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# The Future of the Ph.D.

By Mary Ann Mason



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"I will be nearly middle-aged by the time I get my Ph.D., I won't have a family, and probably won't have a job." That comment, from a female Ph.D. candidate in history at a University of California campus, is a familiar refrain.

The pursuit of a doctorate—a sometimes decade-long, low-wage quest that may or may not end with a faculty job—has been under more critical scrutiny than ever this year. Why *does* it take so long to earn a Ph.D.? (Recipients are age 34, on average.) Why *do* we produce so many Ph.D.'s when fewer than half of them will ever hold tenure-track jobs? Is this 19th-century German model of apprenticeship suited to the 21st century?

And finally, does this venerable male model of graduate training match the needs of its new disciples, half of whom are women?

Not long ago I spoke at a conference at the Johns Hopkins University discussing some of those questions. American universities award more than 60,000 doctoral degrees annually to U.S. citizens and noncitizens. Roughly half of those degrees are from the 63 research institutions in the elite Association of American Universities, and half from other doctoral-granting programs. That total has grown from fewer than 25,000 Ph.D.'s awarded annually in the 1960s when universities were expanding and most Ph.D.'s could find an academic job.

Today the faculty employment trend is sharply in the opposite direction. Over the past 30 years, universities have relentlessly reduced the centrality of tenure in higher education. Full-timers who were either tenured or on the tenure track made up 55 percent of the teaching faculty in 1970, 1975, and 1980. Since then, various federal data sets document the steady growth of adjunct positions and the decline of tenure-track jobs in the academic work force. By 2007, according to the National Center for Education Statistics, tenured and tenure-track academics constituted only 31 percent of the teaching faculty while 49 percent worked part time and 12 percent were non-tenure-track full-timers.

Doctoral students in many disciplines realize the odds are against them. But students are often afraid to approach their advisers about other nonfaculty career choices, for fear of disapproval. And the professors themselves may not know how to advise students about any other careers than the research life, although given the dismal job-market statistics in recent years, that ignorance about nonacademic options becomes less and less acceptable.

Meanwhile, looking at the lives and careers of their faculty members, many graduate students, especially women, question whether they want to pursue academic work.

In a survey we conducted of all doctoral students at the University of California, more than 70 percent of women and over half of all men said they considered a career at a research university to be too hard-driving and unfriendly to family life. A male Ph.D. student in the survey characterized the common sentiment when he wrote that he was "fed up with the narrow-mindedness of supposedly intelligent people who are largely workaholic and expect others to be so as well." A female student wrote, "Since beginning my doctoral work, I have become convinced that very few, if any, female professors are able to have stable, fulfilling family lives of the sort that I wish for (a stable marriage and children)."

One student commented on her department's view of pregnant students: "There is a pervasive attitude that the female graduate student in question must now prove to the faculty that she is capable of completing her degree, even when prior to the pregnancy there were absolutely no doubts about her capabilities and ambition."

Female graduate students who do become mothers during their doctoral-study years are very likely to give up on their dreams. In our survey of University of California doctoral students, only 11 percent of new mothers in the sciences still wanted to pursue the goal of becoming research professors; 46 percent of those same women had begun their studies expecting to be research professors.

Unless we are more accountable to our Ph.D. students, we will no longer attract the best and brightest to a profession that requires a commitment of a good chunk of someone's young working life to train for a stressful, underpaid job that might not be available.

For starters, professors must take on only the number of graduate students they can financially support, and only those who have reasonable expectations of employment. There should be full disclosure about job prospects. Few departments have good records on what happens to their own Ph.D.'s, but that is critical information. The University of California at Santa Barbara has embarked on a multiyear project to gather information on the post-Ph.D. employment of its graduates, and to make it available on departmental Web sites. Openness is a good first step.

Other universities are creating programs to prepare students for life after the Ph.D, possibly outside the academy. In engineering and some of the science and professional disciplines, where there is a clear nonacademic job market for Ph.D.'s, there is often a close relationship between corporations and universities in which internships are encouraged and recruiters are welcomed.

Where the private job market is not so clear, as in most of the humanities and some of the social sciences, the few projects that do attempt to provide alternate career advice stand out.

At Berkeley, for instance, several workshops are offered each year for doctoral students who want to better market the skills they have for both academic and nonacademic jobs. In addition to the specific knowledge they have mastered in their discipline, nearly all graduate students have learned advanced communication and research skills which can be applied to many high-level jobs in the government and corporate sectors. And almost all graduate students can offer a teaching portfolio that attests to the high level of their skills in the classroom.

A positive direction we see at some universities is a movement to give graduate students rights and responsibilities during their training years, and treat them as respected junior colleagues. At UC-Davis, for example, a Graduate Student Charter of Rights and Responsibilities includes such rights as the "right to an accurate description of the availability and the likelihood of financial and resource support within their programs." It lists such responsibilities as: "Graduate students have a responsibility to conduct themselves, in all educational activities, in a manner befitting a junior colleague."

Too few universities are paying attention to the needs of graduate-student parents, or providing mentoring on how to balance family and career in a stressful profession in which, arguably, the most serious stress—obtaining tenure—also occurs during the years when women will have children. Only 13 percent of institutions in the Association of American Universities offer paid maternity leave to doctoral students, and only 5 percent provide dependent health care for a child.

Is the Ph.D. worth saving?

Envied, and now emulated by countries worldwide—many of whom have sent their best and brightest to us—our model of graduate education is durable but in need of serious revision. We need doctoral programs that take fewer years to complete, and ones that enroll fewer students if the jobs in that field are scarce. At the same time, we need an academic environment in which young adults with family responsibilities can thrive. We invest a great deal of money and hope in these young colleagues and we can't afford to lose so many of them.

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