How Schools Can Help Moms Stay in Science

We talk a lot about the discrimination women face in science and engineering, but a new study says there may be a bigger reason why women don’t rise higher in these fields: motherhood. Right now, science and engineering departments don’t know how to deal with profs, postdocs, and grad students who might also want to be moms. But there are some simple changes they could make that would help a lot.

In a study published in the March-April issue of American Scientist, Wendy Williams and Stephen Ceci write, “It is when academic scientists choose to be mothers that their real problems start. Women deal with all the other challenges of being academic scientists as well as men do. Childless women are paid, promoted and rewarded equivalently to their male peers (and in some analyses at even higher rates). Children completely change the landscape for women — but do not appear to have the same effect on the careers of men.” Why does this happen? Basically, prospective scientists finish grad school and postdocs and can apply for tenure-track jobs at an average age of 33. That means they won’t get tenure until they’re 35 or older. Until then, they have to work their asses off doing research and publishing papers. Which isn’t so compatible with being a mom. Williams and Ceci write,

Whether measured in hours spent or in percentage of one's life energy devoted, the job demands devotion to the task at a level that is extraordinarily challenging for women who are mothers of young children. The tenure system was created at a time when few women worked outside the home and when raising children was assumed to be women's work, and thus it was designed for people without significant responsibilities in household work or child care. In fact, many early professors were unmarried men who were expected to live in residence at their universities. A lot has changed since then, but the tenure system itself has remained much the same.

Result: women tend to drop out of science careers, especially in more math-intensive fields that require more research hours, when they have kids. The reality is, as they study authors point out, women are way less likely than men to have a stay-at-home or part-time-working partner to help pick up the childcare slack. New moms leave postdoctoral positions twice as frequently as new
dads do, and earlier research shows that even planning to have kids in the future makes women more likely to drop out of science. Just anecdotally, I’ve heard young female scientists say they’ve given up on the idea of kids because of the demands of their career, or that they’re very afraid about balancing the two.

Luckily, there are solutions. One is stopping the tenure clock — when young professors get tenure-track positions, they get a certain amount of time to prove themselves worthy of tenure through research and publishing. If they don’t, they’re out. But many universities will now put that clock on hold for new moms (or dads) allowing them to take it slow for a year before they need to start publishing again. Still, this isn’t a perfect fix. I talked to one science grad student who told me that even if your particular institution recognizes the clock-stopping, the field won’t — they might think of you as less impressive than someone who’s been publishing continuously. For clock-stopping to really help, everyone would have to recognize that it’s necessary and legitimate. According to the *Chronicle of Higher Education*, everyone who evaluates potential professors — not just their home departments — needs to understand "how stopping the clock is supposed to work, so that professors can use the benefit without fear."

The grad student also told me that balancing motherhood and science is really a "time management issue," and departments can help by easing the burdens of childcare. One way to do this is to provide onsite, affordable childcare. Lactation rooms are also important, the student said — they may seem like a small addition, but they can go a long way toward creating an institutional culture that’s accepting of motherhood.

Williams and Ceci offer a few other ideas, ranging from "the use of part-time tenure-track positions for women having children that segue to full-time once children are older" to "leveraging technology to enable parents to work from home while children are young or ill." The bottom line is that if universities want to give female scientists equal opportunities — if they want to take advantage of all the available talent rather than just half of it — they need to recognize that raising kids takes time. And they need to figure out a way to give scientists that time while still letting them keep their jobs. It shouldn’t be that difficult — way simpler, really, than doing science.

**When Scientists Choose Motherhood** [American Scientist, via ScienceDaily]

*Image via emin kuliyev/Shutterstock.com*

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Contact Anna North:  

Discuss your thoughts here.

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Discussion now closed.

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**PetiteGal**  

15 Feb 2012 5:36 PM

If it’s all about motherhood, then one can say the same about any line of work. Besides, we also need to make it easier for men to be with family as well. It isn’t all about Mom. Dads should be involved too.

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**BrightSpark**  

@PetiteGal

I think it is different from other types of work given that you can work on one project for 2 or 3 years before you see results from them. You might be doing more than one project all the time, but as always there can be a long time before you see any outcomes, which means that you have to be constantly working and cant afford to take time off.

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**Gavagirl**  

@PetiteGal

It’s true. I think a lot of this gets reinforced because the dads aren’t willing (for whatever reason) to ask for family leave as readily as their female colleagues. If all employees started insisting that their employers show some respect for family and other personal obligations, then the women...
wouldn't be getting singled out as troublemaking breeders.

phipsi @PetiteGal

Not all lines of work require a decade+ of training, 60-80 hour work weeks (including weekends), no paid holidays (as a grad student or post-doc), etc. etc. I agree that dads need to be involved as well. The most successful female faculty I have know have a spouse that is very involved (or even the major parent) with the children.

forth @PetiteGal

Many universities are opening it up to men and women (as stated in the article). That is not to say that schools are always encouraging of men who want to take time off, but it is in place. Coming from a large university Physics department (and with my boyfriend currently grad student entrenched in one), I am seeing some positive changes. For the past few generations, the people running these departments have been old men with antiquated views and an old boys club attitude. The trend I am seeing is more towards men who do NOT see child rearing as a woman's job and are taking on responsibilities on their own. This allows them to see the merit in having that time while their kids are young. I see this becoming more widespread and encouraged.

Anecdotally, my boyfriend's graduate adviser actually is slowing down his tenure track bid - with the consent of the university. His reason? He wants to make sure that he can pick his son up at school and have time to make their family dinner everyday. This is not counting against him.

deemer @PetiteGal

It's not like other lines of work. 80 hour workweeks are the norm, and you're under constant pressure not just to clock in hours, but to have them yield significant, publishable results. Anything less gets you demoted in the eyes of your boss, your Principle Investigator, and basically assures you that you won't find a job later on that isn't paid in peanuts.

Which, speaking of which, all this work gets you about $20,000 a year in a stipend, if you're lucky, and many people have to appeal to the university or write grants to guarantee that stipend.

All this just to guarantee some tenure-track job, and usually you have some jackass male PI judging your ability to graduate with some choice comments if you aren't working as hard as he thinks you should be. And then they can just arbitrarily refuse to graduate you, and there's not much you can do about it.

SleaterK27 @PetiteGal

In addition to the long work weeks, it's completely different than other jobs or degrees - you have to physically be in the lab to complete experiments, some of which can literally take days to complete. You can't just leave in the middle of something. Other PhDs can have some of their work done at home, but for most biomedical research, you need to be at the bench to complete it. I personally perform experiments that can take twelve hours, and if you leave off at any point in between, your samples degrade and the whole day is garbage.

biomusicologist @SleaterK27

Hear, hear! What was the stuff in the article about "math-intensive fields" taking more time? I am a PhD student in microbiology, and my physics PhD student husband spends waaaay less time at the lab, since he can do a lot of his computer and math-based stuff at home, whereas my experiments need to be done in lab.
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