# The Education Flatline: Causes and Solutions



Papers presented at the March 28, 2006 forum co-sponsored by the Foundation for Child Development and the Brookings Institution to release the 2006 Child and Youth Well-being Index designed by Kenneth Land of Duke University.

## The Education Flatline: Overview

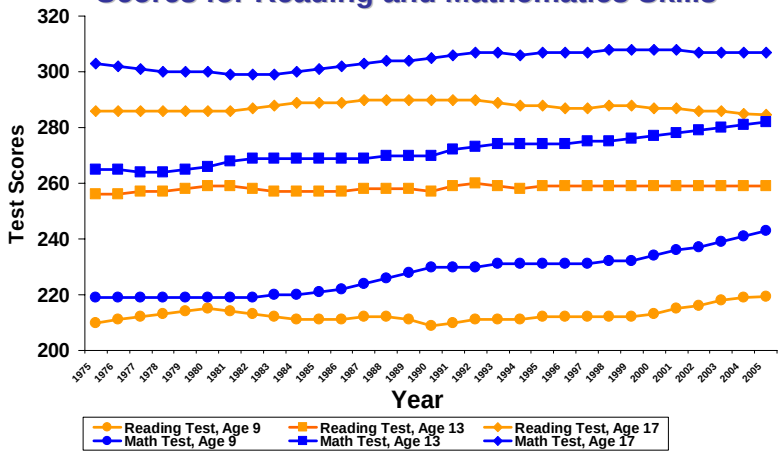
**Ron Haskins and Isabel Sawhill**

A major purpose of the Child and Youth Well-Being Index (CWI), released each year by the Foundation for Child Development and Kenneth Land of Duke University, is to call public attention to the condition of the nation's children. In order to achieve this goal, the CWI provides an annual overview of child well-being in several important domains. Although the 2006 edition of the CWI indicates that overall well-being increased somewhat in 2005, once again children's performance in the education domain was flat. This outcome for 2005 continues a trend that has now lasted for three decades. The lack of significant improvement in educational achievement is especially remarkable because national, state, and local policy has focused on improved educational performance almost continuously since the launch of Sputnik in 1957. The nation has been alerted to achievement problems by a host of national reports, and per-pupil spending has more than doubled since 1970. Moreover, schools have undergone wave after wave of educational reform. Yet the student achievement flatline persists. To make matters worse, the gap in performance between poor and minority students on the one hand and middle class students on the other, has narrowed only slightly and is still very large.

Using the CWI for its intended purpose, our goal in this set of brief papers is to once again, draw the attention of the public, researchers, and policymakers to the lack of improvement in student achievement. We do so by documenting the achievement problem, reviewing the recent history of reform, and then proposing four solutions that, if aggressively implemented, can be expected to improve student achievement.

**Figure 1**

**National Assessment of Educational Test Scores for Reading and Mathematics Skills**




Source: Ken Land, Duke University, 2006 Child and Youth Well-Being Index.

Figure 1 charts educational achievement by 9-year-olds, 13-year-olds, and 17-year-olds in both math and reading between 1977 and 2005. The scores are taken from the National Assessment of Educational Progress (NAEP), a highly reliable test administered to a nationally-representative sample of students each year. The math scores, portrayed in the top panel of Figure 1, show only modest improvement since 1978 and almost no improvement for 17-year-olds since 1992. The scores for reading, shown in the bottom panel, are even worse. The 9-year-olds show modest improvement between 1999 and 2004, while the scores for 13-year-olds have hardly changed in a quarter century and the scores for 17-year-olds have actually declined over the period.

To explore the problem of the education flatline, we have invited some of the nation's leading students of education to explain the trends and propose solutions. The first paper, by David T. Gordon, author of *The Digital Classroom*, reviews the various waves of educational reform that have swept the nation's schools since the 1970s. These include standards-based reforms, charter schools, and the rise of preschool programs. Although these reforms have not yet produced the boost in learning that the public wants and expects, Gordon believes we have learned a great deal that will shape the search for improvements in the future. Specifically, the four most important lessons are that, because excellence begins early, (preKindergarten-grade 3) programs will be part of the solution; that small schools are better places to learn; that diversity, especially because of immigration, is increasing and must be taken into account by reformers; and that new technologies are revolutionizing the American classroom and creating new opportunities to individualize instruction.

Building on the lessons drawn by David Gordon, we have selected four reforms that we believe hold great promise for improving achievement over the next decade and beyond. These include preK-3 implementation; charter schools; national standards, curriculum, and tests; and the training of high quality teachers. Each of these reforms is examined in some detail by the four papers that follow. In the first paper, Gene I. Maeroff of the Hechinger Institute at Columbia University argues that school systems should create self-contained units within the elementary school that specialize in educating children from preschool through grade 3. The preK-3 school should emphasize teams of teachers that plan across grade levels and classrooms, flexible small group organization, intensive staff development, and a special focus on reading and language development.

Maeroff is especially concerned to exploit the possibilities of preK-3 for allowing students to realize their potential for early development and progress at their own rate. Surprisingly, some educators have long recognized the need for a more informal organization at the preschool and early elementary level. But most schools have rigidly grouped children according to age and have moved them though the early grades in lock-step fashion. Moreover, for too long schools have ignored the early years when children are undergoing rapid intellectual development. The National Academy of Sciences, in a 2000 report based on new knowledge about children's development, called on the nation to begin schooling at age 3, to provide full-day kindergarten, and to provide coordinated curriculum and instruction that would allow children to move at their own pace through grade 3. In Maeroff's view, these steps would provide the boost in student achievement

that has long been the nation's goal, and could also contribute to closing the achievement gap between students of varying economic and ethnic backgrounds.

Martin West of the Brookings Institution and Bruno Manno of the Annie E. Casey Foundation examine charter schools in the context of the No Child Left Behind Act (NCLB). Chartering is a form of school choice in which an entity voluntarily enters into a performance contract with a public authority (usually a school system) to provide education for a group of children while being exempt from many of the regulations normally placed on schools. Students voluntarily agree to attend the charter school and the entity sponsoring the school must sign a performance contract that spells out in detail how it will be held accountable for student outcomes.

West and Manno argue that although the evidence is still somewhat thin, there are nonetheless good studies that show charter schools outperform traditional schools in the same district serving the same types of students. Moreover, charter schools have attracted new teachers from better colleges and universities than the schools of education attended by certified teachers in traditional schools. There is also evidence that charter schools stimulate traditional schools to boost their performance. In short, there is more than enough evidence to indicate that charter schools may be successful and therefore should be expanded.

The passage of NCLB in 2001 poses both challenges and opportunities for charter schools. One of the most important features of NCLB is that it requires states to measure and publish the performance of students in individual schools every year. Because many charter schools are small and enroll primarily poor and minority students, the performance level of their students would be expected to be lower than that of students in other schools, thereby opening charter schools to unfair criticism. The solution to this problem is to measure improvements rather than absolute levels of student performance, a solution that the U.S. Department of Education seems ready to accept.

On the other hand, NCLB could provide a boost to chartering. One of the more controversial requirements of NCLB is that low-performing schools must be restructured and students be allowed to choose other schools if performance remains low for five years. Many districts around the nation are now deciding to take advantage of the law's provision that permits converting these failed schools into charter schools. Consistent with their view that NCLB is likely to stimulate the already healthy charter school movement, West and Manno propose several conditions which must be met if the expansion of charter schools is to lead to improved performance. The most important of these is that the charter must be based on a strong authorizing and monitoring process that produces a genuine performance contract.

With or without expanded chartering, Diane Ravitch holds that schools will not markedly improve until the nation develops and implements national standards, a national curriculum, and national tests. The core reason Ravitch favors national standards is that under the current regime of state and local control, standards, curriculum, and tests are numerous and incoherent. Ironically, NCLB may have aggravated the problem by demanding strong performance but allowing states to measure performance according to

their own standards and tests. Given the consequences of failure, it seems only natural that many states have adopted low standards. Consider Arizona. In 2005, Arizona reported that 71 percent of its fourth graders were proficient in math as measured by state standards and tests. However, the rigorous NAEP found that only 28 percent were proficient. The comparable figures for Minnesota were 74 percent and 37 percent. Many other states produced similar contrasting results on the two tests. Ravitch concludes that "At the least, a national test would give the public an honest accounting of educational progress."

An important justification for a national curriculum is that the emphasis on accountability in recent years has caused many schools to place undue emphasis on reading and math because these are the subjects measured by NCLB and state tests. Reading and math are foundational subjects, but a liberal curriculum must also include history, science, literature, and the arts. Ravitch believes the best example of a coherent national curriculum of this broad type is the Core Knowledge program. This program, which includes a year-by-year description of the curriculum in reading, history, literature, math, science, and the arts, begins in the pre-kindergarten years and extends through grade 8. Students who are fortunate to attend schools that use the Core Knowledge program receive a strong, liberal education and still perform well on reading and math tests. A notable feature of the Core Knowledge program is that it requires only about 60 percent of the school day to implement, leaving about 40 percent of the time for state and local priorities. Given the almost mythic nature of the concept of local control in American education politics, leaving considerable room for state and local priorities is a political requirement of any national curriculum.

As controversial as a national curriculum might be, there has always been widespread agreement that teacher quality is one of the most important, if not the most important, input to achieving educational excellence and boosting student achievement. Kate Walsh of the National Council on Teacher Quality reviews the strong research evidence that poor children who have good teachers for several years in a row show remarkable gains in achievement. One study shows that having a highly effective teacher for three consecutive years can boost achievement test scores as much as 50 percentile points. Studies like this have led to great optimism that good teaching will produce the achievement gains that have been pursed by reformers for so many years.

Despite these solid findings from research, Walsh argues that there are serious obstacles to achieving these gains on a widespread basis in the real world. One practical consideration is that only about one in seven teachers is effective enough to produce big gains. Thus, in a given year the chance of a given child getting an effective teacher is about 15 percent, which is already somewhat low. But the chance of getting an effective teacher for even three consecutive years is around 3 in more than 3,000. Not so good. It gets even worse. The students who need effective teachers the most are poor students. But students from poor families attend schools that have fewer good teachers, so even the 3 in 3,000 odds are an overstatement for poor children. Walsh reviews a host of similar problems that minimize the odds that students who most need it will get effective teachers for several consecutive years. As Walsh concludes, until we figure out how to

produce, recruit, and retain more highly effective teachers, not many students are going to receive even two consecutive years of excellent teaching.

As David Gordon argues in his paper on the history of educational reform, Americans are often impatient for results. Consequently, it is not surprising that the public and policymakers are growing increasingly restive about the failure of student achievement to improve despite waves of reform backed by huge increases in school spending in the last three decades. But Gordon believes that we are only at the beginning of the educational reform movement and, at least by implication, that strong reforms in the future will produce better results. These long anticipated impacts on student achievement – and a welcome end to the education flatline and the achievement gap – will be a step closer if the reform recommendations presented here are aggressively implemented.

# A Short History of School Reform*

**David T. Gordon**

Stories about education reform are often of the good news/bad news variety. Consider the latest Foundation for Child Development (FCD) Child Well-Being Index (CWI), where indicators of educational achievement have stayed essentially flat since 1975, with some slender improvement in the last decade. This flatline contrasts sharply with other domains of child well-being, where we see substantial gains in family economic well-being, safety/behavioral concerns, and community connectedness and a notable decline in areas such as health. The good news? Educational achievement—at least as measured by math and reading scores—has weathered strongly shifting demographic, political, and social winds since 1975. Both fourth graders and eighth graders have improved in math since 1992; eighth graders have also improved in reading.[1]

But of course, small gains from an unacceptably low base are not satisfactory. Surely the work of reformers these past decades—their countless public and private initiatives, site-based innovations, dramatic increases in per-pupil spending, wordy symposia and books, laws upon laws—was not meant to sustain the status quo. Surely a society such as ours is able not only to promise its children equal opportunities to learn in high-quality schools but can deliver on that promise.

## The Stop-and-Go Approach

What then explains the lack of notable improvement? A survey of what we have done—and not done—over the years may provide clues, if only by charting the shifting priorities, vacillating initiatives, and stop-and-go reforms that have characterized efforts to improve our schools. If we returned to 1975, we would find growing public concerns about the adequacy of our public schools. Scores on standardized tests such as the SAT and others were in decline. Ambitious federal programs to redress social inequities had produced disappointing results.[2] The Vietnam War and Watergate had spawned a counterculture of young people skeptical of public institutions, including schools.

---

* Author Note: This working paper was prepared for the forum "Measuring Child Well-being," on March 28, 2006, co-sponsored by Foundation for Child Development and the Brookings Institution. 

*David T. Gordon is the Director of Communications for the Center for Applied Special Technology, and a former editor of the Harvard Education Letter and an associate editor at Newsweek.*

The idea that academic achievement for all students should be the primary goal of educational policy and practice was something new.[3] In the early 20th century, schools had aimed to provide elementary workforce skills and an understanding of American civic values, which would foster democratic practices in a society continually replenished by newly arrived immigrants. College preparation was reserved, by and large, for elites. By the end of World War II, the U.S. Office of Education was emphasizing the need to prepare 20 percent of students for college and 20 percent for skilled occupations. The remaining 60 percent would receive "life adjustment education" focused primarily on practical subjects such as home economics, social guidance, and vocational training, subjects with immediate utility.[4]

The conventional wisdom that most students didn't need a robust academic education carried over into the Fifties, when large high schools with highly differentiated curricula, numerous social and athletic opportunities, and few rigorous academic requirements became the norm.[5] After the Soviet Union sent Sputnik into orbit in 1957, public pressure grew for stronger math, science, and foreign language preparation for students on the college-prep track. The stronger academic emphasis appeared to raise all boats: high school graduation rates rose more than 10 percent in the early 1960s, to nearly 77 percent (higher than today's), and educational attainment increased across racial and socio-economic categories during that same period.[6]

By the Seventies, expectations had changed following heady days when bold federal initiatives to combat discrimination based on race, gender, socio-economic status, and ability promised to increase opportunities for all. Yet along with these expectations came the sober realization that soaring rhetoric and pots of public funds alone would not improve schools. A number of blue-ribbon panels diagnosed what was ailing schools and, in some cases, prescribed solutions. Reports issued by the College Entrance Examination Board, the Twentieth Century Fund, the National Science Board, the Southern Regional Education Board, and others were "thoughtfully written, insightfully analytical," writes historian Patricia Albjerg Graham, "and each sank like a stone from public view."[7]

Only one, titled *A Nation at Risk: The Imperative for Educational Reform*, did not. *A Nation at Risk* captured the attention of parents, press, and policymakers with its dire warnings of a "rising tide of mediocrity" that threatened to swamp not only our schools but "our very future as a Nation and a people."[8] The report, made public in April 1983 by U.S. education secretary Terrel H. Bell and the blue-ribbon National Commission on Excellence in Education, claimed that our educational system had failed to provide all children with equal opportunities to learn: "All, regardless of race or class or economic status, are entitled to a fair chance and to the tools for developing their individual powers of mind and spirit to the utmost."[9] Without coherent curricula, rigorous content standards, accountability for student progress, and a commitment by policymakers and citizens to demand and pay for the same, schools would not improve, the commission warned.[10]

While a number of state and local reform efforts were already underway when *A Nation at Risk* was issued, such efforts grew exponentially in the months and years

following the report. In the state of Arkansas alone, 122 education bills were passed in a 12-month period during 1983-1984. Forty-four states raised graduation requirements, especially in math and science, while dozens of states raised standards for teachers and mandated more classroom instructional time.[11] Though *A Nation at Risk* focused primarily on high school, educators and policy makers across the nation began addressing the need to start much earlier by preparing 3- to 5-year-olds for kindergarten. Education commissioners in both Connecticut and New York floated proposals to begin formal education at age 4 rather than the traditional 6. And in 1984 alone, New York state increased its funding of preK programs by more than 50 percent, to $14 million.[12] The flurry of activity was impressive, though lacking any national coordination.

A new generation of governors, especially in the South, made school reform a priority—governors such as Bill Clinton of Arkansas, Richard Riley of South Carolina, and Lamar Alexander of Tennessee. Traditionalists urged a greater emphasis on teaching basic skills and "core knowledge," as E.D. Hirsch called it; a rigorous regime of standardized tests to monitor student progress; and stricter accountability measures for practitioners and policymakers. Progressives like Theodore Sizer, founder of the Coalition of Essential Schools, emphasized smaller schools where students would master intellectual skills in highly personalized learning environments.

The initial state-level reforms faced resistance from educators and their unions, who resented the top-down approach to reform. As a result, the National Governors Association (NGA) proposed a bottom up approach, giving schools more autonomy in exchange for more accountability. "To sum it up," said NGA chairman Lamar Alexander in 1986, "the Governors are ready for some old-fashioned horse-trading. We'll regulate less, if schools and school districts will produce better results."[13]

Principals and teachers would take responsibility for improvements in curriculum and instruction—and be called to account for the results. Policymakers would support efforts to build a stronger teaching corps by funding career development and in-service training. In reality, school finances, personnel, and to a large extent curriculum remained in the hands of lumbering district bureaucracies and the unions they dealt with. Autonomy was a phantom. (In just a few years, a more dramatic proposal would be made: to give "charters" to groups of educators, parents, businesspeople, and others to found and operate public schools, innovating in whatever ways got results.)

**Standards-Based Reform**

In 1989, President George H.W. Bush and the nation's governors, led by Arkansas's Bill Clinton, met in Charlottesville, Virginia, where they agreed to establish national K-12 education standards and assessments. In doing so, they adopted six national goals to achieve by the year 2000, including that all students would master "challenging subject matter in the core academic subjects"; that U.S. students would be "first in the world in science and mathematics achievement"; that universal literacy among American adults would be achieved; and that the high school graduation rate would rise to 90 percent. It was not enough for states to develop models of excellence

and innovation: they had to take such models to scale in order to extend to all students rich opportunities to learn.[14]

In many ways, Charlottesville launched what we now call "standards-based" reform.[15] Though several states such as California and Maryland had recently begun designing comprehensive state strategies with aligned curriculum frameworks and assessments, Charlottesville rallied national stakeholders with different interests and ideologies in a common cause. Business leaders joined the cause, as did the American Federation of Teachers, whose president, Al Shanker, became one of the decade's most prominent spokespersons for strong standards and assessments. This broad and bipartisan commitment to standards-based reform survived even as governorships, the White House, and the U.S. Congress changed party hands.

The Nineties were a time of great experimentation, not without controversy. Charter schools proliferated, providing "hothouses" where innovations could be developed and tested outside the usual constraints of district management and collective bargaining. Beginning with two charter schools in Minnesota in 1991, their numbers have grown to more than 3,600 today.[16] Voucher programs, like charter schools, aimed to give more authority to parents by enabling them to use public funds to send their children to private or public schools. Privatization of school management and services was tried, ostensibly to provide more fiscal accountability and to free up educators, especially school principals, to focus on instructional leadership rather than buses, buildings, and budgets.[17] In 1991, the chief executives of several major corporations established the New American Schools Development Corporation to find and fund school reform models that would "break the mold" and help take such models to scale, offering professional services, consultation, and capital investment.[18] Home schooling soared, with more than one million students learning at home in 2003, double the number educated at home in 1990.[19]

Since research suggested a strong correlation between school success and school readinesss, states also placed a new emphasis on early childhood education during these years. They added prekindergarten programs, raised teacher licensing requirements, and established school readiness standards. By 2001, 46 states and the District of Columbia funded some kind of preschool program, though only a few (including Georgia, New York, and Oklahoma) made strides toward offering universal preschool.[20]

In 1994, with his national health care reform faltering, President Bill Clinton turned to education. His *Goals 2000* aimed to provide a more coherent, or "systemic," approach to education policy at the federal, state, and local levels. In a year of epic defeats for Clinton—ending with the Republicans controlling the House of Representatives for the first time in 48 years—Clinton managed to build a high level of bipartisan support for his education initiatives. Washington offered funding to states to develop content standards and appropriate assessments for reading and mathematics at three grade levels; it also required states to hold schools receiving Title I funding accountable for student performance.[21] Later, Clinton would also initiate efforts to support teacher professional development and make new technologies more accessible at

the classroom level. The federal government was still reluctant to exert too much control over education across the fifty states, but it was getting bolder.

Though Washington funded various educational organizations to draft standards in areas such as history, English language arts, and science, efforts to establish national standards never got traction. Without a system for balanced reviews of the frameworks by impartial expert panels, the standards got mired in ideology and politics. History standards that portrayed Western accomplishments in relentlessly negative terms drew fire across the political spectrum. Whole language and phonics advocates carried their decades-long battle into the standards arena. Discussions of math standards followed suit, pitting proponents of a "new math" focused on problem-solving against those who favored more traditional arithmetic instruction.

Where state standards became highly politicized, as in California, educators at the school-building level were left to make sense of shifting messages and mandates. Whole language and new math were "in," then they were "out," or at least were forced to become curricular bedfellows with phonics and basic arithmetic.[22] This wobbliness at the policy level often left teachers and administrators confused as to what was expected at the classroom level and what would satisfy the demand for better performance on standardized tests.

During the 2000 election season, with the federal Elementary and Secondary Education Act (ESEA) up for renewal, momentum grew for a new federal leadership in education reform. Vice President Al Gore, the favorite to win the election, proposed a $115 billion plan that would have included national content standards, merit pay for teachers, reduced class sizes, support for universal prekindergarten, and more rigorous teacher requirements and in-service evaluations. George W. Bush, having made school reform his showpiece as Texas governor, proposed "a fresh start for the federal role in education" in which Washington would hold states accountable for educational improvement, support "scientifically-based" education research, invest federal dollars in charter schools and character education, and fund an early childhood reading program. History tilted Bush's way.

In No Child Left Behind—as ESEA was renamed at its 2001 reauthorization—the president sponsored and signed a bill that, in one swoop, aimed to impose standards and accountability on all U.S. schools. Students would learn to high standards, as measured by standardized tests. Teachers would have be "highly qualified" and demonstrate their skill. Schools would have to demonstrate annual progress toward the goal of leading all students to basic proficiency in mathematics and reading/language arts. Policymakers would have to do a better job of monitoring and, presumably, funding schools to ensure success. Furthermore, every school, district, and state would have to demonstrate not just overall progress but progress by traditionally disadvantaged students in a number of different categories. Test results would be sorted by racial/ethnic identity, disability, limited English proficiency, and socioeconomic status. With Bush leading support from the right and his unlikely ally, Massachusetts Senator Edward M. Kennedy, leading the left, NCLB won strong bipartisan support.

For all its broad support and big declarative statements about how finally to achieve academic success for all, questions about how to assess progress under NCLB were raised almost immediately. To critics, the new law relied dangerously on a simplistic definition of academic success—test scores. Harvard scholar Richard F. Elmore noted that in the early years of the accountability movement, "reformers had an expansive view of performance that included, in addition to tests, portfolios of students' work, teachers' evaluations of their students, student-initiated projects, and formal exhibitions of student work." Standardized tests are appealing to policymakers because they are cheaper to administer, easier to grade, and deliver simple results, added Elmore, but are they the accurate measures of student performance that good decision making, both at the policy and the instructional level, requires?[23]

For most Americans, patience and longsuffering are hardly regarded as essential political virtues—perhaps because we reserve the right to change our minds every two, four, or six years in elections that almost invariably promise a change for the better. The planning and execution required to adopt and then drop new practices and programs can masquerade as progress—activity being mistaken for effective action. Yet, as historian Maris Vinovskis writes, education is field where the "process of identifying promising educational practices, rigorously testing their effectiveness in model programs, and then trying them out in different settings often can take fifteen to twenty years."[24]

Looking back on these decades of reform, then, we see a society trying to define what it wants from its schools, debating long- and short-term goals, weighing means and costs, drawing hypotheses and putting them to the test, slouching toward consensus on "what's next." It's been thirty years, yes. But it's been less than twenty years since the standards-based approach got started and less than five years since Washington began to play a meaningful role in trying to coordinate and support systemic reform across the fifty states.

In some ways, the reform of our educational system is just now beginning. That would be some solace only until we paused to reflect that every failure in education—as opposed to, say, in manufacturing—is incalculable. Thirty years represents almost three generations of school children whose education will impact the rest of their lives.

**Guideposts for Tomorrow**

For all that we have not accomplished and have not learned, we have in fact learned many lessons during the past thirty years, some by trial and error, some by attentive research and study. A few general lessons—by no means comprehensive—can serve as guideposts for tomorrow's work.

**1) Academic excellence begins early**. Scientific knowledge of children's learning, behavior, and development has increased enormously over the past thirty years.[25] For decades, researchers have gathered strong evidence that effective early childhood education has lasting benefits in preparing children not only for later school success but also for success in life. Research suggests that children who participate in high-quality preK-3 programs are more likely to perform better in math and reading

throughout their school careers and are more likely to graduate high school than their peers who do not attend such programs.[26] Such programs—especially those with a planned curriculum aligned across the years from prekindergarten to 3rd grade—are especially important for children of low socioeconomic status and for English Language learners, since they are far less likely to have the kinds of rich language, literacy, and learning experiences at home that will prepare them well for school.[27]

In one landmark study, the Perry Preschool Project, researchers examined the long-term effects of high-quality early childhood education on low-income three- and four-year-olds. Beginning in 1962, the study has followed participants into their 40s. Those who participated in preschool did better in school and at work, had higher earnings, and committed fewer crimes on average than those who did not take part in preschool programs. Overall, the study estimated a return to society of more than a $17 for every $1 of public funds invested in the program.[28]

Another longitudinal study followed some 1,500 students from low-income, largely African American families who participated in the Chicago Public School's Child-Parent Center (CPC) program. With federal Title I funding, the CPC provides educational and family support services for children in grades preK-3. A 15-year study culminating in 2001 found that attendees completed more years of education than peers of comparable socioeconomic status who did not participate in preschool, were less likely to be placed in special education or get held back in school, demonstrated higher scores on cognitive literacy and school achievement measures, and graduated high school at a much higher rate.[29]

**2) A growing body of evidence suggests that small schools are better places to learn**, on balance, than large schools. Research shows that students who attend small schools (generally, high schools of 700 students or less; K-8 schools of 300 or fewer) perform better in core subjects such as reading and math, complete more years of higher education, have better attendance records, and report better relationships with teachers and other students.[30] Small schools tend to be safer, reporting fewer incidents of violence and vandalism. They appear to encourage more parental participation and teacher-parent communication. And they tend to mitigate some of the effects of low socioeconomic status, providing disadvantaged students with opportunities to work more closely with adults who know them by name. A number of studies have also tied small schools to lower dropout rates.

Just as small schools can help reduce the anonymity of students, they can have a similar effect on teachers as well, providing better conditions for collaboration with colleagues. As rising enrollment rates pressure states and districts to keep schools large, school districts have experimented with creating "schools within schools" to replicate some of the favorable conditions of small schools while making do with existing facilities and structures. Of course, other conditions—teacher preparation and support, instructional time and standards, and so forth—will also help determine the success or failure of any school to provide effective education for its students. But both research and anecdotal evidence strongly suggest that smaller schools support better teaching and learning.[31]

**3) The diversity of student populations is increasing**—and with it the need for renewed commitment to teach all learners to high standards. The underlying premise and promise of the past three decades of reform is that all learners, regardless of race, socioeconomic status, ability, or background, deserve the best education we can provide. During those years, the populations of U.S. classrooms have changed dramatically. For example, U.S. classrooms have more children of immigrants today than in the 1970s. According to the U.S. Population Survey, 12 percent of the U.S. population is foreign-born, nearly three times the level of thirty years ago. More than 20 percent of all U.S. school-age children were born to immigrants—and more than a quarter of all low-income schoolchildren.[32] Most of these are Latino and, like African American students, have struggled to close the gap between their academic achievement and that of their white peers.[33]

Coinciding with this increase in immigration has been a new emphasis, especially in federal legislation such as NCLB and the Individuals with Disabilities Education Act (IDEA), on the right of students with special needs to receive a high-quality education based on the same standards and accountability measures as the general population. Yet many classrooms lack sufficient resources, tools, and approaches to provide effective, standards-based instruction for students with disabilities in general education settings.[34]

There is also a growing appreciation in classrooms and education research for the diversity of all learners. Recent advances in the cognitive sciences have given us a whole new understanding of the subtle but significant differences in the way each person learns. As education researchers David H. Rose and Anne Meyer have written: "When two students perform the same academic task, the patterns of activity in their brains are as unique as their as fingerprints."[35] While all students deserve the same opportunities to learn, they do not all do not learn in the same way, nor do they demonstrate their knowledge and mastery of skills uniformly. With this in mind, it is essential that while pursuing a common endpoint of a high-quality academic education for all, we remain open to multiple means of getting there.

**4) New technologies present us with extraordinary opportunities to individualize instruction** in ways that help all students learn to their fullest ability. Typical classrooms are filled with barriers for learners with special needs and gifts. For example, the overwhelming reliance on printed materials—textbooks, for example—limits opportunities for students to whom printed text is inaccessible. These might include students with physical disabilities, such as blindness but they also include those with learning disabilities. Furthermore, inflexible curricular materials hamper students who do not have disabilities but who may learn more effectively in other ways—by listening, through arts, or with highly graphical displays.

The advent of universally designed learning technologies—especially portable and powerful multimedia—offers new opportunities in content presentation and also student assessment, providing new tools to gauge what students are learning during the instructional process so that instruction can be adjusted. In doing so, these technologies make the learning experience more about content and less about format—opening multiple pathways to the same destination of a high-quality, standards-based education.[36]

The inclusion in recent federal special education law of a National Instructional Materials Accessibility Standard will soon make educational materials, including textbooks, more readily available in digital formats[37]—preparing the way for the widespread use of technology-rich, customizable learning environments. Of course, previous waves of technology have failed to change the classroom in the ways their advocates promised. But what is different this time is the ubiquity of technology tools in the everyday lives of children. They live in a nearly wireless "mediasphere" where video iPods, cell phones, instant messaging, and blogging are reshaping fundamental definitions of what it means to be literate. New technologies can no longer be supplemental to core academic endeavors; they must become intrinsic to learning goals and processes if schooling is to remain relevant in a swiftly evolving culture.[38]

At the 20th anniversary of *A Nation at Risk* a few years ago, education historian Patricia Albjerg Graham wrote of a discussion she had had in 1981 with a superintendent about the challenges facing his district's schools. "You don't understand," the administrator had said. "We run social welfare institutions, not academic ones."[39] The idea that public schools, and not just elite private academies, should offer all students challenging curriculum, high learning standards, expert instruction, performance-based accountability, and the lifelong opportunities that such an education affords—this idea had not yet taken root. Within a few years, it had. Yet most observers would agree that, clearly, this ideal has not flowered in enough—or even in *most*—classrooms. Seeing that it does is our primary assignment for the next thirty years.

---

[1] National Center for Education Statistics, *The Condition of Education* (Washington, DC: NCES, 2004).
[2] Diane Ravitch, *Left Back: A Century of Failed School Reforms.* (New York: Simon & Schuster, 2000), 410.
[3] Patricia Albjerg Graham, "Foreword," in David T. Gordon, ed., *A Nation Reformed? American Education 20 Years after* A Nation at Risk. (Cambridge, MA: Harvard Education Press, 2003), viii.
[4] Ravitch, 328-329.
[5] Ibid., 362-365.
[6] Thomas E. Snyder, ed.,*120 Years of American Education: A Statistical Portrait* (Washington, DC: NCES, 1993),
[7] Graham, ix.
[8] National Commission on Excellence in Education. *A Nation at Risk: The Imperative for Educational Reform*, in Gordon, ed., *A Nation Reformed?*, 167.
[9] Ibid., 169.
[10] Ibid..178-190.
[11] Robert Schwartz, "The Emerging State Leadership Role in Education Reform: Notes of a Participant-Observer," in Gordon, *A Nation Reformed?*, 133-134.
[12] Edward B. Fiske. "Earlier Schooling is Pressed." *New York Times*, December 17, 1984, p. A1.
[13] Quoted in Schwartz, 133.
[14] Alan R. Sadovnik, Peter W. Cookson, Jr., & Susan F. Semel. *Exploring Education*. 2nd ed. (Boston: Allyn & Bacon, 2001), 516-517.
[15] Richard F. Elmore. "Change and Improvement in Educational Reform." In Gordon, *A Nation Reformed?*, 26.
[16] Charter school data from the Center for Education Reform. Retrieved online January 28, 2006 from http://www.edreform.com/_upload/ncsw-numbers.pdf
[17] Timothy Knowles, "The Academic Imperative: New Challenges and Expectations Facing School Leaders," in Gordon, *A Nation Reformed?*
[18] See www.naschools.org for more information.

[19] National Center for Education Statistics, "Homeschooling in the United States: 2003." (Washington, DC: NCES, 2006). Retrieved February 2, 2006 from http://nces.ed.gov/pubs2006/homeschool/
[20] Darion Griffin and Giselle Lundy-Ponce. *At the Starting Line: Early Childhood Education Programs in the 50 States*. (Washington, DC: American Federation of Teachers, December 2002). Retrieved March 1, 2006 from http://www.aft.org/pubs-reports/downloads/teachers/EarlyChildhoodreport.pdf.
[21] Sadovnik, et al., 516-517.
[22] See David T. Gordon, "The Limits of Ideology: Curriculum and the Culture Wars," in Gordon, *A Nation Reformed?*
[23] Richard F. Elmore. "Unwarranted Intrusion,"in Richard F. Elmore, *School Reform from the Inside Out: Policy, Practice, and Performance*, (Cambridge, MA: Harvard Education Press, 2004).
[24] Maris A. Vinovskis. "Missed Opportunities: Why the Federal Response to *A Nation at Risk* Was Inadequate," in Gordon, *A Nation Reformed?*, 116.
[25] Commission on Behavioral and Social Sciences and Education. *Eager to Learn: Educating Our Preschoolers*. (Washington, DC: National Academy Press, 2000), 25.
[26] Susan Miller Wiltz. "Research Points to the Long-Term Benefits of Preschool." *Harvard Education Letter Online*. (January/February 2006). Retrieved January 31, 2006 from http://edletter.org/current/prekresearch.shtml; See also Ellen S. Peisner-Feinberg, Margaret R. Burchinal, et al. *The Children of the Cost, Quality and outcomes Study Go to School: Executive Summary*. (Chapel Hill: University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center, 1999).
[27] "From Literacy to Learning: An Interview with Catherine Snow," *Harvard Education Letter* 21, no. 4 (July/August 2005), 7-8.
[28] Lawrence J. Schweinhart. *The High/Scope Perry Preschool Study through Age 40: Summary, Conclusions, and Frequently Asked Questions.* Monograph. (Ypsilanti, MI: High Scope Press, 2005). Retrieved online January 31, 2006 from http://www.highscope.org/Research/PerryProject/PerryAge40SumWeb.pdf
[29] "Preschool Yields High Returns, But Not All States Are Investing," *Harvard Education Letter*, 19, no 5. (September/October 2003), 6.
[30] Two sources ably summarize the extensive research on small schools: Patricia A. Wasley, Michelle Fine, et al. *Small Schools, Great Strides: A Study of the New Small Schools in Chicago.* (New York: Bank Street College of Education, 2000); and Kathleen Cotton, "School Size, School Climate, and Student Performance," Close-Up Number 20. Portland, OR: Northwest Regional Educational Laboratory, 1996.
[31] Barbara Kent Lawrence, Steven Bingler, et al. *Dollars & Sense: The Cost Effectiveness of Small Schools*. Cincinnati, OH: KnowledgeWorks Foundation, 2002).
[32] Randolph Capps, Michael E. Fix, et al. *The New Demography of America's Schools Immigration and the No Child Left Behind Act.* (Washington, DC: The Urban Institute, 2005). Retrieved January 31, 2006 from http://www.urban.org/UploadedPDF/311230_new_demography.pdf
[33] "Latino Achievement: How to Close the Gap," *Harvard Education Letter, 19*, No. 6 (November/December 2003), 5.
[34] Chuck Hitchcock, Anne Meyer, et al. "Equal Access, Participation, and Progress in the General Education Curriculum," in David H. Rose, Anne Meyer, and Chuck Hitchcock, eds. *The Universally Designed Classroom.* (Cambridge, MA: Harvard Education Press, 2005), 37-68.
[35] David H. Rose and Anne Meyer, *Teaching Every Student in the Digital Age: Universal Design for Learning.* (Alexandria, VA: 2002), 18.
[36] David H. Rose and Anne Meyer. "The Future is in the Margins: The Role of Technology and Disability in Educational Reform," in Rose, Meyer, and Hitchcock, *The Universally Designed Classroom.*
[37] Cara Branigan. "New Format Hastens Textbook Accessibility," eSchool News Online, August 12, 2004. Retrieved January 31, 2006 from http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=5218
[38] Bridget Dalton, David Rose, and Joanna Christodoulou. Technology's role in advancing literacy and achievement for diverse adolescent learners. A report prepared for the Carnegie Corporation of New York. (Wakefield, MA: CAST, 2005).
[39] Graham, ix-x.

## The Role of PreK-3 in Improving School Achievement [*]

**Gene I. Maeroff**

Better educational outcomes for American children almost certainly depend on providing them with the best possible start in school, a goal that the Index of Child Well-Being indicates is apparently not being realized given the flat line of achievement through the decades. A key to improvement resides in an unprecedented emphasis on the first level of public education, a period that should begin with pre-kindergarten and extend through the third grade, a preK-3 configuration. Otherwise, every intervention afterward becomes remedial--difficult, expensive, and bruising to children.

This period, preK-3, accounts for more than a third of elementary and secondary education, a time when schools should lay the foundation for literacy and numeracy and instill habits of the mind, along with tending to social and emotional development.[1] Schooling during the early years figures prominently in shaping a student's future and offers great promise for all that follows, when youngsters who have learned to read must read to learn.[2] Students who emerge from third grade as fluent readers can approach much of the rest of the curriculum with confidence. Learning to reason with numbers during the primary years will not make an Einstein of every child, but it will lift the mystery from mathematics and enhance prospects.

Various research findings attest to the powerful effects of quality pre-kindergarten and full-day kindergarten.[3] As pre-kindergarten grows universal and kindergartens become full-day programs, schools will best sustain early gains—which often have dissipated in the past--by reinforcing them during the entirety of primary education.[4] Coordination should be the watchword of this effort, with standards, curriculum, instruction, and assessment aligned throughout the preK-3 continuum like the moving parts of a finely designed mechanical clock. An extensive review of the literature shows a broad empirical base for zeroing in on children from three to eight and for aligning learning experiences during that period, grade by grade, to sustain gains.[5] Children benefit when teachers and administrators share and communicate a unified approach to teaching and learning across grades and classrooms.

---

[*] Author Note: This working paper was prepared for the forum "Measuring Child Well-being," on March 28, 2006, co-sponsored by Foundation for Child Development and the Brookings Institution. 

*Gene Maeroff is a Senior Fellow with the Hechinger Institute, Teacher's College, Columbia University.*

A preK-3 structure—combined with attention to inculcating an academic work ethic—can lead to more productive learning through the upper elementary grades and secondary school. Such an approach, stressing language, reading, and math, by no means implies that schools ought to ignore other subjects. Teachers can offer social studies and science in tandem with reading and math, for instance. The arts, as well, have a place in the education of young children who sometimes best express themselves through such pursuits as drama, music, and drawing.

Actually, Thomas Jefferson recognized the imperative for an early emphasis as long ago as the 18th century, observing that democracy depends on an educated electorate. He called for establishing elementary schools to teach reading, writing, and arithmetic and proposed that "every child was to be taught gratis for three years."[6] Surely, a solid start today will help stem the high school drop-out rate and boost the numbers entering and completing college. A preK-3 approach will fortify early education in the following ways:

1. **Emphasis**—Designation of pre-K through grade 3 as a unit unto itself with specific goals, especially in language development, is a first step toward assuring that the youngest children do not get shunted aside as older students receive precedence.
2. **Teamwork**—In a preK-3 school or unit of their own, staff can more readily plan across grade levels and classrooms, viewing students as one unified learning community. They can form both horizontal teams for teachers on a particular grade level and vertical teams with a teacher from each grade level, preschool through third grade.
3. **Grouping**—Flexible small-group instruction that reaches beyond a single classroom and crosses grade levels, acknowledges the uneven progress at these ages.
4. **Staff Development**—Educators at this level share common professional interests best addressed through joint continuing education that recognizes the interlocking nature of their work.
5. **Culmination**—Third grade, as a concluding point, takes on significance as the juncture at which to gather the fruits of early learning to make success more likely in the grades that follow.

Educators can implement the advantages of a preK-3 approach through separate schools for this age group or by giving the early grades their own discrete identity in the elementary school—and perhaps their own assistant principal—to create a setting in which everything revolves around this group of students. Someone should be in place in each school to lead this effort to tighten the focus on young children.

A successful preK-3 configuration depends on leaders who are adept at creating and protecting planning time so that teachers can confer readily with colleagues about on-going program alignment and about issues pertaining to students in small groups that must be continually reconstituted to take account of individual progress. Teachers must also have the opportunity for professional development that allows them to keep growing

as practitioners of early childhood education. Such an approach can produce communities of practice in which teachers themselves feel comfortable as learners.

These ideas are neither new nor untried. The National Association of State Boards of Education in 1988 called on elementary schools to create early childhood units to serve children from the ages of 4 through 8.[7] The National Academy of Sciences in 2000 said that changing circumstances dictated the need for a fundamental reexamination of services for young children and their families, pointing out that society uses outdated policies and strategies that do not recognize what has been learned about young children through research.[8] In 2005, a task force of the National Association of Elementary School Principals called on colleagues to provide a coherent program during the primary years as "part of a continuum of learning that extends from pre-kindergarten through third grade."[9]

A preK-3 approach would underscore the school's connection to what occurs in the lives of children from birth through the age of 3 by its relationship to family literacy programs and others that reach into the home to assist parents during the years before youngsters enter the more formal educational continuum. Then, the school would make voluntary pre-K available—taught by degreed teachers—to all children and provide all-day kindergarten before immersing students in an education that aims to construct a firm foundation for learning by the end of third grade. Such an approach would provide referrals to needed health and social services and would include high quality programs before and after regular school hours to meet the needs of today's families and to enable youngsters to extend their development. Also, a longer school day and a longer school year would make more added time available for learning.

An emphasis on the continuum from pre-K through third grade underscores the need for teachers to gain deep knowledge not only of the grades they teach, but also of the grades below and above their own. They should be able to apply these understandings to children's acquisition of social skills and self-discipline as well as to the provision of academic skills.

Schools and colleges of education increasingly recognize that the usual preparation for work in elementary education does not include sufficient specialization for teachers who will work in early childhood education. Thus, more and more institutions are creating preK-3 preparation programs to qualify teachers to work at all grades throughout the continuum. In turn, a growing number of states are licensing teachers for this level. The National Council for the Accreditation of Teacher Education accredits preK-3 programs, applying standards developed by the National Association for the Education of Young Children. Such an approach generally includes course work in special education, getting teachers ready to include students with disabilities in the mainstream to the greatest extent possible—and making it possible even to avoid labeling some children.

PreK-3 facilitates recognition of individual differences and supports the need for students to be able to work on levels appropriate to their separate needs. Flexible

grouping strategies allow for multi-age, multi-grade classrooms, diminishing concern about grade-to-grade promotion in the early primary years while to trying to assure that children reach a specified threshold of learning by the conclusion of third grade. PreK-3 programs can therefore more easily accommodate the uneven development of students, including English language learners.

The children of immigrants, for example, account for 21 percent of American kindergarteners.[10] Many such youngsters live in homes where the only English they hear emanates from a television set. Tension often surrounds attempts by schools to deal with the needs of English-language learners. Issues of race, ethnicity, language, and immigration intrude on discussions of English-language learners. The cushioning atmosphere of a preK-3 setting could be the best place to help such students make the transition that awaits them in American schools.

In the 1990s, some educators and policymakers began discussing the desirability of connections along the educational continuum by referring to the interlocking nature of the years from pre-kindergarten through college. In such states as Georgia and Maryland government officials formed P-16 Councils. The Education Commission of the States propounded a P-16 vision with an emphasis on aligning the years that make up the preK-3 part of the continuum, initially to assure readiness for the first grade, and, then to produce children who can read by the end of the third grade.[11]

Now, as the possibility of implementing preK-3 program looms as the first step in an integrated P-16, this initiative should be seen as a necessary step in helping schools meet the requirements of the No Child Left Behind Act. While the law does not specifically acknowledge that success at the upper grades relies on the outcomes of teaching and learning at the primary level, no one should doubt that this is the case.

The various pieces of the P-16 continuum have for too long existed in splendid isolation from each other. Americans have largely viewed these elements as separate places to sojourn along the educational journey, each level having little more to do with the others than the countries through which a tourist might pass during a grand tour of European capitals. The first leg of this trip for many American children—the time up through the third grade—has been a journey to nowhere, leaving them to carry empty baggage for the remainder of their travels through an every more frustrating educational labyrinth.

In the future, the journey should begin with every child's progression through an aligned preK-3 program—ideally in small classes with more than one qualified adult in each classroom--to smooth the track and to outfit the student with the social, emotional, and academic attire that will help make the rest of the trip a comfortable one. It is in the best interests of the country to settle for no less.

---

[1] Betty Hart and Todd D. Risley. *Meaningful Differences in the Everyday Experience of Young American Children* (Baltimore: Paul H. Brookes Publishing Company, 1995); C. Cybele Raver and Edward F. Zigler. "Social Compentence: An Untapped Dimension of Head Start's Success," *Early Childhood Research Quarterly*, 12(4), (1997) 363-385.

[2] Catherine Snow. "From Literacy to Learning," *Harvard Education Letter*, July-August (2005).
[3] "The Effects of Oklahoma's Universal Pre-Kindergarten Program on School Readiness." (Washington, D.C.: Georgetown University Center for Research on Children in the U.S., Nov. 2004); Debra J. Ackerman, W. Steven Barnett, and Kenneth B. Robin. "Making the Most of Kindergarten," (National Institute for Early Education Research, Mar. 2005).
[4] Arthur J. Reynolds. *Success in Early Intervention: The Chicago Child-Parent Centers* (Lincoln and London: University of Nebraska Press, 2000).
[5] Kimber Bogard and Ruby Takanishi. "PK-3: An Aligned and Coordinated Approach to Education for Children 3 to 8 Years Old," *Social Policy Report*, 19, 3 (2005).
[6] Thomas Jefferson. Notes on the State of Virginia, Introduction to the Torchbook Edition. (New York: Harper & Row, 1964), xiv.
[7] National Association of State Boards of Education. "Right from the Start: The Report of the NASBE Task Force on Early Childhood Education." Alexandria, VA: 1988.
[8] National Academy of Sciences. "From Neurons to Neighborhoods: The Science of Early Childhood Development." Washington D.C.: National Academy of Sciences, 2000, p.2.
[9] National Association of Elementary School Principals. "Leading Early Childhood Learning Communities: What Principals Should Know and Be Able to Do." (Alexandria, VA: 2005), 2.
[10] Randy Capps et.al. "Promise or Peril: Immigrants, LEP Students, and the No Child Left Behind Act." Washington D.C.: Urban Institute, 2004, p. 12.
[11] Kristie Kauerz. Annual Forum of the Foundation for Child Development in New York City, Oct. 18, 2002.

# Charter Schools and No Child Left Behind: An Oncoming Collision?*

**Martin R. West**

**Bruno V. Manno**

As David Gordon's paper suggests, the general lack of progress for K-12 students—flat NAEP scores, persistent achievement gaps, falling high school graduation rates—does not stem from a lack of resources going into education. These have grown steadily.[1] A more likely culprit, in our view, is an outmoded district system of school governance that lacks genuine results-based accountability. Charter schools seek to remove school districts' "exclusive franchise" to create and run public schools and to inject into the system accountability for results.[2]

A nascent reform strategy, the full extent of chartering's potential is unknown. Will No Child Left Behind (NCLB), the elephant in the school-reform room, give chartering a lift or trample it entirely? And could chartering help achieve the law's lofty goals for raising student achievement and closing achievement gaps? These abstract questions are given substance by the NCLB provisions permitting schools that fail to make "adequate yearly progress" for five consecutive years be converted into charter schools. Should states encourage or even force districts to pursue this remedy? If so, what is necessary for it to be effective?

## The Charter Idea

The heart of chartering is the voluntary creation of public schools of choice that are accountable for results through a performance agreement—or charter—with a public agency, while being exempt from many regulations placed on traditional public schools.[3] This approach was designed to increase school autonomy, encourage innovation, and expand parental choice. It was also intended to provide new accountability mechanisms through both a social market ("from below") and a performance contract with a government agency ("from above"). The first charter school opened in 1992, and their

---

* Author Note: This working paper was prepared for the forum "Measuring Child Well-being," on March 28, 2006, co-sponsored by Foundation for Child Development and the Brookings Institution. 

*Martin R. West is a Research Fellow in Governance Studies at the Brookings Institution.*
*Bruno V. Manno is a Senior Associate for Education with the Annie E. Casey Foundation.*

numbers have grown rapidly due to their popularity with parents and to the breadth of their political support.

There are now over 3,600 charter schools enrolling more than 1 million students scattered across 40 states and the District of Columbia.[4] Yet there is no one model of a charter school. A recent typology of charter schools identified 55 sub-types within 10 categories organized by instructional theme (progressive, traditional, vocational, general, and alternative delivery) and student populations (general or targeted—usually to "at-risk" students).[5] Meanwhile, differences in state law affect the opportunities to create charter schools and the financial, legal, and regulatory conditions under which they operate. The entities possessing the legal authority to grant charters, called authorizers, range from local school districts and state education agencies to special statewide boards and institutions of higher education. In 2000, the Indiana state legislature granted Mayor Bart Peterson the authority to grant charters within Indianapolis, an authority used to create 12 new charter schools as of 2005-06.[6]

While charter schools enroll less than 2 percent of public school students nationwide, there are some urban districts where these schools are a significant market presence. For example, Dayton, Ohio, boasts over one third of public school students enrolled in charters and charter enrollment in the District of Columbia is approaching 30 percent. New Orleans may emerge from Hurricane Katrina as the nation's first virtually all-charter district. As of January 2006, six new charter schools were operating there, compared with two traditional public schools, with another nine charters slated to open before the end of the academic year.[7] Because most charters nationwide are in urban settings and often attract a disadvantaged student population, charter schooling will have a disproportionately large impact on the education of minority and low-income students.[8]

There is little good evidence yet on charter schools' effectiveness in raising student achievement. But there are clear signs of potential. The one study to use randomization to examine the impact of attending a charter school found that students chosen by lottery to attend charters managed by the Chicago Charter School Foundation outperformed students on the schools' waiting list who remained in traditional public schools.[9] Two recent literature surveys concluded that, while the quality of available research was poor, the studies using more reliable methods tend to show achievement in charter schools improving more rapidly than in traditional public schools.[10] Charter schools have clearly brought new blood into the teaching profession, with charter school teachers nationwide more likely to come from selective colleges and to have majored in the arts and sciences (as opposed to education).[11] And there is evidence that competition from charters has spurred traditional public schools to improve their performance (and no evidence that the presence of charters has had an adverse impact).[12]

But there are hints of problems that, if unchecked, could limit chartering's potential. While chartering has maintained bipartisan support in Washington and in many states, entrenched local opposition often limits the funding charters receive, preventing them from gaining access to facilities on equal terms with other public schools.[13] A recent study of 16 states and the District of Columbia showed that charter schools receive about 22 percent ($1,800) less in per-pupil public funding than district

schools surrounding them.[14] Moreover, state caps on the number of charter schools or on charter school enrollment constrain further growth in at least ten states.[15] Finally, some charter authorizers are ill-equipped to provide schools with sufficient support, and few authorizers seem willing to shutter bad schools, raising a clear challenge to the accountability promise of these schools. A lax approach to charter granting and renewal threatens to allow the rotten apples in the charter crop—for example, the small fraction of charter schools found to have mishandled public funds—to spoil the rest.[16]

In short, there is more than enough to warrant charter schooling's continued expansion, but that growth needs to occur in a context where charter schools can be effective. Is that possible under NCLB?

**Chartering and NCLB**

NCLB requires charter schools to demonstrate adequate yearly progress toward full proficiency in mathematics and reading or face sanctions like other public schools. Some charter advocates complain that this stifles innovation, but accountability for educating students to basic proficiency in core academic subjects is a reasonable requirement—provided it is administered in a sensible way.[17] Many charter authorizers have wisely incorporated the federal law's targets for student achievement into their performance agreements with schools, not as a substitute for more complex accountability metrics but as a complement to them.[18] School performance ratings under state accountability systems can help hold authorizers accountable, forcing them to get tough and providing them with leverage to close ineffective schools.

Of course, the system that NCLB requires states use to measure school performance can produce misleading indicators of school quality. This problem is aggravated for many charters because of their small size, often disadvantaged populations, and large numbers of new students. Fortunately, the Department of Education appears to be addressing these concerns by allowing states to experiment with accountability models that incorporate measures of the growth in individual students' achievement over time.[19] Possibly more troublesome for charters are NCLB's provisions mandating that there be a "highly qualified" teacher in every public school classroom. At the very least, this requirement complicates the ability of charters to bring nontraditional teachers into schools and to exploit new technologies, such as virtual schooling, that rely on alternative modes of instruction.[20]

Even so, rather than stifling chartering, NCLB may well aid in its expansion. With more low-performing schools moving toward the year five restructuring deadline, districts could exploit the law's provision permitting these schools to be converted into charters. Or, perhaps more likely, states could encourage districts to do so. In fact, a Colorado law that predates NCLB requires that all schools not meeting performance targets for just three consecutive years be preemptively converted to charters. States unwilling to go this far could require charter conversions within districts that are themselves in improvement status under NCLB.

However, forced school conversions seem to strike at the heart of chartering, with its emphasis on voluntarism and choice. And there are pitfalls associated with the strategy: Unenthusiastic districts may "charter light," not giving schools necessary autonomy or resources. As Greg Richmond, former head of the Chicago school district's charter school office, has said, "The temptation will be to just change the sign over the door and call the school a charter school."[21] Given the lack of a uniform charter school model, creating a new charter could be the weakest restructuring option, enabling districts to reset the school's restructuring clock without ensuring authentic change. Nor do school districts necessarily know how to develop and support a performance contracting approach. They have little or no experience in creating or authorizing new schools of choice, monitoring schools against performance benchmarks with a view to results-based accountability, or encouraging genuine family involvement in the school planning or selection process.

In order for chartering under NCLB to proceed with some modicum of success, there are at least three necessary—though perhaps not sufficient—conditions which must be met.[22] First, state and federal laws must be in place to support the creation of genuine charters in sufficient numbers to serve many students. For example, state caps on the number of charter schools and enrollment should be eliminated, at least for schools restructured under NCLB. States should also ensure that charters receive access to state and local program and capital funding on equal terms with traditional public schools and have sufficient autonomy to pursue their distinctive missions. To encourage reluctant states to take these steps, the federal government should consider allocating aid for restructuring schools under Title I only to states that allow for the creation of charter schools and treat them equitably.

Second, a strong authorizing and monitoring process, embedded in a genuine performance contract, must exist, with alternative authorizers like state universities and specially created chartering agencies empowered to create new schools. The National Association of Charter School Authorizers, leading the way among organizations defining best practices in this rapidly evolving field, emphasizes the importance of clarity, consistency, and transparency in developing and implementing authorizing policies.[23] Allowing multiple authorizers to operate in a single jurisdiction, as some state charter laws now do, has encouraged the adoption of such practices and should be imitated widely.

Third, there needs to be a well-defined community and civic engagement process for creating new charter schools. This process should include ample support for providing families with good information on schools; procedures for matching students with these schools; and ways of providing the supports and services families and children need to succeed in these schools.[24] The transformation of the first low-performing Colorado school to be converted into a charter school was initially resisted by parents and community members, who felt excluded from the process of selecting the nonprofit KIPP (Knowledge is Power Program) Schools to run the school. While KIPP's subsequent outreach efforts have rallied community support, conversions are more likely to run smoothly if the local community is involved from the outset.[25]

Given the potential pitfalls associated with converting persistently low-performing schools into charters, states and school districts may well choose to pursue less aggressive restructuring options. Indeed, there is some evidence they are adopting more cautious strategies.[26] This approach is unfortunate, as there is scant evidence that other interventions have worked to turn around failing schools.[27] Achieving No Child Left Behind's goal of educating all students to proficiency will require a dramatic expansion in the supply of high-quality public schools in traditionally underserved communities. Granting charters to proven providers selected by the local community and supported and ultimately held accountable by capable authorizers offers a promising strategy for accomplishing this difficult yet essential task.

---

[1] Eric A. Hanushek, "The Failure of Input-Based Schooling Policies," *The Economic Journal*, 113 (February 2003), pp. F64-F98.
[2] Thanks to Ted Kolderie for the phrase.
[3] Chester E. Finn, Jr., Bruno V. Manno, and Gregg Vanourek, *Charter Schools in Action: Renewing Public Education* (Princeton University Press: 2000).
[4] Information on the number of charter schools comes from the Center for Education Reform. http://www.edreform.com/_upload/ncsw-numbers.pdf (Accessed February 1, 2006)
[5] While charter schools by law must be open to all students, many tailor their curriculum to appeal to specific student populations. Dick M. Carpenter II, "Playing to Type: Mapping the Charter School Landscape," Thomas B. Fordham Institute (October 2005).
[6] Bryan C. Hassel, "Fast Break in Indianapolis: A New Approach to Charter Schooling," Progressive Policy Institute Policy Report, September 21, 2004.
[7] Paul Hill and Jane Hannaway, "The Future of Public Education in New Orleans," January 2006.
[8] U.S. Department of Education. Institute of Education Sciences. National Center for Education Statistics. *America's Charter Schools: Results From the NAEP 2003 Pilot Study*, NCES 2005-456, National Center for Education Statistics. Washington, DC: 2004.
[9] Caroline M. Hoxby and Jonah E. Rockoff, "The Impact of Charter Schools on Student Achievement: A Study of Students who attend Schools Chartered by the Chicago Charter Schools Foundation," November, 2004.
[10] Bryan C. Hassel, "Charter School Achievement: What We Know," Paper Prepared for the Charter School Leadership Council (January 2005); Robin J. Lake and Paul T. Hill, eds., "Hopes, Fears, and Reality: A Balanced Look at American Charter Schools in 2005," University of Washington, November 2005.
[11] Caroline M. Hoxby, "Would School Choice Change the Teaching Profession?" *Journal of Human Resources*, vol. 38, no. 4 (Fall 2002), pp. 846-891.
[12] Caroline M. Hoxby, "School Choice and School Productivity: Could School Choice Be a Tide that Lifts All Boats?" in Caroline M. Hoxby, ed., *The Economics of School Choice* (University of Chicago Press: 2003), pp. 287-341.
[13] Andrew J. Rotherham, "Increasing the Supply of Public Schools," Public Policy Institute Briefing Paper, April 9, 2003.
[14] The Thomas B. Fordham Foundation. *Charter School Funding: Inequity's Next Frontier*. Washington, DC: The Thomas B. Fordham Foundation, 2005.
[15] Todd Ziebarth, "Stunting Growth: The Impact of State-Imposed Caps on Charter Schools," National Alliance for Public Charter Schools Issue Brief Number 1, January 2006.
[16] Andrew J. Rotherham, "The Pros and Cons of Charter School Closures," in Robin J. Lake and Paul T. Hill, eds., "Hopes, Fears, and Reality: A Balanced Look at American Charter Schools in 2005," University of Washington, November 2005, pp. 43-52.
[17] Michael J. Petrilli, "Charters as Role Models" *Education Next*, vol. 5, no. 3, pp. 56-58. For a dissenting view, see Theodore M. Sizer, "Don't Tie Us Down," *Education Next*, vol. 5, no. 3, pp. 59-61.
[18] William Haft and Rebecca Cass, "NCLB Title I Accountability and Charter School Authorizer Obligations," No Child Left Behind Policy Brief, National Association of Charter School Authorizers, September 2004.
[19] Martin R. West, "No Child Left Behind: How to Give it a Passing Grade," *Brookings Institution Policy Brief # 149*, December 2005.

[20] Paul T. O'Neill, "Highly Qualified Teachers and Paraprofessionals in Charter Schools: A Guide for Charter Authorizers," No Child Left Behind Policy Brief, National Association of Charter School Authorizers, January 2006.
[21] Amanda Paulson, "A forced conversion to charter school," *Christian Science Monitor*, July 12, 2005.
[22] For additional discussion of charter conversion as a restructuring strategy, see Todd Ziebarth and Priscilla Wohlstetter, "Charters as a 'School Turnaround' Strategy," in "Hopes, Fears, and Reality: A Balanced Look at American Charter Schools in 2005," University of Washington, November 2005, pp. 53-62; and Matthew D. Arkin and Julia M. Kowal, "Reopening as a Charter School," Learning Point Associates, North Central Regional Educational Laboratory, December 2005.
[23] National Association of Charter School Authorizers, "Principles and Standards for Quality Charter School Authorizing: 2005 Revised Edition."
[24] For lessons learned on how to do this, see Susan Brenna, "Changing the Status Quo: A Year One Chronicle of the D.C. Opportunity Scholarship Program," Washington Scholarship Fund, January 2006 and Thomas Stewart, Patrick J. Wolf, and Stephen Q. Cornman, "Parent and Student Voices on the First Year of the DC Opportunity Scholarship Program," Georgetown University Public Policy Institute, 2005.
[25] Amanda Paulson, "A forced conversion to charter school," *Christian Science Monitor*, July 12, 2005.
[26] Caitlin Scott, "Makeovers, Facelifts, or Reconstructive Surgery: An Early Look at NCLB Restructuring in Michigan," Center on Education Policy, November 2004; Rebecca Wolf DiBiase, "State Involvement in School Restructuring Under No Child Left Behind in the 2004-05 School Year," Education Commission of the States," September 2005.
[27] Ronald C. Brady, "Can Failing Schools be Fixed?" Thomas B. Fordham Foundation, January 1, 2003.

# The Case for National Curriculum, National Standards, and National Tests*

**Diane Ravitch**

There is an adage that "everything is connected to everything else." This is certainly the case when it comes to the well-being of children. It is impossible to consider any single proposal for the future without acknowledging that children and their families are embedded in a complex social and cultural web and that every part of that web contributes to or detracts from their well-being. From their birth, children are shaped by their home life, by the quality of the care, love, and environment that are supplied by their families. When children first enter school, whether at the age of 3, 4, 5, or 6, they have already learned a distinctive vocabulary, knowledge, ideas, behaviors, and attitudes that were determined by their homes and local community.

For many years, I have been concerned about improving academic achievement. Yet I know that whenever I raise this subject, someone will say that I have ignored the influence of family, television and the Internet, nutrition, drugs, violence, and a host of other factors. Surely, all of these factors are very important; some—especially the family—are perhaps pre-eminent in determining the child's well-being. Yet we must not allow our recognition of the simultaneous influence of multiple institutions to paralyze our ability to focus on any one of them and to develop thereby what may be useful ways to make them function more effectively in the lives of children.

Schools have a large effect on young people's ability to prepare for higher education, the workforce, citizenship, and a fulfilling personal life. Schools are effective to the extent that they successfully teach young people the skills and subject matter that are necessary for these roles. Numerous reports produced by the U.S. Department of Education and by international agencies have shown that American students do not learn as much as they should or, in subjects where there is comparative data, as much as their peers in other nations.[1],[2] Therefore, if we wish to ensure our continuing national prosperity and if we wish to ensure that the largest possible number of young people is enabled to contribute to our society, then we must improve student achievement.

---

* Author Note: This working paper was prepared for the forum "Measuring Child Well-being," on March 28, 2006, co-sponsored by Foundation for Child Development and the Brookings Institution. 

*Diane Ravitch is a Non-Resident Senior Fellow at the Brookings Institution.*

I suggest that the best strategy to improve achievement is to develop and promulgate national standards, a national curriculum, and national examinations. I say this for a the following reasons. First, we already have an insipid kind of national education system, even though Americans cling tenaciously to the myth of local control. In fact, local control is actually very weak and ineffective in the areas that matter most for learning, that is, in terms of what students are expected to learn and how that learning is assessed. The reality today is a low-level national curriculum, as reflected in widely used mass-market textbooks and tests, which are not produced locally but are developed and produced by large national organizations. We already have national standards, a national curriculum, and national tests, I believe, but they are not especially rigorous and are not geared to the standards found in the highest-achieving nations.

Second, the current regime of multiple standards and multiple tests is confusing and incoherent. Under the No Child Left Behind (NCLB) Act, fifty states and various other jurisdictions have their own standards and tests. These standards are themselves none too high, and the law itself seems to encourage states to set their standards low so they can claim that majorities of students are reaching the goal of proficiency. However, a comparison of the results on state tests with the results of the federal National Assessment of Educational Progress (NAEP) reveals that most states are vastly inflating the proportion of students who are proficient in reading and mathematics. In 2005, for example, Arizona reported that 71 percent of its fourth grade students were proficient in mathematics, but only 28 percent were found to be proficient by NAEP. Minnesota's tests showed that 74 percent of its eighth grade students were proficient in reading, but only 37 percent were proficient on NAEP. The gaps were equally large in many other states. If NAEP tested other subjects, such as science and history, as well as high school students, it would undoubtedly find the same high levels of grade inflation. At the least, a national test would give the public an honest accounting of educational progress.

Third, a national curriculum would add coherence to our currently fragmented system of education. The curriculum defines what will be taught and what will be tested. This is important information for students, teachers, test developers, textbook writers, administrators, and teacher educators. The curriculum is a syllabus that describes course content from year to year. The teacher in fifth grade should know what the students learned in fourth grade, as well as what they will be taught in sixth grade. The curriculum provides coherence by laying out a set of learning expectations, grade by grade. Students who move from one district to another, or from one state to another, would not find that they are repeating the same material they studied the year before. Widely admired programs like the International Baccalaureate and Advanced Placement incorporate the principles that I have just described: They have a syllabus that defines the course content, teachers and students in these programs know what is on the syllabus, and the examination at the end of the course is based on the syllabus.

Fourth, a national curriculum provides fairness by making available to all schools and all students the same expectations and the same information about what should be taught and learned. At present, what is taught is largely a function of which neighborhood one lives in, which school one attends, which teacher one has. With a national curriculum, everyone would know in advance what will be taught in each grade

and what the tests will cover. The same content that is taught in the most elite schools will be available to students in every district in the nation. As our society grows more diverse, the case for common standards becomes stronger. Even students whose English is limited and who are living in poverty—perhaps especially these children—need access to a curriculum that is coherent, thoughtful, and sequential; these are exactly the children who are currently likely to receive disconnected instruction or endless rounds of test-preparation that advantaged parents would never accept for their own children. Everyone should have the same opportunity to learn the issues, concepts, information, and questions that define the course content, whether the subject is mathematics, science, history, or other studies.

Fifth, a national curriculum would provide a sounder liberal education than most children currently receive. Under the accountability provisions of NCLB, most public schools are now focused relentlessly on reading and mathematics. These are the subjects that are tested, and they determine whether a school is making "adequate yearly progress" or whether it will be publicly identified as inadequate or failing. Reading and mathematics are important basic skills, to be sure, but they are not the sum and substance of a good education. With a genuine national curriculum, such as those in countries like Britain, Japan, and France, there is an important role for history, science, literature, and the arts.

In this country, the best example of a well-rounded, coherent national curriculum is the Core Knowledge program. This program begins in the pre-kindergarten years and extends through eighth grade. The Core Knowledge program includes a year-by-year description of the curriculum that students are expected to learn in reading, history, literature, mathematics, science, and the arts. If fully implemented, the program consumes about 60% of the school day. The rest of the time is available to meet local and state requirements, or for teachers to use as they choose. Any child who progresses through the Core Knowledge program will have a superb foundation for high school and will be far better educated than the typical American student. Unfortunately, Core Knowledge schools are assessed by the same skill-based tests that are given by all states, in which knowledge of history, literature, science, and the arts have no bearing. Nonetheless, students in these schools do very well even on the skill-based tests.

The issue that I have left for last is the thorniest: Who should control and design the national curriculum, standards, and tests? There are two ways to approach this question. First, the program could be controlled by the federal government, under the aegis of the nonpartisan National Assessment Governing Board, which supervises NAEP. Second, it could be controlled under private auspices, much as the College Entrance Examination Board (now called the College Board) oversaw national examinations for college admission for most of the twentieth century. One might imagine, for example, an organization like Achieve or even the College Board, taking the lead in such an effort. If the program were federal, it would be universal, at least for the 88% of the nation's students in public schools. If it were under private control, it would be voluntary for schools, districts, and states.

There are advantages and disadvantages to either approach. Frankly, I don't know which makes more sense. What is unquestionable, however, is that any entity that defines what American children should know and be able to do must be strictly nonpartisan; must be broadly representative but uniform in its commitment to academic achievement; must engage in continuous research to assure that the nation's curriculum, standards, and tests represent high standards and are up-to-date; and make sure that neither the curriculum nor the standards dictate any particular pedagogical approach to teaching.

The politics of national standards is complex, to be sure. In the early 1990s, President George H.W. Bush proposed voluntary national standards and ran into Democratic opposition, as well as opposition from his own party. In the mid-1990s, President Bill Clinton proposed voluntary national tests and encountered opposition from Republicans who feared national testing, and members of his own party who favored greater funding and objected to testing as a matter of principle.

I don't expect that national standards, national testing, and a national curriculum at this time are likely to be authorized by Congress, for all the reasons that blocked similar proposals in the past fifteen years. Yet there is growing sentiment—among business leaders, some government officials, some educators—for a national approach to our educational problems. As evidence accumulates about the low standards of state tests as compared to the NAEP, this sentiment is likely to grow. Whether the impetus to move it along comes from the public sector or private is not yet clear.

The proposal that I have described will not solve all the problems that confront parents and children in today's world. But I do think that a national curriculum, national standards, and national testing will markedly raise academic achievement. And that will be good for America's children and the entire nation.

---

[1] Alan Ginsburg et al.,"Reassessing U.S. International Mathematics Performance: New Findings from the 2003 TIMSS and PISA," American Institute for Research, 2006.

[2] Patrick Gonzales et al., "Highlights from the Trends in International Mathematics and Science Study," National Center for Education Statistics, U.S. Department of Education, Washington, DC, 2003.

# If Wishes Were Horses:

# The Reality behind Teacher Quality Findings*

**Kate Walsh**

An exciting proposition making the rounds of the education policy circuit suggests that assigning great teachers to a class of disadvantaged children five years in a row could erase their learning deficits. This feat—until now an educator's fantasy—would be a hopeful breakthrough for a profession that for decades has assumed that schooling has little chance of overcoming a child's family background.

The research behind this "five-year proposition" is solid, forged by some of the field's most respected education economists. Their work over the past decade has provided compelling evidence that schools and teachers have a major impact on children.[1] New statistical tools have made it possible for the first time to measure the effectiveness of an individual teacher over time. We are now armed with the knowledge that in as few as three years students otherwise destined for mediocrity but who are assigned to great teachers can be transformed into above average students.[2]

These findings have been met with a sort of feeding frenzy in education circles. They have fueled a demoralized profession in sore need of affirmation, and have provided a great sound bite for those pushing for across-the-board pay increases. But amidst all this frenzy there has been very little discussion about what would be required for schools and teachers to have anything more than a theoretically large impact on students. While some teachers are capable of having an enormous impact on their students, family environment continues to swamp the gains that most teachers are capable of producing.

Concerned that euphoria may be overtaking reality, a small handful of academics, especially Vanderbilt economist Dale Ballou, have tried to temper expectations. But this message of moderation has been delivered softly, because these same economists worry that too much focus on the challenges could result in a return to the status quo, making it unlikely that the overall quality of the nation's teachers will be improved on the scale that is needed.

---

* Author Note: This working paper was prepared for the forum "Measuring Child Well-being," on March 28, 2006, co-sponsored by Foundation for Child Development and the Brookings Institution. 

*Kate Walsh is the President of the National Council on Teacher Quality.*

**Robin Hood Comes Up Dry**

This much is certain: The odds of a poor child getting assigned a great teacher five years in a row through chance are negligible because of a whole set of problems: the current pool of teachers, the distribution of teachers, how teachers get assigned to classes, and the distribution of poor children.

Based on the available data, it appears that only one in seven teachers meets the standard of effectiveness necessary to produce the big learning gains each year. In other words, a child has a roughly 15 percent chance of being assigned to a great teacher in any given school year. Those do not seem like impossible odds, but that's only one year. What are the odds of a child being randomly assigned to a great teacher two years in a row? And if it takes five years to overcome the impact of poverty, the odds are in $1 \times 7^5$, or about 1 in 17,000. Compounding the problem is that great teachers are unevenly distributed between high- and low-poverty schools. Schools serving poor children have the worst teachers with the worst credentials and therefore are unlikely to have the same proportion of great teachers as wealthier schools.

But even if poor schools had as many great teachers as other schools, classroom assignment remains a problem. More active, better educated parents will insist that their children be assigned to the best teachers. Some principals go along in order to keep the peace. Nor are effective teachers evenly distributed among grades. Principals routinely assign their better teachers to grades in which children will be tested, making it less likely that other grades have the depth of talent to do the job. Finally, poor children are not distributed evenly across cities or towns. For all these reasons, the chance is nil that nearly all or many of the teachers in a high-poverty school could be superheroes. Staffing a high-poverty school fully with great teachers would require shifting the best teachers from other schools, a Robin Hood solution that is politically untenable.

**A 50-50 Proposition**

Compounding the problem are methodological difficulties that prevent us from accurately identifying great teachers, crucial for both assigning teachers to the classrooms where they are needed and aligning compensation with performance. Researchers find it difficult to identify great teachers ahead of time who are successful year after year. This leaves school administrators uncertain whether a particular teacher does or does not deserve a performance bonus or where to assign this year's most effective teachers next year.

These ups and downs in the data are troubling because they may not have much to do with a teacher's actual performance. Instead, the issue may be how to measure teacher effectiveness, particularly how to isolate the effect of the teacher from "non-teacher classroom effects," such as the influence of other students. There are ways to get around the instability of the data, but all of them require testing students more often than once a year or observing teachers over multiple years, a problem compounded by shifting teaching assignments. In turn, this makes it hard for states or districts to determine which teachers get performance bumps in salary.

**The Wobegon Effect Does Not Apply Here**

Most teachers huddle in the middle of the pack, but being able to distinguish between the top 15 percent and the worst 15 percent is sufficient for deciding who should be on probation and who should be awarded performance bonuses. But there is yet another catch: The top 15/bottom 15 distinction is only apparent when analyzing student test scores for mathematics but not reading. In reading, far fewer than 15 percent of all teachers *appear* by virtue of test scores to be measurably superior (or inferior) than their peers. The consequence of this finding, if test score results alone were used to drive decisions like performance pay, is that more math teachers would be awarded than reading teachers.

A couple of explanations for this difference are likely and important to understand. First, schools have a much greater impact in student knowledge of mathematics than they do in student knowledge in reading. Apart from recognizing money and being able to count it, children learn relatively little math outside of school. Reading is largely dependent upon oral language skills, often learned largely outside of school. It may be that the impact of schools in reading is harder to discern because home environment is the more important factor. Second, standardized tests lend themselves to testing math skills much more readily than reading skills. Young children learn math largely by algorithm and rote, processes that are relatively easy to test. The process of reading and learning new words on the other hand is far more impenetrable. Educators even debate what a reading comprehension test actually tests: fluency, vocabulary, and background knowledge? Thinking skills and comprehension strategies?

A couple of recent studies compared teachers who did not attend a formal teacher preparation program with their traditionally prepared counterparts.[3] These studies illustrate how a misunderstood measurement phenomenon can have serious consequences for policy making. In these studies, "alternative certification" teachers produced sizable differences in the mathematics achievement of their students compared to their traditional counterparts, but in reading the two sets of teachers looked far more similar.

It may be that these alternative certification teachers were just not as good at teaching reading, but it may be just as likely—if not more so, given the high literacy skills of these teachers—that the reading tests themselves were the culprit. Reading tests, largely tests of vocabulary or language, are more cumulative than math tests. Students are far less likely to encounter familiar material on these tests that would reflect how well they were taught in a particular school year. Becoming a good reader requires successive, multiple years of good teaching. The impact of a single year of a great teacher may not even be detected for several years.[4] In other words, given the nature of language building, a reading teacher may seem to have little impact on students in a given year even though she may have actually made significant strides.

**Conclusion**

These challenges should be cause for toning down some of the hyperbole surrounding teacher quality findings. We still need to learn more about how to predict who is going to be a highly effective teacher. We need to be able to isolate the effect of a teacher from other influences on a classroom. We also need to accept the limitations of current standardized tests as

the basis for high-risk decisions like assigning teachers to the classrooms where they are most needed, what teachers should be eligible for dismissal and how much pay or bonus a teacher should get. These limitations pose legitimate fairness issues because it is simply beyond the current capacity of standardized tests or value-added methodologies to isolate the teacher's contribution to test results. For these tests to be used responsibly, they should be considered as one piece of evidence of a teacher's effectiveness.

One implication from these findings stands out from all of the others. We must improve the overall quality of the nation's teaching force. If one out of every five instead of one out of seven teachers were "great," a child's chance of being *randomly* assigned a great teacher for five years in a row would increase markedly, making it easier to assign the best teachers to the children that need them the most.

Increasing the number of great teachers requires that we significantly expand the current sources of new teachers. It requires giving new teachers the training and support they need. It requires giving teachers a career ladder that allows them to stay in the classroom. Teacher preparation programs need to be held accountable for the quality of their graduates and shut down when found ineffective. Districts can do much more to stop the revolving door of new teachers hired and leaving within the same school year. State policies for teacher preparation and licensure need to be overhauled substantially to remove barriers that have yet to prove their value. The profession can no longer be protected or held immune from market forces. Only when these problems are fixed will the profession be able to attract, recruit, and keep good teachers.

---

[1] Eric A. Hanushek, John F. Kain, Daniel M. O'Brien, and Steven G. Rivkin. *The Market for Teacher Quality*, National Bureau of Economic Research, February 2005 found "substantial differences in teacher quality when put in the context of student achievement growth. This implies that a one standard deviation increase in teacher quality raises standardized gain by 0.22 standard deviations. Since these quality variations relate to single years of achievement gains for students, they underscore the fact that the particular draw of teachers for an individual student can accumulate to huge impacts on ultimate achievement."

[2] William L. Sanders and June C. Rivers, *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement*, University of Tennessee Value-Added Research and Assessment Center, November 1996.

[3] *The Effects of Teach For America on Students: Findings from a National Evaluation* Mathematica Policy Research, Inc., May 27, 2004 and Boyd,D. Grossman, P. Lankford H. Loeb,S. and Wyckoff, J. *How Changes in Entry Requirements Alter the Teacher Workforce and Affect Student Achievement*, National Bureau of Economic Research, December 2005.

[4] Education scholar E.D. Hirsch has long criticized how reading tests are used and interpreted, predicated on an errant assumption that comprehension strategies can be conceptually learned and applied to any subject area though this notion runs counter to the principles of learning supplied by cognitive psychology. What's really being tested on a test of reading comprehension, Hirsch asserts, is a student's background knowledge of a particular topic that allows him or her to read a passage with ease.