Policymakers in the United States and around the world continue to grapple with the impact a global economy has on preparing students for life after schooling. The Internet, improved telecommunications, and rapid industrialization have produced competition for many jobs at a global scale rather than locally or regionally. More than ever, students need to possess marketable skills to compete for jobs in a global context. To understand the educational progress of each country in this new setting, the Organization for Economic Co-operation and Development (OECD) administers the Program for International Student Assessment (PISA) on a semi-regular basis in over 67 countries.

OECD administered the PISA in 2000, 2003, 2006, and most recently in 2009. The textbox at right provides some of the basic elements of the PISA, as well as results from the 2009 administration.

U.S. student performance on the PISA has been both a matter of great concern and a source of debate in terms of the relevancy of these scores to our country. Perhaps more important than international rankings, however, is that there’s a great deal American policymakers can learn from other countries’ PISA performance and how they improved their education systems. The OECD and the education community produce a wealth of knowledge directly related to PISA and education policies and practices in nations around the world. A number of reports offer detailed analysis of various aspects of the PISA, as well as the strategies and policies countries use to improve their performance. This Policy Update summarizes some of the key reports on PISA results that can provide state board members and other policymakers with insights into how other countries are addressing some of the same challenges being faced in the United States.
Useful Reports on the PISA 2009 Examination


Education officials from high academic performing countries convened to discuss the approaches they took to improve student and economic outcomes for their country. Several major themes emerged from this gathering:

- Successful education improvement can occur within a 5-10 year period;
- There is no “one size fits all” solution, but there are common elements to a successful reform campaign; and
- There are seven key elements of a comprehensive education workforce system:
  - recruitment;
  - teacher preparation;
  - strong, regular professional development;
  - teacher distribution;
  - adequate compensation;
  - effective recruitment and training of principals; and
  - an effective and comprehensive evaluation system.

Many countries have built their education systems around actively recruiting and investing in the education profession by offering a number of different programs and incentives to prospective educators to enter the field. This provides a way to build and strengthen the capacity of the teachers and provide a support system for practicing teachers to expand their skills rather than focus on teacher attrition and firing.

Additionally, these countries have shifted their focus from summative exams to a more balanced approach between formative and summative assessments as a way to provide adequate information to the students and teachers on where they are on the learning trajectory. This approach provides more opportunities for educators to target their instruction and receive professional development.

Finally, the report notes that while the United States is viewed as an innovation leader, it struggles with sustaining initiatives and progressing over time at scale. Therefore, shifting the focus to building the capacity of the education workforce and providing strong professional development and consistent, stable support is viewed as a strong strategy for improving our education system.

The full report about these perspectives on school reform can be found at [www.asiasociety.org/files/learningwiththeworld.pdf](http://www.asiasociety.org/files/learningwiththeworld.pdf).

★ *How the World’s Most Improved Systems Keep Getting Better* (Mona Mourshed, Chinezi Chijioke, and Michael Barber, 2010)

This report examines two key questions: 1) “How does a school system with poor performance become good?” and 2) “How does a school system with good performance become excellent?” To answer these questions, the researchers analyzed 20 school systems around the world and created a comprehensive database of “reform elements” that school systems worldwide can replicate as they move along the continuum of poor to fair to good to excellent education systems. In their analysis, the authors found that school systems in similar stages along the continuum show common characteristics “irrespective of geography, culture, or political system.” To move from one stage of the continuum to another, however, requires new reform initiatives instead of repeating previously successful best practices.

As a result, it is best to seek advice and examples from systems in similar situations and contexts rather than from countries or school systems significantly different from one’s own. The researchers argue that if progress is not sustained despite significant investments, it is best not to abandon the goals and desired outcomes, but to take a different approach. To effectively improve one’s school system, three actions must be taken: 1) identify the current place your school system stands along the continuum; 2) identify the outcomes desired and the interventions needed to reach those goals; and 3) identify the current adaptations and context that the reform movement will occur in.

This report also examined the types of reform school systems undergo and factors of success. For example, school systems generally undergo reform interventions in one or more categories, including structure, resources, and process. Structure (creating new institutions or altering the school calendar year) and resources (modifying or strengthening the human, financial, and technological capacity of school systems) are the two most common intervention types. Each have their own characteristics that are important to the reform movement at different points along the continuum. These intervention types focus on how the information and instruction is delivered (online or in a school building, with a textbook or using an iPad), but they do not focus on what is delivered, that is, the curriculum and content that is a component of the third intervention type, process. It is important to have a balance of reform within
the three areas instead of a concentration in one or two. Researchers also found that education systems in the poor to fair range focused on the basics of instruction, while systems in the good to excellent range generally increased the autonomy and flexibility of their educators and districts to allow for more collaboration and accountability among the educators.

To read more about how to best improve an educational system no matter where it is along the continuum, read the full report, accessible at somckinsey.darbyfilms.com/reports/EducationBookNov23.pdf.

★ Strong Performers and Successful Reformers in Education: Lessons from PISA for the United States (OECD, 2010)

This report provides an in-depth analysis of five countries that are high-performing on the PISA (Canada, China, Finland, Japan, and Singapore), as well as two countries that have experienced rapid growth in achievement since the previous PISA testing in 2006 (Brazil and Germany). The report provides a brief history of the education system in each country, including major reform movements, and analyzes contextual factors such as economic development, teacher quality, curriculum, organization and accountability to provide a better understanding of the environment the education systems operate in.

Reflecting on the high-performing site of Shanghai, China, the report emphasizes two practices that led to its strong performance on the PISA: increased collaboration with higher education and more out-of-school time supports. Shanghai worked closely with its institutions of higher education to reorganize the entrance exams to better align with the needs of the universities. At the same time, students routinely participate in various remedial and supplementary “systems” outside of school that provide the students skills development and tutoring they need to perform well on the entrance exams. While this practice would be extremely hard to implement in the United States, it does emphasize that learning cannot take place only in the classroom if this country is to maintain its human capital advantage.

In addition, countries such as Germany and Japan and the state of Oregon are integrating elements of the PISA assessment into their national/state assessment systems as a strategy to better benchmark achievement internationally and provide a global context for achievement for students and families.

To read all of the profiles of high-performing and rapidly improving countries and the strategies and contexts that have assisted or hindered educational progress, the full report is available at www.edweek.org/media/gps-us-strong-performers-and-successful-reformers.pdf.

★ “Raising Teacher Quality around the World” (Vivien Stewart, The Effective Educator, December 2010).

According to this paper, countries and education officials across the globe recognize the need for developing and fine-tuning highly effective educators as a way to boost their country’s economic status and prepare their youth to enter a globally competitive society. Among the approaches taken by high academic performing countries are increasing the capacity of the education workforce, creating a supportive community of educators, and nurturing leadership talent among teachers and principals. This was found to be more effective than reducing teacher attrition and firing weak teachers. Singapore, for example, has an active recruiting process in which students in the top third of the secondary class, as well as mid-career individuals, are sought out as prospective teachers. Government officials in England embarked on a comprehensive advertising campaign to attract prospective teachers to the field, especially in high needs areas. Within five years, the teaching profession went from the 92nd career choice to the top career choice.

In addition to active recruiting, regular and strong professional development was emphasized for in-service educators and administrators as a vital component to teacher quality and retaining veteran teachers. The focus, however, was placed on school improvement goals, indicators of student well-being, and other factors instead of primarily on student test scores, which is often emphasized in districts and states in this country. Many of the initiatives described in the paper are being successfully implemented in various places in the United States, but they have not been widely replicated. However, a district or state could convene stakeholders around such successful local initiatives and use them as a model for building a more comprehensive teacher development system.

To read more about building the teacher profession, read the full report at www.ascd.org/publications/educational-leadership/dec10/vol68/num04/Raising-Teacher-Quality-Around-the-World.aspx.
The educational attainment level of a country’s population is one predictor of long-term economic growth. *The High Cost of Low Education Performance* examines this idea through the lens of recent PISA results and the historical economic growth of OECD countries. The report analyzes the last 40 years of economic data and relates it to the gains or declines in performance of various countries on the PISA. The findings suggest the variance in economic growth is partially explained by the differences in cognitive skills of the various OECD countries. Furthermore, the report finds that performance on the PISA is a strong and persistent indicator of successful development of cognitive skills after leaving school.

To extend this analysis, the report examines scenarios that vary the performance on the PISA, such as bringing the world up to the exam’s basic achievement levels or increasing all PISA scores by 25 points, and looks at the impact such changes might have on the world economy. In these scenarios, raising PISA scores worldwide by a mere 25 points, or one-quarter of a standard deviation from the average, was projected to increase the global economy by almost $115 trillion during the next 50 years. While the report does not offer specific strategies for achieving these results, it references the other OECD reports to gain a better understanding of the methods used by high-performing countries to improve performance on the PISA.

To read more about the economic impact that increased PISA performance could have on various countries, find the full report at [www.oecd.org/dataoecd/11/28/44417824.pdf](http://www.oecd.org/dataoecd/11/28/44417824.pdf).

“Four Slices of PISA—But Hold the Kool-Aid”  
(Mark Schneider, *Journal of the American Enterprise Institute*, 2010)

While the PISA offers invaluable information on achievement that can be compared across countries, this article’s critique of the PISA cautions against making too much of the results, especially their subsequent use in policymaking. The author believes that consistent performance on the PISA by countries like Poland is extremely impressive. However, he notes that since 2000, Poland has gained less than a grade level of skills as measured on the PISA. Students in the United States have surpassed that growth in math and reading on the NAEP in the last few years, specifically with significant gains among blacks and Hispanics. He argues that we need to examine and understand the teaching practices in our own country in places where these gains are occurring before trying to apply another country’s practices, which come from an entirely different educational context and history.

He also cautions that the PISA is a single data point of performance in time and is administered infrequently. With the increased emphasis on robust education data systems in the United States that collect data on student performance many times a year, the author writes he is surprised that policymakers are putting considerable stock in an assessment that occurs less than once a year. The PISA can do an extremely good job of giving a summary of performance of students in OECD countries, he says, but it is impossible to understand how policy changes, population shifts, and teaching strategies impact student achievement based on a string of five data points over the course of a decade.

To read the entire series of critiques, visit [blog.american.com/?page_id=13698](http://blog.american.com/?page_id=13698).

**Extra Resources**

★ Results from the 2009 PISA assessment are available online at [www.pisa.oecd.org](http://www.pisa.oecd.org). The results are divided into six volumes, which focus on the following topics: student performance on reading, math and science; equity in learning opportunities and outcomes; student engagement; successful school environments; learning trends since 2000 and the use of online and digital information.

★ To compare and aggregate multiple types of data by country/region, visit “PISA Country Profiles,” accessible at [pisa.country.acer.edu.au](http://pisa.country.acer.edu.au).

★ To view the survey questions and codebooks used to develop the PISA 2009 results visit the PISA 2009 Database accessible at [pisa2009.acer.edu.au](http://pisa2009.acer.edu.au).


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