

# STEM EDUCATION / Geoscience Education Pays Off

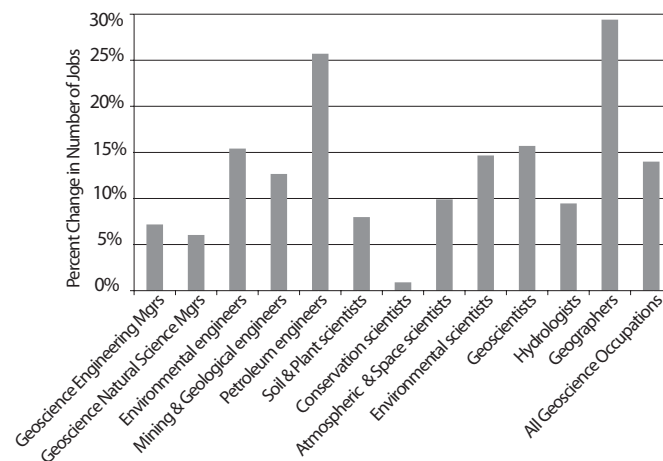
STEM (Science, Technology, Engineering and Math) education is essential for economic growth and national security. STEM businesses are continually at the forefront of job creation and innovation, and their workers typically earn significantly higher incomes than those in other sectors. As the United States moves toward a knowledge-based economy, we will increasingly depend on our STEM pipelines to provide us with a robust and qualified workforce able to compete on a global scale.

Investing in STEM and geoscience education will arm future generations with the skills they need to tackle society's toughest problems. Balancing the nation's budget and unlocking the new energy mix will all require literacy in science and math. For our country, for society, and for democracy, it is crucial that we invest in science, technology, engineering, math, and geoscience education.

## IN DEMAND

- 26m** The number of jobs in the U.S. that require a high level of STEM understanding, according to a 2013 Brookings report.<sup>1</sup>
- 20%** The percentage of jobs in the United States that require a high level of STEM understanding, according to a 2013 Brookings report.<sup>1</sup>
- 935k** The number of new science & engineering jobs the Bureau of Labor Statistics expects between 2012 and 2022.<sup>2</sup>
- 14%** The projected percentage of job growth in geoscience jobs from 2012 - 2022.<sup>3</sup>

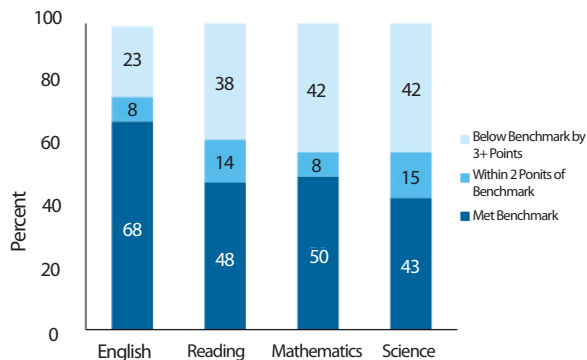
Employment Projections for Detailed Geoscience Occupations (2012-2022)<sup>3</sup>



## WHERE WE STAND

- 63%** The percentage of high school graduates who did not meet the college readiness benchmark for science on the ACT standardized test in 2013.<sup>4</sup>
- 57%** The percentage of high school graduates who did not meet the college readiness benchmark for math on the ACT standardized test in 2013.<sup>4</sup>
- \$4.3m** The total amount of money spent on federal funding for STEM training or education, according to a 2013 Brookings report.<sup>1</sup>
- 4%** The amount of federal government funding for STEM education programs that goes toward the engagement of children, according to a 2013 Brookings report.<sup>1</sup>

The Percent of ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject, 2014.<sup>4</sup>



# Online Resources

## Participating Organizations

American Geosciences Institute (AGI)  
<http://www.agiweb.org/geoeducation.html>

American Association of Petroleum Geologists (AAPG)  
<http://www.aapg.org/education/>

American Geophysical Union (AGU)  
<http://education.agu.org/>

American Meteorological Society (AMS)  
<http://www.ametsoc.org/amsedu/>

Association of Independent Professional Geologists (AIPG)  
<http://aipg.org/education/index.htm>

Association for Women Geoscientists (AWG)  
<http://www.awg.org/ed-out/index.htm>

Consortium for Ocean Leadership (COL)  
<http://policy.oceanleadership.org>

Geological Society of America (GSA)  
<http://www.geosociety.org/educate/>

National Association for Geoscience Teachers (NAGT)  
<http://www.nagt.org/index.html>

National Earth Science Teachers Association (NESTA)  
<http://www.nestanet.org/cms/content/welcome>

National Ground Water Association (NGWA)  
<http://www.ngwa.org/Advocacy-Awareness/Pages/default.aspx>

Seismological Society of America (SSA)  
<http://www.seismosoc.org/society/education/>

Soil Science Society of America (SSSA)  
<http://www.soils.org/about-soils/lessons/resources>

University Corporation for Atmospheric Scientists (UCAR)  
<http://www2.ucar.edu/education-professional-training>  
[U.S. Federal Agencies](#)

National Aeronautics and Space Administration (NASA)  
<http://www.nasa.gov/audience/foreducators/>

National Oceanic and Atmospheric Administration (NOAA)  
<http://www.education.noaa.gov/>

National Park Service (NPS)  
<http://www.nps.gov/learn>

National Science Foundation (NSF)  
<http://www.nsf.gov/news/classroom/earth-environ.jsp>

National Weather Service (NWS)  
<http://www.nws.noaa.gov/education.php>

United States Geological Survey (USGS)  
<http://education.usgs.gov/>