

## The 90/90/90 Schools: A Case Study

• Research conducted at the Center for Performance Assessment on the “90/90/90 Schools” has been particularly instructive in the evaluation of the use of standards and assessment. The research includes four years of test data (1995 through 1998) with students in a variety of school settings, from elementary through high school. Our analysis considered data from more than 130,000 students in 228 buildings. The school locations included inner-city urban schools, suburban schools, and rural schools. The student populations ranged from schools whose populations were overwhelmingly poor and/or minority to schools that were largely Anglo and/or economically advantaged.

One reason that the research in these schools was so productive is that the districts maintained careful records on actual instructional practices and strategies. This allows researchers to investigate associations between instructional strategies and academic achievement results. It is important to acknowledge, however, that these results are only associative in nature. We make no claim that a single instructional intervention can be said to “cause” a particular achievement result. What we can say with a high degree of confidence, however, is that there are some consistent associations between some classroom strategies (for example, performance assessments that require writing) and student achievement in a wide variety of tests and subjects. One final note: We make absolutely no claim that the schools in the study were the beneficiaries of any proprietary “program” or “model” of instruction. The research literature in every field from pharmaceuticals to education contains too many “studies” that purport to show the effectiveness of treatments that the authors of the research have used. Our role in this investigation is that of journalist and researcher, not of architect of any program or intervention. Hence, we do not claim any credit for improved academic achievement that is rightfully due to the students, teachers, and administrators in the study.

The “90/90/90 Schools” have the following characteristics:

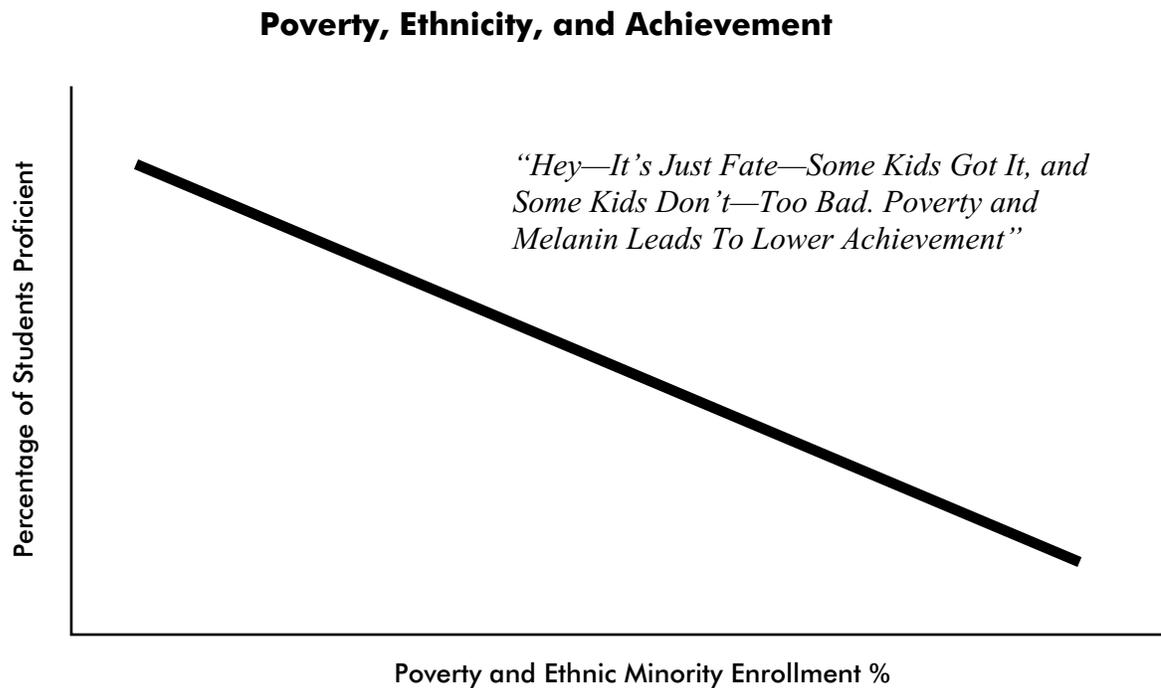
- More than 90 percent of the students are eligible for free and reduced lunch, a commonly used surrogate for low-income families.
- More than 90 percent of the students are from ethnic minorities.



- More than 90 percent of the students met or achieved high academic standards, according to independently conducted tests of academic achievement.

The educational practices in these schools are worthy of notice for several reasons. First, many people assume that there is an inextricable relationship between poverty, ethnicity, and academic achievement. The following graph expresses this commonly held belief:

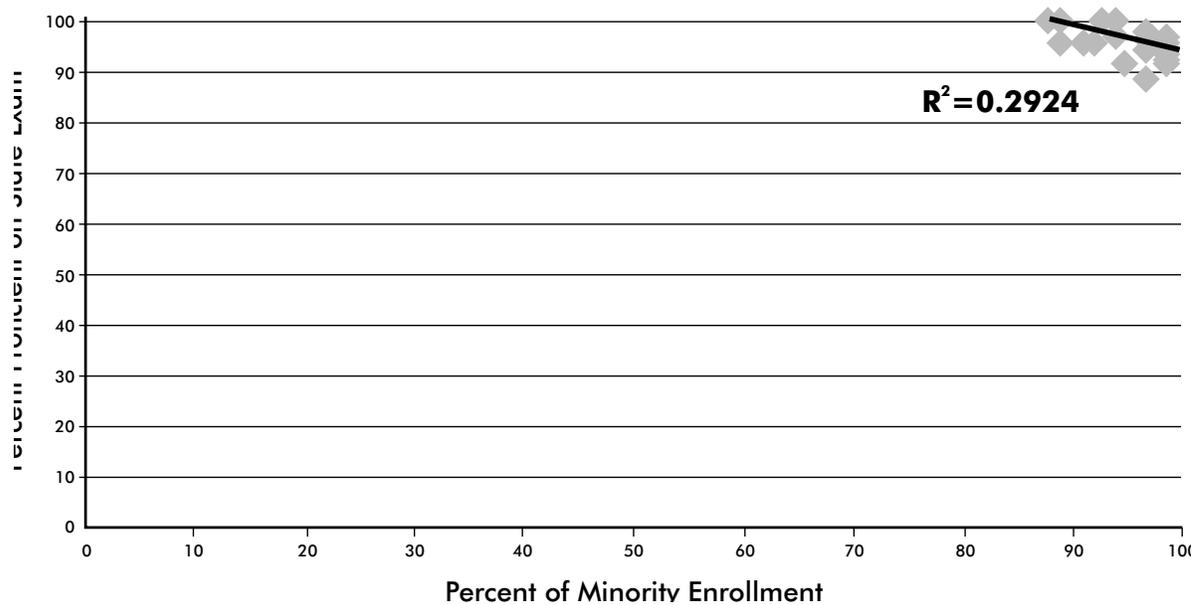
Figure 19.1



In this chart, the prevailing hypothesis leaves no room for students in the upper right-hand corner of the graph—that is, schools that have high academic achievement coincident with high poverty and high minority enrollments. In fact, the actual data from the December 1998 Comprehensive Accountability Report of the Milwaukee Public Schools shows a different story:

Figure 19.2

### Minority Enrollment and Academic Success



Notice that the real data in the upper right-hand corner of this graph are in sharp contrast to the hypothesis in which a line is drawn from the upper left-hand corner to the lower right-hand corner.

The same analysis holds when the economic variables are considered:

Figure 19.3

### Poverty and Academic Achievement



# Common Characteristics of High Achievement Schools

Our research on the “90/90/90 Schools” included both site visits and analyses of accountability data. The site visits allowed us to conduct a categorical analysis of instructional practices. In the same manner that the authors of *In Search Of Excellence* (Peters et al, 1982) identified the common practices of excellent organizations, we sought to identify the extent to which there was a common set of behaviors exhibited by the leaders and teachers in schools with high achievement, high minority enrollment, and high poverty levels. As a result, we found five characteristics that were common to all “90/90/90 Schools.” These characteristics were

- A focus on academic achievement.
- Clear curriculum choices.
- Frequent assessment of student progress and multiple opportunities for improvement.
- An emphasis on writing.
- External scoring.

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## Focus on Academic Achievement

After visiting all of the “90/90/90 Schools,” we noticed profound differences between the assessment and instructional practices of these schools and those of low-achieving schools. First and most importantly, the “90/90/90 Schools” had a laser-like focus on student achievement. The most casual observer could not walk down a hallway without seeing charts, graphs, and tables that displayed student achievement information, as well as data about the continuous improvement students had made. The data were on display not only in principals’ offices, but also throughout the schools. In addition, we saw school trophy cases full of exemplary academic work, including clear, concise essays, wonderful science projects, terrific social studies papers, and outstanding mathematics papers. In short, the “90/90/90 Schools” made it clear to the most casual observer that academic performance was highly prized.

The focus on achievement in these schools included a particular emphasis on improvement. The comprehensive accountability system in use by these schools forced every school to identify five areas in which they measured improvement. Although the school could choose the goal from a menu (see Chapter 14, School-Based Accountability Indicators), the common requirement was to focus on a few indicators of improvement in contrast to the typical school improvement plan that contains a large number of unfocused efforts to improve.

The focus on improvement is especially important in an environment where many students come to school with academic skills that are substantially below grade

level. The consistent message of charts showing weekly improvement from the fall through the spring was, “It’s not how you start here that matters, but how you finish.” Improvements of more than one grade level in a single year were common, and teachers and administrators paid particular attention to students whose deficiencies in reading and writing would have a profound impact on their success in other subjects. Some students spent as many as three hours per day in literacy interventions designed to get students to desired achievement levels. There did not appear to be any consistency with regard to the intervention programs in use by these schools. Some used Success for All, others used Reading Recovery, while others used the Efficacy Model. Others had no specified program at all, but consistently applied focused intervention for students in need using their own teaching staff.

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### **Curriculum Choices**

Such a focus on achievement inevitably leads to curriculum choices, spending more time on the core subjects of reading, writing, and mathematics and less time on other subjects. It is possible, for example, that many of the teachers in these schools did not “cover the curriculum” in the strict sense of checking off objectives from a wide variety of curricular areas. They chose—wisely, we believe—to emphasize the core skills of reading, writing, and mathematics in order to improve student opportunities for success in a wide variety of other academic endeavors later. It is interesting to note parenthetically that, despite their disproportionate emphasis on language arts and mathematics, these schools also significantly out-performed their peer schools on science tests as well. This makes an important point that eludes those who remain committed to a “coverage” model: tests of science, social studies, study skills, and virtually every other subject area are, in fact, tests of reading and writing.

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### **Frequent Assessment of Student Progress with Multiple Opportunities for Improvement**

Many of the high-poverty schools included students whose skills were significantly below grade level in academic achievement as they entered the school. The consistent message of the “90/90/90 Schools” is that the penalty for poor performance is not a low grade, followed by a forced march to the next unit. Rather, student performance that is less than proficient is followed by multiple opportunities to improve performance. Most of these schools conducted weekly assessments of student progress. It is important to note that these assessments *were not* district or state tests, but were assessments constructed and administered by classroom teachers. The consequence of students performing badly was not an admonishment to “Wait until next year!” but rather, the promise that “You can do better next week.”

A frequent challenge to this practice is that students should learn to “get it right the first time.” The flaw in such a statement is the implied assumption that the traditional “one-shot” assessment is successful in leading students to “get it right the first time.” In fact, when students know that there are no additional opportunities to succeed, they frequently take teacher feedback on their performance and stuff it into

desks, back packs, and wastebaskets. Students in this scenario are happy with a “D” and unmotivated by an “F.” After all, there is nothing that they can do about deficient performance anyway. In a classroom assessment scenario in which there are multiple opportunities to improve, however, the consequence for poor performance is not a bad grade and discouragement, but more work, improved performance, and respect for teacher feedback. In this respect, the use of teacher evaluation based on assessment scoring guides looked much more like active coaching after which improvement was required, and much less like final evaluation from which there was no reprieve.

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### **Written Responses in Performance Assessments**

By far, the most common characteristic of the “90/90/90 Schools” was their emphasis on requiring written responses in performance assessments. While many schools with similar demographic characteristics employed frequent assessment techniques, many of the less successful schools chose to emphasize oral student responses rather than written responses. The use of written responses appears to help teachers obtain better diagnostic information about students, and certainly helps students demonstrate the thinking process that they employed to find a correct (or even an incorrect) response to an academic challenge. Only with a written response from students can teachers create the strategies necessary to improve performance for both teacher and learner.

In virtually every school we have evaluated, student scores on creative writing are significantly higher than informative and narrative writing scores. As a result, teachers in the successful “90/90/90 Schools” placed a very high emphasis on informative writing. They typically used a single scoring guide (rubric) to evaluate student writing and applied this scoring guide to every piece of written work. Whether the student was writing a book report, lab report, social studies report, analysis of a sporting event, description of a piece of music, or a comparison of artists, the message was the same: *this* is the standard for good writing, and there are no compromises on these expectations for quality.

The benefits of such an emphasis on writing appear to be two-fold. First, students process information in a much clearer way when they are required to write an answer. They “write to think” and, thus, gain the opportunity to clarify their own thought processes. Second, teachers have the opportunity to gain rich and complex diagnostic information about why students respond to an academic challenge the way that they do. In contrast to the binary feedback (right/wrong) provided by most assessments and worksheets, the use of performance assessments that require written responses allows the teacher to diagnose obstacles to student learning. By assessing student writing, teachers can discern whether the challenges faced by a student are the result of vocabulary issues, misunderstood directions, reasoning errors, or a host of other causes that are rarely revealed by typical tests.

The association between writing and performance in other academic disciplines was striking, and this gets to the heart of the curriculum choices that teachers must make.

At the elementary level, for example, teachers were faced with a formidable set of curriculum standards in both science and writing. Many of the most successful schools reported that they had to sacrifice time allocated to every other curriculum area except reading, writing, and mathematics. Nevertheless, more than 80 percent of the 135 elementary schools in the study improved in science scores in 1998, compared to 1997. The Pearson correlation between writing improvement and science improvement is striking: .74—a large correlation in virtually any area of social science research. This correlation took place without any changes in the science curriculum and few apparent modifications in teaching methods. I would offer the same caution as provided earlier in the chapter that correlation is not causation. Nevertheless, when two variables appear to behave in such a similar way, it is difficult to escape the conclusion that an emphasis on writing improvement has a significant impact on student test scores in other disciplines, including science.

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### External Scoring

Another striking characteristic of the “90/90/90 Schools” was frequent external scoring of assessments. While many schools continue to rely upon the idiosyncratic judgment of individual teachers for a definition of “proficiency,” the high-achieving schools made it clear that no accident of geography or classroom assignment would determine expectations for students. Rather, these schools developed common assessment practices and reinforced those common practices through regular exchanges of student papers. One teacher would exchange papers with another teacher; principals would exchange papers with another school; and in one of the most powerful research findings, principals would take personal responsibility for evaluating student work.

When teachers exchange papers, it is imperative that they have a uniform basis on which to evaluate student work. The degree of agreement among teachers in their use of performance assessment scoring can be measured by “inter-rater reliability.” Reliability, when the term is applied to traditional tests, is a measure of consistency. In the case of measuring consistency in scoring, it is simply the percentage of teachers who score an identical piece of student work the same way. If, for example, ten teachers evaluate a piece of student work, and eight believe that the work is “proficient” and two believe that it is only “progressing,” then there is an 80 percent reliability rating for that test. This degree of reliability—80 percent—is the target at which teachers should aim as they jointly evaluate student work.

It is very unusual (but not unheard of) for that level of agreement to be achieved the first time that teachers jointly score student work. More frequently, there are disagreements among teachers on the evaluation of student work. These disagreements usually stem from one of two causes. First, teachers frequently use implicit scoring criteria that are not part of the official scoring guide. Examples of implicit criteria include such statements as “He should have written in cursive,” or “She *knew* that she should have included that character in her essay.” While these expectations may have been reasonable to these teachers, those criteria did not appear in the scoring guide. It is therefore little wonder that other teachers, who did

not share those implicit expectations, failed to mark students down for these failings.

The second cause of teacher disagreement is the lack of clear specifications in the scoring guide itself. Too frequently a disagreement among evaluators leads to an argument rather than to an exploration of how agreement can be achieved through a revision of the scoring guide. “If we change the definition of proficient from this to that, perhaps we could agree on how to mark this paper.” Words such as these are the basis of a far more meaningful discussion than, “Of *course* it’s proficient! Don’t you *see*?”

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### **Long-Term Sustainable Results without Proprietary Programs**

One of the most powerful findings of the “90/90/90” study is the continuous nature of the success of these schools, even as the poverty of students attending these schools remains intractable. Several of the schools listed below have consistently appeared on the “90/90/90” list, even as students change from year to year, as the effects of poverty grow more onerous, and as parents participating in welfare reform programs are less likely to be at home before and after school. Moreover, these schools are achieving their success without proprietary programs. Let there be no doubt: Our role in this research is as researcher and reporter. None of the “90/90/90 Schools” used a specific “Program” or any other proprietary model in order to achieve their success. On the contrary, we observed effective teachers and administrators using strikingly similar techniques without the assistance of externally imposed methods of instruction. The techniques used by these schools are replicable, but there is certainly not a need for schools to purchase special textbooks, curriculum materials, or secret information to achieve the level of success enjoyed by these schools.

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### **Non-Proprietary Instructional Practices**

In an era in which school leaders appear to engage in a perpetual quest for the magic bullet of educational success, it is noteworthy that none of the “90/90/90 Schools” used an expensive proprietary program to achieve their success. Instead, these schools used consistent practices in instruction and assessment, with support from local teachers. For those who believe that education remains an interactive process that cannot and should not be “teacher-proofed,” these research findings are encouraging. The other edge of this particular razor is that we cannot depend upon proprietary systems to save us. It is the collective work of teachers, students, parents, and leaders that will ultimately lead us out of the present malaise.

Every one of the “90/90/90 Schools” had academic content standards, but so do many ineffective schools. The distinguishing characteristic of the “90/90/90 Schools” was not merely that they had standards, but rather, how the standards were implemented, monitored, and assessed.

## Data from the “90/90/90” Studies

A current list of some of the “90/90/90 Schools” from Milwaukee, Wisconsin, is provided below. These schools have graciously hosted hundreds of visitors in the past few years as their successes have become more widely recognized. Researchers and educators should always be willing to share their sources of information and welcome the reviews of colleagues in the field. However, I cannot help but note how profoundly disturbing it is to me that I am frequently requested—demanded is not too strong a term—to produce the names and locations of these schools. In fact, these schools have received significant public attention through the *Video Journal of Education*, Volumes 802 and 803 (Linton Professional Development Corporation, 1988).

Research should, of course, be subject to verification and scrutiny. Nevertheless, I cannot avoid noticing that in my many years of conducting, writing, and reviewing educational research, I have never seen such a demand for “names, dates, and places” accompany the allegation that children who are poor and children of ethnic minority groups perform badly on tests. When *The Bell Curve* (Herrnstein and Murray, 1994) was published with the widely accepted assertion that children who are black and poor perform badly on academic achievement tests, I cannot recall a single instance of demands for the names of students who were subjects of the studies cited. When I have demonstrated that poor and black children perform well, I am inundated with demands for verification. These demands speak volumes about our expectations of children based on their appearance and economic status.

As this book goes to press, Milwaukee Public Schools, Wisconsin has issued its most recent accountability report. The findings from the latest accountability information are striking. In brief, these findings include the following:

1. **Techniques used by the 90/90/90 Schools are persistent.** The students are still poor and their economic opportunities have not improved. Nevertheless, more than 90% of the students in these schools continue to meet or exceed state standards.
2. **Techniques used by the 90/90/90 Schools are replicable.** The first time the district tracked these schools; only seven 90/90/90 Schools were identified. In the most recent report, 13 schools meet the criteria for this distinguished label.
3. **Techniques used by the 90/90/90 Schools are consistent.** These schools are not lurching from one fad to another. While they differ in some respects with regard to implementation, they are consistent with regard to the following areas of emphasis:
  - Writing—students write frequently in a variety of subjects.
  - Performance Assessment—the predominant method of assessment is performance assessment. This does not mean that these schools never use multiple-choice items. However, it is performance assessment in several

different disciplines that local observers have associated with student progress.

- Collaboration—teachers routinely collaborate, using real student work as the focus of their discussion.
- Focus—teachers in these schools do not try to “do it all” but are highly focused on learning.

Table 19.1

**90-90-90 Schools**

Schools	1998-99 Percent eligible for free and reduced lunch	1998-99 Percent minority	1998-99 Percent scoring at/above basic
Kilbourn	92	92	100
Garden Homes	91	100	100
King Jr.	96	100	98
Westside Academy	95	100	96
Thirty-Seventh Street	98	100	94
Kagel	93	95	93
Thirty-Fifth Street	93	99	93
Pierce	96	96	92
Vieau	91	97	92
Clarke Street	98	100	91
Auer Avenue	94	100	90
Kluge	93	95	90
Urban Waldorf	93	98	90

**90-90-90 Schools** are Milwaukee Public Schools elementary schools with 90% or more of students eligible for free and reduced lunch, 90% or more minority enrollment, and 90% or more of 3rd grade students scoring at/above the basic level on the Wisconsin Reading Comprehension Test. Minority and free/reduced lunch eligibility totals are school-wide and for the 1998-99 school year. Test scores include *all* students tested, not just Regular Education Students.

Many other schools are also achieving at high levels. This list is not exhaustive.

Schools	1998-99 Percent eligible for free and reduced lunch	1998-99 Percent minority	1998-99 Percent scoring at/above basic
Keefe Avenue	93	100	82
Green Bay Avenue	93	100	84
Phillis Wheatley	97	100	81
Lee	98	100	85
Twenty First Street	93	98	78
Lincoln Avenue	91	71	96
Lloyd Street	81	95	89

Schools	1998-99 Percent eligible for free and reduced lunch	1998-99 Percent minority	1998-99 Percent scoring at/above basic
Hawley	67	77	98
Clemens	82	99	86
Hopkins	97	99	87
Brown	89	97	90
Siefert	97	99	82
McNair	88	100	95

DEFINITIONS:

**Proficient**—Competent in the content area. Academic achievement includes mastery of the important knowledge and skills. Test score shows evidence of skills necessary for progress in the academic content area tested.

**Basic**—Academic achievement includes mastery of most of the important knowledge and skills. Test score shows evidence of at least one major flaw in understanding the academic content area tested.

(Source: Milwaukee Public Schools 1998-1999 Accountability Report, Division of Research and Assessment, December 1999)

## Additional Information on Success in Challenging School Environments

As this book goes to press, I continue to hear doubts and challenges that poor students can perform well. Indeed, the charge is frequently leveled that comprehensive accountability systems are disadvantageous for poor schools. In fact, systematic research from comprehensive accountability systems allows us to document and celebrate the success of students in these schools. Two additional sources of research on this subject come from strikingly different sources. Casey Carter, author of the “No Excuses” case studies from the Heritage Foundation (1999), provides a conservative viewpoint. The details of these cases are available at [www.heritage.org](http://www.heritage.org).

A politically liberal viewpoint is often associated with Kati Haycock and the Education Trust (1998). Their landmark research on student success in high poverty schools makes a striking case that these schools are not isolated anecdotes. Indeed, the fundamental finding from the Education Trust studies is that however important demographic variables may appear in their association with student achievement, teaching quality is the most dominant factor in determining student success. It turns out, of course, that teaching quality and subject matter certification is much more likely to occur in economically advantaged schools. The case made by Kati Haycock and others at the Education Trust is clear: the key variable is not poverty,

but teaching quality. While poverty and other demographic variables may be important, they are not determinative in predicting student success.

The consensus of the evidence from very different perspectives is clear: effective teaching and leadership make a difference. The lessons of the 90/90/90 Schools as well as the lessons of other studies provide convincing evidence that accountability systems, properly designed, can provide a wealth of information for those desiring to find the keys to improved achievement for all students.

## Conclusion

Standards and accountability are inextricably linked. The research data needed to pinpoint the most effective tools for educational success will not be available if schools do not systematically gather information in an accountability plan. Moreover, an effective accountability system must be based upon standards rather than norms because the moving target of the “average” offers the worst of both worlds: an impossible challenge and an inadequate challenge. The challenge is impossible because of the mathematical absurdity of expecting “90 percent of students to be above the 50th percentile.” The challenge is inadequate because the target of “above average” is distinctly unchallenging in a nation where “above-average” students do not read, write, or compute very well. The research is clear: Rigorous standards, associated with frequent assessment and other effective techniques, allow students from every economic and ethnic background to succeed. These techniques, along with effective teachers, motivated students, and comprehensive accountability, provide the intersection between equity and excellence.

### Questions for Discussion

1. What implications do the research findings on “90/90/90 Schools” have for your school or district? How would you implement these in your school or district?