Education Week

Education and the Economy: Our School Performance Matters

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Eric A. Hanushek

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The PISA results came out recently, and they were greeted in the normal manner: The vast majority of U.S. citizens, both educators and populace, presumed that the discussion was about a bell tower in Italy and went on to something else. Germany was at the other extreme. Virtually every local newspaper covered the results on its front page.

The Program for International Student Assessment, or PISA, provides international comparisons of student achievement on a standardized examination for 15-year-olds. The TIMSS tests (Trends in International Mathematics and Science Study) provide similar information for a different set of countries and age groups. These assessments provide a benchmark for national education systems.

Germans were shocked to learn three years ago that the vaunted German secondary schools were not producing students at the top of the international rankings. They used their previous poor showing to start a national discussion of how to improve their schools.

The United States, which has participated in each of the 15 international assessments conducted over the past four decades, has typically ignored the results. Perhaps it reflects a desire to ignore bad news. Indeed, U.S. students have never performed very well—invariably falling in the bottom half of the distribution of participating countries. The latest PISA performance placed U.S. 15-year-olds tied for 27th out of 39 participating countries. The Germans, on the other hand, felt that being 16th was a matter warranting continued public debate. Alternatively, it could be simple smugness about the quality of U.S. schools compared to those of other countries, leading to a concentration on why the test results are not meaningful.

The most recent TIMSS results placed our students higher in the rankings than on PISA, but there is little reason to believe that this represents any real turnaround in performance.

The fact is that these results signify something real. Think of these assessments as early-warning signals for later economic welfare. Performance on the international math and

science assessments directly relates to labor-force quality and has been closely related to national growth rates. Importantly, national growth rates determine economic well-being over time. To put it in perspective, if we could move the U.S. achievement level up to that of the middle of the European achievement distribution, research indicates that we could expect growth rates that were one-half of 1 percent higher.

One-half of 1 percent sounds like a small difference, but it is in fact a very large number. The U.S. currently has a gross domestic product per capita of $38,000. A half-percent addition to annual growth would lift this by $2,000 per person after just 10 years. In fact, the United States has achieved its economic position by outstripping the rest of the world in growth over the 20th century.

Of course, improving our schools takes time, as does realizing the impact on the economy. If we improved our student performance over the next few years, it would have no immediately obvious impact. Students are not yet in the labor force, and it takes time before the new, higher-skilled students become a substantial part of the nation's workers. But if the possible improvements sketched above could be achieved within 20 years, we could pay for all of our national K-12 expenditure in 2040 with the growth dividend.

Schools matter, and the performance of our students now will influence the pattern of our nation's economic success.

Other factors have masked the importance of school quality for the economy. A variety of factors influence economic growth. The United States has led the world in fostering the elements of a strongly functioning and growing economy. These include a mature system of property rights, the maintenance of generally open and competitive labor and product markets, minimal intrusion of government through regulations and taxation, and, of course, a broad system of education and human-capital development.

The United States has managed to ride the multiple advantages of its economy effectively. Moreover, one of the historical strengths has been the skills of American workers. The United States introduced universal schooling and expanded years of schooling before other nations. This human-capital development has been historically important in allowing firms to innovate and in leading to continual productivity improvements.

The expansion of schooling also permitted the United States to overcome the disadvantages of its poorly performing schools. As noted, U.S. schools have never been highly ranked in terms of performance on international mathematics and science assessments. In the early years of testing, it was possible to argue that this was simply the result of student selection. Since many of the other nations participating in the testing were not graduating a large proportion of students from secondary schools, it was possible to attribute the performance differential to the comparison of our average student to other's best students.

That excuse no longer works. Few Americans recognize that students in many other countries—both developed and developing—are currently obtaining more years of schooling than those in the United States. In 2001, the expected schooling level of U.S. students ranked 14th out of 28 developed (Organization for Economic Cooperation and Development) countries. Moreover, these countries have maintained the quality while widely expanding the quantity of schooling. This is the competitive challenge.

One plausible argument is that we have made up for the quality of our primary and secondary schools by the quality of our colleges and universities, generally regarded as the best in the world. To the extent that this is true, the question remains whether we can

continue to hold that edge in the future. Moreover, it leaves aside the question of what our colleges could do if they devoted less time to remediation.

As we enter the 21st century, we find ourselves competing with a wide range of countries. Many of these are moving to adopt elements of what has sustained the U.S. economy—less-regulated markets, less governmental intrusion, and so forth. Many have also coupled this with a serious effort to expand and improve their schools.

Instead of ignoring or shrugging off the performance of our students on international assessments, it would be much better to follow the German example and take the results seriously. These assessments measure skills that are important.

One of the difficulties is of course the number of false steps that have been taken. Two decades ago, the federal report A Nation at Risk stimulated deep concern about schools. But that energy was siphoned off by a variety of unproductive yet expensive policies.

Moreover, because A Nation at Risk misstated the issue by suggesting that the early 1980s recession was the result of problems with schools, many found it easy to ignore the warnings. But economic analysis shows that the results of better schools and a more highly skilled population come in the long run, with higher productivity in the economy and an altered path of growth. They are not found in the pattern of unemployment rates or other short-run phenomena that more reflect monetary and fiscal policy.

The long wait to realize the results of better schools works against any real reform. Politicians looking for immediate gratification are bound to be disappointed by the absence of quick fixes. Ten-, 20-, and 30-year planning horizons are not the political norm—but that is what we should be talking about.

Many people have ideas on how to improve the schools, and we have tried a variety since A Nation at Risk. We have not seen dramatic changes in outcomes. Certainly nothing like what would be required to bring American students up to the typical European level, let alone to that of the East Asian students who have consistently led the world in the math and science assessments.

We do not have a proven set of approaches for turning around our schools. Surely, however, the clear focus must be on student performance, because there is where the deficiency lies. The issue is not how do we explain away our performance, but how we do something to improve our performance.

With the increased accountability of recent years, a number of people have argued against the tests themselves. The arguments take two forms. First, the tests are irrelevant; the skills that employers are looking for do not include the things measured on these cognitive-ability tests. On this point, the arguments are directly refuted by the data (including both effects on growth and effects on individual earnings). Second, it is argued the tests should be improved. This argument is almost certainly correct, but it does not mean that the skills currently measured are unimportant.

Building on and improving our current system of accountability seems essential.

Past the idea of remaining focused on outcomes, many suggestions come into play. Economists generally find that straightening out the incentives for performance—by students, teachers, and parents—is the very first issue. Unfortunately, our experience and knowledge of how best to introduce performance incentives remain primitive. We have

allowed arguments of “not hurting the schools” (often code for not hurting the current employees) to leave us paralyzed with schools that remain uncompetitive internationally. We need to develop the knowledge required for improvement.

What steps should be involved? First, our past economic growth shows distinct advantages from added competition across the economy, and it seems implausible to believe that such ideas have no place in education. Many, in fact, argue that the superiority of U.S. higher education is related to the competition that exists there. We do not yet have enough experience with competition in schools, because of strong resistance to approaches that might fundamentally change the schools. We need to broaden the range of innovation and to judge the results by whether the student outcomes are better in both competitive and regular public schools.

There are also other ways of introducing different incentives into the schools, and we should not ignore these. For example, fundamental research on student achievement invariably highlights the importance of teacher quality. Alternative pay structures—again, a policy domain that has been fiercely resisted by the forces of the status quo—suggest another avenue of development. The weak and ineffective merit-pay schemes that have been widely tried in the past bear little resemblance to what a strong performance-incentive scheme would look like.

Attention should also be turned to incentives for students. While there has been resistance to having meaningful assessments of student performance that have implications for students, existing evidence suggests that external examinations do introduce valuable incentives that lead to improved student performance. Again, the best form of such incentives merits further investigation.

This list is meant to be neither definitive nor exhaustive. It does, however, build on a simple notion: Improving on the system that has had stagnant results for as long as we have measured results will not come by doing more of the same. Improvements are vital to our national well-being. Delay in moving on them will have real and important effects, albeit ones that are difficult to see in the short run.

Eric A. Hanushek is a senior fellow at the Hoover Institution of Stanford University and a member of the Koret Task Force on K-12 Education.

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