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Public Education Policy And Progress



MORE GOOD, LESS BAD, AND STILL NEED FOR IMPROVEMENT: Latest International Test Reveals U.S. Progress in Math and Narrowing Achievement Gaps, but No Improvement in Science

United States fourth- and eighth-grade students perform better than the international average in math and science according to the results from the 2007 Trends in International Mathematics and Science Study (TIMSS). And, since the test was first given in 1995, math scores at both the fourth- and eighth-grade levels have risen. Additionally, the gaps between the average math and science scores of white students and their African American and Hispanic peers have narrowed somewhat. That's the good news. The bad news is that students' science scores have stagnated while ugly achievement gaps remain between white students and African American and Hispanic students—both in subjects and grade levels.

“Today's TIMSS results reconfirm what we have long known—if we set high expectations, our children will rise to the challenge,” said **U.S. Secretary of Education Margaret Spellings**. “I am encouraged that U.S. students are improving, and particularly that many children who were once left behind are now making some of the greatest gains in math. But flat science scores and increasing international competition remind us that we can't afford to be complacent.”

In math, eighth-grade students' average score of 508 was higher than the 492 average score on the 1995 test. In addition, minority students increased their average scores and narrowed the gap between their scores and those of their white counterparts from 1995 to 2007. As demonstrated in the table below, the gap between the average eighth-grade scores of white and African American students shrank from ninety-seven points to seventy-six points, while the gap between white and Hispanic students decreased from seventy-three points to fifty-eight points.

	1995 Average Math Score	Gap Versus White Students	2007 Average Math Score	Gap Versus White Students
White	516	N/A	533	N/A
African American	419	-97	457	-76
Hispanic	443	-73	475	-58

Compared internationally, U.S. eighth graders' average score in math was higher than the TIMSS scale average of 500 and placed the United States ninth out of the forty-eight countries that participated, as shown in the table on page two.

More Good, Less Bad, and Still Need for Improvement (Continued from p. 1)

Top Fifteen Average Math Scores of Eighth-Grade Students

Country	Average Score	Country	Average Score
Chinese Taipei	598	<i>United States</i>	508
Republic of Korea	597	Lithuania	506
Singapore	593	Czech Republic	504
Hong Kong	572	Slovenia	501
Japan	570	TIMSS Scale Average	500
Hungary	517	Armenia	499
England	513	Australia	496
Russian Federation	512	Sweden	491

In science, U.S. eighth graders' average score of 520 was not measurably different from the 513 average score on the 1995 test. Nor was the 551 average score that white students earned measurably different from the 544 average score from 1995. However, because both African American and Hispanic students posted average scores that were significantly higher than in 1995, the gaps between them and their white peers narrowed somewhat.

	1995 Average Science Score	Gap Versus White Students	2007 Average Science Score	Gap Versus White Students
White	544	N/A	551	N/A
African American	422	-122	455	-96
Hispanic	446	-98	480	-71

Compared to their international peers, U.S. eighth graders' average score in science was higher than the TIMSS scale average (500) and placed the United States eleventh out of the forty-eight countries that participated, as shown in the table below.

Top Fifteen Average Science Scores of Eighth-Grade Students

Country	Average Score	Country	Average Score
Singapore	567	Hong Kong	530
Chinese Taipei	561	Russian Federation	530
Japan	554	<i>United States</i>	520
Republic of Korea	553	Lithuania	519
England	542	Australia	515
Hungary	539	Sweden	511
Czech Republic	539	TIMSS Scale Average	500
Slovenia	538	Scotland	496

However, as **Mark Schneider, vice president for new educational initiatives at the American Institutes for Research**, argues in a recent *Education Week* commentary, the United States is doing far worse internationally than TIMSS indicates. He points out that the list of countries that participate in TIMSS is considerably different from the countries that participate in the other leading international assessment, the Program for International Student Assessment (PISA). According to PISA, an assessment of fifteen-year-old students sponsored by the Organisation for Economic Co-operation and Development (OECD), the United States fares far worse, placing twenty-first out of thirty OECD countries in science and twenty-fifth in mathematics.

“The 30 countries that make up the OECD represent the largest and most advanced economies in the world, who better represent our trading partners and our competitors than does the list of

countries in TIMSS,” he writes. “Only about half the OECD countries took part in the 4th grade TIMSS, and only about a third of them participated in the 8th grade assessment.”

TIMSS, on the other hand, only includes about a dozen OECD countries, and a handful of high-performing non-OECD countries such as Chinese Taipei and Singapore. However, as Schneider notes, the TIMSS average also includes many less-developed countries, such as Jordan, Romania, Morocco, and South Africa. “Including these low-performing countries in the calculation of the international average drives down that average, improving the relative performance of our students,” he writes.

More information on the TIMSS, as well as the complete results, is available at <http://nces.ed.gov/timss/>.

Mark Schneider’s complete commentary is available at <http://www.edweek.org/ew/articles/2008/12/04/15schneider.h28.html>.



ECONOMIC WOES HIT STATES: Education Spending Cut as Recession Affects State and Local Budgets

Earlier this month, the National Bureau of Economic Research confirmed that the United States has been in a recession since December 2007. In the last year, the U.S. economy has shed nearly two million jobs, the Dow Jones Industrial Average has lost more than one third of its value and, if that wasn’t enough, more than one million homes have been lost to foreclosure since August 2007.

The American public has seen firsthand the impact that these developments have had on individual retirement plans and the nation’s financial institutions, as well as on housing and the automobile industry. Similarly, state and local budgets have felt the pinch. According to a publication released earlier this year by the Center on Budget and Policy Priorities (CBPP), twenty-nine states have already faced a combined shortfall of more than \$48 billion in their budgets for fiscal year 2009, which began July 1, 2008 in most states.

“The bursting of the housing bubble has reduced state sales tax revenue collections from sales of furniture, appliances, construction materials, and the like,” it reads. “Weakening consumption of other products has also cut into sales tax revenues. Property tax revenues have also been affected, and local governments will be looking to states to help address the squeeze on local and education budgets. And if the employment situation continues to deteriorate, income tax revenues will weaken and there will be further downward pressure on sales tax revenues as consumers become reluctant or unable to spend.”

Indeed, pressures on state budgets have only increased in recent months. Now, in a new publication, CBPP says that new budget gaps have opened up in at least thirty-seven states and the District of Columbia and total more than \$31.2 billion. Looking ahead to fiscal year 2010, the report, which was released earlier this month, says that all but a “handful” of states will face shortfalls that are projected to total more than \$100 billion.

Economic Woes Hit States (Continued from p. 3)

A Sampling of States With Projected Fiscal Year (FY) 2010 Budget Gaps

State	Size of Gap	Percent of FY 2009 General Fund
Arizona	\$2.2 billion	21.9%
California	\$19.5 billion	19.3%
Florida	\$5.6 billion	21.9%
Kansas	\$959 million	15.0%
New York	\$12.5 billion	22.2%
South Dakota	\$32 million	2.7%
Virginia	\$1.8 billion	10.6%
Wisconsin	\$2.9 billion	20.5%

Unlike the federal government, most states' constitutions do not allow them to run budget deficits. Therefore, states largely resort to several methods to close gaps between revenue and expenses—cutting spending, tapping reserves from “rainy day” funds, raising taxes, or some combination of the three. Already, at least ten states have enacted across-the-board budget cuts while another ten are considering them, according to the National Conference of State Legislatures. It adds that five states have tapped their rainy day funds and six others are examining that option.

Because education consumes nearly half of general fund spending in many states, it often is a necessary target for cuts.¹ In fact, many of the nation's governors have already cut spending on education as they struggle to contain budget deficits that are projected to represent up to 20 percent of the state's general fund in some instances. (As a comparison, states devoted an average of 16.6 percent of their general fund for Medicaid spending in fiscal year 2007, according to the National Association of State Budget Officers.)

According to CBPP, at least sixteen states are cutting spending on K–12 and early education. For example, Florida, Georgia, and South Carolina have each cut school aid by an estimated \$95 or more per pupil. Additionally, at least twenty-one states have made cuts in postsecondary education that have resulted in reductions in faculty and staff, as well as in college tuition hikes of 5 to 15 percent in more than half of those states. In Rhode Island, students are facing midyear tuition hikes on top of increases that were enacted at the beginning of the academic year.

The CBPP report notes that expenditure cuts and tax increases are problematic policies during an economic downturn because they reduce overall demand and can further slow a state's economy and contribute to the further slowing of the national economy as well. It adds that budget cuts are often deeper in the second year of a state fiscal crisis because reserves have been drawn down and are no longer an option for closing deficits.

For these reasons, the nation's governors have asked for help from President-elect Barack Obama, who has said that he hopes to sign an economic recovery bill into law shortly after

¹ In most cases, a state's general fund is its primary operating fund and is composed of revenues from direct general taxes paid by citizens and businesses. Money from this fund is used to cover the majority of state expenses, including elementary, secondary, and postsecondary education, Medicaid, corrections, transportation, economic development, and public health and safety. According to the National Association of State Budget Officers, elementary and secondary education made up an average of 34.4 percent of state spending within the general fund in fiscal year 2007 while higher education accounted for 11.2 percent.

taking office on January 20. The exact size and scope of the planned package remains unknown, but estimates on its size continue to grow with each additional report of poor economic news. As Obama said on NBC's *Meet the Press* on December 7, "We've got to make sure that the economic stimulus plan is large enough to get the economy moving. Even with the country \$1 trillion in debt, we can't worry, short term, about the deficit."

If aid to states is included in an economic recovery bill, it may be modeled after the assistance that the federal government provided to states during the last recession in 2001. At that time, the federal government provided \$10 billion to states with no strings attached and an additional \$10 billion to help with Medicaid costs.

"State Budget Troubles Worsen" is available at <http://www.cbpp.org/9-8-08sfp.htm>.

"Twenty-Nine States Faced Total Budget Shortfall of at Least \$48 Billion in 2009" is available at <http://www.cbpp.org/1-15-08sfp.pdf>.

Teachers, Professors Get Creative to Raise Money During Tight Budget Environments

As the recession takes its toll on school budgets around the nation, some instructors are coming up with new ideas for raising revenue for their programs and courses.

A recent article in *USA Today* features Rancho Bernardo High School in suburban San Diego, where administrators recently informed teachers that the district was cutting spending on supplies by nearly one third. That was a problem for **calculus teacher Tom Farber**, who realized that, at 3 cents per page, his tests would cost about \$184 more than his copying budget allowed. Because Farber wanted to give his students enough practice for the Advanced Placement test in the spring, he took matters into his own hands and started selling advertisements on his test papers. His price scale was \$10 for a quiz, \$20 for a chapter test, and \$30 for a semester final.

According to the article, Farber has collected about \$350 from his venture and his final semester is sold out. Most of the ads are inspirational messages from parents, but some are ads for local businesses, such as two from a structural engineering firm and one from a dentist who urges students, "Brace Yourself for a Great Semester!" **Paul Robinson, the principal of Rancho Bernardo**, tells *USA Today* that reactions have been "mixed," but notes that "It's not like, 'This test is brought to you by McDonald's or Nike.'"

Officials at the University of Montana at Missoula were not as willing to condone advertisements in the classroom. In recent months, professors in the history department were told that long-distance phone calls would no longer be paid by the university and that the annual travel budget would be cut to \$350 per person. The final straw may have been when the copy machine ran out of toner and the department had to finish the semester without it.

According to an article in the *Chronicle of Higher Education*, **Professor Kyle G. Volk** set up an agreement with El Diablo, a locally owned taqueria, to sponsor his course, "The Americans: Conquest to Capitalism" for \$250. In exchange, "Mr. Volk plastered the restaurant's logo on the syllabus, handed out the stickers to the course's 250 students and, on the first day of class, projected its stick-figure devil image, with horns, tail, and pitchfork, on one of the classroom's walls," the article reads.

When university officials found out about Volk's new sponsorship, they told him that his agreement violated a 1977 campus policy that reads, "the use of paid advertising relevant to academic programs or offerings shall be limited to the dissemination of information rather than solicitation." However, because the officials ruled that Volk made a "good-faith mistake," he was not punished.

"Ads on tests add up for teacher" is available at http://www.usatoday.com/news/education/2008-12-01-test-ads_N.htm.

"When Ads Enter the Classroom, It's a Deal With El Diablo" is available at <http://chronicle.com/free/v55/i16/16a00104.htm>.



MEASURING UP: Report Finds States Make Little to No Improvement in Providing Access to College and Ensuring Success

Although states have made modest gains in preparing students for college, more students are failing to graduate from high school, according to a new report from the National Center for Public Policy and Higher Education (National Center). Based on two decades of data, the report, *Measuring Up 2008*, also finds that states are making little to no progress in providing affordable college opportunities or improving college completion rates for students.

“State leaders face a crucial option for higher education policy as they balance their budgets,” notes **Patrick M. Callan, president of the National Center**. “They can respond as most states have in the past, by continuing to allow tuition to rise dramatically and passing the brunt of the financial distress onto students and families. Or they can establish state policies for tuition and financial aid that balance the financial burden among the state, the institutions of higher education, and students and families. This second option protects educational opportunity at a time when the states and the nation need a better-educated citizenry.”

As the report points out, nearly all individuals in today’s economy need education and training beyond high school in order to land a well-paying job and support a family. It adds that some states have made “modest advances” in college access and completion, but that these improvements are “overshadowed by larger gains in other countries.” Among twenty-five to thirty-four year olds, for example, the United States has slipped to tenth in percentage of individuals who have an associate’s degree or higher.

The report finds large disparities in college access and college completion rates for minority and low-income students. In fact, among high school graduates, 73 percent of white students enroll in college the fall after receiving a diploma, compared to only 58 percent of Hispanics and 56 percent of African Americans. In terms of family incomes, 91 percent of high school students from families earning above \$100,000 a year enroll in college right after graduation, compared to 78 percent from families earning from \$50,001 to \$100,000, and 52 percent from families earning less than \$20,000. The National Center also identified substantial differences in college enrollment rates across states. In California, high school freshmen are 17 percent less likely to enroll in college than their peers in Massachusetts.

Measuring Up 2008 is the most recent in a series of national and state-by-state reports that began in 2000 as a way for states to compare their own higher education outcomes to the best performers in the United States and internationally. As in earlier editions, this year’s report evaluates states in six key areas: preparation for college, participation and access to college, affordability, college completion, benefits, and learning.

The complete report is available at <http://measuringup2008.highereducation.org/index.php>.



NEW BRIEF EXAMINES THE ROLE OF CAREER AND TECHNICAL EDUCATION IN CAREER GUIDANCE

In light of the increasingly high-tech and global economy, today’s students need stronger career guidance than ever before, and comprehensive career and technical education (CTE) programs can provide much of this support. So says “Career and Technical Education’s Role in Career Guidance,” a new brief by the Association for Career and Technical Education (ACTE).

The brief cites a study by the Bureau of Labor Statistics that estimated that 15.6 million new jobs would be added to the workforce between 2006 and 2016—many of them requiring strong math, technology, and communication skills. But, as ACTE notes, too few members of the workforce are adequately prepared to perform the duties required for the jobs of today and the future.

The brief adds that today’s students are largely unprepared to “navigate the changing workplace,” a situation that can be related to limited career knowledge and awareness. “More than half of high school students say no one in their school has been helpful in advising on career options or options to further their education,” it reads. “Without structured guidance activities, young people tend to drift through their high school education without gaining knowledge of all the career opportunities available to them or the skills that are required.”

However, the average student to counselor ratio currently stands at 479 to 1, compared to 250 to 1 as recommended by the American School Counselor Association. The brief argues that CTE programs, with their emphases on career clusters and career pathways, can complement counselors’ guidance efforts.

Career clusters are defined in the brief as “broad groupings of occupations or careers used as an organizing tool for curriculum design and instruction.” It notes that many states are utilizing them through the States’ Career Clusters Initiative, which helps states connect education with the working world and the economy. A career pathway, on the other hand, is defined as a sequence of rigorous academic and career courses that starts in the ninth grade and leads to a postsecondary degree (e.g., an associate’s) or an industry recognized certificate or licensure.

“Regardless of the specific terminology used,” says the brief, “the systematic course planning and design involved in these efforts provide tremendous tools for career guidance....These tools will open new opportunities for career exploration while providing students with very clear pathways to future education and success.”

The brief considers CTE programs’ “ability to engage students in the educational and career decision-making process” through personalized learning as perhaps its most important contribution to career guidance. Key elements of personalization include an individualized graduation plan, which maps out the courses an individual student should take, and work-based learning experiences such as internships and community service projects.

To download the entire brief, which includes examples of successful CTE initiatives in South Carolina, Texas, and Utah, visit <http://tinyurl.com/6l9ssr>.

	<p style="text-align: center;">Happy Holidays from the Alliance for Excellent Education!</p> <p>The Alliance for Excellent Education wishes you and yours a happy holiday season and best wishes for the new year!</p> <p>This issue is the last before the Alliance newsletter—although not the Alliance staff—settles in for a short winter’s nap. The next issue of <i>Straight A’s</i> will be dated January 12, 2009.</p>
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Straight A’s: Public Education Policy and Progress is a biweekly newsletter that focuses on education news and events both in Washington, DC, and around the country. The format makes information on federal education policy accessible to everyone from elected officials and policymakers to parents and community leaders. The Alliance for Excellent Education is a nonprofit organization working to make it possible for America’s six million at-risk middle and high school students to achieve high standards and graduate prepared for college and success in life.



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STRAIGHT A'S IS GOING GREEN!

Beginning in January 2009, Straight A's will only be available electronically. Don't miss a single issue!

To give you the latest information on secondary school improvement from Washington and around the nation faster—and to reduce paper consumption—the Alliance has eliminated the “snail mail” delivery of *Straight A's*.

Because the Alliance for Excellent Education already has your email address on file, it will automatically switch you to the electronic version beginning in January 2009. If you have any questions, or want to make sure that the Alliance has your correct email address on file, please email Jason Amos at jamos@all4ed.org by January 5, 2009.

