

Why do so many women leave biology?

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The retention rate of women in the biological sciences, both in the United States and Canada, is lower than would be expected from the number of female doctoral students who graduated within the last decade, and lower than it is in medicine. Early-career competition for positions in biology is the likely explanation, as it is especially unattractive for women with children. Training fewer biologists would alleviate this pressure and may lead to relatively more women staying in scientific careers.

One common idea about why there are fewer women professors in the sciences than men is that women are less willing to work the long hours needed to succeed. Writing in the January Issue of *BioScience*, Shelley Adamo of Dalhousie University, Nova Scotia, Canada, rejects this argument. She points out that women physicians work longer hours than most scientists, under arguably more stressful conditions, but that this does not deter women from entering medicine.

Why, then, do women leave the academic track in biology at higher rates than they leave the medical profession? Adamo blames the difference in the timing of the most acute period of competition in the two careers. In biology, the most intense competition is for the first faculty position. This typically occurs when women are in their early 30's. Biologists have little financial and institutional support for balancing family and career during this stressful time. Women with children find this pressure particularly difficult, and it appears to be getting worse, because of a decrease in available academic positions. Strong career competition in medicine, in contrast, occurs earlier, before most women have started

families.

Once women are in a faculty position in biology in Canada, they gain tenure at the same rate as men. Canadian universities, unlike US ones, have mandated [maternity leave](#) for [women faculty](#) and often allow deferral of tenure. In addition, the main Canadian agency supporting biology takes maternity leave into account when assessing productivity. Consequently, retention of women who have achieved tenure-track positions in biology is better than in the United States.

Adamo points out that if both countries decreased the number of graduate biology student positions, making competition for a biology career occur earlier, this would likely make access to [academic positions](#) easier later, and so increase the proportion of [women](#) choosing a scientific career. But bringing about such a change—for example, by providing fewer but better-funded graduate scholarships—would require a coordinated response involving granting agencies, universities, and individual professors.

Provided by American Institute of Biological Sciences

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