

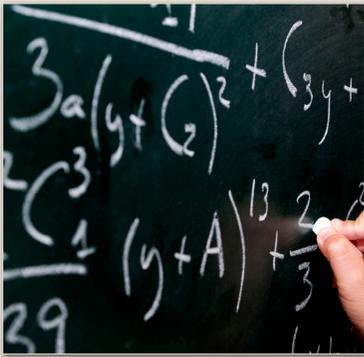
Restructuring Public Education for the 21st Century

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America is losing its edge in producing highly intelligent, creative young adults equal to the tasks presenting themselves worldwide. American public education needs a complete restructuring in order to support the development of critical thinkers ready to assume their positions as productive citizens of a free society.



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Neglecting to change the system will only contribute to America losing its position as the leader of the free world. America has been number one in the development of innovations that have improved the quality of life throughout the world for the past 100 years. But because of our deteriorating system of public education, other nations are assuming leadership roles in education, innovation, skilled labor and productivity.

The State of Public Education

Students in dozens of other countries, including China, South Korea, Germany and Finland, outperformed American students in reading, math and science, according to the Program for International Student Assessment results released in December 2010. The United States ranked 23rd in science, 17th in reading and — worst of all — 31st in math.¹ It is difficult, of course, to compare countries of vastly different size, culture and composition, but many commentators said the results pointed to other countries' emphasis on academics, high prestige and pay for the teaching profession, and a parental culture of high expectations.²

These results suggest that the United States is in need of a public education makeover. Indeed, students are inadequately prepared in elementary and middle school for academic success in high school. Consider, 75 percent to 80 percent of urban children begin kindergarten with an inadequate vocabulary.³ Over time, many become discouraged and drop out, leaving the United States in the unenviable position of having one of the highest dropout rates in the world:

- The average dropout rate nationwide is 30 percent to 40 percent.⁴
- Urban centers report dropout rates as high as 80 percent.⁵
- The United States' secondary education graduation rate was 76 percent in 2009, according to the Organization for Economic Cooperation and Development (OECD); 6 percentage points behind the OECD average of 82 percent.⁶ [See the figure.]

High dropout rates are costly to taxpayers. Consider, the annual public cost of dropouts in the state of Texas is \$377 million, with an expected lifetime cost of \$19 billion coming from three sources: lost revenue from taxes and

fees, increased Medicaid costs and increased incarceration costs.⁷

Need for Restructuring Public Education

In 1900, a majority of the U.S. population lived on farms. Children were needed to assist with chores after school and with harvesting crops during the summer months; therefore, school days and school years were short. Now, in 2011, most of that rural population has moved to the cities, and children are no longer needed for farm labor.⁸

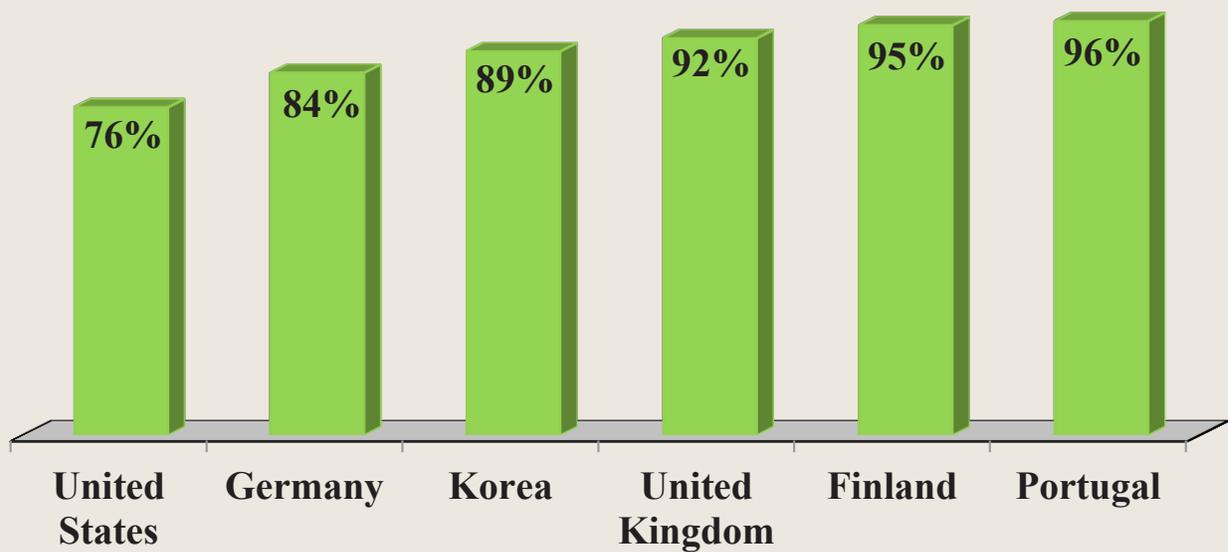
America must move away from this antiquated agrarian system of education. A six-hour school day and a 180 day school year will not and cannot compete with other industrialized nations whose students meet higher academic standards, have better prepared teachers, spend 30 percent to 50 percent more time in class, and are supported by a parental culture that expects and requires more from their children.⁹ Other students around the world are no more intelligent than American students — they just work longer and harder, and thus achieve at a higher level.

In addition, the United States needs to seriously consider how to improve academic achievement for low-income and non-English speaking students. Many students from these backgrounds arrive at public schools at age five or six with a minimal speaking vocabulary of perhaps 400 words, while children of more affluent, English-speaking parents come with a vocabulary of 2,000 to 4,000 words. It is difficult, if not impossible, to learn to read in 1st grade with such limitations, and that gap increases with every passing year.¹⁰

Early Childhood Education. Research demonstrates that 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.¹¹ It has been argued that those years belong to the family, and indeed they do, but with more mothers working outside the home, the need is for child care that is not only safe but also instructional. That time away from the home can be used to build vocabulary and prepare children for success in school.

Nondegreed teachers with strong child development training have proven to be very effective with three- and four-year-old children. Indeed, the only educational

Secondary Education Completion Rates for Select OECD Countries (2009)



Source: OECD's Education at a Glance, "How Many Students Finish Secondary Education?" Organization for Economic Cooperation and Development, table A2.1, September 2011. Available at <http://www.oecd.org/dataoecd/62/3/48630687.pdf>.

measure that has been shown to consistently matter for quality care is that the caregiver has taken a college course in early childhood education in the past year.¹² Research shows that students taught full-day by these teachers demonstrate greater academic progress (and at considerably less cost per student) than students taught half-day by degreed teachers. Educational First Steps, a nonprofit agency in Dallas, Texas, provides a replicable model of what can be done and how to do it.

Educational First Steps provides training for teachers, parents and child care directors in low-income areas. Additionally, the program provides age-appropriate materials, furnishings and learning opportunities outside of the child care centers.¹³ The program serves 4,500 three and four-year-olds in 95 different preschools at a cost of approximately \$500 per student. This is considerably less expensive than the \$8,800 average cost per child in pre-kindergarten.¹⁴ First Steps-affiliated students have shown noticeable improvement academically, scoring 1.96 to 2.50 percentile points higher in math and 1.34 to 2.90 percentile points higher in reading than non-First Steps students.¹⁵

Early childhood education will greatly reduce the later expense associated with remedial classes, high school dropouts and other costs resulting from insufficient academic preparation. In addition, children who are given the tools to be successful in the school environment acquire the self-confidence that enables them to make good choices and follow a productive path in later years. [See the sidebar, “Successful Students, Responsible Adults and Strong Communities.”]

Eliminate the 12th Grade. The 12th grade is the least productive and the most expensive grade. Texas added the 12th grade requirement in 1940 at the end of the Depression, not for educational purposes but to solve an unemployment problem of young people on the streets with nothing to occupy them. By eliminating 12th grade from high school, those funds could be used for full-day schooling for three and four year olds in public schools, charter schools, day cares and other child care facilities.

Additionally, eliminating the 12th grade would allow high school seniors time to earn college credit early through advanced placement courses, attend a vocational program and receive workforce training. Many students would be better served by gaining skills at a two year technical institute or through advanced-certification programs. Community colleges and job training organizations could also provide students with necessary

Successful Students, Responsible Adults and Stronger Communities

- According to the Yale University Child Study Center, Michigan 4th graders who had attended prekindergarten passed the state’s literacy and math assessment tests at higher rates than those 4th graders who had not attended pre-kindergarten. Additionally, Maryland 5th graders who attended pre-kindergarten were 44 percent less likely to have repeated a grade than those 5th graders who had no prekindergarten.
- The High/Scope Perry Preschool Project reports that prekindergarten leads to greater employment and higher wages as adults, and contributes to more stable families. Forty-four-year-old adults who attended pre-kindergarten as children were more likely to be employed and getting along with their families, and also had a 33 percent higher average income than their peers.
- Taxpayers save as much as \$7 for every \$1 invested in high-quality pre-kindergarten, according to the RAND Corporation. Additionally, taxpayer dollars are saved through the effect that prekindergarten has on reducing the need for remedial and special education, welfare and criminal justice services.¹⁸

certification. Highly technological areas such as nuclear energy, refinery operation and computer science require basic skills, as well as appropriate training.¹⁶

Move Vocational Education to Community Colleges. High school vocational courses should be transferred to the community college, which can provide more comprehensive courses at much lower cost. In addition, the cost of using adjunct instructors at community colleges is approximately one-fifth the cost for the same instruction in public high schools. Adjuncts cost an institution approximately \$2,000 to \$3,000 per semester per course, as opposed to approximately \$40,000 to \$50,000 per year for a full-time certified high school teacher.

The excessive cost for vocational course in high school is the result of (a) using full-time certified teachers, (b)

necessary lab and shop equipment, and (c) the necessity of smaller classes for this type of instruction. Community colleges could also be used to teach vocational courses in the existing high school facilities for college credit. [See sidebar, “Additional Recommendations for Restructuring.”]

Conclusion

President Lyndon Johnson said that public education is the engine that powers all economic growth in our nation. Considering the current state of America’s public education system, is it any wonder the United States is facing its deepest recession since the Great Depression?

No one can predict how long it will take America to overcome the deficits we face in this Great Recession era. However, if public education is indeed the engine that drives economic growth, a drastic restructuring of the system must occur immediately.

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References and sources can be found in the online version at www.ncpa.org/pub/ib107.

Additional Recommendations for Restructuring

Below are 10 additional recommendations for restructuring public education.

1. Teacher and administrator academic preparation must become more rigorous, and teacher employment more selective. University requirements for elementary and middle school teacher candidates must include more courses in content areas and fewer in methodology.
2. A governance model must be developed that includes required qualifications for school board members along with term limits.
3. Restructure elementary, middle and high schools to accommodate (a) flexible scheduling that is parent-friendly, (b) flexible curriculum to meet the needs of students as they achieve at different rates, and (c) longer school days and longer school years.
4. Explore the amount of time, effort and expense of extracurricular activities in middle and high school relative to value produced and received.
5. Explore the allocation and use of auxiliary school staff, such as secretaries, teacher aides, counselors, custodians and maintenance employees. At least half of school personnel are currently employed outside the classroom.
6. Explore and determine the most efficient use of school facilities.
7. Determine proper compensation and benefits for all public school employees as compared to similar positions in the private sector.
8. Require every school to develop and implement a parent involvement plan. These plans can be organized with Parent-Teacher Associations, Parent-Teacher Organizations, Advisory Committees, and at mandated parent/guardian-teacher conferences.
9. Require each school district to undergo an external evaluation every five years to determine its effectiveness of operation. Criteria for the evaluation and the personnel conducting such an exercise would be approved by local institutions such as the Texas Education Agency.
10. Intentionally teach core values of respect, responsibility, honesty, self-discipline and citizenship.

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