Written by:

FSG ◐ SOCIAL IMPACT ADVISORS

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How Top Corporations Can
Help Transform Public Education

A Message from Steve Howe,
Americas Area Managing Partner

For well over a decade, we have been hearing about the impending crisis in United States competitiveness due to an under-prepared workforce. Published studies continue to report on the failure of the education system in the U.S. to produce high-quality graduates who have the skills and knowledge to succeed in the global marketplace. With mounting evidence that the system is failing students, particularly minority and disadvantaged young people, corporate interventions in the education system may hold an important key to making a significant improvement.

We believe this independent white paper, written and researched by FSG Social Impact Advisors, provides a useful overview of the issues facing the U.S. K-12 education system and the types of strategic corporate interventions that are most successful at making a positive impact. At Ernst & Young, our commitment to social responsibility is based on an understanding that what we do matters. Our business—providing auditing, accounting, tax, and transaction services for the benefit of investors, capital markets and clients—reflects an underlying commitment to strengthening the people, companies and communities of tomorrow.

This white paper includes practical recommendations for how companies can leverage the successes of businesses that already are making an impact on the U.S. education landscape. We plan to study these insights carefully to further Ernst & Young's strategic focus on education and mentoring. We'll continue our history of supporting higher education and volunteering at local schools—while strengthening our national commitment to improve K-12 education in the United States by applying our people's workplace skills and expertise. Our intent is to make a sustainable, systemic contribution to improving U.S. competitiveness.

As an organization that values and embraces frank dialogue on critical business issues, Ernst & Young is proud to share this research.

Steve Howe

Americas Area Managing Partner
Ernst & Young LLP

Best in Class
How Top Corporations Can Help Transform Public Education

Written by **Greg Hills** and **Jason Hirschhorn**
With John Kania and Allison Lee, FSG Social Impact Advisors

Comissioned by Ernst & Young LLP

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I. INTRODUCTION

Making the Grade

The U.S. education system clearly faces daunting challenges. Among developed countries, the U.S. ranks 24th out of 29 in math scores. Minority and low-income students consistently score below the national averages in reading and math. A shockingly high number of students — 30 percent — don't finish high school, and the number is much higher among minority students. Nearly half of all teachers leave the field within their first five years, and superintendents of urban schools stay in their jobs only three years on average.

If the U.S. education system were a company, we might politely call it a "turnaround situation." In a speech to the National Governors Association in 2005, Microsoft Chairman Bill Gates went even further, saying:

> *America's high schools are obsolete. By obsolete, I don't just mean that our high schools are broken, flawed, and underfunded — though a case could be made for every one of those points. By obsolete, I mean that our high schools cannot teach our kids what they need to know today. Training the workforce of tomorrow with the high schools of today is like trying to teach kids about today's computers on a 50-year-old mainframe. It's the wrong tool for the times[1].*

These problems are too serious for corporations to ignore. For decades, companies have generously donated time and resources to our nation's schools and have benefited from this generosity through increased community involvement and positive public relations.

But the issues our schools face are so urgent that companies must do more.[2] Firms possess unique assets and expertise that our teachers, schools, and districts lack. Every day, business leaders manage complex bureaucracies, leverage finite resources, lobby policymakers, and lead change efforts. Just as they seek to improve underperforming business units, corporations need to bring their expertise to bear on improving the U.S.'s underperforming educational system.

Setting the Context

A number of trends are converging to reinforce the role of U.S. corporations in supporting improvement. This larger context signals a historic opportunity for corporations to engage more strategically in a wide range of reform efforts.

The landmark federal No Child Left Behind Act of 2001 (NCLB) has created a nationwide focus on accountability in educational outcomes at the school level. By linking funding to test scores, NCLB has focused public-school systems on producing results and has heightened the public's awareness of performance problems. Likewise, significant private philanthropy has raised the profile of education reform. When Bill Gates, chairman of Microsoft and one of the wealthiest and most successful business leaders in the world, chooses to invest over $1.2 billion in education through the Bill and Melinda Gates Foundation, corporate CEOs take notice.

As the skill levels of students graduating from the nation's schools continue to fall, major corporations are renewing their focus on the imminent threat to their near- and long-term competitiveness. In February 2007, the U.S. Chamber of Commerce issued two significant calls to action on the issue of education reform. The first, a bipartisan report titled "Leaders and Laggards: A State-by-State Report Card on Educational Effectiveness," shows that K-12 schools in the United States are failing their students and putting the U.S.'s future competitiveness at risk.

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1 "Gates Appalled by High Schools," Seattle Times, Feb. 7, 2005.

2 The U.S. K-12 education system alone does not hold the key to improving US global competitiveness. Other aspects of our educational infrastructure—our approaches to vocational education, to adult learning, and to re-skilling workers, to name just a few—also require, and are worthy of, significant rethinking and corporate investment.

Reform of the K-12 education system is a sufficiently daunting challenge, and a sufficiently critical piece of the puzzle, to merit distinctive focus. That focus is the subject of this research-based white paper.

Issued with the Center for American Progress, the second report outlines a set of structural changes for improving U.S. K-12 education. These reports come after recommendations issued by the New Commission on the Skills of the American Workforce in December 2006 calling for the biggest changes in the U.S. education system in a century. Similarly, a 2005 report by 15 prominent business organizations titled "Tapping America's Potential" laid out a goal to double the number of science, technology, engineering, and mathematics graduates by 2015, or else risk a decline in these traditional areas of U.S. strength.

U.S. Chamber of Commerce president and CEO Tom Donohue sums up the business community's mood:

> *America is at risk of being left behind if it doesn't improve its education system. …There are warning signs everywhere. … America needs a world-class education system. Students deserve it, parents demand it, and businesses require it if we are to compete and win in the global economy.*[3]

A few companies are ahead of the curve in this area, including IBM with its Reinventing Education program, GE's district-level school reform, State Farm's education advocacy, BellSouth's virtual learning initiative and Intel's Teach for the Future program. Through thoughtful assessments of their programs, they have been refining and overhauling focus areas and approaches as they leverage their corporate assets and manage programs toward focused goals and measured results. The energy, ideas, and execution of these corporate programs represent an example for all companies to follow.

Methodology and Objectives

Recognizing that companies must be part of the solution, Ernst & Young retained FSG Social Impact Advisors (FSG), a nonprofit consultancy, to explore the current landscape of corporate engagement in education. FSG's primary research drew on interviews with over 25 senior leaders from corporations, private foundations, national and local nonprofits, business associations, and districts and schools.[4] Secondary research included a review of approximately 50 reports, studies, and articles from academia, government, nonprofits, advocacy organizations, corporations, and foundations, as well as the Web sites of all the companies and organizations mentioned.

Findings indicate that leading companies have learned valuable lessons relevant to a wide range of executives, not just those already involved in improving U.S. public education. We provide practical recommendations for how corporations can repeat the successes and avoid the pitfalls of those pioneers who have years of experience in helping to transform public education.

The first section provides the key leverage points in education reform. It places the discussion of education reform in historical context, and then summarizes the three main focus areas in which leading companies are working: teaching and learning; human capital; and systems and structures. The next section identifies corporate approaches for achieving greater impact as companies become more sophisticated at implementing programs. These approaches fall into two categories: leveraging corporate assets and expertise; focusing goals and measuring results. The fourth section highlights key lessons learned from interviews with practitioners of corporate philanthropy in education. Additionally, we offer our perspective on what more needs to be done by corporations to achieve true rapid and lasting change in the U.S. public education system.

While this paper provides insights for corporations that are currently engaged in education improvement, or those that may be considering it, we do not claim to have all the answers to the problems facing the U.S. education system. We undoubtedly excluded

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3   "U.S. Chamber to Grade State Education Programs: Are Today's Students Being Prepared for Tomorrow's Jobs?" U.S. Chamber of Commerce, www.uschamber.com.

4   Unless otherwise indicated, direct quotations in this report were collected during interviews by FSG.

some corporations that deserved to be included, but could not be because of time and space limitations. Nonetheless, we hope that the discussion and findings will provide ideas that ultimately lead to action within corporate America.

II. THE RIGHT STUFF: Leverage Points for Improving Public Education

Past is Prologue

Developing a sophisticated, relevant, and effective corporate program in education requires a broad and deep understanding of the reform landscape. Understanding both the history of U.S. public education reform, as well as the key leverage points that are the focus of today's most successful programs, will enable corporations to design effective education interventions.

Several waves of public-education reform have happened in the United States over the last 25 years. In 1983, a blue-ribbon commission appointed by the Reagan Administration released "A Nation at Risk," which revealed some alarming findings and created a strong sense of urgency around improvement: "The educational foundations of our society are presently being eroded by a rising tide of mediocrity," the authors concluded.[5]

The 1980s witnessed increased certification requirements for teachers and a decentralization of educational resources and services to the school level, a term called "site-based management." The decade also saw increased involvement from the private sector, following President Reagan's national call to action. In 1993, philanthropist Walter Annenberg announced a half-billion-dollar grant known as the Annenberg Challenge. It required public-school systems to find a match for the funds, which helped spur major business contributions.

During the 1990s, higher standards were established through Goals 2000, a federal program that gave grants to states agreeing to develop programs around eight national goals for student achievement.[6] Goals 2000 required schools and districts to form partnerships with businesses and institutions of higher education. At around the same time, the market-based concept of school choice took off with the nation's first charter-school law, passed in Minnesota in 1991, as well as a school-voucher program that started in Milwaukee in 1990. The most popular form of business partnerships in the 1990s were adopt-a-school programs that mobilized employee volunteers to serve as tutors. Some companies like Fannie Mae encouraged employees to become involved in such programs by providing up to ten hours of special leave time per month for mentoring students at partner high schools.

At the onset of the new millennium, however, the ambitious targets of Goals 2000 were largely unmet. The next major policy development came in 2002, when President George W. Bush signed into law the NCLB. NCLB requires states to implement accountability systems that align with learning standards.[7] Other policy developments of the last five years include higher standards for measuring teacher quality and the passage of laws that limit charter-school growth in some states.

Meanwhile, private philanthropies like the Bill and Melinda Gates Foundation and the Broad Foundation have made substantial investments in education reform in recent years. The strategies of these larger funders and others have shifted toward initiatives that seek to bring effective reform models to scale. The Gates Foundation and corporations like GE increasingly have moved away from work at the level of individual schools and toward district-level change.

5   "A Nation At Risk: The Imperative For Educational Reform," National Commission on Excellence in Education, April 1983.

6   The goals can be found at www.ncrel.org/sdrs/areas/issues/envrnmnt/stw/sw0goals.htm.

7   A more comprehensive explanation of the No Child Left Behind Act is included later in this section as part of the systems and structures discussion on policy trends.

Figure 1: The 30 Largest Education Donors

2002 K-12 Total Education Donations by Funding Type (30 Largest Education Funders)

Funding categories (top to bottom in legend):
- Special Public Schools
- Early College Schools
- Technology in Public Schools
- Disability Focus
- Public School Curriculum
- Vouchers
- Charter Schools
- Special Purpose Public School Support
- Research and Advocacy
- General Purpose Public School Support
- Small Public Schools
- Private School Grants
- Public School Professional Development

Values shown: 4%, 4%, 5%, 5%, 6%, 12%, 12%, 13%, 13%, 21%

Education Funding Breakdown Top 30 Private Education Funders (2002)

Funders (top to bottom in legend):
- Other (18%)
- BOA/MBNA (3%)
- Oberkotter (3%)
- Hewlett (3%)
- Kellogg (3%)
- Ford Foundation (3%)
- NYCT (4%)
- Lilly Endowment (4%)
- Carnegie (6%)
- Annenberg (12%)
- Walton
- Gates (38%)

Source: Greene, Jay, "Buckets into the Sea: Why Philanthropy Isn't Changing Schools and How It Could," *Manhattan Institute for Policy Research*, April 25, 2005.

Private support for elementary and secondary education, including corporate support, amounted to approximately $3.6 billion in 2004. Still, that's only about 1 percent of total public spending on K-12 education. The infusion of new ideas, more than actual dollars, is what has been valuable in most education philanthropy. Corporate resources have been directed mainly at programs that seek to influence what goes on in the classroom, in large part through the professional development of teachers (see Figure 1).

While private spending has contributed to a few pockets of success, many critical educational problems continue to persist (see Appendix).

Statistics do not tell the entire story, of course. To be fair, stagnant trends in student performance are also not entirely due to school-level factors. The socioeconomic backgrounds of students and their home environments contribute greatly to learning. Still,

schools and districts play a critical role in improving student learning and achievement. A 2003 study from the education research company McREL found that approximately 20 percent of the differences in student achievement can be directly attributed to factors that schools control or influence. It's clear that schools and districts are the points that companies can most systematically target to influence educational outcomes and opportunities.

For companies that want to be more strategic about playing a role in this complex environment, it's necessary not only to understand potential areas of impact, but also to see what roles others have been playing. In this report, the landscape of reform is organized into three major focus areas: teaching and learning; human capital; and systems and structures. These categories are designed to simplify the range of needs in education and to identify critical leverage points where private and corporate funders have commonly intervened.

While the areas often overlap, viewing the categories separately can help identify current trends and highlight key players actively engaged in different types of reform. No one element offers a "silver bullet" solution; rather, it is the interaction between the different areas that holds the most promise for improving public education at a more systemic and sustainable level. These focus areas and leverage points are summarized in Figure 2.

Teaching and Learning

This area focuses on the process through which content knowledge and critical thinking skills are developed. It includes actions that schools, districts, or out-of-school programs take to influence student learning, achievement, and opportunity. Many corporations and foundations have channeled their resources into improving the quality of instruction inside the classroom, while some are targeting out-of-school programs.

Inside the Classroom

Instructional strategies are implemented inside the classroom. Research indicates that the actions of teachers and students and the tools and strategies at their disposal inside the classroom are the most important school-based factors that influence the learning process. This has been the focus of many corporate interventions in education to date.
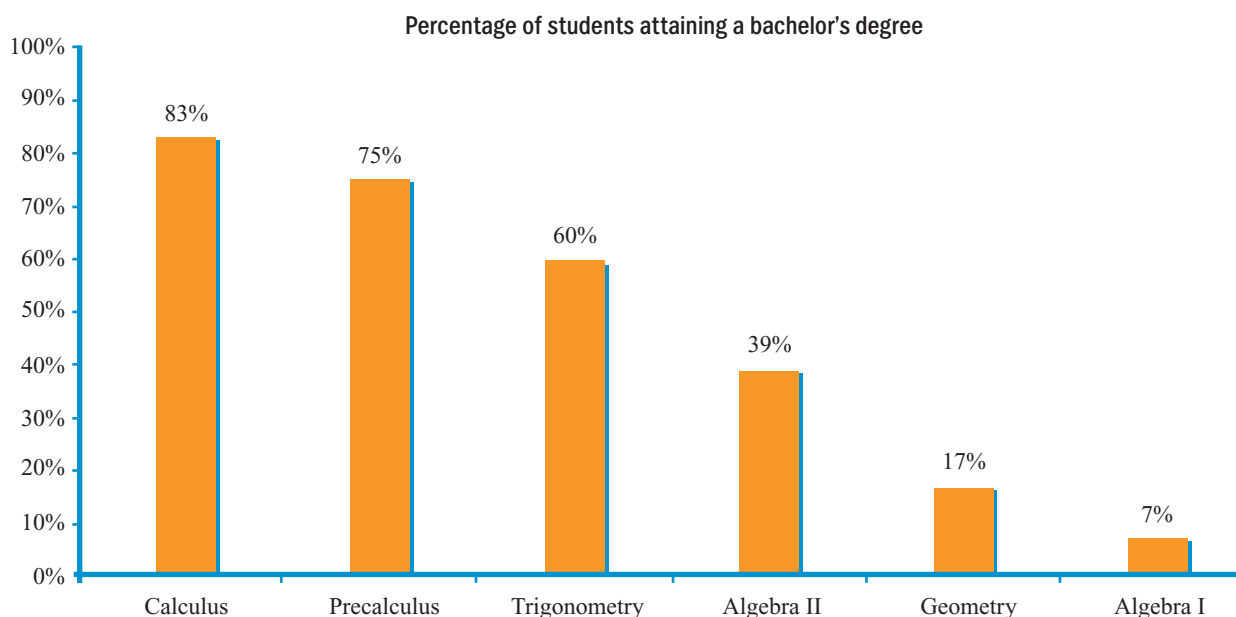
States have designed learning standards that identify what students need to know and accomplish by certain grade levels, and these guidelines direct the development of curricula for certain grades and subjects. Achieve, a nonpartisan nonprofit receiving support from several leading corporations (e.g, Boeing, GE, IBM, and Intel) focuses on raising academic standards and has found that the rigor of a student's course-taking patterns is the best predictor of college completion. In particular, the highest level of math reached in high school is the strongest

Figure 2: Public Education Focus Areas and Leverage Points

Teaching and Learning		Human Capital	
Inside the Classroom	**Outside the Classroom**	**Teachers**	**Organizational Leadership**
› Curriculum › Testing › Student achievement › Teaching approaches	› After- and before-school programs › Access to and support for higher education and work	› Recruitment › Quality development › Retention	› Principal/superintendent/ administrator/school board quality and development › Nonprofit leadership effectiveness

Systems and Structures			
Policy	**Community Engagement**	**Support Services**	**Organizational Units**
› Federal › State › Local	› Parent/guardian/ other adult involvement › Business initiatives	› Data/quality assurance/ accountability › Financial management and oversight › Other services	› Charter schools › District structures › Nonprofits

Figure 3: High School Math As a Strong Predictor of College Success

Percentage of students attaining a bachelor's degree

Calculus	83%
Precalculus	75%
Trigonometry	60%
Algebra II	39%
Geometry	17%
Algebra I	7%

The highest level of math passed in high school is the strongest predictor of college degree attainment.

Source: Achieve Inc.

predictor of whether students will finish their bachelor's degree, regardless of race, family income, or background (see Figure 3).

Higher education is a crucial predictor of job success and future income levels. The College Board has found that over a 40-year working career, individuals holding a bachelor's degree will make approximately $1.1 million more in median earnings than those who have only completed high school. By 2010, an estimated two-thirds of jobs will require some post-secondary education. Clearly, obtaining a post-secondary credential matters in today's economy, but only an estimated 18% of entering ninth graders will obtain a bachelor's degree within four years of leaving high school. High-quality, challenging academic preparation is necessary for students to succeed in college. Corporations can play an important role in improving the rigor and quality of academic preparation that students receive inside the classroom.

Corporations have played a variety of roles in raising standards and promoting more rigorous curricula. Texas Instruments (TI) is working to raise expectations and standards in ten Dallas high schools through innovative course-related incentives in schools with high minority and low-income enrollments. TI encourages students to take college-level work in high school, because it believes that more challenging work will better prepare future employees for high-tech careers and stimulate future demand for TI's products. The firm offers $100 per course to any student who takes an advanced placement (AP) class and earns college credit. Teachers are also paid $150 for each student who passes an AP exam, and TI pays teachers for Saturday morning AP-prep courses and funds professional development to help them learn to teach at this level.

Improving the academic performance of low-income students in the nation's largest urban school districts has received considerable attention in recent years.

While the 100 largest school districts in the U.S. represent only 1 percent of the total number of districts, they serve nearly 25 percent of all K-12 students nationwide. These districts also enroll 40 percent of all minority students and 30 percent of all low-income students in the U.S. Since significant national attention has focused on improving low-income and minority student achievement, urban schools and districts are natural places to focus resources. Urban centers are also typically where corporations have major offices with large numbers of employees.

Any corporation designing a program aimed at improving the quality of instruction inside the classroom in urban schools must keep in mind the challenges facing urban school districts. One of the most pressing challenges in urban districts is student mobility. Students in urban areas are highly mobile and often change schools throughout the school year. In Chicago, for example, 25 percent of students changed schools last year. High student mobility combined with a lack of curricular coherence between schools has contributed to disruptions in student learning. It's hard to learn when topics are taught at different times and in different ways as students move around. Corporations can play a role in creating greater coher ence in curriculum between schools in urban districts to raise student achievement.

Some private funders have already begun to tackle this issue. For example, the Gates Foundation has spent over $1 billion on education reform in the past few years, much of it dedicated to redesigning U.S. high schools. While the foundation's focus continues to evolve to focus on district-level interventions, much of its work has been aimed at changing the structure of high schools in urban areas and promoting more academically rigorous and relevant curricula. The Gates Foundation has channeled resources toward some of the nation's largest urban districts, creating new high schools that are smaller and more personalized, as well as converting existing large high schools into smaller learning communities. In April 2006, the Gates Foundation awarded Chicago Public Schools a $21 million grant to support the district's efforts to streamline curricula and make

classes more rigorous. High schools are required to choose between two or three curriculum options, called Instructional Development Systems, and teachers receive professional development and school-based coaching that aligns with the chosen curriculum. This enables greater standardization, while still allowing a degree of choice for teachers about what to teach. While it is still too early to determine the success of recent similar interventions, it is clear that improving the relationship between teachers, students, and curricula is a major education-reform strategy.

As valuable a strategy as it may be, however, curriculum reform is difficult for corporations to tackle. As Truman Bell at ExxonMobil indicated, "I have never seen so many brick walls around curriculum." Despite these barriers, several corporations with experience in education improvement have effectively focused their efforts on improving curriculum and instruction. BellSouth launched an education initiative in 2005 called 20/20, which leverages the company's technology expertise to create e-learning strategies for teachers in selected districts in the southeast. And ExxonMobil has created a Science Ambassadors program, which brings its scientists into science classrooms to connect the material students are learning with practical applications in the real world.

Given the difficulty of working on curriculum issues, corporations have also worked with nonprofit partners to facilitate an entry point into schools. For example, Citigroup has leveraged its expertise in finance to create a financial-education program through a partnership with Junior Achievement, a national nonprofit that develops curriculum. Citigroup and Junior Achievement worked together to develop a middle-school financial-education curriculum that improves literacy in personal finance and investing.

High school dropout rates are particularly high in several states across the country (see Figure 4). A recent national report on High School Dropouts, titled "The Silent Epidemic," surveyed dropouts

from urban, suburban, and rural areas around the country to learn why they didn't finish high school. Nearly seven out of ten respondents indicated that they were not motivated or inspired to work hard, and two-thirds indicated that if more were demanded of them, they were confident that they could have graduated. Nearly half of the respondents indicated that they started high school poorly prepared by their earlier schooling.

Several organizations are tackling the high school dropout problem through very specific strategies designed to identify at-risk students, to provide them with greater support and to reengage dropouts in a productive way. For example, Youthbuild, a national nonprofit supported in part by Bank of America and Home Depot, helps students gain their GEDs while acquiring job skills as they build affordable housing units. The Big Picture Company, a national nonprofit receiving funding from both CVS and Ford, runs

the Alternative High School Initiative, a national coalition of youth-development organizations which was formed in 2003 to work with local communities to develop alternative education programs. Additionally, the Seed School in Washington, D.C. aims to increase high school graduation and college-attendance rates through a 24-hour urban boarding school program.

Other corporations have opted to target inside-the-classroom strategies in the elementary and middle-school years. For example, Boeing focuses a major portion of its education strategy on supporting programs aimed at improving early childhood education. Starbucks has focused on supporting literacy programs through its partnership with JumpStart, an organization that recruits and trains college students to serve in year-long relationships with preschool children from low-income backgrounds. As the student achievement data indicate, more effective

Figure 4: Graduation Rates by State

Statewide Graduation Rates (2002)
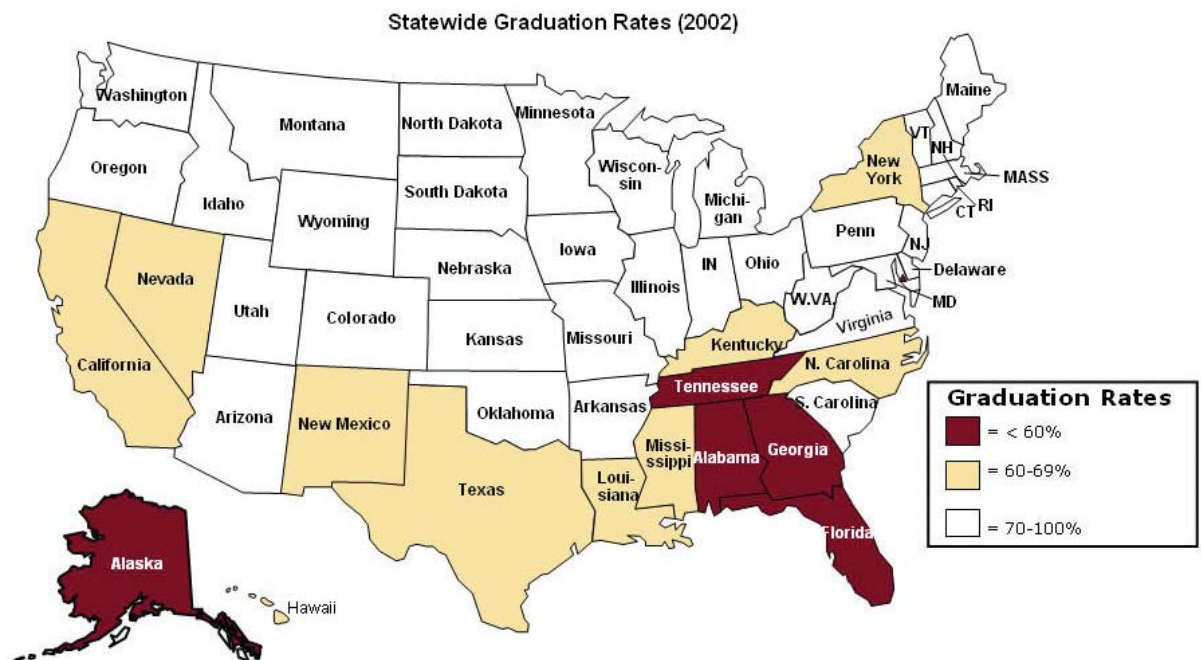
Source: Bridgeland, John, et al., "The Silent Epidemic: Perspectives of High School Dropouts," Civic Enterprises with Peter D. Hart Research Associates for the Bill and Melinda Gates Foundation, March 2006.
Note: The District of Columbia also has a high concentration of schools with low graduation rates and high dropout rates.

strategies to improve instruction and stimulate student learning are needed at all levels of education.

Outside the Classroom

Students are in school, on average, six to seven hours per day, 180 days per year. Since this amounts to only about 20 percent of their waking hours, out-of-school time represents a critical opportunity to engage students in productive academic and nonacademic activities that build important life skills.

Nationwide, approximately 40 percent of K-8 students are involved in some form of after-school program. But a recent report conducted by RAND (a nonprofit research institution), titled "Making Out-of-School Time Matter," found that few of these programs have been evaluated, and of those that had, out-of-school programs contributed to only modest gains in academic achievement, attainment, and a reduction in such risky behaviors as drug use or teen pregnancy. "The institutional advice is that if you want to create after-school programs that have an impact on student achievement, then the programs should deliberately link to and reinforce what students are learning in the classroom," says Bill Porter, executive director of Grantmakers for Education.

Corporations concerned with raising student achievement, therefore, should seek after-school programs that reinforce and support the content and strategies students are being exposed to inside the classroom during school. Effective out-of-school programs tend to have a clear mission, high expectations for students, and well-trained staff. Citizen Schools is a growing national network of after-school programs that operates in 24 sites across five states. The group partners with middle schools to provide hands-on experiential learning activities that strengthen academic skills, develop personal leadership abilities, facilitate access to resources, and build community connections. Using volunteers from local corporations, Citizen Schools designs apprenticeships for small groups of middle-school students to work with an adult volunteer on a learning project. Past projects have included arguing a court case and designing a Web page.

Because of the insufficient number of guidance counselors inside many schools, several nonprofits have chosen to focus their out-of-school programs on the major issue of access to a college education. For example, the National College Access Network (NCAN) is an umbrella group of college-access nonprofits that help high school students obtain the resources they need to attend college. NCAN's member list includes over 200 college-access organizations providing support, guidance and scholarships to thousands of low-income students and their families. Corporations could provide these organizations with both financial resources and volunteers to allow them to reach more students.

Intel has focused on college readiness through its Computer Clubhouse program. Intel has developed technology centers in low-income neighborhoods that offer students opportunities to get ready for college and prepare for today's workforce. In the Clubhouse-to-College component of the initiative, Intel employees mentor students in technology skills and college applications.

Human Capital

Teachers, principals, and superintendents are responsible for guiding the learning process and leading improvement. "People are everything in education, just as in the corporate world," says Wendy Kopp, president and founder of Teach for America (TFA), a national nonprofit focused on recruiting the nation's top recent college graduates to teach for two years in rural and urban public schools. Continually improving the quality of this human capital is a challenging but critical area where many education funders have chosen to focus. Efforts aimed at improving the quality of human capital often focus on recruiting, preparing, supporting, motivating, and retaining high-quality individuals in education.

Teachers

Perhaps more than any other factor, teaching quality can have a profound effect on student learning. "If you're going to be in any type of education reform, we have learned that you can't really do much if you leave the teacher out of this," says Truman Bell at

ExxonMobil. "If you really want to affect things, you have to affect the teacher." ExxonMobil believes so strongly that teacher quality is a critical lever that it has recently announced a $125 million commitment to the National Math and Science Initiative (NMSI). NMSI was created to facilitate the national scale-up of programs which have demonstrated improvement in math and science education. ExxonMobil is supporting the replication of an effective teacher training program called UTeach, which began at the University of Texas-Austin and has shown impressive results in recruiting and training math and science teachers, two subjects with a critical shortage of teachers.

High-quality teachers, while a critical component of improving student learning, are in short supply, especially in high-poverty areas where students need the most guidance, inspiration, and support. Critical shortages exist in mathematics and science. For example, one in five middle school students nationwide is taught by an "out-of-field" math teacher. Teachers are considered out-of-field if they do not hold a major, minor, or certification in their subject area. In high-poverty areas, the situation is worse — 70 percent of middle school mathematics courses are taught by teachers with no major or minor in their subject.

In addition, teacher turnover is high. Forty-six percent of all new teachers leave the field after five years, according to a recent study by the College Board's Center for Innovative Thought. High-poverty schools see one out of five teachers leave each year. Another problem the teaching profession faces is diversity. While 35 percent of the nation's public school student population is African-American or Hispanic, only 14 percent of public school teachers are African-American or Hispanic.

There are several likely answers to the natural question of why quality teachers are in such short supply and why teacher turnover is so high, but a brief look at teacher compensation may provide some likely answers. Teaching offers one of the lowest-paid starting salaries for college graduates — just over $30,000 in 2006. After a few years of experience, teachers still may not make what those in other professions earn in entry-level salary. Our nation's teacher compensation system is designed to reward years of service rather than performance, which drives some good teachers out of the profession. In addition, the conditions in many of the nation's toughest schools, where the best teachers are needed, are simply enough to lead many to leave the profession or to choose to teach in more affluent suburban districts. A recent nationwide study conducted by the National Center for Education Statistics found that over 50 percent of teachers who left the field cited bureaucracy, lack of classroom support, and poor staff morale as their main reasons for leaving. They also indicated that poor facilities, oversized classes, a lack of planning time, and high workloads contributed to their decision to leave.

Many efforts are under way to support teachers and improve teacher quality, and several corporations are actively involved. Teach for America's work to recruit recent college graduates to teach in the nation's poorest schools has led to remarkable success. The nonprofit attracted 19,000 applicants last year, accepting only 2,400 to participate in an intensive summer crash course in teaching before being deployed to some of the nation's neediest schools. Some studies have indicated that TFA teachers produce higher gains in student performance than non-TFA teachers in similar schools. While some TFA teachers leave teaching after their two-year commitment, an estimated 63% of TFA alums remain in the education profession, either as teachers or in management positions in education-related organizations.

Corporations have seized on TFA as one solution to the human-capital problem. Today, CEOs of such leading corporations as Symantec, Wachovia, and Sony sit on TFA's board, while Lehman Brothers and Amgen are also national corporate partners. And several corporations, including Goldman Sachs, Morgan Stanley, and Google, have partnered with the nonprofit to grant two-year deferrals that allow

new hires to complete the teaching program. Following their two years, former TFA teachers have jobs waiting for them at these corporations.

Another corporate initiative aimed at improving teacher quality is IBM's Transition to Teaching program, which encourages senior employees to become math and science teachers. Unveiled in 2005, the program reimburses IBM employees up to $15,000 for tuition and stipends while they take courses and learn to teach. Other programs target professional development for current teachers once they are in the classroom. ExxonMobil conducts summer workshops and school-based coaching for elementary school math and science teachers. Intel trains teachers in how to integrate technology into the curriculum and use technology more effectively to improve student learning through its Teaching to the Future initiative. In choosing to focus its investments on math and science education, both ExxonMobil and Intel have focused on areas within education where they have a vested interest — a need for future skilled workers — as well as where they have significant expertise and credibility.

Another popular strategy has involved pay-for-performance measures. The Milken Family Foundation's Teacher Advancement Program (TAP) aims to make it more financially rewarding to become a teacher. Teachers at TAP-funded schools are paid based on the gains in performance their students make and on the demands of their teaching position. Experienced teachers can enhance their careers by becoming mentors and master teachers who coach less-experienced teachers, in exchange for a substantial bonus. BellSouth has partnered with TAP to implement the model in several districts in the south.

Organizational Leadership

Strong school leadership is often cited as second only to classroom instruction in its importance to student achievement. Principals are the CEOs of individual schools and are responsible for improving instruction and managing operations. In most traditional districts, principals do not have the ability to hire and fire their staff, though in some districts this is changing. Principals in some districts may have some authority over their budget, but in many others, resources are controlled centrally at the district office. Many observers question whether principals can be held accountable for the performance of their staff when they are not given the autonomy to select them or to sufficiently allocate resources. School leadership is clearly a critical leverage point for corporations to consider investing in to improve student achievement. There are many issues related to organizational leadership that need addressing, from less than adequate training and preparation of school leaders to the conditions in which they must lead.

Studies from McREL, the Wallace Foundation, and the Broad Foundation have found that a high-quality principal is a prerequisite for organizational success at the school level. Another recent report from the Center on Reinventing Education identified seven areas of effective principal leadership: instructional, cultural, managerial, human resources, strategic, external development, and micropolitical. However, traditional training programs are not adequately helping principals lead schools in today's environment. Several recent studies commissioned by the Wallace Foundation have examined university-based principal-training programs, in particular, and have concluded that the majority of programs fail to prepare school leaders to lead and manage change, and to improve instruction on a large scale.

Several new approaches to recruiting, training, and supporting school leaders have emerged in recent years. New Leaders for New Schools (NLNS) is a national nonprofit that has received considerable media attention and corporate support from the likes of FedEx, Boeing, and Wachovia. NLNS recruits the most talented potential leaders in education, as well as those currently outside of education, to apply for its one-year principal-fellowship program. Once selected, these New Leaders undergo intensive summer training and ongoing workshops, and in some cities, aspiring principals also receive coaching from senior business executives about how to effectively

manage budgets and staff, and how to create a vision for change. After completing the program, New Leaders are hired by schools in partner districts. NLNS is transforming principal preparation by making the training principals receive much more field-based and practical.

If principals are the executives of individual schools, superintendents are the CEOs of entire school districts. They oversee multimillion-dollar budgets, manage thousands of employees, and direct district-wide improvement strategies. The average superintendent in an urban school district stays on the job for approximately three years, which is two years less than the average corporate CEO stays on the job. The Boston Public Schools are a notable exception. Boston saw steady improvements in student achievement under Superintendent Thomas Payzant's stable ten-year leadership, and the school district was named the 2006 recipient of the Broad Prize, awarded by the Broad Foundation to the top-performing urban district.

Superintendents in some urban districts are appointed by the mayor, and in others they report to elected school boards. It is rare to see leaders stay with the strategy of a previous superintendent, creating a situation in which new reform strategies are unveiled every few years, as leaders attempt to put their unique stamp on change.

Improving superintendent leadership is an issue that seems like a natural fit for corporations to focus on. BellSouth has recognized the important role district leadership plays in achieving educational excellence at scale and has formed a Superintendents Network to encourage collaboration and sharing of best practices among leaders. The Network has focused on certain elements of education leadership and aims to build a corps of education leaders in the southern region of the U.S. The Broad Foundation is also tackling the issue of training and retaining district leadership through its Broad Residency in Urban Education program. This superintendent-in-training initiative, targeted for "emerging executives" with

significant private or nonprofit sector management experience, provides aspiring district leaders a year of on-the-job training in an urban district.

Systems and Structures

The overarching educational environment has a direct influence on the quality of teaching and learning, as well as on the long-term success of efforts to create and sustain change. While some exciting examples of corporate involvement exist in this area, there has been relatively less activity here, reflecting the challenges of achieving systemic change from the outside.

As Kathy Havens Paine, head of State Farm's education initiatives says:

To improve education, systems need to be changed. If our company were still operating the same way we were years ago, we wouldn't be in business, but public schools are still organized the same way they have been for the past 100 years. ... If what you're doing doesn't improve student achievement, then it's not what you should be doing. It might feel good, it might make [your not-for-profit partners] happy, but it's not strategic.

While there are examples of corporations influencing education through systems and structures, there are fewer notable examples in this category. This is likely due to the fact that working for systemic change takes much longer than many corporations are willing to wait, the process can be intensive and the outcomes are uncertain. Existing corporate initiatives aimed at influencing systems and structures have focused on policy, community engagement, supports services, and organizational units.

Policy

The NCLB, signed into law in January 2002, is currently the most critical piece of education legislation at the federal level. NCLB, which is up for reauthorization in 2007, has four major components: increased accountability for states, districts, and schools; greater choice for parents and students attending low-performing schools; more flexibility for

local education agencies in the use of federal dollars; and a stronger emphasis on reading, especially for the youngest children.

Under NCLB, states are required to implement state-wide accountability systems that must be aligned with learning standards and must include annual testing in reading and math (with testing in science starting in the 2007-2008 school year). Results are broken out along a variety of subcategories, including race, ethnicity, and limited English proficiency. Schools and districts will be required to meet progress targets, called Adequate Yearly Progress (AYP). If they fail to meet these goals, schools can be forced to take corrective action, or can even be closed. By 2014, under NCLB, states will be held accountable for ensuring that all students meet the state-defined proficiency level on standardized tests.

NCLB also increases the choices available to parents whose children attend failing schools. School districts must pay for and give students who attend schools identified for improvement the choice of attending other schools within the district, which may include public charter schools.

While education policy and advocacy are potentially controversial areas of reform, a few corporations have played an effective role. The Business Roundtable, an association of chief executive officers of leading U.S. companies, helped advocate for the passage of NCLB and has also supported its implementation. Advocating for changes in public education can also occur at the CEO-level, as evidenced by former IBM CEO Louis Gerstner, who has used his reputation and clout to advocate for several changes in U.S. public education. Gerstner co-chaired Achieve from 1996 to 2002 and recently created a Commission on Teaching to develop specific policy recommendations to deal with the teaching crisis facing the United States.

At the state level, BellSouth has leveraged its relationships with governors and legislators in nine Southeastern states to advocate for increased state funding of virtual learning programs (see case study). Boeing has also been a leading advocate for reform, through its active involvement in the Achieve network of state governors and CEOs. Boeing has advocated for higher academic standards, improved assessment and accountability systems in state education. Boeing has supported research on these topics and has advocated at the local level in communities with large numbers of Boeing employees.

Community Engagement

Although not yet widely practiced, community engagement represents a successful strategy for a small group of companies that have become heavily involved in supporting and sustaining local school improvements. Engaging the community around these campaigns can be a time-consuming process, but leading companies understand that the community must ultimately sustain reform efforts after external funders leave.

An example of an effective campaign is the Philadelphia Education Fund, which seeks to fundamentally reform two of the district's high schools. The Fund brought in Concordia, a national planning and architecture firm, to facilitate a series of community-wide planning sessions and develop the vision and plan for the redesign of one of the city's lowest performers, Kensington High School. The school has since reopened with greater public awareness of its activities and performance.

In its latest transformation of its College Bound initiative, GE provides funding and pro bono support to community engagement activities that convene teachers, administrators, parents, students and community leaders with the aim of reducing the achievement gap and increasing the number of low-income students attending college.

Support Services

Providing support services directly to schools may carry less impact than providing support to the wider district. Districts typically provide a range of services to schools so that they can focus on their

academic missions. These services can include the following: increased academic support for students needing extra help, hiring teachers, developing transparency and accountability systems, purchasing supplies, and ongoing professional development for teachers.

A range of funders are beginning to support district-level changes that affect services provided to all the schools in a district, as opposed to interventions targeting individual schools. This allows changes to affect the maximum number of students and offers greater potential for changes to become institutionalized. GE has moved from focusing on individual schools to working more at the district level (see case study). IBM, through its Reinventing Education program, is working with several districts to give teachers better tools to manage student performance data, as well as training teachers on how to use the data to improve instruction. Likewise, the Gates Foundation's district approach is aimed at redesign-

ing district central offices and changing district practices to support changes in how high schools deliver instruction.

Schools can also benefit from creating a performance-driven culture. As illuminated by a recent NewSchools Venture Fund study, "Anatomy of School System Improvement," the majority of school systems are still early in their transition toward cultures that track and reward performance. Companies that have embraced performance-driven cultures for years have an opportunity to play important new roles in helping school systems adopt more performance-driven management practices.

There is mounting evidence about what it takes for districts to improve the performance of their schools. For example, "Foundations for Success," a study published by MDRC (a nonprofit, nonpartisan social policy research organization), examined four urban districts that have recently made significant gains in

student achievement. Based on the findings, corporations could help districts adopt some of these more proven strategies: creating concrete accountability systems, focusing resources on the lowest-performing schools, adopting district-wide curricula, and incorporating data-driven decision-making.

The Chicago Public School District provides a recent example of using data to increase district transparency and accountability. With funding from the Gates Foundation, the Boston Consulting Group (BCG) designed high school scorecards that measure a variety of school performance indicators, providing families with useful performance information to inform their choice of high schools. The score cards expanded the data used to measure school performance beyond standardized test scores, including such information as the percentage of ninth-grade students eligible

to be promoted, the number of students involved in extracurricular activities, and the percentage of students enrolled in AP courses (see Figure 5). The score cards have created greater transparency and accountability around school performance in Chicago, while at the same time raising expectations within schools. In this case, BCG was funded by a private foundation for this endeavor. Other corporations could certainly undertake similar projects either by funding a third party or, in the case of professional services firms, offering their expertise to develop data management systems and tools.

The Broad Foundation's focus on innovations in the recruitment and training of superintendents represents further movement toward intervening at the district level. Several urban districts, such as Boston, New York, Chicago, and Oakland, are actively

Case Study:

GE
Supporting District-Level Reform in Jefferson County, KY

Originally begun in 1989, GE's recently relaunched College Bound program is now a five-year, $100 million investment in three targeted U.S. school districts. Its goal is to increase the number of high school students who go on to college. Despite the fact that GE's flagship program has been successfully operating for several decades, it was recently overhauled to make a significant and systemic impact by working on district-wide reform at a small number of locations.

The first district to receive an investment was Jefferson County, KY. A four-year, $25 million grant was awarded to the county's public school district, which has 150 schools, 97,000 students, and 5,400 teachers. Schools there were clearly suffering academically. In 2004, the district's college-going rate was only 69 percent, and only 38 percent of students scored proficient or above in math and only 37 percent scored proficient or above in science.

GE's program focuses on a number of district-wide reforms including helping the district develop math and science curricula for grades K-12. In addition to the grant funding, GE makes extensive use of company volunteers for the following: to convene teachers, union representatives, consultants, and district staff; to build an educational advisory council with outside education experts (such as Education Trust and the Urban Institute); and to help build capacity for the district through consulting on human resources, management, IT, security, and other services. "We do tutoring and mentoring projects, but also use our IT people to teach principals about Excel," describes Kelli Wells of the GE Foundation. "We had our HR folks train principals and office staff on HR. We've had our head of diversity meet with the head of the teachers union to talk about diversity issues."

Figure 5: High School Scorecards Increase Accountability
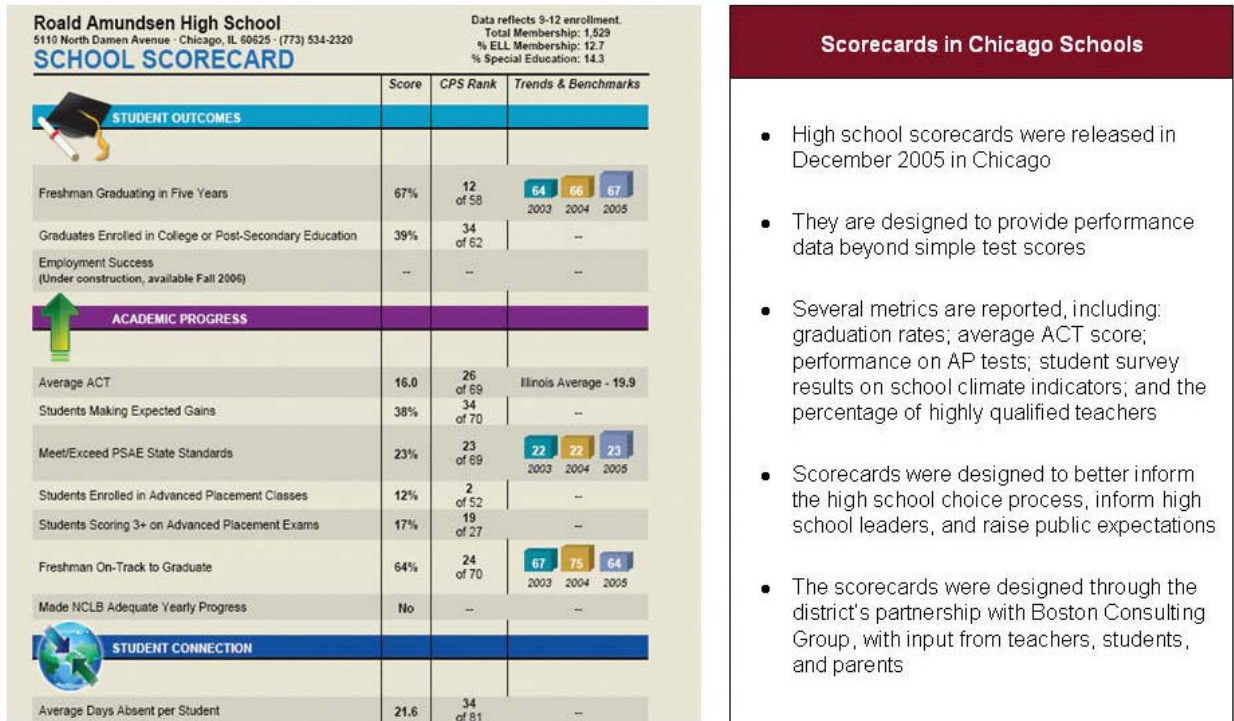
Source: FSG interviews and analysis.

engaged in large-scale reform efforts, often with the support of large private foundations. Examples of corporations partnering in these district-wide reform efforts are scarce. Corporations have an opportunity to bring financial resources, as well as ideas and management expertise, to these 'turnaround' efforts.

Organizational Units

Organizational units that interface with school systems, such as charter schools and education-focused nonprofit organizations, offer additional leverage points for corporations.

The charter school movement has become a common entry point for corporate involvement. Charter schools are public schools managed by independent boards with greater freedom in hiring and firing teachers and in developing curriculum and assessments. They offer two common elements of a market

system: choice and accountability. They provide families and students with schooling options and, at the same time, are held accountable for their performance.[8]

Corporations have become involved in supporting individual charter schools as well as Charter Management Organizations (CMOs), and, in some cases, actually starting individual charter schools. For example, Ernst & Young, along with law firm Mayer Brown & Rowe, helped to start a charter school in Chicago by working closely with Perspectives Charter Schools, a Chicago-based CMO.

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8 A charter school can have its operating contract revoked for failure to meet state standards and self-defined goals. Most charter schools have five years to prove that they are making satisfactory gains in educating students and, if an outside review panel deems that not to be the case, charter schools can be closed.

In addition to the role of corporations with individual charter schools, corporations have engaged with CMOs to develop charter schools on a larger scale. CMOs are nonprofit or for-profit entities that manage groups of charter schools, either on a regional or national basis. The Knowledge Is Power Program (KIPP), a CMO with 52 schools in 16 states serving 11,000 students, receives significant corporate funding to support the nationwide replication of its schools. KIPP schools serve low-income communities, offer a longer school day, and follow a well-defined philosophy. Students in these schools typically perform as well as or better than their peers in neighboring schools and enroll in college at much higher percentages. Doris and Donald Fisher, cofounders of Gap, have supported the replication and development of a leadership training program for KIPP principals. In addition, Goldman Sachs and SAP have supported KIPP's national expansion.

Corporations considering partnering with charter schools or CMOs should understand that involvement can include a degree of risk. This comes from some controversy around the movement's perceived threat to the status quo of the education system and ongoing questions about student achievement. While charter school growth has been healthy, critics question their rapid expansion and some states have enacted limits on growth due to pressure from key stakeholders, such as teachers unions. Furthermore, charter school performance has been inconsistent. For example, a National Charter School Research Project report found that only 40 percent of recent studies demonstated positive academic gains for attending students. Despite these risks, many see charter schools and CMOs as an attractive alternative to a system that has been chronically underperforming.

Engaging education-focused nonprofit organizations provides another natural entry point for corporate involvement in education. Nonprofits play an integral role in advancing educational outcomes by providing services to teachers, administrators and students. A wide range of na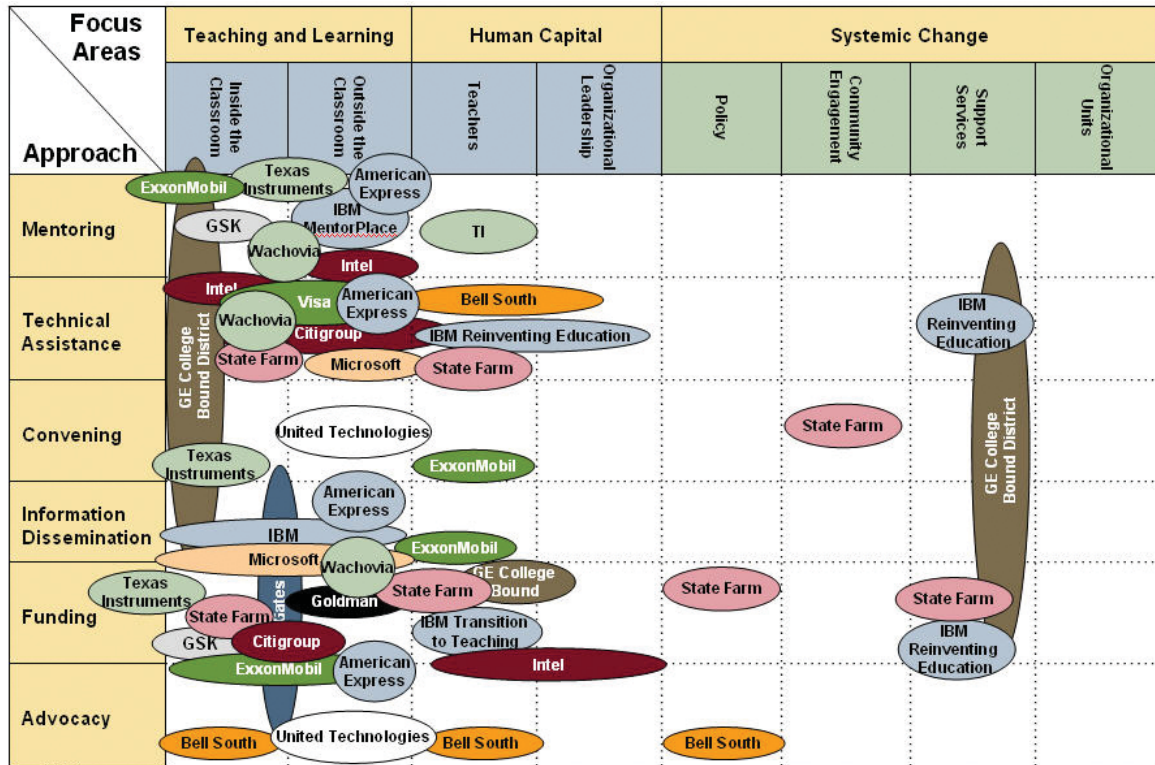tional and local nonprofits work side-by-side with students and schools to facilitate educational improvement. For example, Junior Achievement, which is supported by Citigroup, Microsoft and a range of other corporations, facilitates partnerships between corporations and schools and assists with the implementation of innovative classroom curriculum modules, often including employee volunteering opportunities. Citizen Schools, supported in part by Goldman Sachs, is a growing nonprofit that creates skill-building apprenticeships in after-school environments and provides additional academic support to students. TFA and NLNS, two nonprofits mentioned earlier in this paper, provide other examples of leading organizations that have partnered successfully with corporations to further their educational missions. Education nonprofit organizations, much like schools and districts, can benefit from increased strategic guidance and support from corporations in the form of volunteers and financial resources.

III. STRATEGIC INTENT

Businesses need to articulate the reasons *why* they engage with the education system as explicitly and succinctly as possible in order to inform the strategic choices around *where* and *how* they engage in education philanthropy. Brand image, community and stakeholder relations, business strategy, and local hiring needs can all shape how an individual company sees its role.

The corporations included in this paper adopted a range of *focus areas,* as previously discussed. Corporate involvement is most concentrated in the focus areas of teaching and learning and human capital, with more limited activity addressing systems and structures. Companies also follow specific *approaches* to education reform, and these generally fall into one of the following categories: mentoring, technical assistance, convening, information dissemination, funding, and advocacy. (Many of these are discussed in the relevant focus area of the previ-

Figure 6: The Landscape of Corporate Engagement in Education

Focus Areas / Approach	Teaching and Learning		Human Capital		Systemic Change			
	Inside the Classroom	Outside the Classroom	Teachers	Organizational Leadership	Policy	Community Engagement	Support Services	Organizational Units
Mentoring	ExxonMobil, Texas Instruments, GSK, IBM MentorPlace, Wachovia	American Express	TI					
Technical Assistance	GE College Bound District, Intel, Wachovia, Visa, State Farm, Citigroup, Microsoft, Intel	American Express	Bell South, IBM Reinventing Education, State Farm				IBM Reinventing Education (GE College Bound District)	
Convening	Texas Instruments	United Technologies	ExxonMobil			State Farm		
Information Dissemination	IBM, Microsoft, Wachovia	American Express	ExxonMobil					
Funding	Texas Instruments, State Farm, GSK, Citigroup, ExxonMobil, Gates	Goldman, American Express	State Farm, GE College Bound, IBM Transition to Teaching, Intel		State Farm		State Farm, IBM Reinventing Education (GE College Bound District)	
Advocacy	Bell South	United Technologies	Bell South		Bell South			

Source: FSG Assessment

ous section.) The most common approaches include a combination of funding and technical assistance. (See Figure 6 below for the authors' assessments based on interviews and secondary research of some approaches used by leading corporations.)

Many of these companies have found ways to be more strategic in their education philanthropy activities. Two major strategies include: 1) leveraging corporate assets and expertise; and 2) establishing focused goals and measuring results.

Leveraging Assets and Expertise

Several leading corporations are tapping into their corporate assets and expertise to add value to their reform work. From scientific and technical knowledge to negotiation and change management skills to cutting-edge technology solutions, leading corporations possess a wealth of valuable assets that can help to improve the education system in ways

that check-writing alone does not. While deploying corporate volunteers in the schools is not a new concept, *skills-based* volunteering remains much less common and is an opportunity for corporations to bring unique value to their philanthropy programs. In addition, companies are using their organizational convening power, public relations and advocacy channels strategically to effect educational change.

Texas Instruments (TI) taps the management and leadership experience of its executives to help principals become better leaders. "We're matching business executives who have experience managing people, quality, and performance with a principal," says Torrence Robinson, Director, Public Affairs, TI. "Principals don't learn these skills while earning their education degrees." GE's district-wide programs in Jefferson County, KY and Cincinnati draw on the firm's collective expertise in a range of business process areas that most corporations would

not typically envision as being part of corporate philanthropy. GE has leveraged its people's skills in facilitating decision-making, providing program management capabilities, and offering technical expertise in business processes.

IBM's two major education program areas both draw upon its assets and expertise in technology, math, science, and change management to assist with school reform and address a critical shortage of teachers (see case study). Through its Reinventing Education program, IBM is leveraging its technology to improve teacher professional development and district-wide tools for improving instruction by developing technology solutions designed specifically to serve schools and districts. To each grant site, IBM is contributing more than just money and technology – it is also contributing the expertise of its professional consultants to work with schools to develop improvement plans and help navigate the change process.

Measurement Matters

In addition to leveraging corporate assets and expertise, a strategic company will establish specific goals and measure the results of its education initiatives. An education initiative with focus improves the program strategy and activities while also facilitating efficient communication of motivations and results. It also helps foster a better understanding of the company's desired outcomes within the education community.

Measurement of progress towards goals and evaluation is also critical. Companies that track process indicators as well as educational outcomes, and have developed evaluation mechanisms to answer more

Case Study:

IBM
Leveraging Company Assets and Employee Knowledge

IBM's education philanthropy program contributes more than just money; IBM dedicates top researchers, educational consultants, and technology to complement its grantmaking activities. Through these non-financial contributions, IBM is discovering new ways for technology to spur and support fundamental school restructuring and broad-based systemic change to raise student achievement.

Reinventing Education is IBM's flagship program. Working with school partners, IBM develops and implements innovative technology solutions to help address its most pressing needs. In addition to grant money, IBM donates technology and the time of its employees. Resources provided include the Change Toolkit, speech-recognition education software, an online forum for educators, and direct assistance from IBM consultants. The Change Toolkit is an online resource that contains frameworks, planning tools, and an online discussion area to facilitate school improvement in K-12 education.

In addition, the Transition to Teaching program provides support and incentives to encourage senior IBM employees to become K-12 math and science teachers. The U.S. Department of Labor indicates that jobs requiring science, engineering, and technical training will increase 51 percent through 2008, and that more than 260,000 new math and science teachers will be needed by the 2008-2009 school year. IBM is addressing the shortage with a program that reimburses participants up to $15,000 for tuition costs while they take classes to become certified as teachers. It also offers online mentoring and resources to support employees in their pursuit of teacher certification.

qualitative questions, have found greater success in their education initiatives. As these leading companies systematically ask questions about their work, they learn more about how to effect change in education. They are able to use data to continually improve and refine their strategies based on learning from evaluation.

Historically, corporations have been weak in measuring the impact of their education efforts. In particular, many highly touted corporate programs include little in the way of effective evaluation to track follow-through, such as whether student achievement improves, or whether students take desired courses in high school or major in the subject in college. Susan Traiman, director of education and workforce policy at the Business Roundtable, describes the typical challenges of evaluation:

> *We were working with a company that was supporting a lot of teacher professional development, and I expressed concerns about the evaluations they were doing. The evaluations were self-reports from the teachers about the effectiveness of the presenter and the value of the content. I criticized that and called them 'smiley face' evaluations. But the company didn't want anything more sophisticated that would measure impact on student achievement or classroom practice. They were just happy knowing that teachers liked it. Companies need to think about what metrics they need to use to see if their investment has achieved its goals.*

However, evaluation in education is inherently difficult, as several leading corporations indicated. "When you're dealing with education issues, measurement can be a challenge," says Kelli Wells of the GE Foundation. Akhtar Badshah of Microsoft sums up many of his peers' frustrations: "It's really hard. We get a lot of data points to talk about what we do, but we are still challenged to show the impact."

Intel recognizes the challenges of evaluation and adopts a practical approach to measuring the performance of its corporate philanthropy programs in the context of the larger goals of educational outcomes: "Ultimately, what we're working for is educational change," says Wendy Hawkins at Intel. "Measuring that directly in any meaningful way is a bit of a pipe dream." Intel uses intermediate indicators to measure the performance of its programs, but does not purport to attribute improved outcomes to its programs.

Several leading corporations are committed to establishing concrete goals and tracking outcomes. At TI, evaluation is a deeply ingrained philosophy: "We're a company of engineers — we measure," says Torrence Robinson. For example, with TI's Advanced Placement Incentive Program, the company tracks the number of students taking and passing AP exams. Likewise with ExxonMobil's professional development program focused on K-5 math teachers, the company uses test data to measure the outcomes of its programs rather than developing its own measures, citing the large time commitment and cost of doing the evaluation itself. The Goldman Sachs Foundation targets narrowly focused projects with large grants (with an average size of $400,000), and evaluates its largest programs using outside evaluators.

Similarly, BellSouth has developed performance dashboards, in partnership with the University of Florida, that summarize progress to date and change future actions as necessary. For instance, it can measure the student achievement levels of any student who takes its online Algebra I course.

IV. TODAY'S LESSON PLAN

In the course of this research, interviewees were asked to share their own lessons learned from years of involvement in education philanthropy. While perspectives differed, a common set of themes emerged. These themes constitute a set of best practices that are transferable across most businesses interested in building a successful education initiative.

Additionally, this research provided us with deeper insights about the systemic and structural issues that impede student achievement. Businesses need to work collaboratively and collectively to effect systemic change. We have provided three high-level approaches business can take that move beyond the development of individual initiatives towards making a lasting impact on K-12 public education in the U.S.

Building a Successful Education Initiative

The themes gleaned from our research and interviews can be summarized into six recommendations that seek to inform and guide corporations and key stakeholders as they design, structure, and implement an effective corporate-philanthropy program in education.

1. *Start at the top. CEO-level commitment can exert significant influence on education reform.*

   The beliefs, attitudes, and actions of the CEO set the tone for the rest of the company. The CEO's decision to adopt a philanthropic or socially responsible cause sends a strong message to the entire company about its importance. Would IBM be as well-recognized for its leadership in education reform had it not been for former CEO Louis Gerstner Jr.'s proactive role? It is unlikely that the agenda would have been so strongly championed at lower levels of the company.

   Likewise, State Farm CEO Ed Rust has been heralded by one corporate representative as the "leading CEO in education" as a result of his hands-on work within his company and with business associations and policy organizations. Among many other positions, he sits on the No Child Left Behind Commission, has served as the chairman of the Business Roundtable's Education Initiative, was the former co-chairman of the Business Coalition for Excellence in Education, and served on President George W. Bush's Transition Advisory Team Committee on Education. Rust's leadership has increased State Farm's strategic focus on student achievement and has signaled to the broader business community that improvement in the education system is a social issue that CEOs need to address.

2. *Lead with your strengths. Education professionals want help with something at which companies excel.*

   In planning business strategies, top executives gravitate toward products and programs that leverage their core competencies. Likewise, designing a successful education program should not stray from that philosophy – corporations should seek opportunities to leverage their existing strengths and expertise to create the highest potential for impact. The problems facing our education system are too important for most businesses to engage in complex initiatives that do not align with their strengths. Since it will take more than grant dollars to create real educational change, companies must bring their entire range of corporate assets and knowledge to today's educational challenges. For example, corporate expertise in strategic planning, leadership, human resource management, financial management and procurement practices can provide schools and districts with lasting value for running more effective education "businesses."

   While we caution that companies should not venture too far from their core expertise, developing a solid education track record over time has provided several companies the confidence and credibility to broaden their approaches beyond a narrow focus. For example, GE's district-wide reform in Kentucky would not have been credible without the company's decades of experience managing the College Bound program. In another example, while Intel realized that technology was its initial entrée into schools, it later broadened its work to include professional development for teachers.

As Wendy Hawkins at Intel describes it:

> *Saying 'Hi, we're a corporation and we're here to help' with education will not get you in the door. Focusing on the fact that we are a technology firm gave us credibility in terms of introducing technology into the classroom. But we now want to work more broadly. ... We think that teacher professional development is working for us. The need is there, and we've learned enough and developed enough, that we have some credibility.*

3. *Scale appropriately. Avoid trying to have a large-scale impact on a school system by applying a small-scale commitment of time and money.*

    The sheer size of public education funding dwarfs companies' charitable investments, with total U.S. government spending on K-12 education at $500 billion, and the total private philanthropic spending of corporations and foundations reaching approximately $3.6 billion. While well-placed funding and resources can have a significant impact on targeted needs, investments should be modestly scoped and tightly managed. The small amount of corporate dollars relative to public funding means that corporations can have a greater impact by making investments beyond grantmaking through technical assistance, advice and in-kind support.

4. *Adapt, don't prescribe. Create programs around local classroom, school, and district needs, not pre-packaged solutions.*

    The most effective programs include collaboration with partners and experts around existing entry points. Corporations should resist the urge to create their own programs from scratch in order to get big headlines, because they will miss the opportunity to leverage the existing

infrastructure of effective organizations. Local educators and administrators know their needs and are in the best position to identify how a corporation can help. "A funder should say to the district, 'You tell us how we can impact student achievement,'" says Stephen Daeschner, Superintendent of the Jefferson County, KY School District. A company should identify the unique management resources and expertise that it brings to the table and then work with local education leaders to establish an effective role. "The worst thing the business community can do is create a stand-alone project that's not connected to anything going on," says Stan Litow of IBM. "You must engage the key players and participants and they must be part of the change strategy. If the structure of IBM or Ford was to be changed, the leadership and employees of the organization would need to be a key part of the effort. So it is in education."

William Shore at GlaxoSmithKline offers advice for corporations seeking a mutually beneficial relationship with schools and districts:

> *Educators get tired of the 'program of the day'. They all work extremely hard and then corporations come along with ideas that they think will work, but that might not work in [the educators'] opinions. We've got to encourage education leaders to create their own advisory councils, show some leadership on their side, tell corporations that they need our help, and tell us where.*

However, partnerships do require more hand-holding, so corporations need to weigh the pros and cons. As Truman Bell at ExxonMobil recounts, "The more partners you have, the more give and take and the more difficult it becomes. Sometimes, we go right to the need. For an idea that is brand new, it's harder to find a partner."

5. ***Be in it for the long haul.*** *Education improvement requires a long-term commitment — quick fixes and shortcuts are not appropriate.*

    Improving educational outcomes is not a short-term intervention. Many companies now see three-year time horizons as the starting point for grantmaking, and say that companies need to remain patient to see demonstrated results; systemic change takes time and quarterly results always exist. Be prepared to stay the course, work at changing the system for the long haul, and do not be discouraged by slow progress, although interim performance measures are critical.

    Microsoft switched to three-year commitments after it found that a shorter one-year period couldn't generate results. ExxonMobil focuses on a similar timeframe. "We usually do a program for about three years and then … you want the district to continue your program after you're gone," says Truman Bell at ExxonMobil.

6. ***Measure and manage.*** *Measuring success will ensure a greater likelihood of improved educational outcomes.*

    Setting clear, measurable, and achievable goals for educational initiatives is a critical success factor for a program that is sustainable and delivers results. A key strategy is to establish the objectives in advance of the activities. If public relations, rather than educational outcomes, are the primary objective, then the program elements and evaluation metrics should have a different emphasis than those in a program focused on achievement and test results.

Creating Systemic Change

To maximize the success of individual corporate philanthropy initiatives, corporations would do well to address the underlying issues facing the education system. The challenges facing the U.S. education system are persistent and chronic; they have been around for decades. These challenges require systemic solutions.

Corporations must move beyond temporary fixes towards a collaborative approach to education reform. We offer the following three approaches: 1) adopting systemic thinking; 2) replicating and scaling effective initiatives; and 3) taking collective action on selected education issues.

Adopt More Systemic Thinking

The need for systemic solutions was well captured in a recent report issued by the New Commission on the Skills of the American Workforce, a commission comprised of some of the nation's foremost education leaders as well as prominent business executives. In its report entitled *Tough Choices For Tough Times,* the commission contended, "The core problem is that our education and training systems were built for another era. We can get where we must go only by changing the system itself." The report calls for an overhaul of the U.S. public education system, from giving students the opportunity to demonstrate mastery of subject matter and attend college as early as 10th grade, to fundamentally changing how teachers are recruited and compensated, to radically changing state standardized achievement tests.

There are two important strategies for achieving this kind of systemic change. The first is to engage more actively in advocating for change in educational policy. Policy dictates many practices within the education system, from funding allocations to high school graduation requirements. As Bill Porter at Grantmakers for Education succinctly puts it, "If you want to have large scale impact in education, at some point, you need to think about policy." Corporations can help catalyze more systemic change by advocating for specific policy reforms that support their education goals. Beyond policy change, corporations can become more systemic in their approach by in-

tentionally engaging at *multiple* levels of the system, from federal to state to district to school.

BellSouth is one of the few companies today that strives to effect change by engaging at multiple levels within the education system (school, district and state) while also working to change the system through advocacy that leads to new educational policy. At the school level, BellSouth works to implement e-learning solutions for low-income and minority students. At the state level, the company designed a comprehensive teacher professional development, recruitment and retention initiative that includes collaboration between selected districts and local universities in eight states. BellSouth also convenes a Superintendents Learning Network across the Southeast to identify and discuss best practices with district leadership. What is perhaps most notable about BellSouth's role in education reform is that the company seeks to influence the systems in which its programs operate by advocating for increased public funding and program improvements. As described earlier, BellSouth has set specific advocacy goals such as increasing the number of states in the Southeast that recognize teacher certification from other states.

Other corporations are also realizing that it is necessary to work for change at multiple levels of the education system. ExxonMobil, for example, is interacting with the university system to affect how teachers are recruited and prepared. With its recently announced National Math and Science Initiative, ExxonMobil is working with the University of Texas to increase the number of well-trained math and science teachers. State Farm has identified nine elements of educational excellence that it considers vital to creating high quality educational opportunities for all children; the company advocates at various levels – school, district, state and within member organizations – for implementation of those elements.

By working to affect the institutions, policies and conditions that influence how schools educate chil-

dren, these corporations are creating more lasting change than if they were just supporting individual programs or schools. Yet too few corporations today focus their education philanthropy on effecting systemic change. The set of ideas provided below, while not for all corporations, may be of use to those who seek greater systemic change in education.

Lobby federal and state policy makers. Corporate lobbying power is a largely untapped resource in the philanthropy world. Lobbyists can advocate not only for a better regulatory environment for their companies, but also for improved policies and funding for a range of education priorities. Here are some potential policy reform areas that could create more systemic change:

›   A longer school day and longer school year: The two-and-a-half month summer vacation is a holdover from an era when children were needed to harvest crops. The most recent international education statistics indicate our students could benefit from more learning time.

›   Increased base-level salaries for teachers: Recruiting the highest-quality undergraduates to go into teaching is difficult when teachers' starting salaries are well below those of most other professions.

›   Free early childhood education: Our youngest learners need a strong foundation, but due to economic inequities, not all receive the same start in life. Focusing on getting early childhood right will diminish the need for expensive fixes later.

›   School finance reform: Because local revenue makes up a large percentage of local education funding, differences in educational resources between high-wealth and low-wealth communities are stark. Moving towards a more adequacy-based funding mechanism would make quality of education less dependent on birthplace.

Convene stakeholders and communities.
Engaging nonprofits, corporations, schools, and families in a coordinated way around education reform goals is complicated. Schools and nonprofits are often ill-equipped in terms of financial and human resources to play this crucial convening role. However, many corporations have expertise in project management, communication campaigns, and convening that would bring unique value to a community-focused effort. Corporations can take one or several of the following actions:

> Engage parents, community members and local education leaders around the issue of school performance. Identify ways to better collect and disseminate school performance data to increase transparency

> Organize a forum to address local challenges of the education system

> Provide project-management expertise to ensure district and school community-outreach objectives are identified and achieved

Mentor urban school district leaders. With urban school districts challenged to meet the demands of running their "businesses," corporations can apply their expertise to assist district leaders with improving their day-to-day operations. Corporate mentoring activities could involve technical assistance and executive coaching on the following business operations:

> Financial management

> Strategic planning

> Leadership and management

> Human-resource policies and systems

> Information technology

> Transportation optimization

> Safety and security

Pilot performance-based teacher compensation.
Studies show that teachers reach their full capacity by their third year, yet by their fifth year roughly half have left the profession. While a potentially contentious idea among teachers' unions, performance-based pay is a compensation system that professionals in a wide range of private-sector organizations take for granted. Giving quality teachers the incentive to keep teaching with bonuses across school districts and states might help more top teachers stay on the job. Corporations could help districts and states create such programs by:

> Offering technical assistance to school-district finance committees, human-resource managers and teachers' unions on structuring performance-based teacher contracts

> Providing grant funding to cover the incremental costs of performance-based compensation adjustments in school-districts and states to increase the size of the overall compensation pie

Expand educational options for students and their families. Expanding the growth of quality charter schools and other school options such as vocational education will give a greater number of students potential paths to success. A growing number of charter management organizations, or CMOs, are replicating effective charter schools and managing networks of schools. For the most part, CMOs are professionally managed organizations that provide support, quality assurance, and back-office functions for networks of charter schools. Corporations might help in the following ways:

> Fund the growth of CMOs and advocate at the state level for lifting caps on the number of charter schools so that quality schools can reach scale

> Adopt a CMO. It is more systemic than working with a single school and less bureaucratic than adopting a district. Firms could mentor senior leaders on business service and process improvements and, where appropriate, could mentor students

> ❯ Provide pro bono strategic planning services

> ❯ Help to develop relationships between community colleges and high schools to give students who may not go on to four-year colleges a taste of vocational education earlier in their schooling as a way to engage them and prevent potential drop-outs

Adopting more systemic approaches to the problems facing the U.S. education system will require corporations to move beyond their traditional role of grantmaker to use corporate assets in new ways and to engage more comprehensively at multiple levels of the education system. In doing so, corporations can create a more lasting impact on our education system and more positively affect future generations.

Replicate and Scale Effective Initiatives

In today's U.S. education system, there are ample lessons about which approaches yield the best results and which nonprofit organizations are performing most effectively. If companies intend to more fully address some of the challenges facing our education system, they must focus less on developing new initiatives for which they can get credit and more on scaling the most effective programs that already exist.

Achieving social impact by spreading an idea is hardly an original concept. The idea of replication has been the holy grail of philanthropy in general for decades. However, relatively few corporations have employed the concept of replication in their philanthropy. A major difference between the nonprofit and for-profit worlds is that successful ideas in the nonprofit world do not rely on proprietary control by the idea's originator to achieve success. Businesses that attempt to scale their commercial successes must retain direct legal control to reap reward. When the goal is social impact instead of profit, the more organizations that replicate a successful approach the better. Therefore, any philanthropic funder who contributes to spreading an effective idea improves the investment return for all funders

involved as well as for the system itself, even if the original concept was not theirs. This is true for all types of philanthropic funders, corporations included.

There are three ways that corporations can replicate and scale effective ideas within the education sector. First, companies can take their own effective ideas to scale across multiple sites. Second, companies can help high-performing education nonprofits bring their ideas to scale by helping those nonprofits expand their geographical presence. Lastly, corporations can adopt the ideas of other funders and help take them to scale. This means helping replicate and expand programs that may have been initiated by other companies.

Some companies have at least begun to scale their own successes. For example, through its College Bound program, GE has developed an approach to improving math and science achievement that it is beginning to scale. Its approach to district reform includes a planning process that involves GE leaders working closely with district administrators, teachers and national education consultants to develop world-class standards in math and science, a five-year math and science strategic plan and an implementation roadmap that GE assists with. GE began these efforts in Jefferson County, KY, in 2005, and is in the process of replicating the program in Cincinnati and Stamford. Similarly, IBM has scaled some of its programs – it has undertaken its Reinventing Education work in multiple districts, from Baltimore to Clark County, NV. These are examples of corporations scaling their own effective programs.

Companies are beginning to use their philanthropy to help expand effective nonprofits' reach and impact. ExxonMobil's leadership with its National Math Science Initiative will help the University of Texas replicate its successful math and science programs nationally. Goldman Sachs and SAP are national expansion partners of KIPP, helping the CMO expand its operations and open more schools

in more cities across the country. New Leaders for New Schools is able to train more principals in more cities because of several corporate partners. These efforts are focused around identifying the best organizations and replicating their successes.

There are far fewer examples of companies replicating effective education programs that other corporations or foundations have initiated. However, to efficiently and effectively solve our education system challenges, this will need to happen more. Compared to individual private philanthropists or even the largest U.S. foundations, top companies' large workforces, well-developed infrastructures, and multiple locations provide unique advantages in supporting replication and scaling efforts. While it may be unrealistic to expect that a company might adopt and scale a competitor's education initiative, there is ample opportunity for non-competitive companies to join in scaling successful education programs. For those companies truly focused on improving the education system, and not just on reaping good public relations, scaling innovative ideas must become a larger part of how they create impact.

Take Collective Action

To most effectively contribute to bringing about systemic change, including scaling and replicating successful educational initiatives, corporations must move beyond "owning" their activities to more collective and collaborative action.

Corporations and many other private funders have often favored projects unique to their own orientation and biases concerning U.S. education challenges. In doing so, they have squandered tremendous underlying potential for collective action. Imagine the power of the nation's leading scientific and engineering companies coming together to focus on improving science instruction and learning opportunities for students. Imagine the nation's largest professional services firms coming together around the shared goal of developing strategic plans for urban school districts. Imagine the nation's largest

corporations partnering with leading private foundations such as Gates, Broad and Wallace to take collective action on a specific issue in education, whether teacher compensation or principal leadership development.

Ironically, one of the most compelling examples of companies in the same sector collectively bringing their resources to bear on education reform has occurred outside the U.S. The Jordan Education Initiative, launched at the World Economic Forum in 2003, has the dual objectives of improving the delivery of education to Jordan's citizens while also building the capacity of the local information technology industry. The e-learning initiative was designed as a partnership of global and local organizations from the private, public and non-governmental sectors with the intent of becoming a reform model replicated in other countries. Among the seventeen companies that initially signed up to support this effort, both financially and with relevant human capital and products, are Cisco, Computer Associates, Dell, HP, and Microsoft.

More effective collaboration among corporations, and between corporations and other private educational funders, would leverage a much larger pool of resources and expertise to address some of the most pressing challenges facing our country's public education system in more effective ways. While funders are sometimes wary of partnerships, it is often because there aren't many successful examples, not because it shouldn't be done. Existing corporate member organizations such as the Business Roundtable are a good start to allowing corporations to speak with a common voice on selected issues. However, given the $4 billion of philanthropic investment in the public education system, more of this collaboration is necessary. Depending on their geographic presence and internal education-related competencies, corporations should seek collaborative opportunities for change at the district, state, and federal levels. The district level offers particu-

larly unique opportunities for companies to come together with local stakeholders to develop strategic plans for public education improvement. Following development of the strategic plan, specific companies or industry sectors can take responsibility for assisting local education leaders with implementing individual components of the plan.

V. GREAT EXPECTATIONS:
The Challenge for Corporations

The United States education system was designed when the world was very different. For most of the 20th century, the United States could claim the most educated workforce in the world, but today that is no longer the case. Thirty years ago, as U.S. corporations benefited from a pool of highly-educated workers, about one-third of the world's college-educated population hailed from the United States. Today, that proportion has fallen to 14 percent and continues to fall as countries such as China and India increase their relative supply of educated workers willing to work for lower wages. While the world has changed significantly, our education system has changed all too little.

Through the federal No Child Left Behind Act (NCLB) and other recent reform initiatives, the notion of "raising expectations" has become a catch phrase among educational leaders. Government has asked our students, teachers and administrators to have higher expectations for their own performance. Businesses are now adopting this clarion call as well. However, decades of failed reform efforts have shown that raising expectations of those within education isn't enough. Students, teachers and administrators want to improve and are often willing to undergo major change to do so. But they need outside support and resources to successfully implement new approaches.

As top companies call for higher performance in our schools to prepare students for the future workforce, corporations need to raise expectations of their own role in helping to transform the system. The actions we suggest in this paper are, we hope, a start to companies re-assessing their shared ownership in helping to improve U.S. workforce competitiveness by transforming education.

VI. APPENDIX

U.S. Education by the Numbers

The Good News

›   Students from all racial and ethnic backgrounds in the U.S. have improved their reading and mathematics abilities over the last 30 years.

›   U.S. 15-year-olds performed as well or better than their peers in 26 other Organisation for Economic Co-Operation and Development (OECD) member countries in reading.

›   The percentage of high school graduates who completed advanced mathematics and science courses has improved from 26 percent for math and 35 percent for science in 1982, to 45 percent in math and 63 percent in science in 2000.

The Bad News
Global Competitiveness Challenges

›   By 2008, jobs requiring science, technology, engineering, and math training will increase four times faster than overall job growth, yet U.S. students scored 24th out of 29 OECD countries on the most recent international mathematics assessment.

›   America's high school graduation rate ranks 16th out of 20 developed countries, with Germany, Japan, and France, among many others, all reporting higher rates.

Achievement Gaps by Race, Ethnicity, and Socio-Economic Level

›   Children growing up in low-income areas are seven times less likely to graduate from college than their higher-income peers.

›   High school students from families with incomes in the bottom 20 percent drop out of high school at a rate six times higher than youth from families in the top 20 percent of income levels.

›   Despite closing somewhat over the years, the achievement gap between white and Asian students and their African-American and Hispanic peers is still disturbingly large.

•   Between 1992 and 2005, the gap between the test scores of white fourth-graders and their African-American peers barely improved.

•   Nine percent of African-American eighth-graders and 13 percent of Hispanic eighth-graders scored "proficient" in math on the most recent National Assessment of Educational Progress (NAEP) test, compared with 39 percent of white students and 47 percent of Asian/Pacific Islander students.

•   By the 12th grade, African-American and Hispanic students perform, on average, at the same level as white eighth-graders in mathematics achievement.

•   Only 29 percent of all fourth-graders scored proficient on the most recent reading NAEP test, with 13 percent and 15 percent of African-American and Hispanic fourth-graders scoring proficient, respectively.

Costs

›   Each year, American taxpayers pay as much as an estimated $2 billion for remedial college education. Deficits in basic skills cost businesses, colleges, and underprepared graduates as much as $16 billion annually in lost productivity and remedial expenses.

How to Get Started

While corporate involvement in education is not a cure-all, firms can follow the path of a few trailblazers. If you work in a corporation that is considering a new or redesigned education philanthropy program, the following steps provide a high-level road map for developing a well-conceived strategy:

1. **Internal Assessment**

    › Understand internal motivations. Through interviews and surveys, capture the values and motivations of people within your company to discern why the program is being created.

    › Identify assets and expertise. Detail what your company offers in a particular location: technical knowledge, applicable skills, employees as volunteers, brand, relationships, technology, and so on.

2. **External Assessment**

    › Determine potential areas for impact. Drawing on the education landscape used in this paper and other resources, determine the potential focus areas and approaches your company could address.

    › Consider the agendas of other funders. Whether you want a partnership or a go-it-alone approach, understanding how other funders are engaging is important to understand current thinking and past mistakes, and to find current successes to duplicate.

3. **Strategic Synthesis and Initiative Selection**

    › Synthesize findings. Based on the findings of your internal and external assessments, determine which areas are the best potential fit for your corporation.

    › Make strategic choices and establish goals. Establish decision-making criteria to evaluate various focus areas, make a choice about program focus, and articulate the specific goals you want to achieve.

    › Vet your ideas with relevant stakeholders. Ensure that your conclusions are relevant and appropriate. Share your conclusions with key internal stakeholders, as well as with external education stakeholders, and refine your thinking based on feedback.

4. **Implementation Planning**

    › Set performance metrics. Prior to designing a program, know what you want to achieve and how you will track your performance against those goals.

    › Design program elements. Once the initiative is selected, identify partners, budgets, staffing needs, communication plans, and a rollout timeline.

5. **Program Launch**

    › Begin pilot program. Start the program on a small scale so that lessons learned and refinements can be incorporated prior to a larger rollout.

    › Manage and measure. Assign staff to manage the programs and relationships on an ongoing basis, and insist on rigorous, periodic performance measurement to evaluate the success of the program.

Companies have a range of ways to get involved, and can take advantage of the valuable lessons learned from others that have gone before them. While generating new ideas, scaling effective practices, and attracting additional resources is challenging, it is crucial work on which the future of our workforce and global competitiveness depends.

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