



From the Editor: Giving Girls, Women a Chance in STEM

by Amanda Hankel, editor

I have a good friend who is a nurse in the neonatal intensive care unit (NICU)—she cares for critically ill babies, and assists in emergency cesarean sections and high-risk births every day.

Whenever I see my friend, we always check in how each other's career is going, and swap stories about events happening at work. My stories usually involve the latest stories I've written or new things we're trying in the publishing world.

Her stories always fascinate me. Every time I see her, she has some crazy, unbelievable story about her patients. Some of them are tragic and heartbreaking, but others are inspiring and truly amazing.

I always leave our get-togethers admiring my friend for what she does on a daily basis. While I care deeply about my job and believe what I do is important to the quality world, what my friend's job involves a different kind of responsibility. When she makes a mistake, it could mean a baby's, or its mother's, life.

It makes me think—how did she decide to do this for a living? Why was it that nursing never even crossed my mind as an option when I was choosing a career path?

Trust me—I did not envy my NICU-nurse friend as she was studying for her biology and anatomy courses while I got to go interview someone interesting for an article in a journalism course. But what still gets me thinking is that I never even really considered a career in science, technology, engineering and math (STEM). I had long written those areas off by the time I reached college because I assumed I wasn't good, or as good, at them as I was at writing.

But, looking back, did I ever really experience STEM concepts and learn about the career possibilities in these fields? Aside from the minimum requirements for math and science courses throughout my education, I'd say, "no."



It seems my situation isn't unique. In fact, my mind-set is one of the main reasons a gender gap still exists today in STEM careers. In this issue of the *Higher Education Brief*, we explore this gap in STEM with a great lineup of articles and multimedia pieces, looking at what is being done and what can be done in the future to pull this gap closed.

In the article, [“Best Practices for Attracting Girls to Science and Engineering Careers.”](#) ASQ Education Division Chair Cindy Veenstra discusses the current participation of women in engineering degrees and recommends best practices for attracting more young women to science and engineering careers.

Read about the highly successful STEPS program in the article, [“The STEPS Difference.”](#) This program, which is coming up on its 16-year anniversary, is designed to immerse girls in STEM experiences at an early age to help attract them to STEM careers in the future.

At the higher education level, read about the Math, Physics, Computer Science Research Scholars (MapCores) program in the article, [“MapCores: Improving the Representation of Women in STEM.”](#) The program was developed to encourage and recruit women in computer science, mathematics and physics using scholarship support, special curricular offerings and research opportunities to increase the success of women in STEM.

Check out the other articles in this issue that look at the gender gap in STEM careers and what can be done about it in education, including, [“Recruiting Women for STEM Careers Isn't Rocket Science.”](#) and [“Study Offers Possible Explanation for the Huge Gender Gap in Science and Math.”](#) Read the inspiring stories of women who are succeeding in the world of STEM in the article, [“Women in Engineering: 21 Remarkable Stories.”](#)

Be sure not to miss the multimedia pieces in this issue, either. Listen to radio stories about women working and learning in STEM fields in [“Women in Science, Technology, Engineering and Mathematics: On the Air.”](#) And, watch the video, [“Girls in STEM: A New Generation of Women in Science.”](#) featuring young female scientists who presented their science projects to the President at the White House Science Fair. The projects range from a



machine that detects buried landmines, to a prosthetic hand device, to a lunchbox that uses UV light to kill bacteria on food.

Finally, learn more about the [2012 ASQ Advancing the STEM Agenda in Education, the Workplace and Society Conference](#), being held July 16-17 in Menomonie, WI, and attend to gain more knowledge and understanding about what can be done to advance STEM fields and careers.

This event invites faculty from secondary and higher education, educational and STEM administrators, government officials, scientists, engineers and workforce development professionals from industry and others who are interested in moving the STEM Agenda forward. We've included the [breakout session information](#) in this issue, as well as [registration information](#). For anyone involved in moving STEM forward, it's an event you don't want to miss.

A gender gap still exists in STEM fields, for a variety of reasons, but I'd be willing to wager that many girls and women are just like me: They don't even think about STEM careers as an option because they don't think they're good at it. But maybe they just haven't been given a chance to experience these fields and make an informed decision.

As highlighted in this issue, there are various initiatives and programs being developed to help solve this problem, but more can be done. The more we can learn from each other and work together to raise awareness and expose women and girls to STEM opportunities, the more likely they are to succeed—and the better off our world will be.

Do you have ideas for increasing women and girls' involvement in STEM? Why does a gender gap in STEM careers still exist? Email me at ahankel@asq.org.