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Public Education Policy And Progress



USING TECHNOLOGY TO SUPPORT AT-RISK STUDENTS' LEARNING: Technology Can Close Achievement Gaps and Improve Learning Outcomes for At-Risk Students, Finds New Alliance Report

As school districts around the country consider investing in technology as a way to improve student outcomes, a new report from the Alliance for Excellent Education and the Stanford Center for Opportunity Policy in Education (SCOPE) finds that technology—when implemented properly—can produce significant gains in student achievement and boost engagement, particularly among students most at risk.

“This report makes clear that districts must have a plan in place for how they will use technology before they make a purchase,” said **Bob Wise, president of the Alliance for Excellent Education and former governor of West Virginia**. “It also underscores that replacing teachers with technology is not a successful formula. Instead, strong gains in achievement occur by pairing technology with classroom teachers who provide real-time support and encouragement to underserved students.”

Written by **Stanford Professor and SCOPE Faculty Director Linda Darling-Hammond, Stanford Professor Shelley Goldman, and doctoral student Molly B. Zieleszinski**, the report is based on a review of more than seventy recent research studies and provides concrete examples of classroom environments in which technology has made a positive difference in the learning outcomes of students at risk of failing courses and dropping out. Specifically, the report identifies three important components to successfully using technology with at-risk students: (1) interactive learning; (2) use of technology to explore and create rather than to “drill and kill;” and (3) the right blend of teachers and technology.

The report, *Using Technology to Support At-Risk Students' Learning*, also identifies significant disparities in technology access and implementation between affluent and low-income schools. First, low-income teens and students of color are noticeably less likely to own computers and use the internet than their peers. Because of their students' lack of access, teachers in high-poverty schools were more than twice as likely (56 percent versus 21 percent) to say that their students' lack of access to technology was a challenge in their classrooms. More dramatically, only 3 percent of teachers in high-poverty schools said that their students have the digital tools necessary to complete homework assignments, compared to 52 percent of teachers in more affluent schools.

Secondly, applications of technology in low-income schools typically involves computers taking over for teachers and presenting students with information they are expected to memorize before

being tested multiple-choice questions. In more affluent schools, however, students tend to be immersed in more interactive environments in which material is customized based on students' learning needs and teachers supplement instruction with technology to explain concepts, coordinate student discussion, and stimulate high-level thinking.

“When given access to appropriate technology used in thoughtful ways, all students—regardless of their respective backgrounds—can make substantial gains in learning and technological readiness,” said Darling-Hammond. “Unfortunately, applications of technology in schools serving the most disadvantaged students are frequently compromised by the same disparities in dollars, teachers, and instructional services that typically plague these schools. These disparities are compounded by the lack of access to technology in these students’ homes.”

The report includes several recommendations that could expand the use and positive impact of technology among at-risk high school youth:

- Technology access policies should aim for one-to-one computer access.
- Technology access policies should ensure that speedy internet connections are available.
- States, districts, and schools should favor technology designed to promote high levels of interactivity and engagement and make data available in multiple forms.
- Curriculum and instruction plans should enable students to use technology to create content as well as learn material.
- Policymakers and educators should plan for “blended” learning environments, characterized by significant levels of teacher support and opportunities for interactions among students, as companions to technology use.

The report cautions that its recommendations must be accompanied by adequate professional learning opportunities for teachers on how to use the technology and pedagogies that are recommended, including technical assistance to help educators manage the hardware, software, and connections to the internet.

Darling-Hammond and Zieleszinski joined Tom Murray, the Alliance’s state and district digital learning director, for a September 10 webinar on the report. Darling-Hammond discussed the findings and the three factors for success with at-risk students and Zieleszinski reflected on the findings and her time as a classroom teacher in Massachusetts and California. Archived video and PowerPoint presentations from the webinar are available at <http://all4ed.org/webinar-event/sep-10-2014/>.



Using Technology to Support At-Risk Students’ Learning is available at <http://all4ed.org/reports-factsheets/UsingTechnology/>.



GLOBAL COMPETITIVENESS: United States Moves Up in Global Competitiveness Rankings, but Continues to Fare Relatively Poorly in Several International Education Rankings

The United States moved up two spots from five to three in the World Economic Forum's 2014–2015 global competitiveness rankings but fared relatively poorly in several education indicators, including the quality of math and science education and overall quality of its education system. The rankings are contained in *The Global Competitiveness Report 2014–2015*, an annual report from the Forum that highlights key factors that determine economic growth and examines the level of present and future prosperity in 144 countries around the globe.

At the heart of the report is the Forum's global competitiveness index, which is a weighted average of many different components grouped into twelve “pillars” of competitiveness (see table below). It contains a detailed profile for each country, as well as an extensive section of data tables with global rankings covering more than 100 indicators. For the sixth consecutive year, Switzerland ranks first while Singapore ranks second. The top ten countries are in the table to the right.

Country	Rank	Score	Last Year's Rank
Switzerland	1	5.70	1
Singapore	2	5.65	2
United States	3	5.54	5
Finland	4	5.50	3
Germany	5	5.49	4
Japan	5	5.47	9
Hong Kong SAR	7	5.46	7
Netherlands	8	5.45	8
United Kingdom	9	5.41	10
Sweden	10	5.41	6

Since ranking seventh in 2012, the United States has steadily climbed the rankings, placing fifth last year and third this year. The report credits the rise in the U.S. ranking to improvements in a number of areas, including institutional framework (government, legal, business, etc.), more positive perceptions regarding business sophistication, and innovation. The United States's ranking in each of the twelve pillars is shown in the table below.

“U.S. companies are highly sophisticated and innovative, and they are supported by an excellent university system that collaborates admirably with the business sector in research and development,” the report notes. “Combined with flexible labor markets and the scale opportunities afforded by the sheer size of its domestic economy—the largest in the world by far—these qualities make the United States very competitive.”

Included in the Forum's twelve pillars are two measurements of U.S. education—health and primary education (ranking forty-ninth) and higher education and training (ranking seventh).

Category/Pillar	U.S. Rank
Institutions	30
Infrastructure	12
Macroeconomic Environment	113
Health and Primary Education	49
Higher Education and Training	7
Goods Market Efficiency	16
Labor Market Efficiency	4
Financial Market Development	9
Technological Readiness	16
Market Size	1
Business Sophistication	4
Innovation	5

Within the health and primary education pillar, the United States fares poorly on specific indicators, ranking thirty-sixth in quality of primary education and ninetieth in primary education enrollment. Within higher education and training, which is based on secondary and tertiary enrollment rates plus the quality of education as evaluated by business leaders, the United States ranks third in tertiary education enrollment but ranks fifty-ninth in secondary education enrollment and fifty-first in quality of math and science education. Overall, the quality of the United States education system ranks twenty-seventh out of 144 countries.

The report identifies several other weaknesses where the United States can improve, specifically citing trust in politicians (ranking forty-eighth), favoritism of government officials (ranking forty-seventh) and a “general perception” that the government spends its resources relatively wastefully (ranking seventy-third). The report cites the U.S. macroeconomic environment (113th), which includes a budget deficit, low savings, and high level of debt, as the nation’s greatest area of weakness but notes that the U.S. fiscal deficit continues to narrow and its public debt is slightly lower.

Overall, the report notes that the world is “finally emerging from the worst financial and economic crisis of the past eighty years and returning to a pre-crisis situation.” Growth prospects in advanced economies are better than in recent years but very unevenly distributed. At the same time, the report notes that now is no time to be complacent and stresses that risks to the global economic outlook remain “very real.” It largely attributes the improvement of the global economic outlook to “bold monetary policies” but adds that ensuring sustained growth in the future will depend on boosting the level of productivity of economies through smart investments in skills and innovation rather than monetary policy.

The Global Competitiveness Report 2014–2015 is available at <http://reports.weforum.org/global-competitiveness-report-2014-2015/>.



EDUCATION AT A GLANCE: United States Trails Most Countries in Upward Mobility and High School Graduation Rates, According to OECD Annual Report

Since 2000, the U.S. high school graduation rate has climbed 9 percentage points to 79 percent, but it continues to trail the 84 percent rate that is the average of the thirty-four member countries of the Organisation for Economic Co-operation and Development (OECD).¹ Additionally, the percentage of Americans who are attaining or exceeding the level of education reached by their parents is on the decline, according to *Education at a Glance 2014*, the latest annual report in the OECD’s series.

According to the report, only 30 percent of twenty-five- to sixty-four-year-old non-students in the United States have a higher level of education than their parents (upward mobility)—the fourth-lowest among OECD countries and trailing only Austria, the Czech Republic, and

¹ The following countries are members of the OECD: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Germany. In Finland, Korea, and the Russian Federation, more than 55 percent of adults fit this characterization.

“Education can lift people out of poverty and social exclusion, but to do so we need to break the link between social background and educational opportunity,” said **OECD Secretary-General Angel Gurría**. “The biggest threat to inclusive growth is the risk that social mobility could grind to a halt. Increasing access to education for everyone and continuing to improve people’s skills will be essential to long-term prosperity and a more cohesive society.”

Education at a Glance 2014 includes data on the structure, finances, and performance of education systems in the OECD’s thirty-four member countries, as well as a number of partner countries. Included are data on college completion, unemployment and earnings by education level, spending on education, access to early education, teachers’ salaries and working hours, and more.

The complete findings for the United States are available at <http://www.oecd.org/edu/United%20States-EAG2014-Country-Note.pdf>.



CLIMATE CHANGE: Supporting Great Teaching Is Key to A Positive School Climate and Academic Success for At-Risk Students, Finds New Alliance Report

With schools implementing higher academic standards that require engaging and effective teaching, a new report from the Alliance for Excellent Education in partnership with the National Opportunity to Learn Campaign finds that far too many low-income students and students of color do not have access to great teaching that supports a positive school environment. The report, *Climate Change: Improving School Climate by Supporting Great Teaching*, asserts that teachers do not always have the preparation and support needed to develop these skills.

“Students in the most challenged schools benefit most from teachers who possess the ‘know how’ to create positive learning environments,” said **Bob Wise, president of the Alliance for Excellent Education and former governor of West Virginia**. “Unfortunately, many teachers in these schools lack the training and support necessary to create learning environments that are as dynamic inside the classroom as they are in the community and workforce outside the classroom.”

As today’s classrooms continue evolving to prepare students to meet the demands they will face upon high school graduation, the knowledge and skills a teacher possesses become increasingly more important. The report offers recommendations for supporting teachers in creating a positive school climate for all students and represents the final installment in the Alliance’s series of papers on how equitable and effective school discipline policies, equitable access to rigorous and engaging course work, and access to effective teaching work together to create a positive school climate.

Citing data from the U.S. Department of Education’s Office for Civil Rights (OCR), the report states that schools with the highest enrollment of African American or Latino students are almost

twice as likely to employ teachers with less than two years' experience in the classroom than schools with the lowest enrollments of these students. Further, students of color and students from low-income families have less access to effective teachers regardless of the criteria used to measure that effectiveness, such as certification, placement, or teaching experience. Because of these factors, the report says establishing a set of rigorous and comprehensive standards for all teachers, and supporting them in meeting those standards, is critical to ensuring that every student has access to great teaching.

The report offers several federal, state-, and local-level policy recommendations to support the teaching needed to create a positive school climate, including the following:

- Provide incentives for state adoption of an educator performance assessment as part of their certification/licensing requirements and support the development of minimum standards for state-based teacher licensure policies.
- Provide early-career teachers with opportunities to participate in residency, induction, and mentoring programs in an effort to provide support and build capacity.
- Use school, teacher, and student data to assess the working conditions within each school; identify areas of improvement; and implement responsive strategies.
- Provide opportunities for teachers to develop culturally relevant competencies and strategies for teaching diverse learners.
- Provide professional development to support the implementation of equitable and effective approaches to school discipline.

“The nation’s ability to build a more diverse, talented, and sustainable teaching force will determine whether all schools will meet their original intent as social engines for opportunity, innovation, and the creation of a strong democracy,” said Wise.

On September 18, the Alliance held a webinar on the report that featured **Jonathan Cohen, cofounder and president of the National School Climate Center; Martens Roc, policy and advocacy associate with the Alliance for Excellent Education; Rachel Santos, teacher representative for the American Federation of Teachers; and Joaquín Tamayo, special assistant to the assistant secretary in the office of elementary and secondary education at the U.S. Department of Education.** The panelists offered suggestions on how to prepare and support teachers in developing these types of relationships and creating a positive school environment. They also discussed federal and local efforts to address these issues. Archived video from the webinar is available at <http://all4ed.org/webinar-event/sep-18-2014/>.

Climate Change: Improving School Climate by Supporting Great Teaching is available at <http://all4ed.org/reports-factsheets/climatechange4/>.

All of the reports in the Alliance’s Climate Change series are available online at http://all4ed.org/?s=&category=school-climate&show_only=reports-factsheets.



INTERNATIONAL BENCHMARKING: New AIR Report Finds Large Differences in States' Performance Standards

Education standards in states with the highest standards are roughly three to four grade levels higher than those in states with the lowest standards, according to a new report from American Institutes for Research (AIR). The report, *International Benchmarking: State and National Education Performance Standards*, uses data from two international tests and the National Assessment of Educational Progress (NAEP) to compare states to each other and benchmark them against the standard used in the international assessments.

“The stringency of the performance standards used across the states is huge and probably far greater than most policymakers realize. The difference between the state with the highest standards and the state with the lowest standards ... is so great that it is more than twice the size of the national black–white achievement gap,” the report notes. “These large differences among states clearly indicate why we need more common assessments and the Common Core State Standards.”

In conducting its analysis, AIR used results from two international assessments—the 2011 Trends in International Mathematics and Science Study (TIMSS) and the 2011 Progress in International Reading Literacy Study (PIRLS)—and the 2011 NAEP. AIR then used a benchmarking process that allowed it to estimate how the 2011 results that states reported would have looked had all the states used a common metric.

In eighth-grade math, Massachusetts and Minnesota were the only states to receive a B- for their performance standards while nine states received a C+. Fourteen states received a C, seventeen received a C-, and six received a D+ or D. In eighth-grade science, seven states received a B while five states received a B-. Thirty-six states received a C+, C, or C- while one state received a D. “These results help explain why the United States does poorly in international comparisons,” the report notes. “Many states think they have high standards and are doing well, and feel no urgency to improve because almost all their students are proficient.”

The report acknowledges that some states may have raised standards since 2011 and other states may have lowered them. It notes that Kentucky, New York, Utah, and Wisconsin, for example, have “substantially” raised their performance standards and would now be rated with a B rather than the roughly C grades assigned to them in the report.

International Benchmarking: State and National Education Performance Standards is available at <http://bit.ly/1u7rXH9>.

Straight A's: Public Education Policy and Progress is a free biweekly newsletter that focuses on education news and events 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. Contributors include Jason Amos, editor; Ariana Witt; and Kate Bradley.

The Alliance for Excellent Education is a Washington, DC–based national policy and advocacy organization dedicated to ensuring that all students, particularly those traditionally underserved, graduate from high school ready for success in college, work, and citizenship. For more information, visit www.all4ed.org. Follow the Alliance on Twitter ([www.twitter.com/all4ed](https://twitter.com/all4ed)), Facebook (www.facebook.com/all4ed), and the Alliance's “High School Soup” blog (www.all4ed.org/blog).