

WORKPLACE DISCRIMINATION

Barriers in science

A poll run by the Pew Research Center, a think tank in Washington DC, surveyed more than 2,300 US adults working in science, technology, engineering or maths (STEM) jobs. The findings underscore the reality that, for some in the sciences, gender and race are still a barrier to success (see go.nature.com/2esrhz5).

In the report, which is based on surveys conducted in summer 2017, 50% of female and 19% of male respondents in STEM fields said that they had faced discrimination because of their gender. By comparison, 41% of women outside STEM reported gender discrimination. The most common forms reported by women in STEM were earning less than other people in the same position, and being treated as if they weren't competent. Nearly 10% of women in STEM said that they had been passed over for a job or promotion because of their gender.

"For women working in science, technology, engineering or math jobs, the workplace is a different, sometimes more hostile environment than the one their male co-workers experience," the team says. "Discrimination and sexual harassment are seen as more frequent, and gender is perceived as more of an impediment than an advantage to career success."

Harassment continues to be a concern. More than one-third of women in STEM — and nearly as many men — said that sexual harassment was a problem in their workplace. Among women who worked in male-dominated workplaces, 48% said that harassment was a problem. Just under one-quarter of women in STEM said that they had been harassed, which matched the rate reported by women in non-STEM jobs.

The survey also uncovered race-based obstacles, especially for African Americans. Sixty-two per cent of African Americans in STEM said they had encountered discrimination because of their race. Notably, 50% of African Americans in non-STEM fields reported discrimination. For women and minorities, discrimination in the sciences seems to be even more commonplace than in other fields.

Some STEM fields seem to be more problematic than others. Nearly three-quarters of women in computer jobs said that they had experienced gender-based discrimination in the workplace. The report noted that although the proportion of women in the workforce has grown in most science fields since 1990, their presence in the computer field has shrunk.

Gender inequities seem to be most prevalent in workplaces where men outnumber women, the report found.



The CERN High School Students Internship Programme introduces adolescents to particle physics.

to determine whether the principal investigator will make teaching them a priority. "If you can find someone who is really invested in young people, like Thorri, you'll be on your way," she says.

UNEQUAL OPPORTUNITIES

But some scientists feel that there are better ways to invest their time and limited resources than in training the typical adolescent applicant. Terry McGlynn, an ecologist at California State University Dominguez Hills in Carson, made his position clear in a 2013 post on his blog *Small Pond Science* (see go.nature.com/2egm2ph). In the post, McGlynn argues that providing a university lab experience to certain high-school students exacerbates an inherent societal inequality.

"In labs all around the country, wealthy high-school students are getting high-quality research training at universities while the majority of the nation's public-school children are now living in poverty," he writes. "I'm not inherently opposed to taking on a high-school student, but I'll be damned if I take an opportunity away from an low-income student who truly needs it and transfer it to one who comes from a position of privilege."

McGlynn tells *Nature* that although some high-school students who want to work in a lab are genuinely interested in science, he has found that many are mainly looking for a chance to bolster their university applications. After talking to a few students who asked to train in his lab, he learnt that none was aiming for a professorship at a small state school such as his. Most were students from private schools who saw themselves gaining positions at top research institutions. He adds that he would consider taking in a local student from a public high school if someone else in his lab were willing to provide the necessary supervision and mentoring.

Peter Tonge, a chemist at Stony Brook

University in New York who has hosted scores of young students over the years, has similarly found that some teens have ulterior motives for seeking lab work. Several previous students have gone on to earn top scores in the prestigious Intel Science Talent Search competition (now the Regeneron Science Talent Search), which ramps up expectations. "Some students may arrive thinking this is their yellow-brick road towards an Intel scholarship, and that it's my job to make that work," he says. "But that's not my job."

Still, he says, most students truly want to learn about science. Tonge has a long-standing partnership with a local high-school teacher who brings in small groups of students to work in Tonge's lab for 8–10 weeks over the summer. He also takes in the occasional student who asks for a position in the lab after school hours. Tonge gives the students projects — perhaps using enzyme kinetics to track the effects of a compound — but he counts on his graduate students in the lab to do most of the mentoring.

Tonge says that he understands why some researchers would rather not open their doors to adolescent researchers, but he has no plans to stop. "Nobody pays me to work with high-school students," he says. "And they use reagents in my lab, so there's a cost."

On the upside, he feels that his graduate students can gain valuable mentoring experience and the high-schoolers can get a sense of real-life science while they still have a chance to change course. "Even if you're the best at this and the best at that and get straight As, it doesn't mean that your experiments are going to work," he says. "You have to have the motivation and enthusiasm to get up the next morning and fix it. The earlier you learn that in your career, the better." ■

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