



Exposure to Engineering Doubles Teens' Career Interest

Intel Survey Finds Job Variety and Earning Power Motivate U.S. Teens to Consider Engineering as a Career

NEWS HIGHLIGHTS

- A critical step to creating more American engineers is nurturing an interest in high school, or earlier, so there is a healthy pool of engineering students entering college.
- Any facts about engineering, including what engineers actually do and, specifically, how much money they earn, motivate more than half of teens to say they are more likely to consider engineering as a career.
- Programs such as robotics and science competitions offer teens the real-world, hands-on experience with engineering that improves the likelihood that they will get hooked on the subject and pursue it in college.

SANTA CLARA, Calif.--(BUSINESS WIRE)-- Tackling the issue of graduating more American engineers may be easier than originally thought, according to a new survey of teens commissioned by Intel Corporation. The survey found that a lack of familiarity with the profession is a significant barrier to getting American teenagers to pursue engineering careers. Yet, exposure to any facts about engineering, including the breadth of what engineers actually do and, specifically, how much money they earn, leads more than half of teens to say they are more likely to consider engineering as a career.

Financial facts are particularly persuasive: Roughly 60 percent of teens are more likely to consider engineering after learning about the career's earning potential. The majority of teens are also influenced by understanding what engineers do, such as playing a role in rescuing the Chilean miners who were trapped in 2010, delivering clean water to poor communities in Africa, designing the protective pads worn by athletes and constructing dams and levees that keep entire cities safe.

Current trends indicate there is a real problem with American university students dropping out of engineering programs. But the majority of students who concentrate on science, technology, engineering and mathematics (STEM) in college actually make that choice during high school, according to a recent [study](#) from education researchers at Indiana University and the University of Virginia.

Intel believes that nurturing an interest in engineering in high school, or earlier, is a critical step to building a healthy pool of students poised to graduate with engineering degrees and become part of a stronger American workforce. Intel conducted this survey, in collaboration with the nonprofit Change the Equation, to better understand how to get more American teens interested in engineering as a career.

“The results of this survey show the importance of providing teens with opportunities to gain knowledge about engineering,” said Intel CIO Diane Bryant. “We need to offer teens real-world, hands-on engineering experience and interaction with engineers, like that found in robotics programs and science competitions, to improve the likelihood that they’ll get hooked on the subject and pursue it in college.”

Intel has long sponsored two of the world’s largest, most prestigious annual pre-college science and engineering [competitions](#) to recognize and reward bright, young innovators and challenge other youth to engage in math and science. Intel employees also regularly volunteer with FIRST Robotics, which motivates young people to pursue opportunities in science, technology, and engineering. Additionally, in support of the Presidential Jobs Council’s initiative to graduate 10,000 more engineers each year from U.S. colleges and universities, Intel has [committed](#) to double the number of engineering internships offered in 2012 and has launched a new program in which Intel executives visit college campuses across the globe and speak to students about the benefits of engineering careers.

The Survey Results:

- While the majority of teens have not considered a career in engineering, those that have are motivated by their perception that it will be interesting.
 - Nearly two-thirds (63 percent) of teens have never considered a career in engineering.
 - Seventy-four percent of teens that have considered engineering, have done so because they think the field would be interesting, perhaps because they are more aware of the impact engineers have on the world.
- A lack of familiarity with engineering is a significant barrier to getting teens to pursue the career.
 - While highly regarded on other metrics, engineering falls to the bottom half of professions with which teens are familiar.
 - Almost one-third (29 percent) of teens do not know of potential job opportunities in engineering and 13 percent do not think that majoring in engineering in college will lead to any more job opportunities than any other major.
 - Twenty percent of teens have no idea about engineering’s impact on the world.
- Exposure to any facts about engineering leads more than half of teens to say they are more likely to consider engineering as a career.
 - Financial facts are particularly persuasive: 61 percent of teens are more likely to consider engineering after learning that engineering majors make an average annual income of \$75,000; while more than 50 percent are persuaded by the fact that the unemployment rate amongst engineers is more than 4 percentage points lower than the national rate.
 - The majority of teens are also influenced by learning about the breadth of what engineers actually do: Fifty-three percent are more likely to consider engineering after learning about the role of engineers in the development of music and videogames; learning about engineering feats such as saving the Chilean miners who were trapped for 69 days motivates 52 percent to think twice about the career; while 50 percent are influenced by understanding that engineers make

driving, texting and social networking possible.

- From the survey results, Intel found that there are ways parents and teachers can help teens consider a career in engineering:
 - Focus on helping teens understand what being an engineer is all about. Improving understanding of what engineers actually do can increase consideration, so talk about how rewarding it is to be an engineer.
 - Don't dumb down what engineers do. Try to reframe the difficulty of engineering as a positive challenge, a badge of honor to be worn proudly when successful.
 - Make engineering feel less remote and more personal. Give a face to engineers to help inspire and create a sense that "if they can do it, I can do it."
 - Up-weight the emotional appeal of engineering. The societal benefits of what engineers do, like preventing disasters or generating cleaner electricity, are particularly resonant with teens that have never considered engineering before.

This survey of U.S. teenagers was conducted online between Oct. 11 and 18, 2011 by Penn Schoen Berland on behalf of Intel. Participants included 1,004 teenagers ages 13 to 18. Demographics were aligned as closely as possible to U.S. Census data. The margin of error is +/- 3.06 percent.

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