



5 Ways to Get More Women in STEM: Mentoring, Motivation, Mistakes

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From the numerous conversations I've had with policymakers, corporations, families, schools and notable organizations like Project Lead the Way, it's clear there is a disconnect between our future workforce needs and our current students.

Creating the next generation of engineers and scientists is critical to the U.S. economy, which demands more skilled workers and a wider range of available talent that includes women and minorities. Forty percent of today's jobs require STEM competencies and almost all of the 30 fastest-growing jobs over the next decade will require STEM skills. Yet only a quarter of women are currently represented in these fields.

So the demand is there and the jobs are there, but women are not showing up. The question is, what can families, schools, policymakers and businesses do about it?

1. Point Girls Toward Women Role Models in STEM

When I was growing up, I wanted to make an impact in the world. I studied hard and strived to be at the top of my class. Despite two years of calculus and far more science than most, I wasn't exposed to strong female STEM role models and wasn't sure what engineers actually do for a living. So I did what many young women do—dropped the science, stayed away from engineering and pursued a different degree. After graduation, I developed a passion for education and worked to increase educational access in places like Bosnia, Herzegovina and Kazakhstan.

Today, through my work to increase STEM access for girls and young women in America, I have realized that my girlhood experiences are not unique. The lack of women in STEM – as role models, mentors, colleagues and leaders – has a

dramatic impact on girls' interest in these fields and, to some extent, their persistence in sticking with them and advancing. Through websites like EngineerGirl.org, or interactions with real women in STEM fields, we must ensure girls and young women have strong female role models to help them feel like they belong in those fields.

2. Provide Teachers with the Tools They Need

In order to meet the future demand of STEM jobs, we need to provide teachers with engineering education resources to prepare the next generation of innovators and problem solvers. We must ensure they are equipped to offer hands-on and project-based learning experiences to engage girls and minority students in these subjects early on.

Organizations like [100Kin10](#) and the [National Academy of Engineering](#) are providing teachers with the resources they need to adequately educate students, especially those underrepresented, in STEM fields.

3. Show Girls That STEM is About Trial-And-Error

One reason for the attrition of young women in STEM is “B phobia.” Studies show that girls are more likely to drop subjects for which they earn a B, which disproportionately affects STEM subjects given their relatively lower grade levels. University science departments grade, on a four-point scale, an average of 0.4 points lower than humanities departments.

It's important that we show girls that STEM fields rely on trial-and-error and that they'll rarely find a solution on the first try. In fact, the engineering design process is all about testing a concept and readjusting when it fails. Girls feel much more pressure than boys to be perfect, so we have to drive home the fact that perfect is not always necessary, and sometimes hinders the learning process.

4. Underscore that STEM Careers Lead to Social Good and Meaningful Careers

According to an [HBR report](#), the second most important motivator for women in choosing a career is their ability to contribute to the wellbeing of society, with 74 percent of women in the U.S. noting it as a prime motivator. Of the girls who do pursue STEM subjects, 70 percent select sciences, often thinking medical professions or biological sciences are the only way to make a difference through STEM.

Mentors, parents and educators must do a better job of highlighting the impact of various STEM careers, so girls and women are armed with the knowledge they need to make informed decisions about their future.

5. Prioritize Mentoring Moments from Day 1 – And Stick With It

Early evidence suggests that mentoring moments work. We just need to ensure that they happen consistently and continuously. It is a lifelong journey. We must inspire girls and women, guide them and build their self-confidence throughout their academic and professional lives – from childhood and adolescence well into adulthood. Their success depends on it, as does all of ours.

Fortunately, for Gen Z, there are people and programs to provide that needed support and inspiration. Organizations like [Techbridge](#) and [Girls Who Code](#) are opening minds and doors in ways that simply did not exist just a few years ago. According to one study by Techbridge, a nonprofit that has provided afterschool and summer programs for 10,000 girls, 98 percent of parents said that their daughters' confidence in STEM had grown following the program, and 82 percent of participating girls reported that they are more interested in STEM careers because of role models and field trips that exposed them to STEM.

We all must play our part in encouraging girls and women to choose STEM—and to stick with it.