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WHY GRADUATE STUDENTS REJECT THE FAST TRACK

BY MARY ANN MASON, MARC GOULDEN, AND KARIE FRASCH

A study of thousands of doctoral students shows that they want balanced lives.

I could not have come in to graduate school more motivated to be a research-oriented professor. Now I feel that can only be a career possibility if I am willing to sacrifice having children.

—Female Respondent, University of California Doctoral Student Career and Life Survey

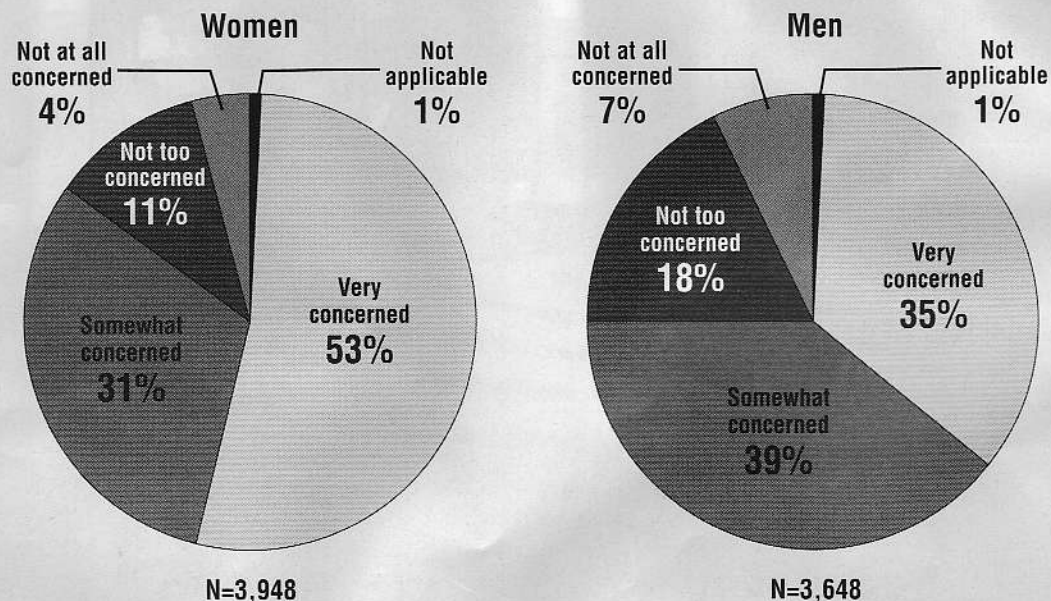
We recently completed an unparalleled survey, with more than eight thousand doctoral student respondents across the University of California system, and what we heard is worrisome: major research universities may be losing some of the

most talented tenure-track academics before they even arrive. In the eyes of many doctoral students, the academic fast track has a bad reputation—one of unrelenting work hours that allow little or no room for a satisfying family life. If this sentiment is broadly shared among current and future student cohorts, the future lifeblood of academia may be at stake, as promising young scholars seek alternative career paths with better work-life balance.

Today's doctoral students are different in many ways from those of just thirty or forty years ago. Academia was once composed largely of men who, for most of their careers, were in traditional single-earner families. Today, men and women fill the doctoral

Figure 1
Concern about Family Friendliness

As you think about your future career plans, how concerned are you about the family friendliness of possible career paths?



Source: Mary Ann Mason and Marc Goulden, UC Doctoral Student Career Life Survey (2006), <http://ucfamilyedge.berkeley.edu/grad%20life%20survey.html>.

student ranks in nearly equal numbers, and most will experience both the benefits and challenges of living in dual-earner households during their careers. This generation of doctoral students also has different expectations and values from previous ones, primary among them the desire for flexibility and balance between career and other life goals. But changes to the structure and culture of academia have not kept pace with these major shifts; assumptions about the notion of the “ideal worker” prevail, including a de facto requirement for inflexible, full-time devotion to education and employment and a linear, lockstep career trajectory.

A Bad Reputation

To understand better the current generation of doctoral students, we surveyed more than nineteen thousand doctoral students from nine of

the ten University of California campuses (with an overall response rate of 43 percent and 8,373 respondents). Fifty-one percent of women and 45 percent of men were married or partnered at the time of the survey, and 14 percent of women and 12 percent of men were parents (women were on average one year older than men—thirty-one years of age compared to thirty). We found that, when thinking about future career plans, nearly all doctoral students are somewhat or very concerned about the family friendliness of their choices (see figure 1), with even more women than men expressing the sentiment (84 percent of women are either somewhat or very concerned, compared to 74 percent of men). Only 4 percent of women and 7 percent of men are not at all concerned about these issues.

The academic fast track—which we define as tenure-track faculty

positions in research-intensive universities—has a bad reputation in this regard. Neither men nor women consider tenure-track faculty positions in research-intensive universities to be family-friendly career choices. Less than half of men (46 percent) and a only third of women (29 percent) imagine jobs in these settings to be somewhat or very family friendly. Among new parents supported by federal grants (from agencies such as the National Science Foundation or the National Institutes of Health) at the time of the birth or adoption of a child, the perception is even stronger—only 35 percent of men and 16 percent of women think that tenure-track faculty careers at research-intensive universities are family friendly. Although men are more optimistic about most possible career tracks than are women, both men and women (82 percent and 73

percent, respectively) rate faculty careers at teaching-intensive colleges as the most family friendly. All other career choices, including policy or managerial careers, research careers outside academia, and non-tenure-track faculty positions, are more likely to be considered family friendly than careers at research-intensive universities.

In response to open-ended questions on our survey, many respondents said that they did not want lifestyles like those of their advisers or other faculty in their departments.

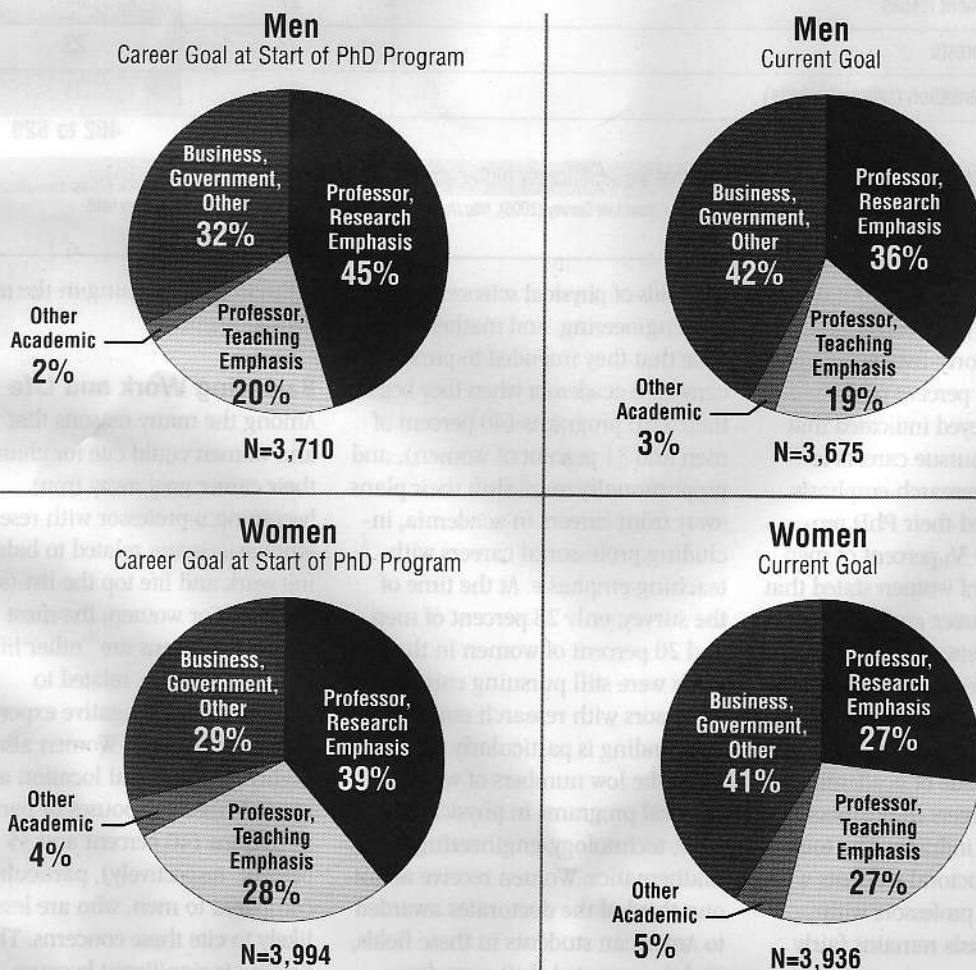
Women doctoral students in particular seem not to see enough role models of women faculty who successfully combine work and family, and they rate the family friendliness of research-intensive universities based on this fact. The fewer women faculty with children they see or know in their departments or units, the less likely women doctoral students are to feel that tenure-track faculty careers at research-intensive universities are family friendly—only 12 percent of women doctoral students who reported that it is not at all

common for women faculty in their departments or units to have children said that they viewed research-intensive universities as somewhat or very family friendly. In contrast, 46 percent of women doctoral students who said that it is very common for women faculty in their departments or units to have children rated careers at research-intensive universities as family friendly.

Changing Direction

The negative reputation of fast-track faculty careers appears to be serious

Figure 2
Changing Career Goals



Source: Mary Ann Mason and Marc Goulden, UC Doctoral Student Career Life Survey (2006), <http://ucfamilyedge.berkeley.edu/grad%20life%20survey.html>.

Table 1
Reasons Most Commonly Cited for Shifting Career Goal Away from Professor with Research Emphasis

| Factor | % Citing as "Very Important" | |
|--|------------------------------|-------------------|
| | Women | Men |
| Other life interests | 48 | 35 |
| Issues related to children | 46 | 21 |
| Negative experience as PhD student | 46 | 44 |
| Professional activity too time-consuming | 45 | 35 |
| Geographic location issues | 40 | 28 |
| Feelings of isolation or alienation as PhD student | 35 | 31 |
| Spouse or partner issues or desire to marry | 32 | 22 |
| Bad job market | 30 | 29 |
| Job security | 29 | 29 |
| Career advancement issues | 27 | 34 |
| Other career interests | 27 | 23 |
| Monetary compensation (salary, benefits) | 23 | 31 |
| | N= 550 to 666 | 402 to 529 |

Shading indicates response rates that are significantly higher among one gender than the other ($P < .01$).

Source: Mary Ann Mason and Marc Goulden, UC Doctoral Student Career Life Survey (2006), <http://ucfamilyedge.berkeley.edu/grad%20life%20survey.html>.
 Note: Responses of "not applicable" are excluded from this analysis.

enough to cause many doctoral students to shift their career goals (see figure 2). Forty-five percent of the men and 39 percent of the women we surveyed indicated that they wanted to pursue careers as professors with research emphasis when they started their PhD programs, but only 36 percent of men and 27 percent of women stated that this was their career goal at the time of the survey (between one and seven or more years later). In aggregate, a substantial proportion of doctoral students redirect their sights to positions outside of academia altogether—careers in business, government, or industry. The total percentage of doctoral students who want careers as professors with teaching emphasis remains fairly stable.

In the sciences the shift is more dramatic. Fewer doctoral students in

the fields of physical science, technology, engineering, and mathematics state that they intended to pursue careers in academia when they began their PhD programs (40 percent of men and 31 percent of women), and proportionally more shift their plans away from careers in academia, including professorial careers with teaching emphasis. At the time of the survey, only 28 percent of men and 20 percent of women in these fields were still pursuing careers as professors with research emphasis. This finding is particularly troubling given the low numbers of women in doctoral programs in physical science, technology, engineering, and mathematics. Women receive about one-third of the doctorates awarded to American students in these fields, and the reported shift away from research careers suggests an unfortunate loss in the number of women

ultimately continuing in the academic pipeline.

Balancing Work and Life

Among the many reasons that men and women could cite for changing their career goal away from becoming a professor with research emphasis, issues related to balancing work and life top the list (see table 1). For women, the most common reasons are "other life interests," "issues related to children," and "negative experience as a PhD student." Women also rate highly geographical location and issues involving spouses or partners as reasons (40 percent and 35 percent, respectively), particularly compared to men, who are less likely to cite these concerns. This finding is significant because we know from our analyses of the Survey of Doctorate Recipients

(a biennial weighted, longitudinal study sponsored by the National Science Foundation and other government agencies that includes more than 160,000 PhD recipients in the sciences, social sciences, and humanities) that women are more likely than men to defer to their partners when there is a “two body” problem—that is, when both partners are attempting to find academic jobs.¹ For men, the most common reasons given for shifting their career goals are “negative experience as a PhD student,” “other life interests,” and “professional activity too time-consuming.” Men also place more emphasis than women on career advancement and monetary compensation.

Given that many doctoral students report changing their minds about their future careers because they think careers as professors with research emphasis will not support work-life balance, it is no surprise that respondents to our survey reported a number of work-life challenges they face as doctoral students. In particular, about half are least satisfied with two main aspects of their doctoral student experience—departmental support for career-life balance and time for themselves (for example, for recreation, relaxation, and health). Women are more likely than men to be less satisfied in these areas. By contrast, the vast majority of both men and women are satisfied with the quality of their degree programs, interactions with their primary faculty advisers, and their fellow PhD students.

Most doctoral students also do not feel that they can have and raise children while pursuing PhDs, although most expect to have children in the future (64 percent of men and 65 percent of women plan to have or adopt children, whether or not they were already a parent at the time of the survey—and another 21 percent of men and 20 percent of women in-

dicate they do not know whether they will have children in the future). Those planning to have children in the future cite many factors contributing to their uncertainty about having children as doctoral students, including the time demands of PhD programs; current household income level; the perceived stress of raising a child while a student; and concerns about the availability of affordable child care, housing, and health insurance. Additionally, women more than men feel that PhD programs and caregiving are incompatible (54 percent of women compared to 36 percent of men), that if they have children they will not progress adequately toward their degrees (51 percent of women and 34 percent of men), and that pregnancy leave will not

be available. According to our data on respondents who are currently parents, these fears are not unfounded: while women and men without children spend approximately seventy-five hours a week combined on PhD work, employment, housework, and caregiving, mothers log a crushing hundred-plus hours a week in these activities (and fathers ninety hours). Many mothers and fathers also report a great deal of stress in parenting as a result of specific educational and career requirements of their PhD programs, and most have slowed down or made sacrifices in their educational careers to be good parents.

Postponing Is Problematic

For individuals pursuing fast-track professional careers, the doctoral student years typically fall during

prime family formation and childbearing years; the postdoctoral and pretenure years do as well.

Balancing work and family life during this period can be tricky at best. As we know from our “Do Babies Matter?” research on the effects of academic careers on family formation, postponing pregnancy and childbirth until the receipt of a tenure-track job often results in women having fewer children than they want and causes a great deal of stress for those who have them. Postponing pregnancy and childbirth until the receipt of tenure, a common strategy employed by women faculty, is biologically problematic for most women and will likely become even more common in the coming decade. Based on our analysis

POSTPONING PREGNANCY AND CHILDBIRTH UNTIL THE RECEIPT OF TENURE, A COMMON STRATEGY EMPLOYED BY WOMEN FACULTY, IS BIOLOGICALLY PROBLEMATIC FOR MOST WOMEN.

of data from the Survey of Doctorate Recipients, the average age of attaining tenure in the sciences and social sciences in the United States has advanced from a little over thirty-six in 1985 to greater than thirty-nine in 1999. Most women faculty, therefore, will be at or near

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More data from
the UC Doctoral
Student Career
and Life Survey



the end of their childbearing years by the time they achieve tenure. The graduate population is aging as well; the average age of a PhD recipient is now nearly thirty-three compared to thirty-one two decades ago. If this pattern holds or intensifies, the problematic nature of the timing of faculty careers and family formation may greatly affect future generations of doctoral students.

Reenvisioning Academia

We need new thinking and a new model to attract and retain the next generation in academia. If research universities want to attract and retain the best and brightest PhDs and encourage them to stay on the academic track, the administrative hierarchy (the president or chancellor), through the administration and faculty ranks, needs to take urgent notice of the ways in which the structure of academia at all levels is turning people away from the profession. Challenging some of the more common prevailing assumptions can be a way to

start. These assumptions, and their possible antidotes, include the following.

- *Assumption:* Fast-track academia is typically either a full-time or a no-time pursuit, particularly for those on fellowships or grants. *Antidote:* Men and women can shift to part-time status or temporarily elongate timelines over their academic lives without suffering career penalties.
- *Assumption:* The appropriate career trajectory for successful academics is linear and without breaks—from the doctoral years to postdoctoral experience to pretenure years to the attainment of the rank of full professor. *Antidote:* Many men and women will want or need to take time out temporarily from their academic lives for caregiving, and universities will support their reentry.
- *Assumption:* Academic “stars” are those who move through the ranks very quickly. *Antidote:*

Academic “stars” are those who produce the most important or relevant work—faster is not necessarily better.

- *Assumption:* There is no good time to have children. *Antidote:* It is fine to have children at any point in the career path because a full array of resources exists to support academic parents.
 - *Assumption:* Having children, particularly for women, is often equated with less seriousness and drive. *Antidote:* There is no stigma associated with having children, nor are there negative career consequences, and the culture is broadly supportive of academics who do have children.
 - *Assumption:* All talented doctoral students should want to become professors on the academic fast track. *Antidote:* Venues exist to evaluate objectively and discuss different career and life paths in and outside academia—all are accepted.
 - *Assumption:* Work-life balance and family friendliness are not typically promoted as important values by academic administrators and faculty. *Antidote:* Family-friendly policies are promoted, campuswide conferences are held to support work-life balance for all academics, department chairs are trained on the issues, and faculty mentor doctoral students.
- Baby boomers will retire in record numbers in the coming decade, and institutions that are willing to change their policies and culture to meet the needs of the next generation stand to gain the most. ☺

Note

1. The use of National Science Foundation data does not imply the endorsement of research methods or conclusions contained in this report.