

The Mom Penalty

A decadelong research initiative out of the University of California at Berkeley culminates in a detailed look at the effects of children on men's and women's academic careers.

By [Colleen Flaherty](#)

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Do babies matter to academic careers? It's a question three researchers have spent a decade answering, and their findings are now available in what may be the most comprehensive look at gender, family and academe ever published. (Spoiler alert: the answer is "yes.")

The book, *Do Babies Matter? Gender and Family in the Ivory Tower*, out this month from Rutgers University Press, includes new studies and builds on [existing data](#) about the effects of childbearing and rearing on men's and women's careers in higher education, from graduate school to retirement. Written by long-term collaborators Mary Anne Mason, professor of law at the University of California at Berkeley; Nicholas Wolfinger, associate professor of sociology at the University of Utah; and Marc Goulden, director of data initiatives at Berkeley, the work also looks at the effects of successful careers in academe on professors' personal lives. It makes the case for more family-friendly institutional policies, arguing that such initiatives ultimately could save money for colleges by reducing "brain drain," and includes best practices from real institutions trying to even out the playing field both for mothers and fathers who want better work-life balance.

“In the individual work we’ve done on the topic, we’ve looked at bits and pieces of the story,” said Wolfinger. “Now we have the whole story, soup to nuts.”

And the story favors men in academe, said Goulden. “Certainly our most important finding has been that family negatively affects women’s, but not men’s, early academic careers. Furthermore, academic women who advance through the faculty ranks have historically paid a considerable price for doing so, in the form of much lower rates of family formation, fertility, and higher rates of family dissolution.” For men, however, the pattern has been either neutral or even net-positive.

For women in academe, said Mason, “At every stage, there’s a ‘baby penalty.’ In the earlier stages, graduate students have children and drop out or grad students get turned away from the academic profession, in terms of the [lack of family-friendliness] they see around them.” Concerns about time demands in relation to caretaking, and worries that advisers, future employers and peers would take their work less seriously were all reasons female Ph.D. students, more than male, cited for not having a child or being uncertain about having a child in one survey of graduate students in the University of California system. In another survey of postdoctoral fellows in the system, more than 40 percent of women who had children during their fellowships were considering changing their career plans to those outside academic research, compared to 20 percent of childless women with no plans for children.

Young female professors with children leave the profession in greater numbers than their cohorts, too. The retention gap between female professors with children and those without, as well as men with and without children, narrows at mid-career – presumably when children are older and require less care – but women are still underrepresented at the higher rungs of the academic ladder. Tenure-track female professors also are likelier to be unmarried, divorced and childless than their male counterparts (12 years after receiving their Ph.D.s, 44 percent of female tenured faculty

were married with children, versus 70 percent of male tenured faculty, according to the National Science Foundation's landmark Survey of Doctorate Recipients, which has tracked 160,000 Ph.D.s in the sciences, social sciences and humanities since the effort began in the 1970s) – what Mason called a “double equity problem.”

Women academics who do have children are most likely to do so between 35 and 39 years old – generally past “publish or perish” pressures – Wolfinger said, but later than women in other fast-track professions and “at a time when pregnancies become more risky biologically.”

While it's impossible to know to what extent women in academe make these choices due to their careers, Wolfinger said family clearly comes at a financial cost for them.

In data new to the *Do Babies Matter?* project, controlling for various differences between respondents in the NSF's study, a woman's income incrementally decreases 1 percent for each child she has (men's income is unaffected). Over many years and several children, the cumulative impact is significant; on average, women retire around the same age and for the same reasons as men (the only career transition that isn't “gendered”), but at a salary that is 29 percent lower, according to one data set. Additionally, the benefits of marriage generally observed by social scientists are skewed for women: While married men in academe enjoy a 3 percent income bump from their unmarried counterparts, women see a 1 percent bump. (In two-professor couples, women are also more likely to defer to their male partner in job decisions – what the authors call the “two-body problem.”)

Equity is of particular concern in the traditionally male-dominated sciences, where the pressures of fund-raising, less-flexible schedules and long hours in the lab may contribute to the gender imbalance among faculty at research institutions. In 2007, for example, women received the majority of predoctoral fellowships from the National Institutes of Health and the NSF, but just about one-quarter of competitive faculty grants. While the recent

surge in female Ph.D. students in the sciences is one explanation, the authors argue that science research careers may prove incompatible with family life for many female new Ph.D.s.

As one interviewee, Jennifer, a female neuroscience postdoc who'd recently had a child said: "I don't think I'll ever be able to do a tenure-track job, and people were very upfront with me about that when I had my child. Looking around me, I see that people are completely shut out of positions because of family."

Such "leaks in the pipeline" prove costly, the authors argue, as each newly-minted Ph.D. represents a six-figure investment by the government, including grants and tuition. "From a policy perspective, investing years of training in individuals and then losing them to academic careers because of unnecessary rigidity – particularly during early career formation – makes no monetary sense," said Goulden. But, he added, "At its core, this is a values issue. We should support all the talent in our academic pipeline through allowing them to enjoy both satisfying academic careers and family lives." Mason agreed. "We can't nurse girls along with dreams, starting in second grade, of being an engineer or physicist if you're going to be giving them that dream and then taking it away from them," she said, referring to national initiatives to interest girls in science, technology and engineering and math fields, such as the NSF's Career-Life Balance Initiative supported by First Lady Michelle Obama. "It's a joke."

Mason also said there are legal implications to these leaks. Although many people now think of Title IX of the Education Amendments of 1972 regulations in reference to sports in higher education, it safeguards against sex discrimination in all programs receiving federal funding – including doctoral programs. Consequently, she said, female Ph.D. students and postdocs who wish to start families but fear losing ground in their programs and appointments have more protections than they think. Unlike Title VII or the Family and Medical Leave Act, which do not cover trainees or part-time employees, under Title IX, all students have the right to return to their

academic programs and to the teaching and research posts they held before they took leave, with no change in status during pregnancy and after childbirth.

Data in the book are drawn from a variety of sources, including the NSF's Survey of Doctorate Recipients, census data and surveys of thousands of graduate students and faculty in the University of California system.

Many of the book's recommendations for change also have been tested out within the University of California system; Mason helped initiate paid maternity leave for graduate students during her time as the first female dean of Berkeley's Graduate Division. It wasn't costly to the university, considering the low wages of Ph.D. students, but sent a strong message and improved morale, she said. Mason and her co-authors also helped establish the University of California Faculty Family Friendly Edge program. It offers a variety of benefits and initiatives to families with small children, including modified duties and tenure clock stoppage following birth or adoption and part-time options. Other initiatives in progress include child and infant care options, reentry services for postdocs and relocation services. Publicizing the program as a set of entitlements -- not special requests -- has been key, Mason said, as faculty can't access benefits they don't know about. In sciences in particular, the authors recommend postponement and suspension of grants for childbirth, adoption and family leave, and providing supplements to cover research technicians to maintain labs while principal investigators are on leave.

Goulden said he needed more evidence to know whether such programs were making it easier for women to climb the academic ladder. However, he said, "One trend that we are noting at [Berkeley] is that our younger faculty women are now much more likely to have children as junior faculty, in all likelihood due to our enhanced family policies. This reflects a broader trend of increased knowledge, support, and use of family friendly policies among both women and men on our campus."

While the implementation of family-friendly policies has been uneven across academe (just 58 percent of Association of American Universities institutions offer six weeks of paid maternity leave, for example), there are other success stories. At Massachusetts Institute of Technology, a small group of tenured women professors organized and discovered disparities in salaries and resources between male and female faculty; they wrote a detailed report of their findings, down to lab square footage, and a subsequent report released nine years later, in 2011, found that women faculty had an “overwhelmingly positive view of MIT,” including family-friendly policies.

The book has earned praise from other scholars of family in academe, including Kelly Anne Ward, professor of higher education at Washington State University and author of *Academic Motherhood: How Faculty Manage Work and Family. Do Babies Matter?* adds to the existing literature on the topic “long-term, real and lasting impacts that career and family decision have on academic careers,” said Ward. “The data set is very comprehensive. It’s quality evidence.”