The changing career trajectories of new parents in STEM

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Edited by Paula England, New York University, New York, NY, and approved January 3, 2019 (received for review July 9, 2018)

The gender imbalance in science, technology, engineering, and math (STEM) fields has remained constant for decades and increases the farther up the STEM career pipeline one looks. Why does the underrepresentation of women endure? This study investigated the role of parenthood as a mechanism of gender-differentiated attrition from STEM employment. Using a nationally representative 8-year longitudinal sample of US STEM professionals, we examined the career trajectories of new parents after the birth or adoption of their first child. We found substantial attrition of new mothers: 43% of women leave full-time STEM employment after their first child. New mothers are more likely than new fathers to leave STEM, to switch to part-time work, and to exit the labor force. These gender differences hold irrespective of variation by discipline, race, and other demographic factors. However, parenthood is not just a "mother's problem"; 23% of new fathers also leave STEM after their first child. Suggesting the difficulty of combining STEM work with caregiving responsibilities generally, new parents are more likely to leave full-time STEM jobs than otherwise similar childless peers and even new parents who remain employed full time are more likely than their childless peers to exit STEM for work elsewhere. These results have implications for policymakers and STEM workforce scholars; whereas parenthood is an important mechanism of women's attrition, both women and men leave at surprisingly high rates after having children. Given that most people become parents during their working lives, STEM fields must do more to retain professionals with children.

gender in STEM | STEM workforce | work–family balance | science policy | sociology

Women are starkly underrepresented in science, technology, engineering, and mathematics (STEM) and are devalued and underpaid while working in these fields (1–6). Scholars and policymakers argue that the paucity of women in STEM curtails scientific creativity and aggravates a STEM worker shortage that threatens US innovation and economic competitiveness (7–10). In an attempt to address this underrepresentation, US institutions have invested considerable energy and resources to attract and retain girls and women in STEM fields; however, gender parity in STEM is far from being realized (11, 12).

Most research on the underrepresentation of women in STEM has focused on the different experiences that young women and men typically have in STEM education and in the transition from school to work. Some scholars have used the metaphor of a "leaky pipeline" to describe women's disproportionate attrition from STEM training after they start (1, 13, 14). Importantly, this research has not found evidence of any performance gap between men and women (1, 15–17); instead, these studies demonstrate that widespread cultural stereotypes and biased classroom and workplace practices devalue women's competence and create chilly climates that dissuade many women from pursuing and continuing a STEM career (14, 18–22). As such, women are less likely than men to enroll in STEM majors and more likely than men to leave STEM fields for training in other fields (1, 14). Even after earning STEM degrees, women are less likely to be hired into STEM jobs compared with equally qualified men (6, 18, 19, 23).

However, education and the school-to-work transition are not the only points along the STEM career path at which women leave at faster rates than men. Less research has examined gender differences in attrition after women and men have completed their training and secured full-time STEM jobs. Here we focused on parenthood as a central but understudied mechanism contributing to the underrepresentation of women in STEM employment. Specifically, we investigated how new parents fare in STEM, and whether parenthood contributes to the disproportionate attrition of women from STEM employment.

Why focus on parenthood? In short, most workers become parents; 90% of Americans have or adopt at least one child during their working-age lives (24). However, parenthood is not only a personal, idiosyncratic event. How parenthood affects the lives and careers of individual men and women is contingent on a myriad of social factors, including public and organizational policies regarding who is eligible for caregiving leave and cultural expectations about who in the family should take on more caregiving work and whose career should be privileged (25–28).

Although parenthood often reinforces upward career trajectories for men, it can become an exit ramp out of intensive careers for women (25, 29). Although fathers today provide more childcare on average than men did a generation ago, mothers—even those employed full time—still shoulder a disproportionate share of caregiving responsibilities (30, 31). Many mothers feel pushed out of professional careers by the lack of flexibility in workplaces (32) and by colleagues' and bosses' presumptions that mothers are less committed to their work after having

Significance

Why are women still underrepresented in science, technology, engineering, and math (STEM) jobs? Social processes beyond individual preferences may shape the STEM employment trajectories of new mothers and new fathers differently. Using representative US longitudinal survey data, we followed full-time STEM professionals after the birth or adoption of their first child. We found substantial attrition of new parents; nearly one-half of new mothers and nearly one-quarter of new fathers leave full-time STEM employment after having children. Thus, parenthood is an important driver of gender imbalance in STEM employment, and both mothers and fathers appear to encounter difficulties reconciling caregiving with STEM careers. These findings have implications for the vitality of the US science and engineering workforce.

Author contributions: E.A.C. and M.B.-L. designed research; E.A.C. and M.B.-L. performed research; E.A.C. contributed new reagents/analytic tools; E.A.C. analyzed data; and E.A.C. and M.B.-L. wrote the paper.

The authors declare no conflict of interest.

This article is a PNAS Direct Submission.

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This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10.1073/pnas.1810862116/-/DCSupplemental.

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children (25, 32). Even mothers who remain in the professional workforce full time encounter stereotypes painting them as less competent than equally qualified men and childless women (33), and face salary penalties and career barriers even while contributing the same dedicated work (34–36). In addition, unlike most working fathers, many professional working mothers confront dominant cultural expectations that their children deserve their single-minded devotion—devotion presumed to be incompatible with the work dedication expected of professionals (37). As such, what may appear as professional women's unconstrained personal choice to leave their careers to care for family is often the outcome of overdetermined, socially patterned expectations that constrain mothers more frequently than fathers (32, 38, 39).

How do new parents fare in STEM specifically? STEM fields are some of the most male-dominated professions in the US and have diversified more slowly than other fields (12). Cultural expectations of intensive hours and the rapid pace of STEM innovation may be particularly difficult to meet for new parents with family responsibilities (20, 38, 40). Early in their training, aspiring STEM professionals encounter cultural beliefs that families are supposed to support their work, not the other way around (41–44). This may be especially true for mothers in STEM. Women with children are less likely to be employed full time in science and engineering fields than similar men with children (1, 6), and employed mothers are often viewed as less valuable STEM professionals than their colleagues without children (44). As such, new mothers may confront more obstacles than new fathers to their continuation in full-time STEM employment.

Furthermore, a longitudinal study of science PhD recipients found that new mothers were far less likely than similarly qualified new fathers to obtain tenure-track academic professor jobs, and once in those jobs, were less likely to be promoted with tenure (29). Beyond this study of PhD recipients, we do not have a good sense of the overall longitudinal gender-related impact of parenthood among STEM professionals.

New mothers might not be the only ones who find it difficult to balance parenthood with STEM careers. New fathers, too, may face workplace constraints and cultural expectations that push them toward alternative career paths. Like mothers, fathers employed in STEM may find it challenging to find time for their children given the intensive time demands of many STEM jobs (42). Like mothers, fathers who are actively engaged in childrearing may be viewed as not truly devoted STEM professionals (44).

We thus investigated whether parenthood is an important point of attrition from full-time STEM employment, and whether this parenthood effect is particularly strong in new mothers. Using longitudinal survey data, we followed a representative national sample of initially childless US STEM professionals employed full time, a subgroup of whom had their first child at the beginning of the 8-year study period. These professionals were rich in human capital, having successfully completed college- or graduate-level training and being employed in a STEM field. They also demonstrated commitment to full-time work in these male-dominated, math-intensive fields and had moved beyond the key attrition points of education and the school-to-work transition (39). The exit of these trained and experienced professionals from the STEM workforce would be disadvantageous for both the organizations that employ them and for US STEM industries broadly.

We used the 2003–2010 survey waves of the nationally representative restricted-use SESTAT (Scientists and Engineering Statistical Data System) dataset for our analysis (*Materials and Methods*). Our total sample comprised respondents from the SESTAT panel who were childless and employed full time in a STEM field in 2003. We compared respondents who had their first child between the first and second survey waves (n = 841) with those who remained childless during the study period (n = 3365) and followed both groups through 2010. Importantly—and often missing from earlier research—we tracked multiple paths of attrition from STEM, including transitioning into a part-time STEM career, transitioning into a full- or part-time career outside of STEM, and leaving the workforce entirely.

We begin by comparing new parents with their childless peers holding constant variation by age, race/ethnicity, education level, sector, discipline, and other demographic factors. In light of the aforementioned time demands and devaluation of caregiving responsibilities that STEM professionals may encounter, we expect that new parents will be less likely than their childless peers to persist in full-time STEM employment, as reflected in our first hypothesis:

> H1: New parents are less likely than similar childless respondents to remain employed in STEM full time immediately after the birth or adoption of their first child (in 2006) and as those children reach school age (in 2010), net of controls.

We also expected to find that even new parents who remained committed to full-time work would be more likely than their childless peers to exit STEM for full-time work outside of STEM:

> H2: New parents are more likely than childless respondents to leave full-time STEM jobs for full-time employment elsewhere, net of controls.

The literature that we reviewed above suggests that the burdens of parenthood are likely not shouldered to the same extent by new mothers and new fathers, even when these new parents were similarly employed in intensive, full-time STEM jobs. Given the divergent cultural expectations for family devotion and the different constraints that women and men STEM professionals may face after becoming parents, we present three more hypotheses:

> H3: New mothers are more likely than new fathers to depart full-time STEM employment after the birth or adoption of their first child, net of controls.

> H4: New mothers are more likely than new fathers to leave full-time STEM work for part-time work, net of controls.

> H5: New mothers are more likely than new fathers to leave the labor force entirely, net of controls.

In *Results*, we present logistic regression models comparing the trajectories of new parents with their childless peers net of demographic, sector, and STEM discipline controls. We then graph the aggregate trajectories of new fathers and new mothers over the 8-y study period. Logistic regression analyses demonstrate the robustness of the observed gender patterns to possible differences in demographics, STEM discipline, and employment sector, whether respondents have a nonworking spouse or partner, and whether respondents had an additional child during the study period. Details are provided in *Materials and Methods* section.

Results

New parents in general (*SI Appendix*, Table S1), as well as new parents who remain employed full time in the workforce (*SI Appendix*, Table S2), are younger, less likely to be employed in university and government sectors, less likely to be employed in the life sciences, and more likely to be nonwhite than their childless peers. New parents are also more likely to have a master's degree and similarly likely to have a PhD, suggesting that full-time STEM professionals who decide to become parents are not deficient in education compared with STEM professionals who remain childless. Our multivariate models control for these points of variation.

The first set of multivariate analyses compares the career trajectories of new parents and their childless peers. Table 1 presents the results of logistic regression models predicting the likelihood of remaining in full-time STEM employment in 2006 and 2010 by new parenthood status. Supporting H1, the data

show that new parents are significantly less likely than similar childless respondents to remain in STEM full time just after the birth or adoption of their first child (2006) and as their first child reaches school age (2010). These differences hold net of variation by demographic factors, education, discipline, sector, and other work-related parameters (Table 1).

SI Appendix, Figs. S1 and S2 illustrate patterns of attrition from full-time STEM jobs in each survey year for new parents and their childless peers. Solid lines represent the actual weighted attrition of new parents, and dotted lines represent the predicted attrition levels of childless respondents, holding the other dimensions of variation between childless respondents and new parents constant. The attrition slopes diverge between new parents and childless respondents starting in 2006, after new parents have their first child. This divergence persists through 2010.

Many new mothers and new fathers continue to work full time after having children but move to non-STEM fields. Twelve percent of new mothers and 18% of new fathers switch to full-time employment outside of STEM after their first child. How do the trajectories of these full-time working parents compare with the trajectories of their childless peers? Relative to full-time childless respondents, new parents who continue to work full time are significantly more likely to have left full-time jobs in STEM by 2010, net of controls (supporting H2; Table 2). This pattern holds among both new mothers and new fathers; in logistic regression analyses run separately by gender, the new parent indicator is statistically significant and negative in both models (new father indicator in men-only model: B = −0.788, $P = 0.018$; new mother indicator in the women-only model: B = −1.045, $P = 0.049$).

Professionals, whether parents or childless, change jobs for a variety of reasons. Are new parents more likely to cite family responsibilities as a reason for their departure from STEM? In the *SI Appendix*, we draw on supplemental survey questions that ask a subset of the sample—respondents who had left STEM for a full-time non-STEM jobs "not related" to their highest degree—about the reasons for their career shift. *SI Appendix*, Fig. S3 compares these new parents and childless respondents who left for full-time work outside of STEM. A significantly greater proportion of new parents in this group (49% overall, including 38% of new fathers and 71% of new mothers) cited the reason for departing from STEM work as "family-related" compared with childless respondents (4% overall, including 4% of childless men and 5% of childless women).

We now turn to the potential gender differences in the career trajectories of new parents. Figs. 1 and 2 show the employment status over time of respondents who worked full time in STEM in 2003 and became new fathers (Fig. 1; $n = 629$) or new mothers (Fig. 2; $n = 212$) between 2003 and 2006. Specifically, these figures present the percentage of new parents in the following five employment status categories in 2003, 2006, 2008, and 2010: (*i*) employed full time in STEM, (*ii*) employed part time in STEM, (*iii*) employed part time in a non-STEM field, (*iv*) employed full time in a non-STEM field, or (*v*) left the workforce.

As the figures indicate, by the second survey wave in 2006, after their first child, 15% of new fathers had left a full-time STEM job (85% stayed), and 42% of new mothers had left a full-time STEM job (only 58% stayed). By the final survey wave (2010), at 4–7 y after the birth or adoption of their first child, 23% of new fathers and 43% of new mothers had left full-time STEM employment for other types of work or had left the labor force entirely. In the *SI Appendix*, we replicated Figs. 1 and 2 for new parents who only had a single child, demonstrating the same general pattern: after single-child parents left the STEM workforce, few returned by 2010 when their child reached school age (*SI Appendix*, Figs. S4 and S5).

Is this gender pattern in the trajectories of new parents robust to variation by discipline, sector, age, race/ethnicity, spousal employment, and other factors? Model A in Table 3 presents coefficients and SEs of a logistic regression model predicting the likelihood that a new parent remains employed in STEM full time based on gender and other demographic and employment measures. Supporting H3, new mothers are significantly less

Table 1. Logistic regression predicting the likelihood of staying in full-time STEM work in 2006 and 2010 among new parents ($n = 841$) and childless workers ($n = 3365$)

	Employed FT in STEM in 2006		Employed FT in STEM in 2010	
Variable	Coefficient	SE	Coefficient	SE
New parent	−0.483*	0.212	−0.436*	0.201
Female	−0.464†	0.265	−0.416†	0.229
Hispanic	1.088‡	0.352	0.222	0.344
Asian	0.398	0.218	−0.034	0.195
Black	0.033	0.437	0.413	0.479
Other nonwhite	2.328*	0.971	−0.191	1.011
Math and computer science	−0.150	0.300	0.068	0.271
Life sciences	−1.042‡	0.346	−0.475	0.329
Physical sciences	0.342	0.371	0.580†	0.326
Age	0.037	0.025	0.030	0.021
University sector	0.285	0.321	0.155	0.339
Government sector	0.702	0.512	0.264	0.428
Master's degree	0.135	0.284	−0.038	0.271
Doctorate	0.804‡	0.290	0.707‡	0.241
Nonworking partner	0.783*	0.339	0.677†	0.348
Intercept	0.255	0.757	0.267	0.691

*$P < 0.05$; †$P < 0.10$; ‡$P < 0.01$, two-tailed tests.

SESTAT restricted-use data. White is the comparison category for race/ethnicity, the for-profit sector is the comparison category for sector, engineering is the comparison category for STEM discipline, and bachelor's degree is the comparison category for education level. "New parents" is defined as respondents who were childless and employed full time in STEM in 2003 and had a child between 2003 and 2006. "Childless workers" is defined as respondents who were employed full time in STEM in 2003 and remained childless through 2010.

Table 2. Logistic regression predicting the likelihood of staying in full-time STEM work vs. switching to full-time non-STEM work in 2010 (new parents, $n = 741$ and childless workers, $n = 2949$)

Variable	Coefficient	SE
New parent	−0.813*	0.293
Woman	0.110	0.252
Hispanic	0.607†	0.363
Asian	−0.030	0.210
Black	0.308	0.389
Other nonwhite	−0.317	0.783
Math and computer science	0.266	0.249
Life sciences	−0.457	0.449
Physical sciences	0.019	0.386
Age	−0.015	0.013
University sector	−0.079	0.520
Government sector	0.366	0.338
Master's degree	0.068	0.272
Doctorate	1.196‡	0.467
Nonworking partner	0.926‡	0.476
Intercept	2.055*	0.614

*$P < 0.001$; †$P < 0.10$; ‡$P < 0.01$, two-tailed tests.

SESTAT restricted-use data. White is the comparison category for race/ethnicity, the for-profit sector is the comparison category for sector, engineering is the comparison category for STEM discipline, and bachelor's degree is the comparison category for education level. "New parents" is defined as respondents who were childless and employed full time in STEM in 2003 and had a child between 2003 and 2006. "Childless workers" is defined as respondents who were employed full time in STEM in 2003 and remained childless through 2010.

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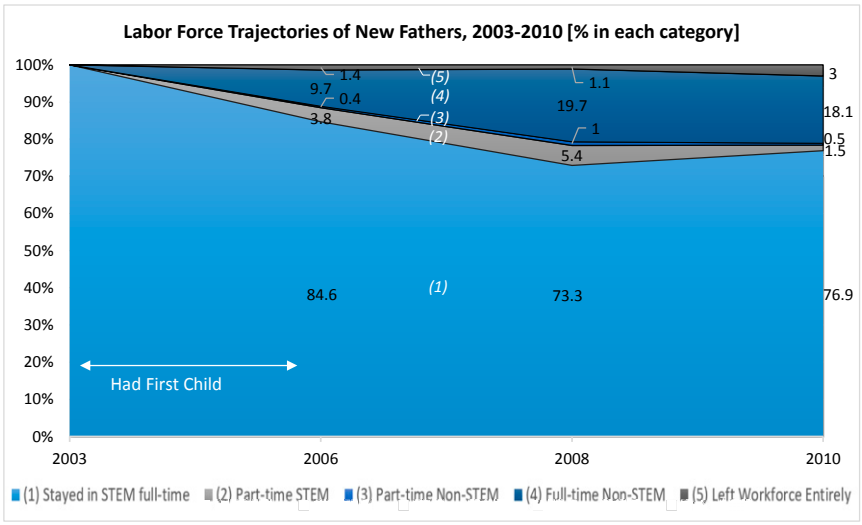

Fig. 1. Labor force trajectories of male STEM professionals employed full time in 2003 who had their first child between 2003 and 2006 (n = 629, SESTAT data).

likely than new fathers to remain in STEM employment full time after their first child, net of controls.

Where do new parents go when they leave full-time STEM employment? Nontrivial proportions of new mothers switched to part-time work in STEM (11%), switched to part-time work outside of STEM (6%), or left the workforce entirely (15%) by 2010 (Fig. 2). In contrast, smaller proportions of new fathers switched to part-time work (2%) or left the workforce (3%) (Fig. 1). The logistic regression analyses in Table 3 (models B and C) indicate that new mothers were indeed significantly more likely than new fathers to switch to part-time work (supporting H4) or to leave the workforce entirely (supporting H5), net of controls.

One final result is notable. The logistic regression analyses in Table 3 suggest few differences in these career trajectories for new parents by STEM discipline. Only one of the discipline indicators reached full statistical significance across these models: new parents in the life sciences were more likely than new parents in engineering to leave the labor force entirely. Other discipline controls were nonsignificant (*SI Appendix*). Although further research is needed, this suggests that the parenthood outcomes documented above are not driven principally by a single STEM field (e.g., engineering) and instead may be a feature of STEM more broadly.

Discussion

Since most workers become parents at some point during their careers, uncovering the effect of parenthood on the employment trajectories of STEM professionals is central to understanding the retention of talented women and men in these fields. At 4–7 y after the birth or adoption of their first child, a striking proportion of new parents—43% of new mothers and 23% of new fathers—leave full-time STEM employment. These patterns of attrition are echoed among parents of only one child (*SI Appendix*, Figs. S4 and S5) and are significantly higher than the attrition rates of similar childless respondents.

Consistent with our hypotheses, the proportion of new mothers who depart STEM is nearly double that of new fathers who leave STEM. This finding echoes the societal and organizational factors discussed above that often make it especially challenging for new mothers to sustain full-time careers in STEM and suggests the power of those cultural expectations and workplace obstacles to hinder continued full-time engagement of these scientists, mathematicians, and engineers in their profession. More research is needed to understand the pressure points that lead to these gendered attrition rates. By focusing on the issue of parenthood, we advance empirical and theoretical social science literature that seeks to understand why women continue to be

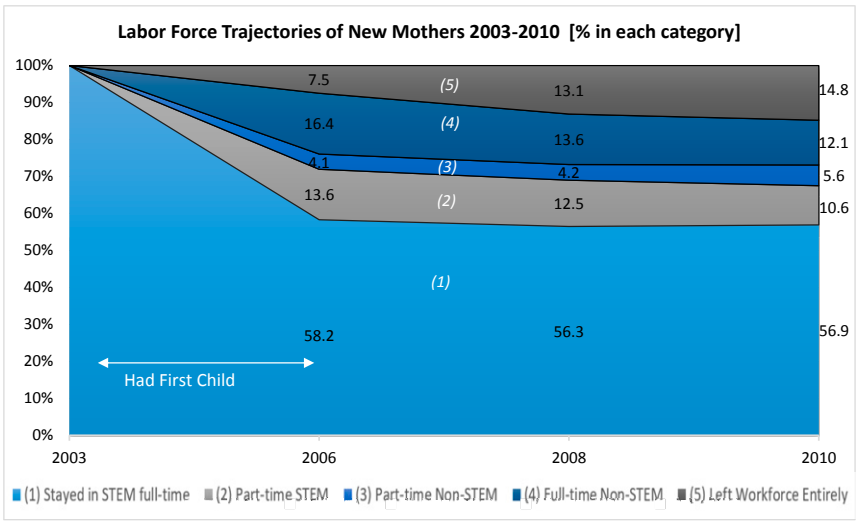

Fig. 2. Labor force trajectories of female STEM professionals employed full time in 2003 who had their first child between 2003 and 2006 (n = 212, SESTAT data).

Table 3. Logistic regression model predicting the likelihood that new parents stayed employed full time in STEM, switched to part-time work, or left the workforce entirely in 2010 (n = 841)

	(A) Stayed in full-time work in STEM		(B) Switched to part-time work		(C) Left workforce entirely	
Variable	Coefficient	SE	Coefficient	SE	Coefficient	SE
Women	−0.974*	0.407	2.052*	0.842	1.644†	0.594
Hispanic	0.592	0.752	−0.658	1.341	1.561	1.276
Asian	0.648*	0.327	−0.452	0.534	0.191	0.546
Black	0.401	0.643	−0.261	1.266	−1.139	1.458
Other nonwhite	−1.040	0.634	−11.691	1.265	−14.514	16.997
Math and computer science	0.341	0.401	−0.508	0.674	0.332	0.691
Life sciences	−0.857	0.460	−0.652	0.784	2.489†	0.789
Physical sciences	−0.657	0.547	0.252	0.660	0.392	0.783
Age	−0.028	0.025	−0.084	0.057	0.129†	0.049
University sector	−0.632	0.771	1.515†	0.575	−1.391*	0.606
Government sector	0.880	0.459	0.325	0.817	−0.398	0.512
Master's degree	0.254	0.432	−0.322	0.699	−1.105	0.811
Doctorate	2.039‡	0.061	0.185	0.650	−2.212†	0.827
Nonworking partner	0.612	0.444	0.548	1.159	−0.377	0.686
R had additional children	0.234	0.350	−0.127	0.675	0.377	0.686
Intercept	1.471	0.407	−1.325	2.066	−7.906‡	1.905

*$P < 0.05$; †$P < 0.01$; ‡$P < 0.001$, two-tailed tests.

SESTAT restricted-use data. White is the comparison category for race/ethnicity, the for-profit sector is the comparison category for sector, engineering is the comparison category for STEM discipline, and bachelor's degree is the comparison category for education level. "New parents" is defined as respondents who were childless and employed full time in STEM in 2003 and had a child between 2003 and 2006.

underrepresented in these male-dominated professions in an era when science and engineering fields have expressed formal commitment to gender equality.

Importantly, our results also show that parenthood in STEM is not solely a "mother's issue." Both new mothers and new fathers are significantly more likely to leave full-time STEM work than their similar childless peers. Seventy percent of new mothers and 95% of new fathers continued working full time in 2010, yet a sizeable proportion of these new parents left STEM for a full-time job elsewhere. This suggests that it is not necessarily full-time work per se, but full-time work in STEM fields particularly, that is difficult for new parents to combine with childcare responsibilities. Moreover, although some may rotate back into STEM at a later time (1), most new parents who leave STEM do not seem to return to full-time employment in STEM as their children reach school age. The difficulty that these professionals may face in balancing caregiving responsibilities with full-time STEM employment suggests that this issue is a concern for the STEM workforce broadly and not just for the retention of women. Thus, scholarly and policy literature framing childrearing responsibilities as solely a women's problem is short-sighted. More research is needed to understand these work and family mechanisms of attrition and the most effective ways to provide STEM professionals with caregiving responsibilities with the resources they need to remain engaged in the STEM workforce.

This project has several implications for organizations and public policy. Of course, the solution is not to encourage STEM professionals to avoid parenthood altogether or to advise young adults with family plans to avoid STEM careers. Rather, the concerning levels of attrition of new fathers and mothers mandates the need for legislative, organizational, and cultural changes. Currently, only four states provide paid leave for parents regardless of gender to care for young children (45). State and federal governments that offer paid leave to both mothers and fathers help parents balance their caregiving responsibilities more evenly across caregivers. At the organizational level, more extensive parental leave and caregiver flexibility policies may provide these trained STEM professionals with the schedule control needed to manage caregiving responsibilities while remaining engaged in STEM careers. Turnover of such highly skilled, college-educated professionals is costly and disruptive for organizations (46); in the long run, it may be more efficient for organizations to set up policies that allow the STEM professionals already on staff to more easily manage their caregiving responsibilities than to recruit and train replacements.

Moreover, many new mothers—approximately 1 in 10—continue working in STEM on a part-time basis. Although part-time jobs retain new mothers in STEM in some capacity, they have several disadvantages: they typically pay substantially less per hour than full-time work, are less likely to be accompanied by benefits like healthcare, and less likely to provide advancement opportunities (5, 47). This highlights the need for more well-regarded part-time options and ramp-up policies that allow part-time STEM workers to transition back into full-time work.

Finally, our results suggest the need for STEM leaders and employers to confront cultural beliefs that STEM professionals with caregiving responsibilities are less valuable and less committed to their professional work than their colleagues without these responsibilities (44). Without these changes, the balancing act between parenting and full-time STEM employment will likely continue to be precarious, and US science and engineering fields will continue to lose these trained and experienced professionals.

Materials and Methods

Our analyses were done using the 2003, 2006, 2008, and 2010 survey waves of the longitudinal restricted-use SESTAT dataset, a comprehensive, representative system of data on US STEM professionals. Further details are provided in *SI Appendix*. We included as "STEM jobs" the following SESTAT-aggregated categories of census occupation codes: computer and mathematical scientists; biological, agricultural, environmental, and life scientists; physical and related scientists; and engineers. As is typical in STEM workforce research, we excluded more gender-balanced social science fields from our definition of STEM. We began with the subsample of the SESTAT panel who were childless and employed full time in STEM in 2003. We examined the subset of new parents (212 women and 629 men) who had their first child between the first two survey waves (2003 and 2006) and followed them through the third (2008) and final (2010) waves. As a comparison group, we also included

the subset of respondents who remained childless throughout the study period (n = 3365).

Operationalization. We determined inclusion into the category "new parents" using the following criteria. We first identified all respondents who were employed full time in a STEM job in the first survey wave (2003). Of those full-time STEM professionals, we removed respondents who already had 1 or more children in 2003. Of these childless full-time workers, we identified those respondents whose status had changed from having no children to having at least 1 child in 2006. These are the "new parents," who had or adopted at least 1 child between 2003 and 2006. We use "adopted" here in the broadest sense; it includes those who added a child to their household through formal legal adoption, through cohabitation with or marriage of a partner with children, or through custody of a child relative. "Childless" respondents had no children throughout the study period. "Full-time" employment was defined as working >35 h per week (1 = yes, 0 = no). "Part time" employment meant working ≤35 h per week. Being out of the workforce meant not work for pay. Gender (women = 1, men = 0) was derived from a question asking whether the respondent identified as female or male. SESTAT does not have a measure of transgender or gender nonbinary status. Operationalization of control variables is described in *SI Appendix*.

Analytic Strategy. Table 1 presents logistic regression models predicting the likelihood that respondents stay employed in STEM full time in 2006 and 2010 by new parent status and controls. Table 2 uses a logistic regression model to compare the likelihood of staying full time in STEM versus switching to full-time work outside of STEM by new parent status and controls. In Table 3, models A–C present logistic regression models among only new parents to examine gender differences in the likelihood of staying in STEM full time (model A), switching to part-time work (model B), or leaving the workforce (model C). We used individual logistic regression models for these analyses instead of pooled strategies like multinomial logistic regressions, because logistic regression models are more straightforward to interpret and because they compare the likelihood of pursuing one path (e.g., leaving for part-time work) versus all other possible trajectories rather than using a single trajectory (e.g., full-time STEM work) as the benchmark. *SI Appendix*, Table S1 presents the means, SEs, and significance of two-tailed difference of means tests for new parents and childless respondents on each demographic measure. *SI Appendix*, Table S2 replicates this table for only new parents and childless respondents who remained employed full time in 2010.

Figs. 1 and 2 present the percentages of new fathers and new mothers at four time points who occupy the five major career trajectories of interest. Details on the data and analytic strategy are provided in *SI Appendix*, Figs. S1–S5. All analyses used replicate weights provided by the National Center for Science Engineering Statistics (details in *SI Appendix*).

ACKNOWLEDGMENTS. We appreciate the literature review assistance of Michelle Pham, Laura Rogers, and William Rothwell. We thank Brady West for statistical consultation, and Kevin Lewis and Heidi Sherick for advice and comments on previous drafts. The project is supported by funding from the National Science Foundation ("SBP: The Price of Parenting in STEM: Explaining Career Paths and Pay Consequences of Parenthood among Science and Engineering Professionals"; Award 1743150). We gratefully acknowledge use of the services and facilities of the Population Studies Center at the University of Michigan, funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (Grant P2CHD041028). The restricted-use SESTAT data used here are publicly available via application through the National Center for Science and Engineering Statistics (https://www.nsf.gov/statistics). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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