



ELEMENTARY & SECONDARY EDUCATION

- **45 percent** of 2011 U.S. high school graduates are ready for college-level math.¹
- **30 percent** of 2011 U.S. high school students are ready for college-level science.²
- **26 percent** of 2009 U.S. students took Algebra I before high school. (Up from **20 percent** in 2005.)³
- Only **12 percent** of black students and **17 percent** of Hispanic students took Algebra I before high school in 2009. But, **48 percent** of Asian students took Algebra I before high school in 2009.⁴
- In 2009, **34 percent** of American fourth grade students, **30 percent** of eighth grade students, and **21 percent** of twelfth grade students performed at or above the proficient level in science.⁵
- **9 percent** of Hispanic and **10 percent** of black U.S. students took advanced Algebra or calculus in 2008, compared to **22 percent** of white students and **43 percent** of Asian students.⁶
- **27.6 percent** of AP test takers in the class of 2011 earned a qualifying score on a STEM exam.⁷
- **27 percent** of 2011 test takers took an AP science exam and **26 percent** took an AP math exam.⁸

HIGHER EDUCATION

- Students who progress through at least Algebra II in high school are **twice as likely** as those who do not to complete a four-year degree.⁹
- **38 percent** of students who start with a STEM major do not graduate with one.¹⁰
- In 2009, men age 25 and older held **87 percent** of bachelor's degrees in engineering fields.¹¹
- In 2009, of the 56 million people age 25 and over with a bachelor's degree, nearly **20 million** of them held a degree in a science and engineering field.¹²

TEACHERS

- In 2007, **about a third** of public middle school science teachers either did not major in the subject in college and/or are not certified to teach it.¹³
- **36 percent** of public middle school math teachers in 2007 either did not major in the subject in college and/or are not certified to teach it.¹⁴

¹ <http://www.act.org/research/policymakers/cccr11/readiness1.html>

² <http://www.act.org/research/policymakers/cccr11/readiness1.html>

³ <http://www.nsf.gov/statistics/seind12/c1/tt01-a.htm>

⁴ <http://www.nsf.gov/statistics/seind12/c1/tt01-a.htm>

⁵ <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011451>

⁶ <http://www.achieve.org/files/BuildingBlocksofSuccess.pdf>

⁷ <http://apreport.collegeboard.org/goals-and-findings/supporting-stem>

⁸ <http://professionals.collegeboard.com/profdownload/AP-Student-Score-Distributions.pdf>

⁹ <http://www2.ed.gov/rschstat/research/pubs/toolboxrevisit/index.html>

¹⁰ <http://cew.georgetown.edu/stem/>

¹¹ <http://www.census.gov/prod/2012pubs/acs-18.pdf>

¹² <http://www.census.gov/prod/2012pubs/acs-18.pdf>

¹³ <http://www.nsf.gov/statistics/seind12/c1/tt01-08.htm>

INTERNATIONAL COMPARISONS

- **16 nations:** The number of industrialized nations whose high school students performed better than U.S. students in math in 2010.¹⁵
 - **24 nations:** The number of industrialized nations whose high school students performed better than U.S. students in science in 2010.¹⁶
 - In 2008, **4 percent** of U.S. bachelor's degrees were awarded in engineering. Compared to **31 percent** in China.¹⁷
 - In 2008, **31 percent** of U.S. bachelor's degrees were awarded in science and engineering fields. Compared to **61 percent** in Japan and **51 percent** in China.¹⁸
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WORKFORCE

- As of February 2012, **more than half** of the 30 fastest growing occupations require some level of postsecondary education.^{19 20}
- **“All of the increase in employment** over the past two decades has been among workers who have taken at least some college classes or who have associate or bachelor's degrees – and mostly among workers with bachelor's degrees.”²¹
- In 2008, **59 percent** of all jobs in the U.S. economy required postsecondary education. (Up from **28 percent** in 1973.)²²
- By 2018, it is projected that **63 percent** of all jobs in the U.S. economy will require postsecondary education.²³
- By 2018, **92 percent** of traditional STEM jobs will be for those with at least some postsecondary education and training.²⁴
- **23 percent** of STEM workers are women, however women make up **48 percent** of workers in all occupations.²⁵
- In 2009, **12 percent** of STEM workers were non-Hispanic black and Hispanic. But, non-Hispanic black and Hispanic individuals accounted for **25 percent** of overall employment.²⁶

¹⁴ <http://www.nsf.gov/statistics/seind12/c1/tt01-08.htm>

¹⁵ <http://www.pisa.oecd.org/dataoecd/32/50/46623978.pdf>

¹⁶ <http://www.pisa.oecd.org/dataoecd/32/50/46623978.pdf>

¹⁷ <http://www.nsf.gov/statistics/seind12/c2/c2s4.htm>

¹⁸ <http://www.nsf.gov/statistics/seind12/c2/c2s4.htm>

¹⁹ <http://bls.gov/news.release/ecopro.nr0.htm>

²⁰ <http://www.bls.gov/opub/mlr/2009/11/art5full.pdf>

²¹ <http://www.bls.gov/spotlight/2010/college/pdf/college.pdf>

²² <http://cew.georgetown.edu/jobs2018/>

²³ <http://cew.georgetown.edu/jobs2018/>

²⁴ <http://cew.georgetown.edu/stem/>

²⁵ <http://cew.georgetown.edu/stem/>

²⁶ http://www.esa.doc.gov/sites/default/files/reports/documents/educationsupportsracialandethnicequalityinstem_0.pdf