

## Short Sighted: How America's Lack of Attention to International Education Studies Impedes Improvement

Imagine a teacher who, thirty years ago, was considered the role model for all educators in her school. Drawn by her engaging teaching style and high student outcomes, many new teachers made observing her classroom their first stop. As the decades passed, however, both teaching conditions and techniques changed. The student population presented additional challenges as well as educational needs. Rapidly advancing technology and rising education standards required that teachers constantly adapt and improve their instructional practices to engage and successfully educate their students.

Myopia, noun: 1) a lack of foresight or discernment; a narrow view of something. 2) a condition in which the visual images come to a focus in front of the retina of the eye resulting especially in defective vision of distant objects.

Merriam-Webster's Dictionary

For whatever reasons, the once high-performing teacher chose not to collaborate with her fellow teachers to learn from their best practices. Today she sits listlessly through professional development sessions and peer reviews. Few colleagues stop by her classroom, and she rarely walks down the hall to see what teaching methods others are successfully using. Teaching as she has always done, she shuts her door and ignores opportunities to learn, even though her students perform poorly on math and reading tests while other teachers work hard to get better results. Clearly, this teacher's current and future students will suffer from her apathy; their learning will stagnate and they will fall behind peers with whom they must someday compete for college admission and jobs. Who could doubt that her educational myopia is selfish and short-sighted?

Does this sound like an unrealistic scenario? Yet it shows precisely the tunnel vision that the United States is displaying in the global schoolhouse. Other countries eagerly compare, or benchmark, their performance and standards against each other—and particularly against top performers. Other countries take their international assessment performance results seriously. Other countries take advantage of opportunities to compare policies and practices so that they can learn and improve. In sharp contrast, the United States, the world leader in so many other areas, ignores the opportunities to learn from its international peers in education.

To future generations, Americans' current educational myopia is likely to appear, at best, a negligent failure to anticipate and meet the needs of the nation and its citizens. And for the sake of those future generations, the short-sighted practices and parochial policies that have delayed significant improvement in the nation's educational advancement must change. To provide students with a world-class education, the United States, beginning with strong leadership from the U.S. Department of Education (ED), must adopt a more global outlook. The tools and opportunities already exist; indeed, the United States has even subsidized their creation. Now the nation needs to participate in, learn from, and act on the results of internationally benchmarked assessments.

## U.S. Students Falling Behind Their International Peers

If American students were doing extremely well on international comparisons, perhaps it would be less important to consider what the nation could learn from other countries. However, overall U.S. student performance, particularly among the country's adolescent learners, continues to decline. This is an alarming trend in an increasingly competitive world. In the early 1960s, the United States produced the highest high school completion rates among Organisation for Economic Co-operation and Development (OECD)\* member nations, but by 2005, it slipped to eighteenth out of twenty-three OECD member nations with available data.<sup>1</sup> In only ten years, 1995 to 2005, the nation's college graduation rate slipped from second to fifteenth among OECD member nations with available data.<sup>2</sup>

The United States' once-superior school system has lost its competitive edge—not because its education outcomes are declining, but because, as U.S. Secretary of Education Arne Duncan noted in his Senate confirmation hearing, the United States is not advancing as fast as others.<sup>3</sup> For example, Korea's high school completion rate in 1960 was twenty-seventh and rose to first place in the 1990s.<sup>4</sup> Even a recent report from the World Economic Forum (WEF) ranking the

United States first out of 131 nations in its Global Competitiveness Index—citing the “efficiency of its markets, the sophistication of the business community, the impressive capacity for technological innovation,” among other factors—observed troubling signs of weakness. For instance, the WEF ranks the United States thirty-fourth in health and in primary education and notes that “an inadequately educated workforce” is the fifth-most problematic factor for doing business in the United States, just a tenth of a point behind inflation. (Tax rates, tax regulations, and an inefficient government bureaucracy rank one through three.)<sup>5</sup>

Students' achievement levels are also slipping in comparison to their global peers. Recent international comparisons of fifteen-year-olds ranked U.S. students as twenty-fifth out of thirty in mathematics literacy, twenty-first out of thirty in scientific literacy, fifteenth out of twenty-nine in reading literacy, and twenty-fourth out of twenty-nine in problem solving.<sup>6</sup>

\*The OECD is a highly respected membership organization financed by thirty industrialized democracies. These thirty member nations, together with additional partner countries and economies that take part in the PISA assessment, make up almost 90 percent of the world's economy.

## The Demands of Globalization

Over the past several decades, an array of mutually reinforcing trends—including the globalization of the economy, the infusion of technology into the workplace, and the ever-increasing pace of change as companies constantly innovate in order to remain competitive—has dramatically altered work demands and job markets.

Research reveals a global economic transformation that is more profound than many can imagine or understand, leading to consequences

too important to ignore. These changes are evident in the evolving nature of U.S. jobs. For example, the amount of time workers spend doing routine manual tasks (such as installing parts or packing items on assembly lines) and routine cognitive tasks (such as taking simple customer orders or maintaining inventory counts) has declined significantly since the 1960s as automation and computers have taken over those responsibilities. Over the same period, the amount of time workers spend performing higher-level cognitive tasks that require the ability to



solve problems and effectively communicate using sophisticated tools has soared dramatically.<sup>7</sup>

Skill demands have increased, not only because the mix of jobs in the economy has shifted away from blue-collar and clerical work, but also because current jobs of all kinds are becoming more complex and demanding in three important ways:

- Computer technology has thoroughly infiltrated the modern workplace, not only for professionals and high-level managers, but also for all manner of factory workers, technicians, craftsmen, and sales personnel. Using that technology to assist or manage day-to-day work requires mental as well as manual dexterity.
- Pressure from global competition has created a constant imperative for American companies to innovate, actively identify new markets, and develop new products and services—all at ever-faster rates. As respected labor economists Richard Murnane and Frank Levy explain, “This drive to develop, produce, and market new products relies on the ability [of workers] to manage and solve analytical problems and communicate new information.”<sup>8</sup>
- More and more, Americans find themselves competing in an increasingly global labor

market. In today’s world, technology offers the ability to digitize work so that it can be sent anywhere in the world, and the internet connects co-workers around the globe. This results in an increasing number of jobs that are no longer tied to a particular location. Instead, work can be done virtually anywhere, and jobs can go to the best-skilled candidates no matter where they live.

The world outside the workplace is becoming more complex as well. Adults must process large amounts of information to make difficult decisions in their daily lives—from being responsible for managing their individual retirement accounts, evaluating increasingly complicated home mortgage and personal financing proposals, and making health care decisions. Additionally, America’s democratic process demands participation from citizens who can comprehend and vote on difficult social issues affecting their lives and those of their fellow citizens. If nations are to remain competitive, their citizens must be better educated than ever before. They must be prepared to compete not only against their peers from different towns and states but also against individuals worldwide. In this environment, global comparative performance becomes even more important.

## International Educational Measures

Two organizations—the International Association for the Evaluation of Educational Achievement (IEA)<sup>\*</sup> and the OECD—administer the two major assessments that measure how secondary students compare with their international counterparts in tests of academic aptitude.

At first glance, these different tests, described below, appear to have a number of similarities, including the approximate ages of the students tested and the subjects on which these students are examined. Both tests are administered to a

randomly selected representative sample of students within each participating nation and provide results that can be generalized to the larger student population.

However, these two assessments were developed to serve different purposes and are designed to measure different aspects of student performance. Although both assessments “provide a measure of the mathematics and science performance of older students (grades 8–12),” ED’s National Center for Education Statistics



(NCES) cautions against comparing them, warning that “the distinctions...need to be kept in mind in understanding converging or diverging results.”<sup>9</sup> Those distinctions are addressed below in the descriptions of the two assessments.

\*The International Association for the Evaluation of Educational Achievement (IEA) is an independent, international cooperative of national research institutions and governmental research agencies.

### **Trends in International Mathematics and Science Study (TIMSS)**

The IEA administers the Trends in International Mathematics and Science Study (TIMSS), which assesses fourth and eighth graders every four years.

The IEA has sponsored surveys of educational achievement since its founding in the mid-1950s, but its most well-known assessment, TIMSS, began in 1995 when forty-five countries participated and more than 500,000 students from grades three, four, seven, eight, and the final year of secondary school were tested. The most recent assessment was administered in 2007 to either fourth- or eighth-grade students, or both. More than sixty educational systems participated (including thirteen industrialized countries as well as middle-income and developing nations), and the results were released in December 2008. (The box to the right shows the countries that participated in 2007.) The United States participates nationally in the TIMSS, and a few states have participated individually in the TIMSS in different years.

The TIMSS is based on collaboratively developed frameworks culled from many nations’ math and science curricula, a process that involves content experts, educational professionals, and measurement specialists from a variety of different nations. According to researchers from the National Foundation for Educational Research, the TIMSS assessment structure emphasizes “items which require the reproduction of facts or standard algorithms.”<sup>10</sup> In other words, students are tested on their grasp of the school curriculum—what they have been taught in their classes—rather than on their ability to apply existing knowledge to new situations. Re-

**Figure 1: Countries Participating in Eighth-Grade TIMSS in 2007**

Algeria	Korea
Armenia	Rep. of Kuwait
Austria	Latvia
Australia	Lebanon
Bahrain	Lithuania
Bosnia and Herzegovina	Malaysia
Botswana	Malta
Bulgaria	Mongolia
Chinese Taipei	Norway
Colombia	Oman
Cyprus	Palestinian Nat'l Auth.
Czech Republic	Qatar
Denmark	Romania
Egypt	Russian Federation
El Salvador	Saudi Arabia
England	Scotland
Georgia	Serbia
Ghana	Singapore
Hong Kong SAR	Slovak Republic
Hungary	Slovenia
Indonesia	Sweden
Iran	Syrian Arab Republic
Islamic Rep. of Israel	Thailand
Italy	Tunisia
Japan	Turkey
Jordan	Ukraine
Kazakhstan	United States
<b>Regional Participants</b>	
Alberta, Canada	Massachusetts, USA
Basque Country, Spain	Minnesota, USA
British Columbia, Canada	Ontario, Canada
Dubai, United Arab Emirates	Quebec, Canada

Source: Trends in International Mathematics and Science Study (TIMSS), “TIMSS 2007 Countries Participating,” <http://timss.bc.edu/TIMSS2007/countries.html> (accessed March 3, 2009).

flecting this focus, the TIMSS contains largely multiple-choice questions.

Through the TIMSS, IEA also collects information about the context for learning mathematics and science—provided by each participating nation’s students, teachers, and school principals through questionnaires—in order to provide a resource for interpreting the achievement results and to track changes in instructional practices.



## Programme for International Student Assessment (PISA)

The OECD developed the Programme for International Student Assessment (PISA) in 1997 in response to a request by its industrialized members for an assessment to measure how well students were being prepared for the changing world. PISA assesses nationally representative samples of fifteen-year-olds in mathematics, reading, and science every three years. PISA focuses in greater depth on one of those subjects during each cycle: for example, reading in 2000 (the year of the first survey), math in 2003, and science in 2006.

The opportunity to compare student performance against the world's best has increased PISA's appeal beyond the original OECD membership. In 2006, all thirty of the OECD's member countries and an additional twenty-seven partner countries took part in PISA—a group of fifty-seven nations representing nearly 90 percent of the world's economy.<sup>11</sup> In 2009, seventy-two countries plan to participate. In addition, this year China will have completed the administration of PISA in fourteen of its twenty-three provinces (representing half of its population). And with strong encouragement from the World Bank, India is piloting PISA in a number of its states in 2010.<sup>12</sup>

Nations value PISA because it does not just focus on whether students can show that they have learned factual knowledge and basic skills. Rather, the assessment measures a broader set of skills within and across traditional subjects that are essential for social and economic success in modern society. To perform well on PISA, students must be able to not only recall facts but also extrapolate from what they know and *apply* their knowledge of math, reading, and science to solve problems in unfamiliar settings. In addition to assessing knowledge of math, reading, and science, below are further examples:

- In 2000, PISA focused on reading literacy, examining how well students could interpret

**Figure 2: Countries Participating Fully in PISA 2009**

<b>Europe</b>	<b>Asia</b>
Albania	Azerbaijan
Austria	Chinese Taipei
Belgium	Dubai (UAE)
Bulgaria	Hong Kong-China
Croatia	Indonesia
Czech Republic	Israel
Denmark	Japan
Estonia	Jordan
Finland	Kazakhstan
France	Korea
Germany	Kyrgyzstan
Greece	Macao-China
Hungary	Qatar
Iceland	Shanghai (China)
Italy	Singapore
Ireland	Thailand
Latvia	Turkey
Liechtenstein	
Lithuania	<b>North America</b>
Luxembourg	Canada
Moldova	Mexico
Montenegro	United States
Norway	
Poland	<b>South America</b>
Portugal	Argentina
Romania	Brazil
Russian Federation	Chile
Serbia	Colombia
Slovak Republic	Dominican Republic
Slovenia	Panama
Spain	Peru
Sweden	Trinidad and Tobago
Switzerland	Uruguay
The Netherlands	
United Kingdom	<b>Oceania</b>
	Australia
<b>Africa</b>	New Zealand
Tunisia	

Source: Organisation for Economic Co-Operation and Development (OECD), Programme for International Student Assessment (PISA) 2009-list of participating countries," [http://www.oecd.org/document/4/0,3343,en\\_32252351\\_32236225\\_397586\\_60\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/4/0,3343,en_32252351_32236225_397586_60_1_1_1_1,00.html) (accessed March 3, 2009).

written material as well as reflect on it and use it to achieve certain goals.

- In 2003, PISA focused on mathematical problem solving, asking students to complete tasks that required applying math skills to real-world situations.
- In 2006, PISA focused on scientific knowledge, thinking, and awareness of the many ways science and technology are impacting the world.

The inclusion of sophisticated problem-solving items in 2003 enabled the OECD to release a separate report on that topic: *Problem Solving for Tomorrow's World—First Measures of*



*Cross Curricular Competencies from PISA 2003.* The report shows how well students in participating countries are able to manage unfamiliar situations by thinking flexibly and pragmatically. For example, one problem asked students to use a subway map and fare schedule

to figure out the best way to get from one part of a city to another. A second problem asked them to devise a plan to complete a set of technical training courses over a three-year period. Students then had to be able to explain their reasoning and communicate their answers.<sup>13</sup>

**Figure 3: U.S. Performance on TIMSS Vs. PISA**

**TIMSS (2007):** Assesses fourth and eighth graders in math and science.

- **Rank:** Of forty-eight nations, the United States ranked ninth-highest in eighth-grade math and eleventh-highest in eighth-grade science.
- **Average:** The average U.S. scores in eighth-grade math and science were both higher than the TIMSS average.

**PISA (2006):** Assesses fifteen-year-olds in math, reading, and problem solving.

- **Rank:** The United States ranked twenty-first of thirty among OECD countries in science, twenty-fifth of thirty in math, and fifteenth of twenty-nine in reading.\*
- **Average:** The average U.S. scores were below the OECD average in science, significantly below the OECD average in math, and not measurably different from the average in literacy.

\*A printing error invalidated the U.S. reading section of the 2006 PISA assessment, so the reading ranking is based on the results of the 2003 PISA.

Sources: T. Williams, L. Jocelyn, S. Roey, D. Kastberg, S. Brenwald, *Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context*, (Washington, DC: National Center for Education Statistics, 2008). <http://nces.ed.gov/pubs2009/2009001.pdf>, M. Lemke, A. Sen, E. Pahlke, L. Partelow, D. Miller, T. Williams, D. Kastberg, L. Jocelyn: *International Outcomes of Learning in Mathematics Literacy and Problem Solving: PISA 2003 Results From the U.S. Perspective*, (Washington, DC: National Center for Education Statistics, 2004). <http://nces.ed.gov/pubs2005/2005003.pdf>.

In the performance rankings of participating nations, the United States fared better on IEA's TIMSS than on the OECD's PISA assessment. One reason is that only about half of the economically developed and often well-performing OECD nations that participate in PISA did not administer TIMSS. Both assessments provided a comparison of U.S. performance to a cross-nation average. While the TIMSS average score is the average of all participating nations—with developed and developing nations treated equally—the PISA average score is the average of only the OECD member nations—the leading industrial nations—not the entire pool of participating non-OECD nations.

In addition, TIMSS measures mastery of content that is common across the different curricula of school systems, just as most U.S. state assessments do. PISA, on the other hand, measures the capacity of students not merely to reproduce what they have learned but to extrapolate from what they have learned and to apply their knowledge and skills in new settings. It makes sense that U.S. students would perform better on tests

that are more like the tests they are used to and that only ask for reproduction of content, not application of content.

**In short, PISA assesses just the sort of skills that economists say an increasingly globalized and digitized economy will demand—the ability to apply what one has learned to solve unfamiliar problems and communicate those solutions.** The remainder of this brief provides a more in-depth examination of the way that PISA is administered, what the assessment actually measures, and what its results mean for students in the United States and across the world. It also focuses on other educational surveys and assessments conducted by the OECD that could—and should—provide even more information and insight to educators, policymakers, and others concerned with America's educational system and the nation's future. Since PISA scores reflect the average of only the world's highest educational performers, arguably, it is a more appropriate measure of academic rigor than TIMSS for a country that aspires to remain the world's economic leader.



Figure 4: Understanding PISA<sup>14</sup>

<b>Who developed and oversees PISA?</b>	PISA was developed and is managed by the Organisation for Economic Co-operation and Development (OECD), an association of thirty member nations committed to democracy and the market economy. The assessment is overseen by a PISA governing board composed of representatives from all participating countries. A PISA consortium of leading research institutions around the world provides technical support in the development of test items and surveys.
<b>Who administers the PISA assessment to students in each country?</b>	In each participating country, a designated national project manager and national center oversee the administration and implementation of PISA and communicate with the PISA governing board regularly to ensure compliance with technical standards. ED's National Center for Education Statistics acts as the National Center for PISA in the United States.
<b>How often is PISA administered?</b>	PISA is administered every three years—the first time was in 2000. The next administration will be in 2009.
<b>Who takes the test?</b>	PISA is administered to fifteen-year-olds in order to gauge important skills as students near the end of secondary education. The OECD is also working with twenty-two nations interested in developing a PISA study for nine-year-olds.
<b>Do all students take the test?</b>	No. PISA is administered to a representative sample of students in each participating nation or province. Generally, to provide a full complement of data, at least several thousand students are sampled, and national samples can range from 3,500 to ten thousand. The PISA governing board sets guidelines for sampling and approves the sample design for each formal participant.
<b>Which academic subjects are tested?</b>	PISA tests math, science, and reading. In addition, each PISA administration focuses on one of those topics to provide a much more in-depth analysis of student achievement and attitudes related to it, as well as educational practices supporting it.
<b>What kind of knowledge and skills does PISA attempt to measure?</b>	PISA takes a broader approach than most tests by asking students not just how much they know in math, science, and reading but also how well they can <i>use</i> that knowledge. About half of the test questions ask students to <i>apply</i> their knowledge and skills in math, science, and reading to solve unfamiliar, real-world problems and describe their solutions.
<b>What kinds of performance data does PISA produce?</b>	PISA produces the following: <ul style="list-style-type: none"> <li>• Average scores</li> <li>• International rankings</li> <li>• Percentages of students achieving benchmark performance levels</li> <li>• Average scores for students at various percentiles of achievement</li> <li>• Variation in performance among students within schools and across schools</li> <li>• Equity measures, including the impact of student demographic characteristics on achievement and performance of subgroups</li> </ul>
<b>Does PISA only produce test scores?</b>	No. Students, teachers, and school administrators (and in some countries, parents) take surveys that produce a range of supplemental information. For example, PISA 2006 reported on students' attitudes toward science and their level of concern about environmental problems.
<b>How many and which countries participate?</b>	Fifty-seven countries or provinces participated in 2006, including all thirty OECD member nations, and seventy-two plan to participate in 2009; collectively they represent nearly 90 percent of the world's economy. This year, China plans to have completed PISA testing in fourteen provinces, and India is piloting PISA in a number of its states in 2010. A complete list of countries planning to fully participate in 2009 can be found in Figure 1 located at the beginning of the PISA section.
<b>Does the OECD publish results for the United States?</b>	No. However, the United States is the only OECD member country with a federal education system where individual states neither participate in PISA nor receive individual results.
<b>Where can I find more information about PISA?</b>	The OECD offers a great deal of information about PISA, including the results of each study and supporting materials like frameworks and technical reports. Visit <a href="http://www.pisa.oecd.org">www.pisa.oecd.org</a> for more information. In addition, an official contractor, the Australian Center for Educational Research, offers a website called "My PISA" that contains a range of information from technical information to sample test items. Visit <a href="https://mypisa.acer.edu.au/index.php">https://mypisa.acer.edu.au/index.php</a> .



## PISA: A Portrait of Today and a Harbinger of the Future

Independent studies have confirmed that the skills measured by PISA are correlated with later success in life. For example, a study in Canada evaluated the various pathways Canadian youth use to transition from secondary education to the labor market, in part by examining the country's PISA results. It found that Canadian fifteen-year-olds who out-performed their peers on PISA's reading assessment had a higher likelihood of educational success after high school.<sup>15</sup> PISA reading scores were a better predictor of later success than grades given by classroom teachers.<sup>16</sup> Students who achieved Level 1 were twice as likely as their Canadian peers who performed below Level 1 to participate in postsecondary education by age nineteen, while students who reached Level 5 or Level 6 were sixteen times as likely—even after accounting for a host of other factors such as gender, home language, level of educational engagement, parents' education level, and family income.

In addition to testing students' content knowledge and skills, PISA collects a wealth of relevant background data, including information from teacher, principal, and student surveys. Many countries also administer a survey to parents. This data has enabled many nations to dig beneath the scores to analyze patterns in student achievement, better compare performance across countries, and gain a greater understanding of the policies and practices that foster higher achievement.

For example, in addition to average scores and the percentage of students meeting performance benchmarks, PISA provides data on the *variation* in student performance within a country and the *impact* of students' family and demographic characteristics on their achievement. Such data has shown conclusively that some nations—such as the United States—are not only producing poor-to-mediocre student scores on average, but they also have highly inequitable education systems. However, this data has also

demonstrated that it is possible to reach high scores with a high degree of equity. Some Asian and European nations as well as Canada have achieved high average scores while at the same time ensuring that students' socioeconomic backgrounds have little impact, positive or negative, on their outcomes.

PISA reports scores by subject for each participating country. The average score determines achievement levels from the lowest performance, Level 1, to the highest performance, Level 6. For each subject, PISA reports the percentage of students scoring "Below Level 1." PISA states that the average scores in the Below Level 1 range are too low to determine a proficiency level.

Comparing student outcomes is only part of the value of international comparisons. Leaders in many nations are also eager to benchmark their policies against their international competitors and to understand how their classroom practices may differ. Therefore, the OECD also conducts a range of studies to complement PISA, including "thematic" investigations of issues such as improving instruction, school leadership, and higher education; these allow countries to identify best practices and to benchmark their strategies against those of top performing nations. Upon a nation's request, the OECD also assembles international teams of experts from comparable and better-performing countries to conduct in-depth, onsite "country reviews."

A number of countries have gone so far as to request onsite, in-depth examinations of their educational policies compared to the best-performing nations. In 2006, Scotland asked the OECD to send an international delegation of experts from four high-performing nations to examine Scotland's education reform agenda and make recommendations for improvement. Experts came from countries that are comparable to Scotland and share similar education challenges including Australia, Belgium, Finland, and New Zealand. "Countries can't lose anything by doing this and have a lot to gain," says Andreas Schleicher, head of the Indicators and





Analysis Division, Directorate for Education, OECD. “Many policy options are hard to identify in a national context because policies and practices differ most across countries.” To date, more than twenty-five countries have asked for such reviews. The United States is not among them.<sup>17</sup>

Echoing the importance of the United States’ participation in international assessments is Bill Schmidt, a noted Michigan State University researcher who is an expert on international benchmarking in education, “If we were the leading country in the world in terms of achievement, we could perhaps assume it’s not important to benchmark against other countries.... But given that we do so terribly on the assessments with respect to what students know, we don’t have the luxury of ignoring the rest of the world.” He argues that the United States must go beyond simply comparing outcomes and move toward benchmarking its policies and practice. “I think it’s important to participate in any of these studies, whether they have to do with finance or

governance or curriculum or teachers. That’s the meat of these international comparisons because it helps us understand what could be different in our own system, which in turn gives us options for improving achievement.”<sup>18</sup>

Despite the growing possibilities for improvement based on international benchmarking, the United States is missing most of the opportunities described above. The United States’ administration of PISA is bare bones. State-level involvement and measurement—as regularly used by most other federal OECD countries—is almost nonexistent. U.S. officials have consistently declined invitations to participate in all but one of the OECD’s studies on educational policies and practices. As fellow nations embrace the opportunities that PISA offers to learn from each other, America ignores them. Without greater involvement in PISA and the OECD international comparisons, the United States’ stagnant educational outcomes are likely to slip even further behind those of its economic competitors.



**Figure 5: The OECD's Major Educational Benchmarking Studies**

OECD Benchmarking Study	Description	U.S. Participation?
Programme for International Student Assessment (PISA)	Conducted every three years beginning in 2000, PISA assesses fifteen-year-olds in math, science, and reading by asking students to apply their knowledge of those subjects to solve real-world problems.	Yes, but only at the national level.
Educational Indicators Program	Each year, the OECD collects data on educational attainment and other indicators. The data is published in the annual <i>Education at a Glance</i> reports.	Yes, the United States provides data for most indicators.
Thematic Study: Attracting, Developing, and Retaining Effective Teachers	This study is an international review of policies for improving the teaching workforce in participating nations. The final report includes an analysis of trends and developments in the teacher workforce in twenty-five countries and identifies innovative and successful policies and practices that countries have implemented.	Yes, but not at an in-depth level.
Thematic Study: Higher Education for the Knowledge Society	This study is an international analysis of policies on higher education in more than twenty countries, offering comparisons across nations and identifying effective policy initiatives in participating countries. Specific issue areas include governance, funding, quality assurance, equity, research and innovation, and links to the labor market and internationalization.	No
Thematic Study: Improving School Leadership	This study is an international report designed to help policymakers formulate and implement school leadership policies to improve teaching and learning. Twenty-two countries and regions participate, and researchers conduct in-depth, onsite case studies in five countries and regions using innovative strategies that are showing early evidence of promising results.	No
Thematic Survey: Teaching and Learning International Survey (TALIS)	This survey is a groundbreaking international survey of teachers and school principals focused on learning environments and working conditions that will allow participating countries to identify other nations facing similar challenges and to learn from other policy approaches. The survey includes questions on school leadership, how good teaching is recognized and rewarded, strategies to provide teachers with effective professional development, and teaching practices and beliefs.	No
Onsite Reviews of National Policies for Education	The intensive onsite policy reviews are conducted at the request of a nation's leadership. The process includes a two-week mission by an external team of reviewers which culminates in a written report with specific recommendations based on international best practices.	No

Source: OECD, 2008, [http://www.oecd.org/departement/0,3355,en\\_2649\\_33723\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/departement/0,3355,en_2649_33723_1_1_1_1_1,00.html)



## Achieving Reform through the Lessons of PISA

Participation in PISA is not the only issue. What countries do with the results of assessments is even more important than simply administering them to their students. Awareness of PISA scores and other international assessments tends to be much greater in other nations—among the general populace as well as political leaders. Some nations have used PISA results to launch or greatly accelerate education reform; in others, leaders have applied lessons from abroad to improve their own school systems. “Many countries take it very seriously,” says Sir Michael Barber, a former top government official in Great Britain and currently a partner at McKinsey and Company. “When the PISA results come out, they get publicized, analyzed, and widely discussed. And some nations act on the basis of that.”<sup>19</sup>

For example, Germany’s unexpectedly low performance on PISA 2000 sent a deep and pervasive shock through the country, launching a national conversation about the need to improve German schools and accelerate the pace of education reform. German news outlets reported the PISA scores extensively and exhaustively under banner print headlines and over the airwaves—producing 687 pages of news coverage just one month after the release.<sup>20</sup> The “PISA shock” made education a central topic in national politics and a top issue in elections the following year.<sup>21</sup> One news outlet observed, “When German politicians hear the word ‘PISA,’ the last thing that comes to mind is the Italian city with the trademark leaning tower. Instead, the word conjures up visions of...mediocre scores that the country’s students made on an international test.”<sup>22</sup>

According to Oxford University scholar Dr. Hubert Ertl, the coverage “led to appeals for a reform of secondary education from almost all relevant social groups, including political parties, employers, trade unions (including teachers’ associations), parents’ associations, and

academics.”<sup>23</sup> The national teachers’ union and parents’ associations launched a campaign called “Save Education,” featuring posters, discussions, and demonstrations throughout the country. The kickoff demonstration in Berlin drew a crowd of 30,000.<sup>24</sup> Eventually it even prompted an unprecedented joint statement and action plan by Germany’s leading business and labor groups, which had been at odds over education policy for years.<sup>25</sup>

Part of the shock came from the realization that, overall, German students performed below the OECD average in all three subjects tested. However, some of the shock was due to the deeper analysis PISA provides; the results showed very large achievement gaps between low-income and affluent students as well as between immigrants and natives. At the same time, some countries with similar demographic challenges clearly had much better overall performance coupled with much smaller achievement gaps.<sup>26</sup> It was obvious that Germany should *and could* be doing much better by its students.

Officials reacted quickly. Then-Chancellor Gerhard Schröder promised more money for education in an historic televised address before the Bundestag—the German national parliament—the first time any chancellor had chosen education for an official government address.<sup>27</sup> The federal education minister pledged to elevate student performance to the top five nations on PISA over the next decade, and the Ministry of Education and Research launched a study to examine the educational policies of countries performing well on PISA. With help from the OECD, experts from Canada, England, Finland, France, the Netherlands, and Sweden collaborated with German researchers, and the Ministry published a detailed report in 2003 that included plans for educational improvement that the country has been implementing since the report’s release.<sup>28</sup>



The PISA shock also directly enabled the speedy adoption of bold, politically difficult education reforms, including national education standards. Like the United States, Germany has a federal system in which individual states (called the *Länder*) retain primary authority for administering education. Though national education standards had been discussed, few believed them to be politically feasible before the PISA results.<sup>29</sup> However, by December 2003, the conference of education ministers of the sixteen *Länder* agreed on a set of national standards at the tenth-grade level to be implemented in School Year 2004–05. The following October, the *Länder* agreed on standards at the primary level, and subsequently passed a resolution to adopt national standards for educational outcomes at different grade levels.<sup>30</sup>

The *Länder* also agreed on a new national assessment to evaluate how well students are meeting the standards.<sup>31</sup> In 2004, they founded an Institute for Educational Progress to develop and administer the tests, and the institute has developed internationally benchmarked “anchor assignments” to ensure the assessments are globally competitive.<sup>32</sup> In 2006, the institute contracted with the German PISA Consortium to develop test items to measure the new intermediate-level math standards, which then were administered as part of the 2006 PISA study.<sup>33</sup>

To justify the move to national standards and assessments, German leaders pointed to the fact that high-performing countries on PISA set clear national standards, measured progress, and allowed schools room to figure out how to reach them—the opposite of long-standing German tradition.<sup>34</sup> According to Dr. Ertl, “The agreement on national educational standards and on an institutionalized structure to ensure that the standards are observed would have been inconceivable without the impact of the PISA study.”<sup>35</sup>

Germany’s PISA-spurred policy push has gone beyond national standards. In 2003, the German

federal government launched a \$4.5 billion package of education reforms, including a program to expand learning time by creating ten thousand all-day schools across the country.<sup>36</sup> To provide a rough comparison—keeping in mind that the United States educates about five and a half times as many public K–12 students as Germany—that would be the equivalent of a \$25 billion reform package in the United States.

“Five years ago, you couldn’t even carry on a debate about all-day schools without a swarm of critics condemning it,” said Mr. Schleicher to Deutsche Welle, an international broadcast service, in 2007. Now, “the question is how to implement the concept, how to do it well—even among the most conservative politicians.”<sup>37</sup> International benchmarking played a role in transforming that conversation; OECD data showed that German students in early grades had significantly less total compulsory instruction time than the international average.<sup>38</sup> From 2002 to 2005, the number of German students in all-day primary school doubled, and it continues to increase.<sup>39</sup>

For German policymakers, students’ greatly improved performance on PISA provides positive reinforcement for making changes. When the results of the 2006 PISA were released on December 4, 2007, they showed that Germany had reached thirteenth place out of fifty-seven countries tested. This ranking was an improvement from its placement in 2003, when it was eighteenth among forty countries, and even more so than in 2000, when the country landed in the bottom third among the thirty-two developed nations who participated.

Germany is not the only country that has used international benchmarking to help galvanize educational reform. In Mexico, which saw significant growth on PISA from 2003 to 2006, national leaders are well versed in PISA results and keen to benchmark against the best nations. Mr. Schleicher reported that, during his visit to Mexico in January 2007, President Felipe



Calderón displayed detailed knowledge of the PISA results and made time to discuss a proposal for setting benchmarks and a timeline for improving Mexico’s rankings on international assessments. He added that “the teachers’ unions and business leaders were very interested in discussion of the results, too, whereas before PISA came out there was a survey showing that 78 percent of the public thought education in Mexico to be just fine.”<sup>40</sup>

Brazil, another country achieving significant PISA gains, has gone one step further. The Brazilian national assessment is now aligned with PISA, and the government provides all high schools with annual test results that show how well their students stack up internationally. Brazil has set a goal to have all high schools meeting the international average by 2021.<sup>41</sup>

### Beyond PISA: A World of Missed Opportunities for the United States

In addition to poor performance and declining rankings on PISA, the United States can boast only a spotty record of participation in the OECD’s more in-depth education studies that provide valuable information regarding factors behind the results and allow nations to compare their policies and practices to those of top performers. For example, the United States partici-

pated in a study of policies to improve teaching skills, but it did not volunteer for an in-depth, onsite “country review” of teacher-related policies. Furthermore, the United States chose not to participate *at all* in several subsequent studies, which garnered participation of more than twenty other nations and focused on higher education and school leadership.<sup>42</sup>

Figure 6: Countries Participating in OECD Studies of Education Policy and Practice

On-Site Reviews of National Policies for Education	Attracting, Developing and Retaining Effective Teachers - Analytical Review	Attracting, Developing and Retaining Effective Teachers - Country Review	Higher Education for the Knowledge Society - Analytical Review	Higher Education for the Knowledge Society- Country Review	Improving School Leadership	Teaching and Learning International Survey (TALIS)
Albania	Australia	Austria	Australia	China	Australia	Australia
Bosnia-Herzegovina	Austria	Belgium (1)	Belgium (3)	Croatia	Austria	Austria
Bulgaria	Belgium (1)	Germany	Chile	Czech Republic	Belgium (4)	Belgium
Chile	Canada (2)	Hungary	China	Estonia	Chile	Brazil
Croatia	Chile	Italy	Croatia	Finland	Denmark	Bulgaria
Denmark	Denmark	Korea	Czech Republic	Iceland	Finland	Denmark
Dominican Republic	Finland	Spain	Estonia	Japan	France	Estonia
Estonia	France	Sweden	Finland	Korea	Hungary	Hungary
Finland	Germany	Switzerland	France	Mexico	Ireland	Iceland
Macedonia (FYROM)	Greece		Greece	Netherlands	Israel	Ireland
Ireland	Hungary		Iceland	New Zealand	Korea	Italy
Italy	Ireland		Japan	Norway	Netherlands	Korea
Kazakhstan	Israel		Korea	Poland	New Zealand	Lithuania
Korea	Italy		Mexico	Spain	Norway	Malta
Kosovo	Japan		Netherlands		Portugal	Malaysia
Latvia	Korea		New Zealand		Slovenia	Mexico
Lithuania	Mexico		Norway		Spain	Netherlands
Moldava	Netherlands		Poland		Sweden	Norway
Montengro	Norway		Portugal		United Kingdom (5)	Poland
Norway	Slovak Republic		Russian Federation			Portugal
Portugal	Spain		Spain			Spain
Romania	Sweden		Sweden			Slovak Republic
Russian Federation	Switzerland		Switzerland			Slovenia
Scotland	United Kingdom		United Kingdom			Turkey
Serbia	United States					
Switzerland						
Turkey						

NOTES:1) Flemish and French Communities, 2) Quebec only, 3) Flemish Community, 4) Flanders and French Community 5) England, Northern Ireland, and Scotland individually

Source: Compiled by the Alliance for Excellent Education from information in various OECD web pages and reports.

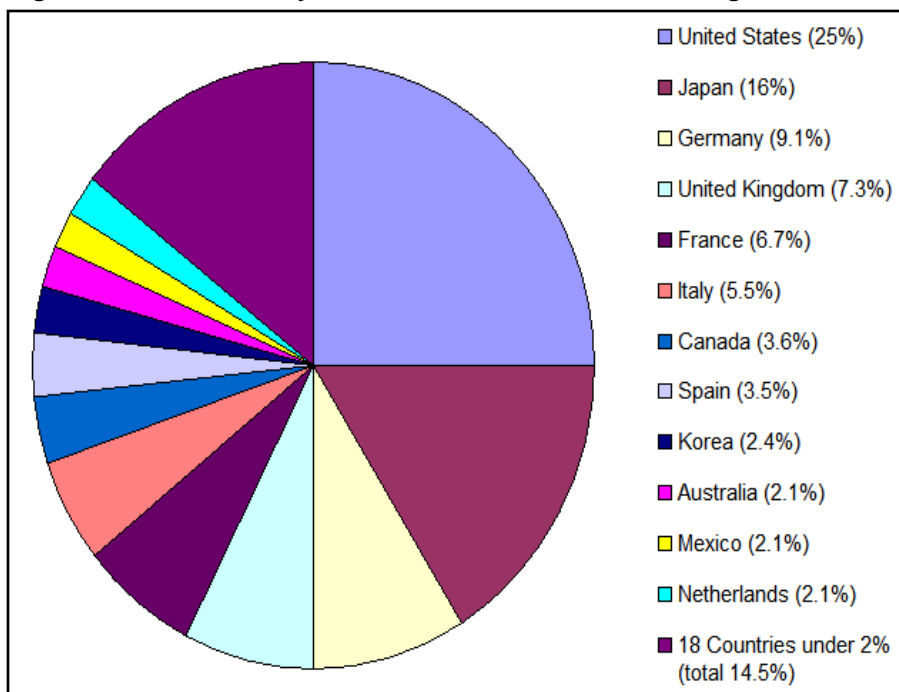


Most recently, the United States declined participation in the OECD's new Teaching and Learning International Survey (TALIS), despite the involvement of twenty-four other countries. Results from this study—which, according to the OECD, is a first-of-its-kind international survey of teachers and school principals focused on learning environments and working conditions—will be released in 2009. The OECD further explains that the “Cross-country analysis from TALIS will allow countries to identify other countries facing similar challenges and to learn from other policy approaches.”<sup>43</sup> The United States' decision to sit out of participating in the survey is especially unfortunate because TALIS will include a special focus on strategies for evaluating and rewarding teacher performance and offering effective professional development—issues that have bedeviled American education, both pedagogically and politically, for decades.

The United States' refusal to participate fully in these educational studies certainly does not seem tied in any way to skepticism about the OECD or its work, particularly given the United States' financial commitment to the organization. Among the thirty member nations, the United States is by far the largest contributor, providing nearly 25 percent of the OECD's approximately \$530 million budget—which covers a range of policy areas in addition to education.<sup>44</sup> The United States provides a smaller proportion of the Education Directorate's budget than other OECD member nations because a number of projects—such as PISA—are funded by participant countries or by voluntary contributions. From a big-picture perspective however, some might say that the United States is

underwriting opportunities for other nations to learn how to improve their education systems while forgoing these opportunities itself.

**Figure 7: Contributions by Member Nations to Total OECD Budget**



**NOTE:** Contributions in pie chart are presented clock-wise in descending order, beginning with the United States (25%).

Source: Organisation for Economic Co-operation and Development (OECD), “Scale of members’ contributions to the OECD’s core budget- 2008,” [http://www.oecd.org/document/14/0,2340,en\\_2649\\_201185\\_31420750\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/14/0,2340,en_2649_201185_31420750_1_1_1_1,00.html) (accessed February 20, 2009).

While the United States remains anchored to the sidelines, other countries are actively participating and reaping much greater returns on their investments. Korea, for example, provides 2.4 percent of the OECD's overall operating budget—about a tenth the contribution of the United States—but has participated fully in every major OECD education study, including an onsite country review in 1998.<sup>45</sup> Is the Korean investment producing a worthwhile return? In December 2007, officials revealed that Korea had boosted its PISA reading performance by an astounding thirty-one points—the equivalent of almost an entire school year—between 2000 and 2006.<sup>46</sup>

America's educational myopia and its reluctance to look beyond its borders, is likely to

have serious repercussions. Mr. Schleicher points out that by benchmarking their performance and policies internationally, other nations are benefitting from lessons that cannot be learned simply by looking at school systems within their own countries. An international economic study released in March 2008 confirms his opinion. Examining educational efficiency, the OECD found “significant differences across countries.” The same report suggests gains could be made by many countries if they moved to *international* best practices, specifically naming Greece, Hungary, Iceland, Luxembourg, Norway, and the United States as those that would benefit.<sup>47</sup> As for the United States, the analysis showed that it has relatively little to gain by trying to improve its educational system simply by looking at the lessons that are coming out of its own top-performing schools.<sup>48</sup>

Vivien Stewart, vice president for education at the Asia Society, says that leaders in the countries she visits are hungry to benchmark educational performance and policies internationally and work hard to seek out the most effective practices across the globe. “China, before it engages in any reforms, will send teams to examine best practices around the world. It will send folks to look at the U.K. school inspectorate system\* and at evaluation systems in other countries. Much of the Chinese curriculum reform is based on looking at systems in Europe and North America. China is doing this with a vengeance because it traditionally has been cut off from the rest of the world and wants to catch up quickly.”<sup>49</sup>

Even when the United States does participate in OECD-sponsored efforts to collect statistics on educational outcomes, it still falls short. Other nations with federal systems in which states or provinces have authority over education have found ways for those regional units to partici-

pate in PISA. This strategy makes sense given the rapid development of a global economy and international labor market in which students will one day compete for good jobs against their peers from other countries, not just other states. Thus, Germans, Canadians, Spaniards, and Mexicans can determine not only how well their students perform nationally compared with those in other countries, but also how well students in their different states and provinces perform against international benchmarks.

In fact, the United States is now the *only* OECD nation with a federal education system whose individual states still do not participate in PISA.<sup>50</sup> Mr. Schleicher points out that state-level participation was not originally planned but rather resulted from interest by member nations and their states. “It turned out that the relevant comparison in many of these countries was not to compare states with each other but rather to compare them with other nations,” he relates. “...so that’s what they requested.” A handful of states in the United States have expressed similar interest, but given the tight economic times and additional cost, their ability to participate is limited without support from the federal government.<sup>51</sup>

Knowledgeable observers say that not having state participation must change. “States are no longer competing with just the states next door but with countries around the world,” argues Ms. Stewart. “Their students are competing with students in Singapore, Shanghai, and Salzburg; it’s important to have a sense of whether they are being prepared to thrive in a global, knowledge-based economy.”<sup>52</sup> She points out that by the end of this year, as noted earlier, China will have administered the PISA assessment to students in fourteen of its twenty-three provinces.

Even in the national-level PISA study, America’s federal government participates only at the most basic level. Mr. Schleicher notes that, “It’s the smallest possible sample size, the smallest

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\* A school inspectorate system is a United Kingdom government agency responsible for a school inspection, review, and public reporting function.



data collection. The United States does not administer the parent survey other countries do, for example. Compare that with the wealth of data in the German PISA reports. In the United

States, PISA is used for achievement rankings rather than an in-depth study of how the United States differs from other countries educationally.”<sup>53</sup>

### **United States Also Absent from Other International Studies**

The United States is not just refraining from taking advantage of the educational assessment opportunities offered by the OECD. On TIMSS, as well, the nation has decided to participate only at the most minimal level.

The TIMSS-Advanced study assesses students in their last year of high school on knowledge of advanced math and physics. In 1995, when TIMSS-Advanced was last administered, students from the United States performed particularly poorly. Over the past decade, American business leaders and policymakers have warned, with increasing fervor, that these are areas in which students must do better if the country is to continue to thrive. For instance, ExxonMobil chairman and CEO Rex W. Tillerson said that “continuing to make focused and aggressive improvements in both the way the subjects [of math and science] are taught and learn will make a vital impact in retaining the nation’s economic competitiveness and reassuring young people of a secure future.”<sup>54</sup>

Interestingly, the few states that participate occasionally in the TIMSS process confirm the value of international participation, both at the federal and state levels. Minnesota and Massachusetts are the only two states that participated in the original TIMSS assessment in 1995 and in the most recent 2007 process. Both states’ eighth-grade scores were above the international and U.S. averages; and the two states are recognized for having instituted rigorous standards.<sup>55</sup> In a recent *Education Week* article, Michigan State University researcher Bill Schmidt observed that Minnesota officials “looked beneath” their TIMSS scores at what is

taking place in the classroom. “That’s where all states could really benefit,” he concluded.<sup>56</sup>

Yet the U.S. Department of Education chose *not* to participate in the 2008 TIMSS-Advanced study. In a letter to Congress, Dr. Francis Fennell, then president of the National Council of Teachers of Mathematics pointed out, “This study is well aligned with the American Competitiveness Initiative, and it supports our nation’s increasing focus on ... high school students’ education and preparedness for higher education or the workforce. ... Not participating in this worldwide assessment will deprive us of data that cannot be gathered through any other means.”<sup>57</sup> Even so, ED officials said that staffing and budget constraints made participation in the TIMSS-Advanced study impossible.<sup>58</sup> The United States also has declined to participate in the IEA’s assessment of civics and citizenship that eighth graders in thirty-nine countries will take next year, as well as a 2006 study of educational technology.<sup>59</sup>

Budgetary reasons were a frequent justification cited by the Bush administration for not participating in surveys and studies beyond the basic PISA. However, other nations seem to have found significant return on investment from whatever additional expenditures are required. Citing “budget reasons” is too often a self-fulfilling prophecy. Budgets are a statement of priorities. If ED does not state that international comparisons are a priority, then Congress will not allocate the funds. Significant educational benefits could accrue if the Obama administration makes U.S. participation in international comparisons a higher-priority budget request.





## Uninformed and Unconcerned

According to one recent analysis, if the United States had managed to improve students' science and math skills during the 1990s—enough to match top-performing countries on the 2006 PISA assessment—then the nation's Gross Domestic Product (GDP) would have increased by 4.5 percent by 2015, a dollar amount equal to what the U.S. federal government currently spends per year on K–12 education. Even if the United States takes twenty years to reform and become globally competitive, its GDP could eventually realize an increase by a substantial 36 percent.<sup>60</sup>

In addition to its lack of *participation*, the United States also suffers from a lack of *attention* to the international data that are available. In America, the release of PISA results and other outcome indicators is more likely to be met with indifference than with shock. The German PISA shock was prompted by results showing that students in “the land of poets and philosophers” ranked below average on the 2000 PISA. But when the news came out in December 2007 that U.S. students had slipped from twenty-fourth to twenty-fifth in mathematics, American leaders and the media reacted apathetically. The only department recognition of the continued U.S. international slippage was a routine press release simply announcing the results. Few reporters even covered the story. In response to the news of further educational decline, federal officials offered no major new proposals designed to help schools improve. Moreover, education did not become a major priority in the presidential campaign or in most congressional races.

According to Mr. Schleicher, awareness of PISA results and other international data is

much greater among the general public in other countries. “If you visit Spain or Belgium or Germany or Japan, you can almost go and ask people on the street, and they will know about PISA and international benchmarking,” he contends. That phenomenon has gone hand-in-hand with increasing interest among national leaders. “We survey the member countries on their education policy priorities,” said Mr. Schleicher, “and in the last few years, student performance and international benchmarking has consistently come out at the top.”<sup>61</sup>

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Source: E.A. Hanushek, D.T. Jamison, E. A. Jamison, and L. Woessman, “Education and Economic Growth,” *Education Next* 8, no. 2 (2008): 62–70.

Other countries are heeding global and economic realities and are pushing harder and faster to improve their education systems while the United States ignores the warning signs and passes up opportunities to learn and improve. Future generations of Americans will not thank current leaders for their educational myopia. “All around the world, governments are seeking insights into how to improve education systems, and some are doing a remarkable job,” says Sir Barber. The United States must wake up in order to keep up.



## Recommendations

The time for educational myopia is past. State leaders should take action to internationally benchmark their education systems, but leadership on global competitiveness must also come from the highest national level. Fortunately, the Obama administration has the opportunity to call attention to lackluster American performance on PISA and to promote greater U.S. involvement in international benchmarking. In this spirit, the Alliance for Excellent Education offers the following recommendations for the president and the secretary of education:

- 1. The U.S. Department of Education should immediately undertake a comprehensive analysis that (a) reviews its current policies and participation in international comparisons, (b) evaluates the ongoing international educational studies that have numerous nations' involvement, and (c) prepares recommendations for the new Secretary about what changes should be made in U.S. participation.**

The new federal education leadership is inheriting years of Department of Education (ED) practice that chose not to participate fully in international education comparisons. Rather than simply continue these questionable practices, the new secretary of education has an excellent opportunity to review and develop policies for ED's international involvement. Given the growing interest in the U.S. Congress and the news media over the past three years in how our students perform compared to their international counterparts, conducting this review early into the administration will provide a timely foundation for responding to this important issue.

*One option to inform this review and ensure the quality of the above-mentioned recommendations is for the secretary to convene an advisory group of experts to add their insights in the process.*

- 2. The U.S. Department of Education should commit to meaningful U.S. participation in major international benchmarking opportunities, including the Organisation for Economic Co-operation and Development's (OECD) future education studies.**

Currently, federal support for international benchmarking focuses primarily on the data gathering of educational outcomes. But other countries are also analyzing the effective *policies and practices* being used to improve the educational outcomes of other OECD nations. ED should make every effort to support both kinds of benchmarking to enable education leaders to work toward building a globally competitive education system in the United States.

- 3. The U.S. Congress should appropriate the amounts necessary to participate fully in the PISA benchmarking and evaluation process as well as other relevant international benchmarking studies.**

If funding is truly the barrier keeping the United States from fully participating in international benchmarking and assessments, the president should request additional money to fund that participation, and Congress should provide it.

- 4. The U.S. Congress should conduct periodic oversight hearings regarding our nation's international education performance, efforts underway to learn from other nation's success, and actual application of international practices that could benefit education in the United States.**

If international benchmarking is to become an integral part of America's education reform effort, then its national education leaders must demonstrate their own understanding of its importance. Congress should be regularly asking what it is doing to take advantage of this critical opportunity.



**5. The U.S. Department of Education should work with the OECD and state leaders to provide opportunities for states to participate in future PISA studies.**

The United States is the only OECD nation with a federal-style education system in which state leaders cannot accurately evaluate how well their students perform on PISA. ED should work with state membership organizations to gauge the interest of governors and chief state school officers in PISA, investigate and provide advice on any technical hurdles to participation, and seek financial support from Congress to underwrite the cost of state participation.

**6. The U.S. Department of Education should work with the OECD to ensure that administrative errors do not compromise the release of future PISA results.**

The OECD was not able to report PISA 2006's reading results for the United States because of a contractor's printing error. Department officials should conduct an audit to determine how the error occurred and work with the OECD to ensure that adequate guidelines and safeguards are in place for the PISA 2009 study.

**7. The U.S. Department of Education should work with education, business, and other interested organizations to create ongoing public awareness and interest in the importance of international education comparisons.**

The 2003 PISA results attracted very little press coverage and public attention, in part because ED merely issued a press release. The 2006 results received slightly more national attention, due to the efforts of several national education organizations that worked together to promote the findings.\* For its part, ED once again issued a press release and held a telephone briefing for reporters. The Obama administration should work with a wide range of organizations to develop a better plan for communicating the PISA 2009 results. Ideally, ED secretary would visibly announce the PISA findings, promote practices that will improve the results, and aggressively use those PISA results to push for education reform that is based on international best practices. Americans have a right to know where U.S. students rank in comparison to their international peers and to demand that their leaders respond boldly.

\*These organizations included the Alliance for Excellent Education, Asia Society, Business Roundtable, College Board, Council of Chief State School Officers, ED in '08, and National Governors Association.



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