



A SKILLED, PREPARED WORKFORCE

Fast Facts

- Only 34 percent of U.S. 4th graders can read at or above the proficient level, according to the 2011 National Assessment of Educational Progress. Thirty-three percent of U.S. 4th graders are reading below the basic level.¹
- On the 2009 OECD Programme for International Student Assessment (PISA), among 15-year-old students in 65 countries, the United States ranked 31st in mathematics, below the OECD average. The United States fared slightly better in science, ranking 23rd, with student performance equal to the OECD average.²
- In December 2011, the unemployment rate for U.S. high school graduates was more than twice as high as the rate for Americans with a bachelor's degree or higher. For those without a high school diploma, the unemployment rate was more than triple the rate for college degree holders.³
- By 2018, 63 percent of new and replacement jobs will require a credential beyond high school, and of these jobs, more than half will require a bachelor's degree or higher. Jobs for middle skill workers (workers with some college, a certificate or an associate degree) will make up 29 percent of the workforce.⁴
- While 68 percent of high school graduates go on to two- or four-year colleges in the fall after they graduate,⁵ only 28 percent of students receive an associate degree within three years, and just 57 percent receive a bachelor's degree within six years.⁶
- Over the past decade, growth in science, technology, engineering and math (STEM) jobs was three times greater than non-STEM occupations, and this trend is expected to continue.⁷
- Science and engineering degrees, excluding social and behavioral sciences, comprise roughly 16 percent of U.S. bachelor's degrees, substantially lower than the percentage of bachelor's degrees awarded in the same science and engineering fields in China (44 percent), South Korea (37 percent) and the European Union (24 percent).⁸

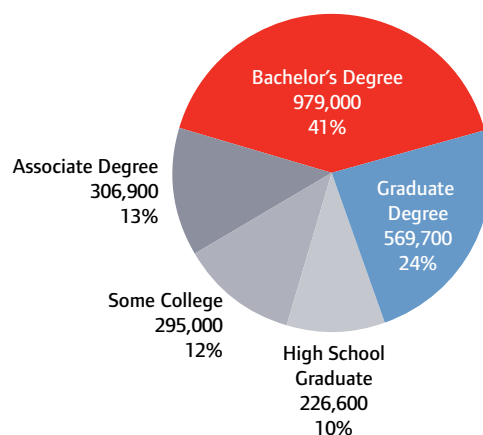
Earning a college degree increases the chances of finding and keeping a good job.

Education Level Achieved	December 2011 Unemployment Rate
Less than High School	13.8%
High School Graduate/No College	8.7%
Some College or Associate Degree	7.7%
Bachelor's Degree or Higher	4.1%

Source: U.S. Bureau of Labor Statistics, Table A.4. 2012

Jobs in the STEM fields are growing.

Employment projections of STEM new and replacement jobs through 2018: 2.4 million



Source: Georgetown University Center on Education and the Workforce, 2011

Education attainment is the lynchpin of a productive and prosperous society. A young person who chooses not to finish high school makes a life-altering decision that limits his or her lifetime earnings and ability to succeed in today's global economy. Dropping out of high school, as almost 7,000 U.S. students do daily according to the Alliance for Excellent Education, is the single biggest mistake a person could make.⁹ A high school diploma is not enough to meet the education requirements of the fastest growing new jobs, and continued employment and higher pay increases are more likely with additional education credentials.

U.S. economic performance and job creation require a workforce that possesses the skills and knowledge that employers need, particularly in STEM fields and fast-growing occupations that require STEM skills. But there is a mismatch between the education and skills that many Americans have and what employers need. Although more than 13 million U.S. workers are unemployed, businesses report more than 3 million open jobs, jobs that cannot be filled by previously displaced workers because of gaps in skills and training.¹⁰

Despite the indisputable value that education provides, America's education system continues to lag behind its peers. It is not that U.S. education is getting worse; performance is generally flat — and in some cases is improving. However, even in the areas where U.S. performance is getting better, it is not improving as fast as other countries, and American workers are falling behind their international counterparts in terms of education attainment. On international assessments of math and science achievement, U.S. students score significantly behind their peers in top-performing European and Asian countries.¹¹

A recent study of the highest-performing school systems, based on the standardized OECD PISA, shows that a central attribute of the best systems is the focus on the selection and training of teachers to improve the quality of instruction in the classroom. This study shows that top-performing systems typically recruit their teachers from the top third of graduating classes, are highly selective and, in some cases, pay for teacher training tuition and fees.¹²

Moreover, high-performing schools systems do a better job of training teachers over their careers with a focus on building practical skills, coaching and best-practice sharing.¹³ Some of the higher-performing school systems spend substantially less on their education per student than lower-performing systems (e.g., the United States).¹⁴ Despite substantial (73 percent) increases in spending and many well-intentioned reform efforts in the United States (including class size reduction), actual student performance has not improved significantly in decades.¹⁵

Reforms and initiatives supported by business and other leaders have produced some positive developments in education and workforce policy. Tools and resources have been developed that are helping focus reform efforts on better results. For example:

- ▶ Forty-five states plus the District of Columbia adopted higher Common Core State Standards in English/language arts and mathematics. Common state science standards are currently being developed.

“A high-quality workforce, especially in the areas of math, science, technology, and engineering, is critical for the ability of countries and economies to successfully compete and prosper in the 21st century.”

— Rex W. Tillerson, Chairman and CEO, ExxonMobil Corporation, and Chair, Business Roundtable Education and Workforce Committee

- ▶ The No Child Left Behind Act exposed gaps in student achievement, which had been hidden by average scores in schools and districts. Research and the successes of individual schools in response to their student achievement data demonstrate that these gaps can be closed while all students improve.
- ▶ New state data systems are providing more and better information on school and student performance, from prekindergarten through postsecondary education and the workforce.
- ▶ There is increasing attention to and demand for career pathways from high schools to community colleges and other one- and two-year programs that lead to credentials valued by employers, including high school diplomas, workforce certifications and associate degrees.
- ▶ After decades of focus on access to college, state and federal policymakers recognize that access is necessary but not sufficient, and they are beginning to hold institutions accountable for completion rates.
- ▶ New public/private partnership models are emerging that bring together research universities, entrepreneurs and government.

While these developments are positive, they are not enough. The high school dropout rate remains unacceptably high, and many who do graduate lack the skills needed to succeed in college or work; proficiency in reading, math and science remains unacceptably low; achievement gaps between racial, ethnic and income groups persist; and U.S. students' interest and achievement in STEM are insufficient for future workforce demands.

After decades of involvement in education reform initiatives by individual companies and organizations such as BRT, but only incremental improvement to show for it, CEOs believe it is time to take a fresh look at the changes needed to produce significantly better results. Incremental change that tinkers around the margins is not producing the results needed for individual success or national competitiveness.

Based on benchmarking best policies and practices in the United States and around the world, BRT will focus on the following education and workforce issues in the next year:

- ▶ **Implementing Common Core State Standards** in math and English language arts, as well as Next Generation Science Standards (now under development).
- ▶ **Tying data and accountability systems to core standards.**
- ▶ **Improving teacher training and support**, with emphasis on the critical need areas of:
 - STEM, K–12 and postsecondary education, and
 - Early learning, with an emphasis on ensuring that every 8-year-old can read.
- ▶ **Aligning community college technical skills training** with business needs.

BRT will provide a business perspective on how the federal government can play a more effective, although limited, role in education and identify the work of best practice leaders that should be replicated. BRT CEOs will continue to work with Congress and the Administration to improve and reauthorize the Elementary and Secondary Education Act — with an emphasis on higher standards, accountability, transparency and teacher quality.

Solutions

- ▶ Use research from high-performing school systems in the United States and around the world to **change teacher training and support policies and practices**, with an emphasis on STEM and early reading.
- ▶ **Support adoption and implementation of Common Core State Standards** in math and English/language arts and Next Generation Science Standards when they are developed.
- ▶ **Continue to promote more consistent and useful data systems**, and tie data and accountability for students graduating from high school prepared for postsecondary education and careers to achievement of core standards.
- ▶ **Streamline federal workforce training programs**. Make it a priority for institutions to offer and for participants to receive workforce certifications or degrees that are recognized and valued by employers.
- ▶ **Establish partnerships with community colleges** that align technical skills training with business needs and employment opportunities.

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 - 13 *Ibid.*
 - 14 *Ibid.*
 - 15 *Ibid.*