

Alternate Economic Futures for the United States

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By world standards, our current education system is mediocre -- not the worst but by far not the best. We should not allow this to continue. By choosing different education policies, we can substantially improve the lives of our children and the future place of our nation in the world economy.

The potential difference for our children's future is not trivial, but profound. On our current path, we continue with our middling schools and moderate real income growth, which in turn yield increasing struggles and discord over the income distribution and how to spend our limited public budgets. But we could choose a different path, one with better-educated children, international economic leadership, and a faster growing economy. With this, we solve our fiscal and distributional problems not with battles over the balance of revenues and spending but by ensuring that the pie grows.

Which path we are on is determined by the skills of American society, and the skills are determined by the quality of our schools.

Let me fill in these paths, because in my opinion there is no a more serious challenge facing our country. Nearly all of today's policy debates focus narrowly on pulling out of the current downturn in the economy. But, frankly, the importance of dealing with this -- and I realize its importance to many families today -- is simply dwarfed by the long run growth of the economy. This focus on today may serve short-term political interests during this election year, but it neglects our children and their future.

The most important determinant of the future well-being of the U.S. economy is the rate of economic growth. It is economic growth that has put us in our current position of leadership. And it is economic growth that will determine the fate of the next generations.

The most important driver of economic growth is the skill of the labor force, what economists call human capital. This fact comes through clearly when we look at differences over the past half century in long run growth rates for countries around the world. Countries that have developed more skills in their population systematically have grown faster.

This can be seen from comparing growth to skills across countries (Figure 1). If we array growth rates in GDP per capita from 1960-2000 against international assessments of math achievement, we see that countries fall almost on a straight line. (The only other factor considered here is the starting point of each country, GDP per capita in 1960).

This figure lays out our choices. Current U.S. students – the future labor force – are not competitive with students across the developed countries of the world. If we continue at this level of performance, we are surely on the low-growth future path – the complacent continuation of current policy that leaves us with a variety of increasingly difficult policy dilemmas.

The different options (and results) can be laid out in a straightforward way. To see the impact of skills on the economy, let us assume that the future looks like the historical pattern. We can then project growth into the future under two alternatives: (1) our current level of achievement, and (2) what would be expected with improvement of our schools.

Consider a school improvement program that brought us up to the level of Germany or Australia in math performance (approximately 25 points on the PISA tests) over the next 20 years. By historic outcomes, when these higher-skilled students enter the labor force, they will produce an economy that grows faster. The results are stunning. If we discount the future at 3 percent per year to recognize that future gains are not as valuable as current gains, the improvement over the lifetime of somebody born today would have a present value of **\$44**

trillion. Numbers like this have little meaning to most people, but we can think of some direct comparisons. Today's economy has a total GDP of less than \$16 trillion. The cost of the 2008 recession to date is perhaps \$3 trillion. The projected fiscal deficits that have caused such policy anguish are far below what we are losing by not undertaking such an improvement in our schools.

Here's a comparison even closer to home. What would we project for the economy of bringing skills up to the level of Canada? A present value of **\$75-80 trillion.**

The potential differences in the future of the United States economy are dramatic. These gains are equivalent to a level of GDP that on average is 6-10 percent higher *every year* for the next 80 years. It does not take a new CBO projection to realize that this eliminates the currently projected fiscal imbalances and leaves plenty to spare.

While the gains from growth don't accrue for some time into the future—until the kids are out of school and in the labor force – neither do the fiscal problems facing the nation. The pattern of increasing Medicare costs match up quite nicely with the improvements to the economy from increased productivity growth.

In the past we have had a dominant position in world growth despite the shortcomings of our schools by having other advantages: free movement of labor and capital, strong property rights, a limited government intrusion; an historic superiority in the level of school attainment; strong colleges and universities; and an ability to adopt skills produced elsewhere through immigration policies that allow skilled workers to enter. But, without belaboring it, each of these advantages has eroded considerably and probably should not be counted on in the future to carry our economy.

It is also true that this is not a problem of a few states doing badly. If we compare the performance of individual states to nations around the world (Figure 2), we see that students our best state (Massachusetts) in 2006 were not competitive with the average student in some 16 countries. My own state of California is competing with Portugal and Greece. The children of college-educated parents in Massachusetts would still trail the average student in seven countries.

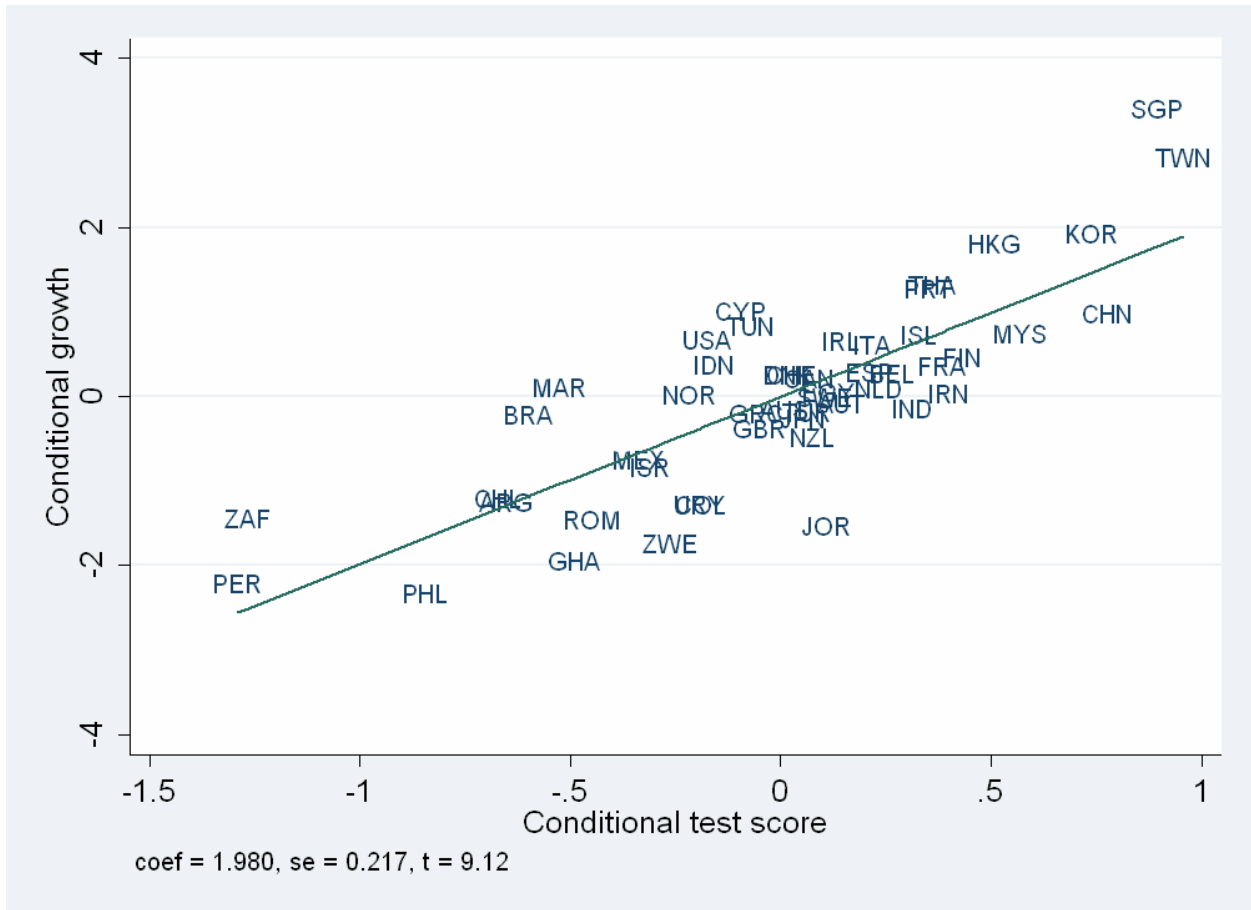
My message is simple. The gains from improving our schools – or the costs of not doing so – are enormous. They are large enough that we should be willing to consider major alterations in policies. We know that changing things around the margin – like moving to even smaller class sizes or adding some more master’s degrees for our teachers or introducing the common core curriculum – have little hope of redressing the problems.

It is important to stress that it is not just years in school, but what people know that counts. In terms of the differences in growth across countries, it is performance on international assessments that indicates the skill levels. It is not the years of schooling per se. If students spend more years in school but do not learn much, the gains are nil. The implication of this for our policies is that just trying to keep students in school – to graduate from high school or to college – works only if the students are learning something. And, if they come up to the last years of high school with poor basic skills from earlier schooling, they probably do not learn a lot at the end.

There are different views about the most effective policies for increasing skills. I am happy to provide my thoughts. As many of you might know, I believe that it is essential that we improve the quality of our teachers, although there are different ways to get to better teachers.

I will stop here by underscoring the basic issue. We need to improve the skills of our population if we hope to continue as the world's economic model. We have the resources to prepare our children for an outstanding future. It is only the will on our part to help them that can hold them back.

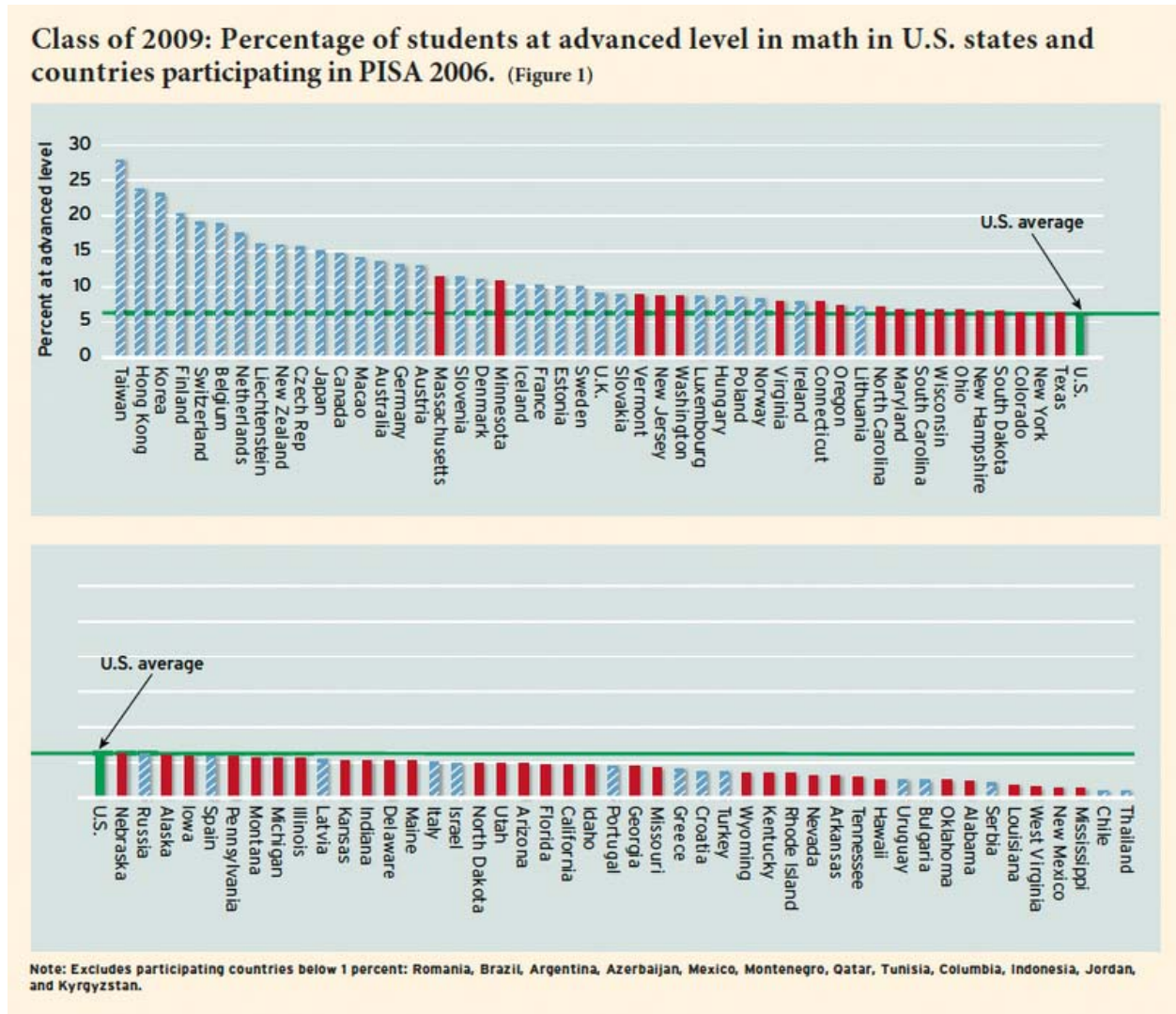
Figure 1. Growth rates of GDP per capital between 1960-2000 compared to mathematics achievement



Note: Figure is based on a regression equation that includes GDP per capita in 1960 and average years of school completed for 50 countries with complete data.

Source: Hanushek, Eric A., and Ludger Woessmann. 2008. "The role of cognitive skills in economic development." *Journal of Economic Literature* 46, no. 3 (September): 607-668.

Figure 2. Percent of students performing at or above the advanced level of NAEP in mathematics



Source: Hanushek, Eric A., Paul E. Peterson, and Ludger Woessmann. 2011. "Teaching math to the talented." *Education Next* 11, no. 1 (Winter): 10-18.

Appendix A. Hanushek, Eric A., Dean T. Jamison, Eliot A. Jamison, and Ludger Woessmann. 2008. "Education and economic growth: It's not just going to school but learning that matters." *Education Next* 8, no. 2 (Spring): 62-70

Appendix B. Peterson, Paul E., Ludger Woessmann, Eric A. Hanushek, and Carlos X. Lastra-Anadón. 2011. "Are U.S. students ready to compete? The latest on each state's international standing." *Education Next* 11, no. 4 (Fall): 51-59.