

TEACHER-FACILITATOR MATERIALS FOR CORNELL INSTITUTE FOR
WOMEN IN SCIENCE VIDEO SERIES

Defining the Problem: The Importance of Family Planning

Childless female scientists are paid, promoted, and rewarded equivalently to their male peers (and in some analyses at even higher rates). But children completely change the picture for women scientists, yet they do not have the same impact on the careers of men. What happens when children enter the equation, and why does this impact women's but not men's careers?

Answering this question requires knowledge about the typical course of an academic career. Most students interested in becoming professors in the sciences graduate from college and enter graduate school the following fall. Earning a doctorate takes an additional five to six years on average. In some fields, senior graduate students begin applying for tenure-track academic jobs during their final year of graduate school; in others, it is customary to work as a postdoctoral associate for several years after receipt of the Ph.D. By the time students apply for tenure-track academic jobs, they are at least 27 years old, and on average they are 33. Getting a tenure-track academic job means applying broadly and being willing to move wherever the job is, giving your career higher priority than the needs of partners or spouses. Once you land a job, the next six years are spent in relentless efforts to accumulate an impressive portfolio of work—encompassing research, teaching, service and winning grants—until finally, at age 35-40, a professor may be fortunate enough to earn tenure or lifetime job security. Research by Jerry Jacobs and Sarah Winslow has shown that more than 60 percent of female untenured professors are over 40.

As shown in Figure 5 of the article by Wendy Williams and Steve Ceci in the *American Scientist*, women's declining fertility means that by age 37, many will have difficulty conceiving. Women's optimal fertility is between ages 18 and 31, as seen in Figure 5. And waiting to have children has not only physical aspects but also emotional ones—some women want to have children at an earlier age and they and their partners may not wish to delay parenthood until their late 30s. For these women, a tenure-track job presents a harsh set of decisions. It's easy to see why the pretenure years might be offputting for a woman who does not wish to delay having children until age 37—she must deal with pregnancy, childbirth, and childcare while simultaneously amassing a tenurable portfolio of work. This reality is too daunting for some women, and they either leave the tenure-track academic-job pipeline or give up on having children.

Surveys by Mary Ann Mason and her colleagues at the University of California have shown that regrets plague women in the academy at a far greater rate than they do men. In Mason et al.'s survey, thirty-eight percent of women but only 11 percent of men stated that they “regret not having children” or “regret not having more children.”

The key point in all of this is that the aspiration to have children is the single biggest factor in diverting women from the fast track in academia—landing a tenure-track

position at a research university, as these jobs pay well, involve great flexibility and eventual security, and allow for the pursuit of research. In Figure 7 of the article by Wendy Williams and Steve Ceci in the *American Scientist*, it can be seen that females are far more likely than males to decide not to pursue tenure-track careers as a result of this factor. Even just the plan to have children at some future time is enough to dissuade women to abandon the fast track career path. No other factor can account for as much leakage of women from the tenure-track pipeline.

Some Questions for Discussion:

- Why can't women have children before they apply for tenure-track jobs? If they had children while still in college or graduate school, the children would be old enough to fend for themselves when the women started tenure-track jobs. (Many women are not in a position to start a family while still in college.)
- Why can't women take longer than the usual length of time to earn tenure? If they worked part time for twice as many pretenure years, they could raise children and still manage to do some research and teaching. (Many have proposed such flexible pretenure options, but others argue that it is not feasible for various reasons—such as the need for a professor to be actively supervising graduate students full time; or the extra office space it would take to hire two half-time scientists to teach one full-time load of courses.)
- Why should employers make changes to satisfy women's desires when they do not do this for other employees--men and women who choose not to have children?

Recommended Reading:

Mason, M.A., Goulden M., & Frasch, K. (2009). Why graduate students reject the fast track. *Academe*, 95, 11–16.