

Restructuring Public Education

Key Points and Commentary

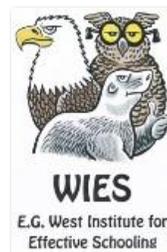
By John Merrifield and
Courtney O'Sullivan

A Colloquium Co-sponsored by
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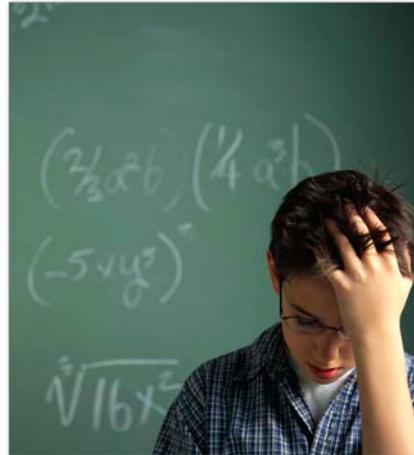
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Key Points and Commentary from the NCPA Colloquium on Restructuring Public Education

by John Merrifield and Courtney O'Sullivan

Business, education and elected officials came together at the National Center for Policy Analysis' first Education Colloquium on February 23 to discuss challenges and reform opportunities for public education. Attendees were invited because they represent significant stakeholders in educational outcomes, and to provide perspectives on why there is so much dissatisfaction with the performance of the current system and what policies have the best chance of significantly improving academic outcomes.¹ The future of our nation depends heavily on what is done to transform schooling in America.



Panelists included Linus Wright, an undersecretary of education during the Reagan administration and a former superintendent of the Dallas Independent School District; Texas State Senator Florence Shapiro, chair of the Senate Education Committee; Jim Keyes, chairman and chief executive officer of Blockbuster and founder of Education Is Freedom; John Ellis Price, president of the University of North Texas at Dallas; and David Chard, dean of the Annette Caldwell Simmons School of Education and Human Development at Southern Methodist University.

Essential Reforms of Primary and Secondary Education. After a brief introduction from NCPA Chairman and former Delaware Governor Pete du Pont, Dr. Linus Wright presented his reform ideas, laying out his roadmap to a much-improved school system.² He emphasized five things he hoped attendees would take away from the colloquium:

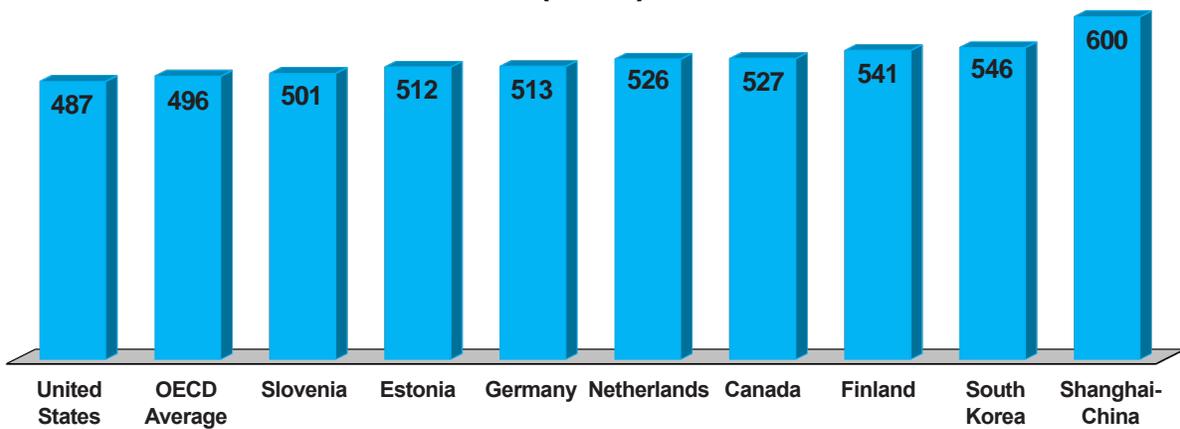
- ⇒ America's school system outcomes are far worse than the public believes or understands.³ [See Figure I.]
- ⇒ America must find a way to raise educational achievement in all areas for all students.
- ⇒ We will not achieve steady, broad-based economic growth without a much-improved education system.
- ⇒ America must reduce the dropout rate and reduce the cost of formal schooling.
- ⇒ Funding is not the problem and future changes must be made with the funds available.

Albert Einstein defined insanity as doing the same thing over and over again and expecting different results. Texas State Senator Florence Shapiro said that is what we have been doing in public education. Others have called it “more-of-the-same-harder,” or the “same thing over-and-over.” Even the most obsolete traditions are quite persistent. Recognizing that problem, Dr. Wright’s reform proposals would restructure public education. Restructuring, however, would not address many of the key impediments to student engagement — the active participation of the student in the process of learning critical curriculum. Some of the attendees made a strong plea for a totally different system from the one that produced the current crisis, but did not elaborate on what changes in governance or funding would form the basis for a new, better system.

Early Childhood Education. All of the speakers emphasized the importance of quality early childhood education. Wright noted that research demonstrates the most economical and effective way to improve academic achievement is to begin with three and four year olds, especially non-English speaking students and children from backgrounds of poverty.⁴ He suggested additional early schooling could be funded to a great extent by eliminating the formal 12th grade.

Dr. David Chard pointed to the federal Early Reading First and Reading First programs as successes. Early Reading First supports the implementation of programs focusing on all areas of development, especially early language, cognitive and pre-reading skills.⁵ Reading First provides states and districts with assistance to establish scientifically based reading programs for K-3 students.⁶ The results so far for both programs are promising. Consider the most recent data from Early Reading First:⁷

Figure I
PISA Mathematics Scores for Select OECD Countries
(2009)



Source: “Comparing Countries’ and Economies’ Performance,” Organization for Economic Cooperation and Development, 2010.

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- ⇒ Nearly 70 percent of kindergarteners formerly enrolled in an Early Reading First program for at least one year prior to entry into kindergarten scored in the 50th percentile or above as measured by the Woodcock-Johnson III, Letter-Word Identification (Test 1) subtest.
 - ⇒ More than 90 percent achieved a standard score above the “at risk” range as measured by the same Woodcock-Johnson subtest.
 - ⇒ More than 80 percent of program participants demonstrated age-appropriate oral language skills as measured by the Peabody Picture Vocabulary Test.

The Reading First Program has seen similarly promising outcomes:⁸

- ⇒ In first grade, 44 of 50 state educational agencies reported increases in the percentage of students proficient in reading comprehension.
- ⇒ Thirty-nine of 52 reported improvement in second grade.
- ⇒ Twenty-seven of 35 agencies reported improvement in third grade.

However, while studies have found significant “head start” effects in young students, especially in historically disadvantaged groups, there is less awareness that those effects disappear as children move through the current system. That is, the academic benefits fade as children reach later grades.⁹ At the front end of a more effective system, early childhood education could create significant lasting benefits.¹⁰



Customizing Education. A major theme throughout all the presentations was the need for customization of instruction to address the great diversity in how children learn and what sustains their engagement in learning processes. Senator Shapiro mentioned the book *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*,¹¹ which says the current system struggles because students enrolled in traditional public schools are mostly sorted by neighborhood and age, rather than by subject matter preferences, the thematic emphasis of school curricula and learning styles. These issues can often be addressed by selectively substituting software-driven electronic instruction for traditional face-to-face group instruction.

Several colloquium participants noted the current system’s failure to embrace technology as a way to deliver content to better engage some children in some subjects. Technology can help schools break free from the time-worn practice of attempting to teach the vast majority the same things in the same ways and at the same pace — a well-documented recipe for low academic achievement.

Governor du Pont noted that parental choice (of school or instruction within schools) is an essential element of customization. However, the colloquium did not explore the significance of various specific policy options, such as parental choice.¹²

One participant, Forrest Hoglund, CEO of Hoglund Interests, used the animated, web-based math curriculum Reasoning Mind as an example of how technology can customize learning. Reasoning Mind partners with schools to deliver a hybrid of online/face-to-face math instruction that allows children to learn at their own pace. This delivery method enables teachers to give each child individual help and attention.¹³

“To date, every school that has used Reasoning Mind has had improved student test scores.”

The program has proved successful. For example, 82 percent of students using Reasoning Mind at Codwell Elementary School in Houston, Texas, passed the 2009 fifth grade Texas Assessment of Knowledge and Skills math test on their first try compared with just 52 percent of Codwell fifth graders not using Reasoning Mind.¹⁴

Organized similar to a video game where there are different levels that must be “beaten” in order to advance to the next stage, the Reasoning Mind curriculum forces students to master certain mathematical concepts in order to progress. If they do not master the concepts, they cannot move on. Because students can access the curriculum from the Internet, they can work on the program at any time.¹⁵ The effectiveness of the software makes Reasoning Mind an ideal supplementary curriculum to traditional math instruction in the second through fourth grades. In the fifth grade, the program can replace the traditional instruction and become the core curriculum.

Technology like Reasoning Mind should be integrated into public schools to help customize the learning experience and better meet students’ needs. Last year, Dallas Independent School District allocated \$1.8 million to the program and another \$2 million from donations. The combined cost of the program is about \$250 per student, with the district paying \$150 of that amount.¹⁶ The program has been implemented for all second graders in the district, affecting 13,000 students. District administrators are planning to implement it in 2012–2013 for third and fourth graders.¹⁷

Throughout the day, teachers are able to obtain detailed reports on the strengths and weaknesses of each student through use of the software. Teachers will update each other on best practices at workshops. This helps further the goal of teachers getting all students prepared for the next grade. According to the program’s advocates, students will receive five times the

amount of personal instruction they would get using traditional classroom teaching methods.

To date, every school that has used Reasoning Mind has had improved student test scores.

Reasoning Mind could have an enormous impact on education and be extended into other subject areas. The program's proponents tout that, in addition to improving a student's mathematical foundation, it also helps them attain and develop critical thinking skills and practice independent learning strategies.¹⁸



Accountability for Educators.

Legislators must be held accountable for the school system funding and governance policies they enact. School system means all of the schools, public and private, as public school policies impact all schools. School administrators implement those policies, and provide district and school-level policies, and of course teachers should be accountable for the use of the discretion available to them at the classroom level.

School and teacher accountability received the most attention at the colloquium. Attendees, including keynote speaker former Florida Governor Jeb Bush, noted the importance of a clear rating system that everyone can relate to such as Florida's A to F scale. Schools that improve receive additional funding. Tying funding to a clear measure of improvement likely helped produce large increases in the test scores of Florida's public schools.¹⁹ An overall letter grade, however, does not provide specific information about a school's performance with respect to individual students or groups of students, which would be useful in customizing education. For example, in a 2003 report card on Texas schools, the NCPA found that schools that rank poorly overall on standardized tests are sometimes particularly good with one demographic group of students but not others. This suggests there are important but unobserved differences in schools.²⁰

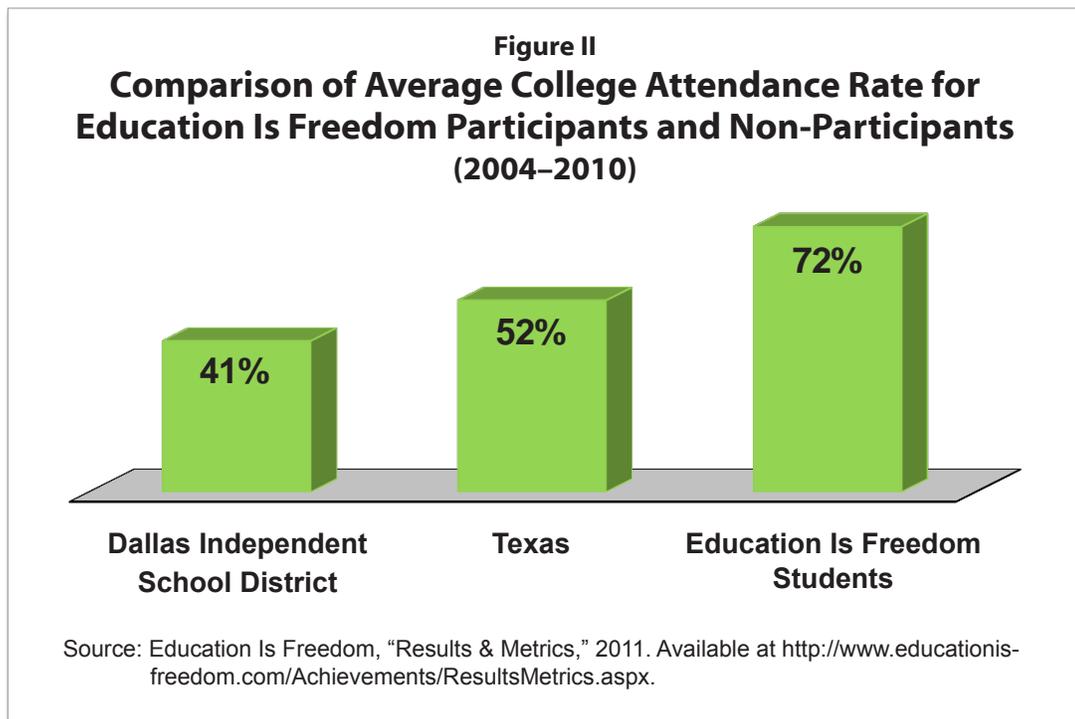
Problems with teacher quality and accountability in the current system arise from strong teachers' unions and "first-in-last-out" retention policies. For instance, Shapiro noted that while Texas does not have teacher tenure, in many school districts the most senior teachers are the last to be let go in difficult financial times, regardless of their effectiveness in the classroom.

In addition, according to Chard, the right people are not being recruited to teach. He suggested looking to the Finnish model of teacher education, where an individual must be in the top 10 percent of his or her class in order to train

to be a teacher.²¹ Chard also spoke highly of alternative certification routes, such as Teach for America.

The Role of the Business Community. Chard said that the Dallas-Fort Worth area has seen a recent resurgence in the local business community's interest in education policies. The business community understands the need for its involvement, and for this reason, more than 20 CEOs participated in the colloquium.

Education Is Freedom. The business community's reengagement is exemplified by the Education Is Freedom program. Colloquium panelist Jim Keyes founded the program in 2002 along with other business leaders in order to provide comprehensive college access services. The organization started by offering renewable scholarships to first-time college students and by 2003 had grown into a comprehensive, local, school-based program designed to improve college attendance by students at select Dallas Independent School District schools.



In 2008, Education Is Freedom launched the Middle School Champions of Change program, designed to encourage and reward academic achievement in participating Dallas Independent School District schools.²²

The program has been successful in its goal of equipping students with the necessary tools to prepare for college. Consider [see Figure II]:

- ⇒ On average, 72 percent of Education Is Freedom participants go on to college — 31 percentage points higher than the Dallas Independent School District's rate and 20 percentage points higher than the statewide average.

⇒ In 2011, 94 percent of the 2,400 participants graduated from high school and 93 percent were accepted to college.²³

The impressive results of incentivizing behavior stand in stark contrast to usual outcomes in the current system. For example, Governor Bush noted that one-third of students must take remedial courses upon entering college. Moreover, between 30 percent and 40 percent of high school students simply do not graduate. Urban areas report dropout rates as high as 80 percent — among the highest in the world. The United States' secondary education graduation rate was six percentage points below the Organization for Economic Cooperation and Development average of 82 percent.²⁴ American businesses simply will not be able to compete by hiring American workers if these education trends continue, and even more devastating effects may emerge from misinformed participation in the political process: support for bad economic policies.

“Education Is Freedom has been successful in its goal of equipping students with the necessary tools to prepare for college.”

*National Math and Science Initiative.*²⁵ Science, technology, engineering and math (STEM) are important to the future of education and the job market in the United States. While jobs in these fields are on the rise, the United States is not producing enough skilled workers to fill them. As a result, America is losing its competitive edge.

The National Math and Science Initiative aims to improve America's competitive edge by preparing students for the demands of the 21st century workforce. The initiative has been successful so far. Indeed:

- ⇒ In schools participating in the National Math and Science Initiative, the number of students scoring 3 or higher on the five-point scale of Advanced Placement (AP) exams increased 52 percent in math, science and English in the program's first year.
- ⇒ Passing rates on math, science and English AP exams increased 124 percent in 63 schools, and the scores of minority and female students significantly increased beyond the national average.
- ⇒ Students also took over 12,500 AP exams in math, science and English — an 80 percent increase from 2008.²⁶

One way the initiative has improved student achievement in math and science is through Laying the Foundation, a teacher training organization that aims to help implement a seamless system of support for math and science education from middle school through college. Designed to train, mentor and empower teachers, Laying the Foundation has trained over 36,000 teachers. It has increased participation in AP courses and success in STEM fields. The formula for success includes core components such as interactive teacher-to-teacher training, aligning

materials and resources to common core state standards, and mentoring from teaching professionals in the online community.

In addition, through its UTeach program, the initiative is encouraging students to enter the teaching profession in STEM areas, offering tailored degree plans, providing coaching from master teachers, encouraging early practice teaching experience, and providing financial assistance to talented college students majoring in STEM fields. The program has enrolled 5,500 participants at 29 universities from 1997 until 2011. Graduates of the program enter, stay and teach at significantly higher rates than the national average, with 80 percent of UTeach graduates still teaching four years later compared with 60 percent nationally.

Through its specific programs, the initiative has produced and seeks to continue to produce more effective teachers in math and the sciences, improve the skills of teachers through effective training programs, and “enlarge the pipeline of students” entering and succeeding in STEM fields of study at colleges and universities.

Higher Education. Public education reform must also include a role for higher education, according to colloquium panelist Dr. John Ellis Price. He pointed out that an educated population has a significant impact on the local economy, which in turn has an effect on quality of life. For example, if Dallas increased the number of residents holding a 4-year college degree by one percentage point, the city would accrue a \$4.6 billion dividend.²⁷ Currently, only 27 percent of Dallas residents hold a 4-year college degree, thus the potential to increase this percentage is significant and would have a major impact on the local economy.



To help solve problems the higher education community is facing, such as increasing costs and decreasing graduation rates, Price created the 21st Century Commission. The Commission will brainstorm ideas for a new, innovative higher education model aimed at decreasing costs and increasing quality.²⁸

Other Suggestions for Restructuring. Restructuring public education could also include the elimination of the 12th grade and moving vocational courses to community colleges. As Wright and Shapiro said, the 12th grade is the least productive year and the funds could be better used in early childhood education programs. Moving vocational courses to community colleges would result in a better allocation of funds.

Conclusion. Price stated that current trends point to a future generation that is less educated than the current generation. Since broad-based knowledge and wisdom drive economic growth and productive political discourse, we need the kind of system transformation that can reverse those trends. Urgency and the difficulty of overcoming inertia grows daily.

Endnotes

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12. Some of these school choice issues are discussed in John Merrifield and Jesse A. Ortiz, Jr., "Reinventing the Kansas K-12 School System to Engage More Children in Productive Learning."
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