

Probing Question: Do women dominate the field of forensic science?

8 May 2013, by Melissa Beattie-Moss



Penn State forensic science students arrive at a mock crime scene investigation. Credit: Penn State Forensic Science

Exhuming corpses, analyzing bloodstained clothing, collecting "crime scene insects" (yes, maggots)...these are some of the grittier realities of life as a forensic scientist. Yet defying the stereotype that females tend to be squeamish about such things, an entire generation of young women have become entranced by the profession, inspired in part by characters such as Abby Sciuto on the television drama NCIS. In fact, they've pursued this career in such numbers that—unlike almost every other scientific discipline—one could argue that the booming field of forensic science is a female domain.

Has [forensic science](#), in fact, become a woman's field?

Yes and no, says Jenifer Smith, a professor of forensic science at Penn State and retired DNA analyst and special agent for the FBI. "Currently 74 percent of the students in our forensic science program are young women, and they continue to fill the ranks of various laboratories. It's one of the

areas of science in which women outnumber men. In many ways, we are a STEM [Science, Technology, Engineering and Math] success story."

This hasn't always been the case, recalls Smith. "My interest in forensic science was solidified during an internship at the Office of the Chief Medical Examiner in New York City in 1980," she says. "I noticed at the time that the lab had women working in it, but they were technicians. All of the supervisory positions were held by men."

Prior to [DNA testing](#), explains Smith, the technical analysis of evidence from crime scenes and death investigations was regarded derisively as "somewhere between voodoo and witchcraft as far as most serious scientists were concerned." Perhaps this image of forensic science as a softer or more human science is what originally opened the door to more females in the field, she speculates.

[DNA profiling](#)—a technique first reported in 1984 by Sir Alec Jeffreys at the University of Leicester in England—is the basis of several national DNA databases that have revolutionized the field by giving it a statistically valid and reliable tool. However, some other tools of crime scene investigation—such as hair microscopy, bite mark comparisons, firearm tool mark analysis and shoe print comparisons—are still regarded as less scientifically rigorous and accurate. (As an aside, Smith notes that any technique, even DNA analysis and blood typing, can produce wrong results if tests are conducted improperly or results are conveyed inaccurately in trial testimony.)

Regardless of why forensic science first swung open its doors to women, says Smith, the fact is that the glass ceiling hasn't yet been completely shattered where gender is concerned. "On the one hand, if you look at the board of the American Society of Crime Lab Directors, nearly half of the positions are held by women who are directors of

their respective laboratories," she notes.

Provided by Pennsylvania State University

"However, currently, the larger federal labs are still largely filled with women at the technical or bench level, and while there are some moving into management positions, to date none of these labs are led by a woman." She adds, "I was only the second female unit chief in the history of the FBI laboratory from 1995-2001, but one of my friends, Melissa Smrz, nearly made it to the top job, as she was deputy assistant director until her retirement in 2011."

To any young woman out there watching CSI shows and dreaming about going into forensic science, Smith has some myth-busting words of advice. "Despite what you may see on television, we leave the Prada stilettos at home when processing a crime scene," she says with a laugh. "And the 'haute couture' clothing of [crime scene](#) fashion are white Tyvek 'bunny suits' and blue hair and feet covers."

Of greater concern to prospective forensic scientists, she explains, is that the work "is 24/7 and will take precedence over many other events in your life. Additionally, it can be very emotionally strenuous work for both men and women because you will be responsible for dealing with the aftermath of acts of violence that most human beings only see in fictitious TV and movie scenes." Unlike the television shows, "we don't solve all crimes in one or two episodes," she notes. "The ones that still remain with me are the ones we never brought to resolution."

As to the field having some of the issues—including a gender wage gap—that tend to plague female-dominated professions, Smith says, "For me, there was extreme satisfaction in having a job in which I could apply my technical expertise. I loved being an applied scientist and I always enjoyed discovering new approaches that helped us fill capability gaps. The salary issue for me was secondary to the satisfaction gained by a job well done and that was a good thing because the majority of forensic science jobs are in the public service or government sector."

APA citation: Probing Question: Do women dominate the field of forensic science? (2013, May 8) retrieved 26 January 2020 from <https://phys.org/news/2013-05-probing-women-dominate-field-forensic.html>

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