RAISING ACHIEVEMENT AND CLOSING GAPS BETWEEN GROUPS:
Lessons for School Board Members from Schools and Districts on the Performance Frontier

Texas Institute for School Boards  National Institute for School Boards
Rod Paige  Santa Fe, NM  July, 2012
First, some good news...

After more than a decade of fairly flat achievement and stagnant or growing gaps, we appear to be turning the corner.
4th-Grade Reading: Record Performance with Gap Narrowing

9-Year-Olds – NAEP Reading

*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES
4th-Grade Math: Record Performance with Gap Narrowing

9-Year-Olds – NAEP Math

*Denotes previous assessment format
Source: NAEP 2008 Trends in Academic Progress, NCES
8th-Grade Reading: Recent Gap Narrowing for Blacks, Less for Latinos

13-Year-Olds – NAEP Reading

Average Scale Score


African American  Latino  White

*Denotes previous assessment format
Source: NAEP 2008 Trends in Academic Progress, NCES
8th-Grade Math: Progress for All Groups, Some Gap Narrowing

13-Year-Olds – NAEP Math

*Denotes previous assessment format
Source: NAEP 2008 Trends in Academic Progress, NCES
Gains are not just among low achievers: Increases at the top, too.

Bottom Line:
When we really focus on something, we make progress!

But now the bad news...
At our current progress, how long will it take us to close the achievement gap?
Trends in Fourth-Grade NAEP Reading Average Scores and Score Gaps by Selected Racial/Ethnic Groups
Closing the Black/White 4th-Grade Reading Achievement Gap

• Between 1992-2009, the gap narrowed from 32 points to 26 points.
• This is a change of 6 points in 17 years, a narrowing rate of .353 points per year.
• At this rate it will take 74 years to close the gap—2083, assuming that the White performance stays the same.
Trends in Eighth-Grade NAEP Reading Average Scores and Score Gaps by Selected Racial/Ethnic groups
Closing the Black/White 8th-Grade Reading Gap

• Between 1992-2009, the gap narrowed from to 30 to 26 points.

• This means that the gap closed 4 points in 17 years, a rate of .235 points per year.

• At this rate, it will take 110.64 years to close the gap—2120, assuming no White performance growth.
And, while we at least have had some traction in elementary and middle schools, the same is NOT true of our high schools.

Gaps between groups in high school are mostly wider today than in the late eighties, early nineties.
12th-Grade Reading: No Progress, Gaps Wider than 1988

17-Year-Olds – NAEP Reading

*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES
12th-Grade Math: Results Mostly Flat Gaps Same or Widening

17-Year-Olds – NAEP Math

*Denotes previous assessment format

Source: NAEP 2008 Trends in Academic Progress, NCES
And no matter how you cut the data, our students aren’t doing well compared to their peers in other countries.
PISA 2003 Math
Of 29 OECD countries, U.S. ranked 24th.

Source: PISA 2003 Results, OECD
PISA 2006 Science
Of 30 OECD countries, U.S. ranked 21st.

[Bar chart showing average scale scores for different countries, with the U.S. ranked 21st.]

Higher than U.S. average □ Not measurably different from U.S. average □ Lower than U.S. average

PISA 2003 Problem Solving
Of 29 OECD countries, U.S. ranks 24th.

Source: PISA 2003 Results, OECD
Only place we rank high?

Inequality
PISA 2003

Gaps in performance of U.S. 15-year-olds are among the largest of OECD countries.

<table>
<thead>
<tr>
<th>Rank in Performance Gaps Between Highest and Lowest Achieving Students *</th>
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</thead>
<tbody>
<tr>
<td><strong>Mathematical Literacy</strong></td>
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<tr>
<td><strong>Problem Solving</strong></td>
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*Of 29 OECD countries, based on scores of students at the 5th and 95th percentiles.

Among OECD countries, U.S. has the 4th largest gap in science between high-SES and low-SES students.

Source: PISA 2006 Results, OECD, Table 4.8b.
Among OECD countries, U.S. has the 5th largest gap in reading between high-SES and low-SES students.

Source: PISA 2009 Results, OECD, Table II.3.1.
These gaps begin before children arrive at the schoolhouse door.
But, rather than organizing our educational system to ameliorate this problem, we organize it to exacerbate the problem.

How?

By giving students who arrive with less, less in school, too.
Some of these “lesses” are a result of choices that other people—including state policymakers—make.
# National Inequities in State and Local Revenue Per Student

<table>
<thead>
<tr>
<th>Gap</th>
<th>High-Poverty vs. Low-Poverty Districts</th>
<th>High-Minority vs. Low-Minority Districts</th>
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<tr>
<td></td>
<td>–$773 per student</td>
<td>–$1,122 per student</td>
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</table>

In truth, though, some of the most devastating “lesses” are a function of choices...
Choices we make about what to expect of whom...
Students in poor schools receive A’s for work that would earn C’s in affluent schools.

Choices we make about what to teach whom...
African American, Latino, and Native American high school graduates are less likely to have been enrolled in a full college prep track.

Full college prep track is defined as at least: 4 years of English, 3 years of math, 2 years of natural science, 2 years of social science and 2 years of foreign language.

And choices we make about who teaches whom...
More classes in high-poverty, high-minority schools are taught by out-of-field teachers.

- **High poverty**: 34%
- **Low poverty**: 19%
- **High minority**: 29%
- **Low minority**: 21%

**Note:** High Poverty school—50% or more of the students are eligible for free/reduced price lunch. Low-poverty school—15% or fewer of the students are eligible for free/reduced price lunch.

High-minority school—50% or more of the students are nonwhite. Low-minority school—15% or fewer of the students are nonwhite.

*Teachers lacking a college major or minor in the field. Data for secondary-level core academic classes.*

Poor and minority students get more inexperienced* teachers

*Teachers with 3 or fewer years of experience.

Note: High poverty refers to the top quartile of schools with students eligible for free/reduced price lunch. Low poverty—bottom quartile of schools with students eligible for free/reduced price lunch. High minority—top quartile; those schools with the highest concentrations of minority students. Low minority—bottom quartile of schools with the lowest concentrations of minority students.

Results are devastating.

Kids who come in a little behind, leave a lot behind.
African American and Latino 17-year-olds do math at the same levels as White 13-year-olds.

Note: Long-Term Trends NAEP
Source: National Center for Education Statistics, NAEP 2004 Trends in Academic Progress
African American and Latino 17-year-olds read at the same levels as White 13-year-olds

<table>
<thead>
<tr>
<th>Average Scale Score</th>
<th>Percent of Students</th>
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<tbody>
<tr>
<td>150</td>
<td>0%</td>
</tr>
<tr>
<td>200</td>
<td>100%</td>
</tr>
<tr>
<td>250</td>
<td>100%</td>
</tr>
<tr>
<td>300</td>
<td>0%</td>
</tr>
<tr>
<td>350</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: National Center for Education Statistics, NAEP 2004 Trends in Academic Progress

Note: Long-Term Trends NAEP
And these are the students who remain in school through 12th grade. Add those all up and throw in college entry and graduation, and...
B.A. Rate by Age 24

2009

Source: Postsecondary Education Opportunity, "Bachelor's Degree Attainment by Age 24 by Family Income Quartiles, 1970 to 2008."
What Can We Do?

An awful lot of Americans have decided that we can’t do much.
What We Hear Many Educators Say:

• They’re poor.
• Their parents don’t care.
• They come to schools without breakfast.
• There are not enough books.
• There are not enough parents.

Source:
But if they are right, why are low-income students and students of color performing so much higher in some schools. There are examples of high-performing schools with high percentages of low-income students all over Texas and all over the U.S.
There are very big differences at the district level, too—even in the performance of the “same” group of students.
Low-Income African American Students do Better in Some Districts (NAEP Reading 4th 2003)

* There is a 19-point gap between poor African American 4th graders in the District of Columbia and Boston—roughly equivalent to 2 years’ worth of learning


* There is a 28-point gap between poor African American 8th graders in Los Angeles and Houston—roughly equivalent to 3 years’ worth of learning

Bottom Line:
At every level of education, what we do matters!

But what do we know about how to accelerate success?

What do high-performing districts do?
#1. They focus on what they *can* do, rather than what they *can’t*. 
#2. They don’t leave anything about teaching and learning to chance.
An awful lot of our teachers—even brand new ones—are left to figure out on their own what to teach and what constitutes “good enough” work.

Sure, they are supposed to teach to standards.

But the standards we’ve been using are often pretty vague.
Sample Language Arts Standard: Grade 9
“The student will develop and apply expansive knowledge of words and word meanings to communicate.”

Sample Language Arts Standard: Grade 10
“The student will develop and apply expansive knowledge of words and word meanings to communicate.”

Sample Language Arts Standard: Grade 11
“The student will develop and apply expansive knowledge of words and word meanings to communicate.”

Sample Language Arts Standard: Grade 12
“The student will develop and apply expansive knowledge of words and word meanings to communicate.”
Sample History Standard

“Students understand how science, technology and economic activity have developed, changed and affected societies throughout history.”
What does this do?

It leaves teachers entirely on their own to figure out WHAT to teach, WHAT ORDER to teach it in, HOW to teach it ... and to WHAT LEVEL.
High Performing Schools and Districts...

• Have clear and specific goals for what students should learn in every grade, including the order in which they should learn it
• Provide teachers with common curriculum, assignments
• Have regular vehicle to assure common marking standards
• Assess students every 4-8 weeks to measure progress
• Act immediately on the results of those assessments
In other words, they strive for consistency in everything they do.

And they bring that consistency to school discipline, as well.
#3. They set their goals high.
In elementary school...

M. Hall Stanton Elementary:
Percent of 5th Graders ADVANCED

<table>
<thead>
<tr>
<th>Year</th>
<th>Reading</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2005</td>
<td>30</td>
<td>42</td>
</tr>
</tbody>
</table>
In high school...

Even when they start with high drop out rates, high impact high schools focus on preparing all kids for college and careers

Education Trust 2005 study, “Gaining Traction, Gaining Ground”

And the leaders don’t think about closing the achievement gap only as “bringing the bottom up.”
African American and Latino students are not making gains at the *advanced level* at the same rate as white students.

**NAEP – Grade 8 Math**

Source: NAEP Data Explorer, NCES
Lower-income students are not making gains at the *advanced level* at the same rate as higher-income students.

**NAEP – Grade 8 Math**

Source: NAEP Data Explorer, NCES
#4. Higher-performing secondary schools put all kids—not just some—in a demanding high school core curriculum.
Single biggest predictor post-high school success is QUALITY AND INTENSITY OF HIGH SCHOOL CURRICULUM.

Low-quartile students gain more from college prep courses.

Grade 8-Grade 12 Test Score Gains Based on 8th-Grade Achievement

Challenging curriculum results in lower failure rates, even for lowest achievers.

Ninth-grade English performance, by high/low level course, and eighth-grade reading achievement quartiles

And they’ll be better prepared for the workplace.

Leading states, districts are making college prep the default curriculum.

Many others now require advanced coursework—AP or IB—for all students.
#5. Principals are hugely important, ever present, but NOT the only leaders in the school.
In high-performing schools...

- Teachers regularly observe other teachers
- Teachers have time to plan and work collaboratively
- New teachers get generous and careful support and acculturation
- Teachers take on many other leadership tasks at the school
#6. Good schools know how much teachers matter, and they act on that knowledge.
Students in Dallas gain more in math with effective teachers: One-year growth from 3\textsuperscript{rd} to 4\textsuperscript{th} grade

Cumulative Teacher Effects On Students’ Math Scores in Dallas (Grades 3-5)

Beginning Grade 3 Percentile Rank = 55
Beginning Grade 3 Percentile Rank = 57

76
27

Dallas Students Assigned to 3 Highly Effective Teachers in a Row
Dallas Students Assigned to 3 Ineffective Teachers in a Row

So, there are VERY BIG differences among our teachers.

BUT...

We pretend that there aren’t.
The Widget Effect

“When it comes to measuring instructional performance, current policies and systems overlook significant differences between teachers. There is little or no differentiation of excellent teaching from good, good from fair, or fair from poor. This is the Widget Effect: a tendency to treat all teachers as roughly interchangeable, even when their teaching is quite variable. Consequently, teachers are not developed as professionals with individual strengths and capabilities, and poor performance is rarely identified or addressed.”

• The New Teacher Project, 2009
In districts that use a two-rating teacher performance evaluation system—most commonly "satisfactory" or "unsatisfactory"—the "unsatisfactory" rating is rarely used.

<table>
<thead>
<tr>
<th>Site</th>
<th>S: Number of Satisfactory Evaluation Ratings SY03-04 - SY07-08</th>
<th>U: Number of Unsatisfactory Evaluation Ratings SY03-04 - SY07-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver</td>
<td>2,676</td>
<td>22 (0.8%)</td>
</tr>
<tr>
<td>Jonesboro</td>
<td>246</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Pueblo</td>
<td>1,284</td>
<td>2 (0.2%)</td>
</tr>
<tr>
<td>Toledo</td>
<td>1,768</td>
<td>3 (0.2%)</td>
</tr>
</tbody>
</table>

All data for tenured/non-probationary teachers.
1 Source: District extant data supplied between April 2008 and March 2009
2 Source: District extant data supplied between April 2008 and March 2009
3 Number evaluation ratings assigned between SY 2003-04 to SY 2007-08
4 Number of evaluation ratings assigned between SY 2003-04 to SY 2005-06
5 Number of evaluation ratings assigned between SY 2005-06 to SY 2007-08
6 Number of evaluation ratings assigned between SY 2005-06 to SY 2007-08

Source: The New Teacher Project 2009
Districts that use multiple evaluation ratings—three or more ratings—regularly award teachers the highest evaluation ratings.

Estimated percent of tenured/non-probationary teachers who received one of the top two highest performance evaluation ratings for evaluations conducted in SY 2007-08.

- **99%**  
  Cincinnati  
  (Based on a 4-Rating Scale)

- **98%**  
  Rockford  
  (Based on a 3-Rating Scale)

Source: District evaluation data supplied by Cincinnati Public Schools and Rockford Public Schools human resources departments from October 2008 to March 2009.
So, we paper over the differences among our teachers AND we continue to assign our weakest to the kids who need the strongest.
Math classes at high-poverty and high-minority schools are more likely to be taught by out-of-field* teachers.

Note: High Poverty school—75% or more of the students are eligible for free/reduced price lunch. Low-poverty school—15% or fewer of the students are eligible for free/reduced price lunch. High minority school—75% or more of the students are Black, Hispanic, American Indian or Alaskan Native, Asian, or Pacific Islander. Low-minority school—10% or fewer of the students are non-White students.

*Teachers with neither certification nor major. Data for secondary-level core academic classes (Math, Science, Social Studies, English) across USA.

Students at high-minority schools are more likely to be taught by novice* teachers.

Note: High minority school—75% or more of the students are Black, Hispanic, American Indian or Alaskan Native, Asian or Pacific Islander. Low-minority school—10% or fewer of the students are nonwhite students.

*Novice teachers are those with three years or fewer experience.

Low-achieving students are more likely to be assigned to ineffective teachers than effective teachers.

High-performing schools and districts...

• Work hard to attract and hold good teachers
• Make sure that their best are assigned to the students who most need them
• Chase out teachers who are not “good enough” for their kids
Ten Questions for School Board Members to Ask

1. How are we assuring consistency in the rigor of the assignments our students get?
2. Are our teachers getting the feedback and support they need to grow? Are our strongest (and weakest) teachers fairly distributed?
3. Do we have a pipeline of strong leaders?
4. Are we aiming high for everybody’s children?
5. Do all of our students complete the curriculum that will enable them to choose post-high school paths—or are we choosing for them?

Source:
6. Are participation rates in advanced options equal?
7. How do we provide supports for struggling students?
8. How many of our students are chronically absent? What are we doing about that?
9. Are parents partners or the excuse we use when things aren’t going well?
10. How equitably are our resources distributed? Do the kids who need the most get the most, or is the playing field tipped in the other direction?
Asking some of those questions won’t win you any popularity contest.

Indeed, it will take some courage to ask—and to insist on honest answers.