., 1999). Our own evaluation work describes many of the challenges teachers in foundation-supported schools report as they work to educate high-need students (AIR/SRI, 2004). While it should never be used as an excuse, the low level of academic skills with which many students enter foundation-supported high schools needs to be kept in mind. High schools should be given credit for the gains in academic mastery their students demonstrate, even if what they learn should have been mastered in middle or even elementary school.

Second, it is too early in the initiative to draw definitive conclusions concerning student outcomes. The schools included in these analyses have been serving students for 3 years or fewer. Patterns may change as additional years of data become available and reform efforts move forward. School-level outcome data can be very unstable from year to year, especially in schools with small enrollments. Prior research on school improvement efforts suggests that a timeframe of 5–6 years is appropriate for assessing the viability of an educational intervention.

Working with state education agencies, school districts, and other educational organizations, the foundation has been successful in reaching the students most in need of improved secondary education. The replication of the positive relationships reported by the guiding literature involving school attributes, classroom instruction, and student attitudes indicates that reform efforts are touching the lives of young people. During its first 3 years, the Bill & Melinda Gates Foundation's national high school

initiative examined not only the establishment of close relationships but also the efforts to institute effective teaching and learning and to produce positive student outcomes. As many schools are in the fourth year of existence now, in the 2005–2006 school year, we will soon be able to address high school graduation and preparedness for college.

About the Evaluation

The types of schools in the study and the timing of data collection are shown in Table 3.

Table 3. Description of Data by School Types

<i>School Type</i>	<i>Data Available</i>
New schools: Newly created autonomous schools that received foundation funding for the first 3 years.	Surveys and site visits in each of the school's first 3 years. Rolling sample of schools (i.e., new schools are added each year, and each stays in the sample for 3 years), beginning in 2001–2002. Teacher assignments and student work were collected in 2003–2004 and 2004–2005. Districts supplied demographic and student outcome data from 2001–2002, 2002–2003, and 2003–2004.
Redesigned schools: Comprehensive high schools receiving foundation funding to support their breakup into smaller learning communities; funds typically were received for 1 planning year and 2 years of subsequent redesign.	Site visits in each of the 3 funded years; surveyed in planning year and again 2 years later (in the second year of redesign). Rolling sample of schools, beginning with those that began to receive foundation funding in 2001–2002 (typically their planning year). Teacher assignments and student work collected during the planning year for one group in 2002–2003 and for another group in 2003–2004. Districts supplied demographic and student outcome data from 2001–2002, 2002–2003, and 2003–2004.
Other schools: Large public high schools and public high schools that impose selection criteria or offer a specialized curriculum (e.g., performing arts), located in one of the four districts selected for analysis of student characteristics and outcomes that did not receive foundation assistance.	Districts supplied demographic and student outcome data from 2001–2002, 2002–2003, and 2003–2004.

New schools were surveyed and visited during each of the first 3 years of operation. The data collected allow us to track change over time in individual schools. Schools undergoing redesign were surveyed in their planning year and again 2 years later. The data gathered support pre- and postreform comparisons, as these schools were also visited for

3 consecutive years (in their planning year, and in the first and second years of implementing the redesign). We also collected survey and site-visit data from established schools that served as models for the new schools. These schools provide benchmark data for the new schools. Additionally, we collected the assignments given in class by teachers, and the work students produced in response to those assignments. To examine student outcomes, we also collected extant data from foundation-supported schools and other schools within their jurisdictions (in four districts). Details of data collection and analyses can be found in the technical appendices of each of the three reports.

Acknowledgements

This executive summary is drawn from three reports prepared by AIR/SRI:

- ◆ *Creating cultures for learning: Supportive relationships in new and redesigned high schools*, by Linda Shear, Mengli Song, Ann House, Ben Martinez, Barbara Means, and Becky Smerdon.
- ◆ *Rigor, relevance, and results in new and conventional high schools*, by Karen Mitchell, Jamie Shkolnik, Mengli Song, Kazuaki Uekawa, Robert Murphy, Mike Garet, and Barbara Means.
- ◆ *Getting to results: Early student outcomes in new and redesigned high schools*, by David Rhodes, Becky Smerdon, Winona Burt, Aimee Evan, Ben Martinez, and Barbara Means.

The full reports were completed in 2005 and are available online at the following Web site: <http://www.air.org>.

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References

- AIR/SRI. (2003a). *Charting a course: Evaluation design of the National School District and Network Grants Program*. Washington, DC: American Institutes for Research. Available at <http://www.gatesfoundation.org/Education/ResearchAndEvaluation/Evaluation/NHSDGEvaluation.htm>
- AIR/SRI. (2003b). *High time for high school reform: Early findings from the evaluation of the National School District and Network Grants Program*. Menlo Park, CA: SRI International.
- American Institutes for Research/SRI International. (2005). *Creating cultures for learning: Supportive relationships in new and redesigned high schools*. Menlo Park, CA: SRI International.
- American Institutes for Research/SRI International. (2005). *Rigor, relevance, and results in new and conventional high schools*. Menlo Park, CA: SRI International.
- American Institutes for Research/SRI International. (2005). *Getting to results: Early student outcomes in new and redesigned high schools*. Menlo Park, CA: SRI International.
- Lee, V. E., Smith, J. B., Perry, T. E., & Smylie, M. A. (1999). *Social support, academic press, and student achievement: A view from the middle grades in Chicago*. Chicago, IL: Consortium on Chicago School Research.

Selected Readings

- American Diploma Project, (2004). *Ready or not: Creating a high school diploma that counts*. Washington, DC: Achieve, Inc.
- Greene, J. P., & Winters, M. A. (2005). *Public high school graduation and college-readiness rates: 1991–2002*. Education working paper no. 8. New York: Center for Civic Innovation, Manhattan Institute for Policy Research.
- MDRC. (2001, December). *Career academies: Impacts on students' initial transitions to post-secondary education and employment*. (Education working paper no. 8). New York: J. J. Kemple. Retrieved July 20, 2005, from http://www.mdr.org/Reports2002/CA_StudentsImpacts/CA_StudentImpactwTech.pdf
- Newmann, F. M., Marks, H. M., & Gamoran, A. (1996). Authentic pedagogy and student performance. *American Journal of Education*, 104(4): 280–312.
- Vander Ark, T. (2001). Rethinking our educational system from the classroom to the boardroom. *Business Perspectives*, Spring: 18–25.



