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The Changing Distributions of New Ph.D. Economists and Their Employment: Implications for the Future

Abstract
[Excerpt] Academic careers are no longer the be-all and end-all for economics Ph.D. students, and the findings and background provided by Siegfried and Stock help to explain why this is so.

The median age at which individuals receive economics Ph.D.'s in the Siegfried and Stock sample is 32. While they are somewhat surprised at this finding, it parallels the experiences of many other fields. Increasingly, students are working before proceeding to doctoral studies. Often Ph.D. students in economics enter their programs after having spent several years working for government agencies or research consulting companies—work that has whetted their appetites for graduate study in economics that will enable them to make greater contributions in the policy arena. As these students proceed through doctoral studies, average time to degree has also increased. It is unclear whether this has occurred across institutions, or whether the phenomenon is a byproduct of Ph.D.'s increasingly coming from lower-ranked institutions at which financial support for graduate students is less adequate. Less adequate financial support is known to lengthen time to degree and reduce doctoral completion rates (Ehrenberg and Mavros, 1995).

Keywords
Ph.D. students, economics, academic labor market, employment

Disciplines
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Comments
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The Changing Distributions of New Ph.D. Economists and Their Employment: Implications for the Future

Ronald G. Ehrenberg

Academic careers are no longer the be-all and end-all for economics Ph.D. students, and the findings and background provided by Siegfried and Stock help to explain why this is so.

The median age at which individuals receive economics Ph.D.'s in the Siegfried and Stock sample is 32. While they are somewhat surprised at this finding, it parallels the experiences of many other fields. Increasingly, students are working before proceeding to doctoral studies. Often Ph.D. students in economics enter their programs after having spent several years working for government agencies or research consulting companies—work that has whetted their appetites for graduate study in economics that will enable them to make greater contributions in the policy arena. As these students proceed through doctoral studies, average time to degree has also increased. It is unclear whether this has occurred across institutions, or whether the phenomenon is a byproduct of Ph.D.'s increasingly coming from lower-ranked institutions at which financial support for graduate students is less adequate. Less adequate financial support is known to lengthen time to degree and reduce doctoral completion rates (Ehrenberg and Mavros, 1995).

When these students emerge with their Ph.D. in hand, they encounter a difficult job market. Educational institutions have responded to tight fiscal conditions by limiting the growth of tenure track faculty, and the number of non-tenure track faculty is growing rapidly. The budget constraints are especially tight at public

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institutions, at which the vast majority of faculty are employed, as state governments are faced with competing priorities for funds. The uncapping of mandatory retirement has already been shown to have affected the flow of new hires at several universities (for example, Ehrenberg, Matier and Fontanella, 1998). Finally, institutions that are not at the top end of the pecking order in terms of resources and student selectivity are facing growing pressures to become even "more efficient," especially in the face of growing competition from for-profit educational providers, such as the University of Phoenix (Winston, 1999).

The tightness in the academic job market exacerbates what can be thought of as the "trickle down" problem in academic training. It is typically the case that the highly ranked institutions produce more Ph.D. students than they as a group have academic positions to fill. Thus, while some graduates of the highest ranked schools find employment in departments that are at the same level, many "trickle down" to lower-ranked departments. The chances of graduates from second- and third-tier departments finding positions at comparable level departments thus becomes quite reduced. The probability of obtaining an academic job is highest for those from the highest rated institutions, but the Siegfried and Stock (Table 4) data does not reveal at what type of academic institutions the new Ph.D.'s were employed.

It is not surprising, then, that Siegfried and Stock find that many economics doctoral graduates are dissatisfied in the jobs they have obtained. It is a combination of older students with more life experience and broader horizons, and thus an ability to perceive a life beyond academia, who are finding that it takes longer to finish a degree, and then discovering a tough academic job market and the trickle-down dynamic in which many people land at lower-ranked institutions than they had hoped and planned.

It is also no surprise that many graduates of Ph.D. programs in such circumstances may end up choosing nonacademic employment opportunities. Over the last decade, many of my own Ph.D. students have found happiness employed at government agencies, such as the Bureau of Labor Statistics and the Federal Trade Commission, and at research and consulting companies, such as the Urban Institute, Mathematica, RAND, and the Center for Naval Analysis. Many of these students were graduates of selective liberal arts colleges who came to graduate studies with aspirations to become professors, but ultimately realized that a good nonacademic job is better than a bad academic one. They also realized that the nonacademic sector is likely to provide them with more of an opportunity to make contributions to public policy—the very objective that brought many of them to graduate study in the first place.

But Siegfried and Stock also suggest that Ph.D.'s in economics are doing better than Ph.D.'s in many other fields, and thus that the young economists perhaps should not feel so bad. My sense is that such comparisons miss the boat. The main alternative for most new Ph.D.'s in economics was probably not to pursue Ph.D. study in another field. Rather, given that over three-quarters of the new Ph.D.'s had undergraduate degrees in economics, it is natural to think of them having considered other alternatives that undergraduate economics majors often pursue. The

two most prominent of these are entry into law schools or MBA programs. Completion rates of entrants into top MBA and law school programs are very high and often close to 100 percent (Ehrenberg, 1992). Program length is much shorter: two years for business school and three years for law school. Both casual evidence on the starting salaries that graduates of top law school and business school programs earn, which can be found in the *U.S. News and World Report* and *Business Week* "rankings issues" and more systematic evidence on earnings differentials between academia and the professions (Bok, 1993; Hamermesh, 1995) suggest that the earnings differential between the graduates of top economics Ph.D. programs and graduates of these programs is large and probably growing.

It is thus not surprising to me that the number of Ph.D.'s in economics granted to American citizens is declining—the main alternative careers have become increasingly attractive. One great fear is that as a result, academia is becoming less likely to attract our best and brightest students. There is some evidence that this has been occurring. Kasper et al. (1991) reported on the decline in the proportion of selective liberal arts college economics majors who were entering graduate study in economics. Similarly, Green (1993) found some evidence that the proportion of top Harvard social science graduates going on to Ph.D. study in the social sciences declined during the late 1980s. However, more recent studies that update these two studies need to be undertaken.

Siegfried and Stock offer only a brief discussion of where the market for Ph.D. economists is headed in the long run. Given that "in the long run, we are all dead," as all good economists know, this short shrift for the future may not seem inappropriate. Moreover, previous attempts to forecast the future market for new Ph.D.'s have not been very successful (for example, see Bowen and Sosa, 1989). My own survey suggests that research on the market for new Ph.D.'s has not yet progressed to the point that it is very helpful, either in making good forecasts or in policy discussions (Ehrenberg, 1992). Despite these uncertainties, however, I would argue that in this case the "long run" is worthy of our consideration, because it promises fundamental changes in academia that will have significant impacts on the labor market for Ph.D. economists.

Of course, the demographics of the academic work force are such that there will be tremendous demands for replacement faculty during the next 20 years. But will these increases in replacement demands for Ph.D. economists be limited by financial pressures at the state level? Or will they be limited by a bottleneck of older faculty who take advantage of the elimination of mandatory retirement for tenured faculty and extend their careers as active faculty? Or will states, as some have already done, view higher education as a vehicle for economic growth and increase their funding for higher education? How will the labor market for Ph.D. economists be affected by competition among degree-granting institutions, some of whom may abandon their efforts to emulate places like Princeton and Stanford and instead seek to be lower cost providers of higher education?

The engineering fields have often seen considerable mobility from the corporate and government sectors back to the academic sector. Will economics behave a

similar manner in the future so that any "shortage" of new Ph.D.'s that arise can be made up by mobility of experienced Ph.D.'s back from the nonacademic sector? Professional schools, especially those that are located in large urban areas, often make extensive use of adjunct faculty in their teaching programs. Perhaps the future will see more adjunct faculty being used in core arts and science economics departments, both because of a possible shortfall in the production of new Ph.D.'s and/or concerns about tenure rates.

It would certainly be useful for faculty members in economics to communicate the realities of today's academic labor market more forthrightly to their students. At a minimum, this could help students who end up choosing the nonacademic sector avoid the feeling that they have somehow failed. Further, in speaking of these matters to our students, everyone from professors to department chairs, deans, provosts and college presidents may find that they are beginning to consider what these changes in the academic job market should mean for the type of graduate instruction that they provide and the patterns of faculty employment at their own academic institutions.

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