Women Are Earning Greater Share of STEM Degrees, but Doctorates Remain Gender-Skewed

Women are more likely than men to withdraw from science
From Scientific American
By John Matson | April 23, 2013 | 10

“In 2008, for the first time, U.S. women earned more doctorates in biology than men did. But advanced degrees in other core disciplines of science, technology, engineering and mathematics (STEM) remain stubbornly gender-imbalanced. In chemistry, for instance, women now garner 49 percent of bachelor’s degrees but only 39 percent of Ph.D.s. What dissuades so many from further study? Possible explanations include gender bias, the prospect of short-term postdoctoral jobs that complicate child rearing, and a lack of role models. Female STEM professors are slowly increasing in number, however. “It seems like many of the indicators are pointing toward parity, but at different scales and different rates,” says science education professor Adam V. Maltese of Indiana University Bloomington, adding that fields such as engineering have a long way to go. “That’s not going to happen overnight, not in the next decade, and maybe not for the next 20 or 25 years.”

Read the full article in SCIENTIFIC AMERICAN ONLINE.
Read more about gender and science education at ScientificAmerican.com/may2013/graphic-science
Women and girls are historically underrepresented in STEM (science, technology, engineering, and math) fields and much has been written lately about why girls in school seem disinterested in these areas. As STEM becomes more important in our increasingly interconnected global society, it becomes even more imperative that educators find ways to encourage girls to participate in these fields.

A few weeks ago, researchers at the Universities of Pittsburgh and Michigan released the results of a study that reflected many girls’ antipathy toward all things STEM. The study, published in the journal Psychological Science, tracked about 1500 college-bound students over a decade and found that more women had the highest scores on both the math and the verbal portion of the SAT test than their male counterparts. These women were more likely to pursue non-STEM careers after graduation even though they excelled in those fields in school. As the principal researcher of the study, Ming-Te Wang, summarizes, “This highlights the need for educators and policy makers to shift the focus away from trying to strengthen girls’ STEM-related abilities and instead tap the potential of these girls who are highly skilled in both the math and verbal domains to go into STEM fields.

Read the full story.
APRIL 22, 2013

Why Women Shun Business: It May Be About the Ethical Compromises

In an experiment involving hypothetical job descriptions, women showed lower interest in companies described as choosing profits over ethics than in firms that favored ethics (3.56 versus 4.97 on a 1-to-7 scale, on average), an effect that didn't show up in men, say Jessica A. Kennedy and Laura J. Kray of the Haas School of Business at UC Berkeley. Women also showed stronger implicit associations between business and immorality than did men. Women's aversion to ethical compromises may steer them away from business careers, the researchers say.

Source: Who Is Willing to Sacrifice Ethical Values for Money and Social Status? : Gender Differences in Reactions to Ethical Compromises

April 24, 2013

What's the Secret to Getting Grants?

Why You Need a Mentor
April 18, 2013
By Gina Stewart

"Do you have a mentor? Not an academic adviser, but a true mentor—someone who has an interest in helping you develop your career path, combined with the seniority and perspective to be helpful. In my opinion, every college student and every professional needs one, and it’s preferable if you don’t report directly to your mentor."

Read the full article in The Chronicle.

April 24, 2013

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Read the full article in The Chronicle.
Dear STEM Educator:

One of the things that can be difficult for teachers in STEM or the trades is figuring out how to treat the lone female student in a class during that critical first week. I'm going to give you a little pop quiz to see if you know the best approach to take.

**Question: How do you treat the lone female student in your class during the first week?**

A) Treat her exactly like you would treat the male students, treat her as an equal, and don’t do anything special.

B) Welcome her warmly to the class the first day, express to the class that you are happy to have your first female student, and talk in general about the importance of diversity. Also, remind the class about your school's sexual-harassment policy and set some ground rules for behavior in the classroom.

C) Model welcoming behavior to the female student — as you do for the male students — and out of earshot of the other students, welcome her to the class, and check in with her.

According to my years of research, the most successful approach is "C" and if you want to learn more about exactly how to check in and why this strategy is so successful, come to our WomenTech Educators Training June 13 and 14 in the San Francisco Bay Area. You'll learn the talking points that go into a welcoming conversation and you will develop and practice your own script with other educators from across the country. You will also learn how to effectively recruit and retain more female students to your STEM classes, so that you'll never have a lone female student again.

**Find out more about the WomenTech Educators Training**

Why are "A" and "B" unsuccessful?

A) It's challenging to be the only female student in a class, or one of only a few, so if you don't provide some personal encouragement, the female student(s) may drop out.

B) While this is a well-intended strategy, focus group research shows that women in predominantly male classes and/or careers do not want to be called out in front of their peers. Lectures about diversity and sexual-harassment that coincide with the appearance of the first female student(s) can backfire and result in isolation by their classmates.

One of the things that I'm proudest of about our WomenTech Educators Training is that it's very practically oriented and really provides the nuts and bolts of what is needed to increase female enrollment through both recruitment and retention. I developed this training around that principle and have been conducting and updating it with the latest research for 18 years. The training has changed in that time — we now have an online recruitment module for example; however, what participants say about the training in their evaluations remains the same: **These are strategies I can put to use right away.** Seemingly small and easy tips like the one I mentioned above can make a big impact. See the many testimonials on our national training page that illustrate the value of the WomenTech Educators Training. Here is the realization that a recent participant shared:

"What really struck me when I first entered education - and that wasn't that long ago because I came from industry - was how to treat the girls in the classroom. I relied on how I had learned and how I had been treated 30 years ago. In terms of retention of women, that is not a good strategy! For example, women need to be kept together at first, they learn differently, know different things and have different experiences coming into class. Additionally, supplemental instruction definitely enhances their success in terms of spatial skills."

--Phyllis Baca, Director of New Mexico STEM (Science, Technology, Engineering, and Math) Initiatives at Santa Fe Community College

I'd like you to spring into action right away and [register for the June training](#). **If you do register by April 12, you'll be entered in a drawing to win a brand new iPad mini** as a thank you for taking the first step to increasing the number of female students in your STEM courses.

I look forward to seeing you in the beautiful San Francisco Bay Area in June!

Sincerely,

Donna Milgram
Executive Director - Institute for Women in Trades, Technology and Science
The Chancellor's Commission on the Status of Women is seeking faculty and staff members to serve a three-year term. The commission addresses gender equity issues on campus and serves as an advisory committee to the chancellor. Applications are due May 1. Continue reading...

More details at: http://go.unl.edu/ra7

From the *Chronicle of Higher Education*
April 22, 2013

**Fear of Feminism**
**Would a feminist by any other name be as sweet?**

By Female Science Professor

“A year or so ago, I worked on an administrative project with a university employee (not in my department). We seemed to work quite well together. We met frequently, we got things done on our joint project, and we got along fine. Or so I thought.

At one point while working together on a task, we encountered a media portrayal of graduate students and professors in the sciences. The images depicted an ethnically diverse group of male and female students, but all the science professors were white men in lab coats. I told my colleague that such stereotypes annoyed me and had, over the course of my career, made it more difficult for me to be taken seriously as a scientist. I said that in a casual, conversational way, without really thinking about it.”

Read the full story in the *Chronicle of Higher Education*.