**Notes and Handout Materials for PMI SIG Meeting, 1/10/12**

**Quality in Education**

**Richard Ferricane, PMP**

State of US education:

1. International:
   1. 14 out of 34 (reading)
   2. 25 out of 34 (math)
   3. 17 out 04 34 (science)
2. NAEP results (handout)

US government initiatives:

1. NCLB
   1. States set standards, but they were watered down, hence Common Core.
2. Race to the Top
   1. $4.3 billion; awarded to 11 states + DC
   2. All have scaled back or postponed, including NY. (today’s NYT, WSJ article)
   3. Main problem:
      1. Detailed student grade db
      2. Teacher, administrator evaluation (vs. union resistance); grades = 20%, not 40%, upheld by court.
   4. Some progress w/ curriculum standards (Common Core)

Quality initiatives include:

1. Instituting quality management system: e.g., w/ focus on student achievement, student engagement, customer satisfaction, operational efficiency.
2. Creating school and classroom mission statement
3. Examining all processes (e.g., food service, emergency handling).
4. PDSA (plan-do-study-act)
5. Customer surveys (i.e., to parents)
6. Heavily data driven.
7. Goal setting
8. Benchmarking
9. Leadership as key component.
10. Also organization and communications.
11. Changing culture: “continuous improvement”
12. Building trust w/ staff and parents.
13. Assessing student engagement.
14. Curriculum changes (e.g., selecting specific math or literacy program)
15. Rewarding, celebrating student achievement (e.g., writing samples published in newsletter).
16. Measuring “value added” by teachers.
17. Instituting ISO 9001, Baldridge, Kepner-Tregoe (situational analysis, decision analysis).
18. Business community sometimes helps defray costs.

**In ranking, U.S. students trail global leaders**

Posted 12/7/2010 2:55 PM

South Korean students, seen Nov. 18 in Seoul, scored among the highest in the world on the 2009 Programme for International Student Assessment. The United States' highest ranking was 14th.

Enlarge image Enlarge By Chung Sung-Jun, Getty Images

South Korean students, seen Nov. 18 in Seoul, scored among the highest in the world on the 2009 Programme for International Student Assessment. The United States' highest ranking was 14th.

The Associated Press

United States students are continuing to trail behind their peers in a pack of higher performing nations, according to results from a key international assessment.

Scores from the 2009 Programme for International Student Assessment to be released Tuesday show 15-year-old students in the U.S. performing about average in reading and science, and below average in math. Out of 34 countries, the U.S. ranked 14th in reading, 17th in science and 25th in math.

Those scores are all higher than those from 2003 and 2006, but far behind the highest scoring countries, including South Korea, Finland and Singapore, Hong Kong and Shanghai in China and Canada.

"This is an absolute wake-up call for America," U.S. Education Secretary Arne Duncan said in an interview with The Associated Press. "The results are extraordinarily challenging to us and we have to deal with the brutal truth. We have to get much more serious about investing in education."

ADVANCE PLACEMENT: Good for top students, oversold to others?

STUDY: Students more stressed now than during Depression?

The PISA exam is one of a handful of tests that compare educational levels across nations, and is considered to be the most comprehensive. The test focuses on how well students are able to apply their knowledge in math, reading and science to real-life situations. Some 470,000 students took the test in 2009 in 65 countries and educational systems, from poor, underdeveloped nations to the most wealthy.

Student performance on international assessments is considered especially relevant as today's high school graduates enter a global job market, where highly skilled workers are in increasing demand.

The United States' mediocre scores on the PISA exam have repeatedly been highlighted by the Obama administration and others pushing for education reform. A number of countries have made significant improvements in recent years, while the U.S. has made only incremental advancements.

Between 1995 and 2008, for example, the United States slipped from ranking second in college graduation rates to 13th, according to the Organisation for Economic Co-operation and Development, the Paris-based organization that develops and administers the PISA exam. Of 34 OECD countries, only 8 have a lower high school graduation rate.

Responding to the grim figures, President Obama has set a goal for the U.S. to have the highest proportion of students graduating from college in 2020.

"We live in a globally competitive knowledge based economy, and our children today are at a competitive disadvantage with children from other countries," Duncan said. "That is absolutely unfair to our children and that puts our country's long term economic prosperity absolutely at risk."

The impact of improving math, reading and science scores could be radical: A recent OECD study with Stanford University projected that if the U.S. boosted its average PISA scores by 25 points over the next 20 years, there would be a gain of $41 trillion in the U.S. economy over the lifetime of the generation born in 2010.

The 2009 exam had an extra focus on reading, and looked at how factors such as family background, equity of resources, and governance influence educational outcomes.

The top performers in reading were South Korea, Finland, Hong Kong and Shanghai in China, Singapore, Canada, New Zealand, Japan and Australia.

The gap between the highest performing countries and the United States is stark — students in Shanghai, for example, had an average score of 556 points in reading, 56 points higher than the 500-point average reached by United States students. Shanghai students also posted the highest score in math, with an average of 600 points, 113 points higher than the 487 point U.S. average.

OECD Secretary-General Angel Gurria cited ongoing evaluations, an emphasis on the importance of education, and a curriculum that is relevant to everyday life as reasons for the Chinese success.

"They don't only produce children who know the matters by heart," Gurria said. "They're educated to understand and face the challenges of real life."

He noted that the Chinese scores were strong in all three subject areas.

"That speaks about who is going to be leading tomorrow," Gurria said.

The Shanghai and Hong Kong results are certainly unrepresentative of China as a whole — additional results from other regions will be release next year, but Andreas Schleicher, head of the Indicators and Analysis Division at the OECD said he didn't expect much variation.

The report also notes that the GDP per capita in Shanghai is well below the OECD average — highlighting another finding of the study: Low national income does not necessarily signify poor educational performance. South Korea, another top performer, also has a GDP below the OECD average.

"While national income and educational achievement are still related, PISA shows that two countries with similar levels of prosperity can produce very different results," Gurria said. "This shows that an image of a world divided neatly into rich and well-educated countries and poor and badly education countries is now out of date."

The United States spends more per student, on average, than other countries. In the 2009 PISA study, only Luxembourg spent more per student. The report notes that countries like Estonia and Poland perform at about the same level as the United States, while spending less than half the amount per student.

"I think we have to invest in reform, not in the status quo," Duncan said.

The PISA study does not look to draw cause-and-effect relationships, but does highlight some findings about what the top performing countries tend to have in common.

Schleicher noted that some of the top systems are centralized, while others are very decentralized. There was also much variation in class sizes, with some of the best performers finding success in putting quality teachers in larger classes. But in each case, teachers are subject to evaluations and have a high standing in society. Also, schools have a degree of autonomy in determining their curriculum — but are also held accountable.

"In other words, autonomy without accountability would be a very bad outcome," he said.

He said many of the things the United States is doing, such as developing common academic standards and smarter assessment systems, are important, positive changes.

"What we have seen from other countries doing similar things is those initiatives do pay off in the longer term," Schleicher said.

The study found that the best school systems were also the most equitable, meaning students from disadvantaged backgrounds were just as likely to do well academically. In the U.S., 17% of the variation in student performance was found to be related to a pupil's background — compared to 9%, for example, in Canada.

The report notes that Canadian 15-year-olds, on average, perform more than one school year ahead in math than 15-year-olds in the United States, and more than a half year ahead in reading and science. Canada, like the U.S., has a decentralized education system.

"Canada's experiences raise questions about why the United States has so far not equaled the performance of it northern neighbour," the report states.

Mexico had the lowest reading score among OECD member countries, with an average of 425 points — the equivalent of more than two school years behind the highest member score. Among all 2009 participants, there was a gap of 242 points between the highest and lowest reading scores — equal to more than six years of schooling.

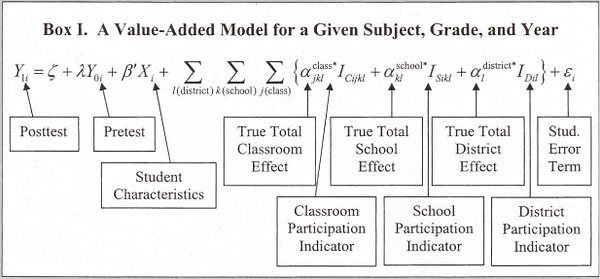
Mexico was commended for reducing the number of low performers in reading, and for improving math scores.

Gurria said the report's overall message is that, "Even in this crisis and even with the expenditure cuts, keep on supporting the education but also look at what successful systems have in common. They all can be very different but they have in common a number of features that can really make for better systems."

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**On Education**

**Evaluating New York Teachers, Perhaps the Numbers Do Lie**



A statistical model the school system uses in calculating the effectiveness of teachers.

**By** [**MICHAEL WINERIP**](http://topics.nytimes.com/top/reference/timestopics/people/w/michael_winerip/index.html?inline=nyt-per)

**Published: March 6, 2011**

No one at the [Lab Middle School for Collaborative Studies](http://schools.nyc.gov/schoolportals/02/m312/default.htm) works harder than Stacey Isaacson, a seventh-grade English and social studies teacher. She is out the door of her Queens home by 6:15 a.m., takes the E train into Manhattan and is standing out front when the school doors are unlocked, at 7. Nights, she leaves her classroom at 5:30.



**Chang W. Lee/The New York Times**

Though her principal praised her work, Stacey Isaacson received a poor ranking in a statistical model used by New York City schools to evaluate teachers.

“She’s very dedicated,” said Tejal Bahtt, a fellow teacher. “She works way harder than I work. Yesterday I punched in at 7:10 and her time card was already there.”

Last year, when Ms. Isaacson was on maternity leave, she came in one full day a week for the entire school year for no pay and taught a peer leadership class.

Her principal, Megan Adams, has given her terrific reviews during the two and a half years Ms. Isaacson has been a teacher. “I know that this year had its moments of challenge — you always handled it with grace and presence,” the principal wrote on May 4, 2009. “You are a wonderful teacher.”

On the first day of this school year, the principal wrote, “I look forward to being in your classroom and seeing all the great work you do with your students,” and signed it with a smiley face.

The Lab School has selective admissions, and Ms. Isaacson’s students have excelled. Her first year teaching, 65 of 66 scored proficient on the state language arts test, meaning they got 3’s or 4’s; only one scored below grade level with a 2. More than two dozen students from her first two years teaching have gone on to [Stuyvesant High School](http://topics.nytimes.com/top/reference/timestopics/organizations/s/stuyvesant_high_school/index.html?inline=nyt-org) or [Bronx High School of Science](http://topics.nytimes.com/top/reference/timestopics/organizations/b/bronx_high_school_of_science/index.html?inline=nyt-org), the city’s most competitive high schools.

“Definitely one of a kind,” said Isabelle St. Clair, now a sophomore at Bard, another selective high school. “I’ve had lots of good teachers, but she stood out — I learned so much from her.”

You would think the Department of Education would want to replicate Ms. Isaacson — who has degrees from the [University of Pennsylvania](http://topics.nytimes.com/top/reference/timestopics/organizations/u/university_of_pennsylvania/index.html?inline=nyt-org) and Columbia — and sprinkle Ms. Isaacsons all over town. Instead, the department’s accountability experts have developed a complex formula to calculate how much academic progress a teacher’s students make in a year — the teacher’s value-added score — and that formula indicates that Ms. Isaacson is one of the city’s worst teachers.

According to the formula, Ms. Isaacson ranks in the 7th percentile among her teaching peers — meaning 93 per cent are better.

This may seem disconnected from reality, but it has real ramifications. Because of her 7th percentile, Ms. Isaacson was told in February that it was virtually certain that she would not be getting tenure this year. “My principal said that given the opportunity, she would advocate for me,” Ms. Isaacson said. “But she said don’t get your hopes up, with a 7th percentile, there wasn’t much she could do.”

That’s not the only problem Ms. Isaacson’s 7th percentile has caused. If the mayor and governor have their way, and layoffs are no longer based on seniority but instead are based on the city’s formulas that scientifically identify good teachers, Ms. Isaacson is pretty sure she’d be cooked.

She may leave anyway. She is 33 and had a successful career in advertising and finance before taking the teaching job, at half the pay.

“I love teaching,” she said. “I love my principal, I feel so lucky to work for her. But the people at the Department of Education — you feel demoralized.”

How could this happen to Ms. Isaacson? It took a lot of hard work by the accountability experts.

Everyone who teaches math or English has received a [teacher data report](http://www.nytimes.com/2009/09/09/nyregion/09teachers.html). On the surface the report seems straightforward. Ms. Isaacson’s students had a prior proficiency score of 3.57. Her students were predicted to get a 3.69 — based on the scores of comparable students around the city. Her students actually scored 3.63. So Ms. Isaacson’s value added is 3.63-3.69.

What you would think this means is that Ms. Isaacson’s students averaged 3.57 on the test the year before; they were predicted to average 3.69 this year; they actually averaged 3.63, giving her a value added of 0.06 below zero.

Wrong.

These are not averages. For example, the department defines Ms. Isaacson’s 3.57 prior proficiency as “the average prior year proficiency rating of the students who contribute to a teacher’s value added score.”

Right.

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The calculation for Ms. Isaacson’s 3.69 predicted score is even more daunting. It is based on 32 variables — including whether a student was “retained in grade before pretest year” and whether a student is “new to city in pretest or post-test year.”

Those 32 variables are plugged into a statistical model that looks like one of those equations that in “Good Will Hunting” only [Matt Damon](http://movies.nytimes.com/person/16762/Matt-Damon?inline=nyt-per) was capable of solving.

The process appears transparent, but it is clear as mud, even for smart lay people like teachers, principals and — I hesitate to say this — journalists.

Ms. Isaacson may have two [Ivy League](http://topics.nytimes.com/top/reference/timestopics/organizations/i/ivy_league/index.html?inline=nyt-org) degrees, but she is lost. “I find this impossible to understand,” she said.

In plain English, Ms. Isaacson’s best guess about what the department is trying to tell her is: Even though 65 of her 66 students scored proficient on the state test, more of her 3s should have been 4s.

But that is only a guess.

Moreover, as the city indicates on the data reports, there is a large margin of error. So Ms. Isaacson’s 7th percentile could actually be as low as zero or as high as the 52nd percentile — a score that could have earned her tenure.

Teachers are eligible for tenure in their third year. To qualify, a teacher must be rated “effective” in three categories: instructional practices, including observations by the principal; contribution to the school community; and student achievement, including the [teacher data report](http://www.theepochtimes.com/n2/united-states/teachers-union-denounces-teacher-data-reports-47758.html). Ms. Isaacson was rated effective on the first two.

The past chancellor, [Joel I. Klein](http://topics.nytimes.com/top/reference/timestopics/people/k/joel_i_klein/index.html?inline=nyt-per), [imposed new policies to make tenure harder to earn](http://www.nytimes.com/2010/11/10/nyregion/10klein.html?pagewanted=2).

In an e-mail, Matthew Mittenthal, a department spokesman said: “We are saying that a teacher’s tenure decision should simply be delayed (not denied) until that teacher has demonstrated effective practice for consecutive years in all three categories. The alternative is what we’ve had in the past — 90-plus percent of teachers who are up for tenure receive it. Do you think journalists deserve lifetime jobs after their third year in the business?”

The view seems to be gaining support.

However, the number of years that it should take to earn tenure does not get to the heart of the problem.

The tougher question, says Ms. Isaacson, is how to create a system that will fairly evaluate teachers, whether it is used to grant tenure or lay off teachers. “I don’t have a problem looking at teachers based on merit,” she said. “Every job I had, I was evaluated based on merit.”

Marya Friedman, a sophomore at Bronx Science, describes Ms. Isaacson as brimming over with merit. “I really liked how she’d incorporate what we were doing in history with what we did in English,” Marya said. “It was much easier to learn” — which, of course, is what great teachers strive for.

[end]