
GRADUATE FOCUS

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ISSUES IN GRADUATE EDUCATION AT UCLA

Members of the Academic Community:

Graduate education is a salient issue for many national, state and local decision makers. Discussions regarding matters of funding, training, academic quality, employment opportunities, and the future directions of research are of increasing prominence as we head into the next millennium. We rarely have the opportunity to discuss these issues broadly within the UCLA academic community and to update you on emerging issues which affect graduate education.

In fulfilling my commitment to the campus to improve the quality and use of institutional data in administrative decision making and in the formulation of planning principles and academic policy, I am pleased to introduce the inaugural issue of *Graduate Focus*, a newsletter for the faculty intended to provide information on current issues in graduate education. *Graduate Focus* will also serve as a device to update you on academic and administrative concerns which will relate directly to your activities regarding graduate student recruitment, retention, mentoring, placement and a host of other issues.

This first edition focuses on issues related to doctoral placement and UCLA's efforts to develop a coherent and consistent approach to employment tracking. It will benefit all of us if we have data on the first jobs obtained by our doctorates and their career trajectories. Your comments on this issue are welcome, and we very much solicit your suggestions for future topics. We look forward to continuing this dialogue with you through the remainder of this academic year and beyond.

Sincerely,



Claudia Mitchell-Kernan
Vice Chancellor Academic Affairs
Dean, Graduate Division

THE IMPORTANCE OF TRACKING DOCTORAL RECIPIENTS

Doctoral education occupies a particularly critical place in the overall structure of higher education. It is the training ground for future faculty, as well as for many who pursue other vocations of broad social, political, and economic import.

Several recent studies (e.g. COSEPUP) on the production and utilization of science and engineering doctorates have concluded that US institutions are producing more doctorates in science and engineering than the market can accommodate. Other reports (e.g. Bown and Sosa) have predicted employment demand in the arts and sciences. The academic job market, which once looked quite promising, is now uncertain at best. The major wave of faculty retirements that was expected to contribute to a boom in the demand for new faculty was accelerated by early retirement programs at universities throughout the country faced with serious budget reductions. Those same budget pressures, however, also meant that higher education rarely received the resources necessary to replace those faculty. Even if current job market conditions were not so volatile and there was little uncertainty in forecasting employment demand, there would still be a highly imperfect link between future market conditions and current graduate enrollment decisions because of the long pipeline involved in the production of PhDs.

The UC Office of the President and the nine campuses are currently engaged in the complex task of forecasting future enrollment demand at both the undergraduate and graduate levels. Faced with the prospect of significantly reduced state resources for the support of graduate education and the extraordinary volatility and uncertainty about future job demand, the University is revising its original graduate enrollment plans to reflect new conditions. To participate in this planning process, it is important that we as a campus understand where our doctoral students are placed initially and what career paths they follow subsequently.

Campus Efforts

The UCLA Graduate Division has increased its institutional research capabilities to facilitate better administrative and academic decision-making. Campuswide data on graduate student progress, student funding, degree production, and a variety of other variables has been organized and archived into a relational database to facilitate *ad hoc* reports and queries.

UCLA is also cooperating with national research efforts to explore this topic. For example, UC Berkeley recently began a national study of the doctorate career path entitled, "PhDs — Ten Years Later." This study focuses on doctoral recipients from 65 institutions who received their doctorates from 1983 through 1985. The targeted programs are biochemistry, electrical engineering, English, mathematics, and political science. All UC campuses are participating in this study and the UCLA Graduate Division continues to work closely with the Berkeley Graduate Division team in the design and implementation of this study.

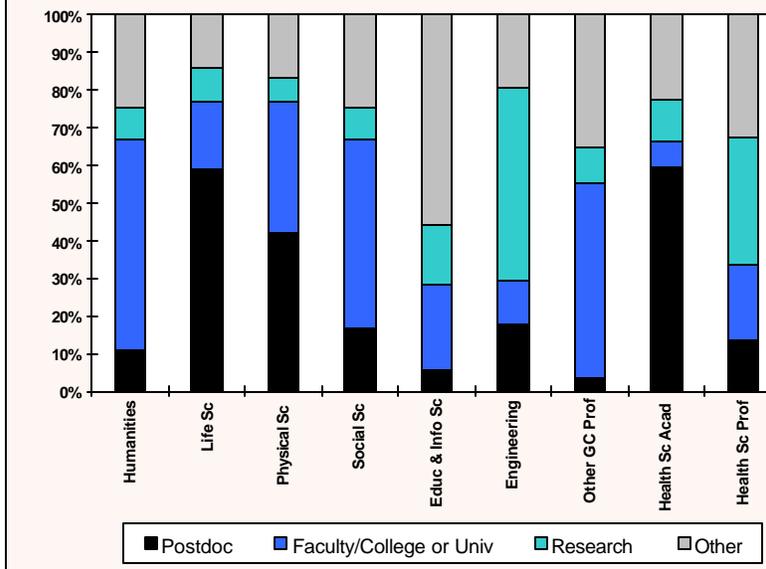
It has become clear, however, that we do not have good data on the placement of our doctoral students. Some academic departments have developed their own databases for student tracking, but the data required for a comprehensive understanding of where our doctoral students go and what careers develop do not exist. It is apparent from discussions with colleagues across the country that UCLA is probably neither better nor worse than most.

We believe that the gap between the data gathered via surveys taken by doctoral recipients when they leave their graduate institution (e.g. data gathered by institution-specific doctoral exit surveys and/or the *NRC Survey of Earned Doctorates*) and the data gathered in retrospective studies like that currently undertaken by UC Berkeley must be reduced.

The UCLA Doctoral Exit Survey

Exit surveys are being used by a growing number of research universities as a means for better understanding a broad range of issues in graduate education and professional training. UCLA's survey elicits opinions from doctoral recipients when they file their dissertations on a number of topics and gathers data that have not been available in other campus databases. Doctoral

Figure 1. Employment of Doctoral Recipients Winter 1994 Through Spring 1995



recipients are asked to rate such matters as departmental advising, quality of graduate course instruction, relationship with the doctoral committee chair, faculty assistance in finding employment, quality of faculty mentoring, nature of scholarly activity as a doctoral student, and a variety of other questions designed to elicit other "quality of graduate student life" responses.

More specifically related to post doctoral degree status, respondents are asked to indicate which of the following best describes their immediate post PhD status:

- postdoctoral fellowship/traineeship
- tenure-track faculty position in a college or university
- research position in a college or university
- administrative position in a college or university
- non-tenure track faculty position in a college or university
- research position in a research institute
- research position in private industry
- professional services offered to individuals
- faculty position in education, but not a college or university
- administrative position in education, but not a college or university
- administrative position in private industry
- other

Another item asks whether the position is related to the recipient's doctoral training, while a third asks whether this is a temporary or career position.

Data From the Survey

893 of the 970 UCLA doctoral recipients who received degrees from Winter 1994 through Spring 1995 completed the survey, for a response rate of 92%. These respondents can be aggregated into the following fields of study: Humanities 101, Life Sciences 101, Physical Sciences 137, Social Sciences 123, Education and Information Science 97, Engineering 137, Other General Campus Professional Schools 58, Health Science Academic Programs 63, and Health Science Professional Schools 76.

To facilitate analysis, this report aggregates the 12 employment choices into four categories: postdoctoral fellowship/study, college or university faculty, research positions, and "other" employment. The first three of these are traditional types of employment for PhD recipients. The data are also presented to eliminate the non-respondents on individual questions.

Post Doctoral Employment Status

Employment for the total population was almost evenly divided among the four categories of employment, with 29% going into postdoctoral study, 26% into faculty positions in colleges or universities, 20% into research, and 25% into other employment, which includes faculty positions not in higher education, personal services employment, and administrative positions.

Figure 1 shows the postdoctoral employment status for each field and illustrates clearly the different career paths followed by doctorates in different fields. For example, postdoctoral study is the status for the majority of degree recipients in the Life Sciences (59%), Physical Sciences (60%), and Health Science Academic fields (60%). Degree recipients from Education and Information Sciences were most likely to go into "other" employment (mostly administration and professional services) (56%), while those in Engineering were heading for research positions (51%). Students from the Humanities (56%), Social Sciences (50%), and other General Campus Professional Schools (52%) were more likely to be starting faculty positions in higher education. Only students in the Health Science Professional Schools (Nursing and Public Health) did not have one employment category as an overwhelming choice.

Relationship to Doctoral Training

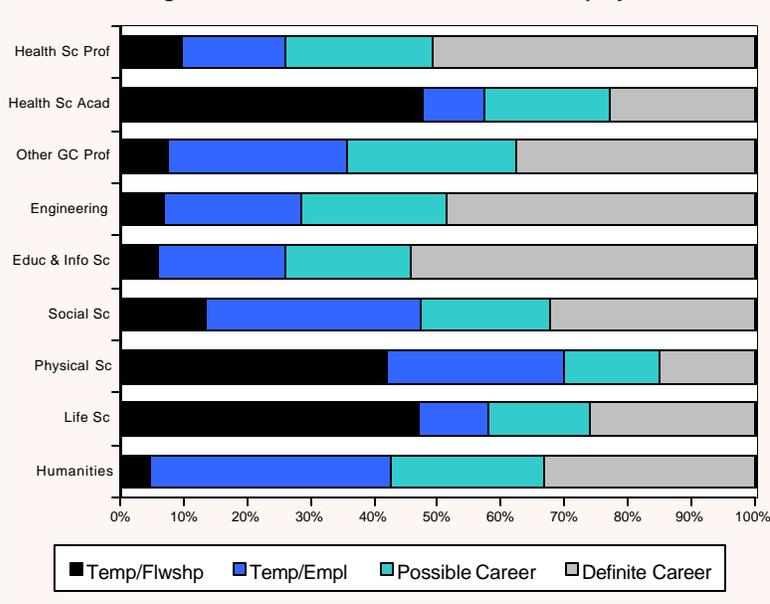
The survey results indicate that the majority of these doctoral recipients (86%) were entering employment related to their doctoral training. While this is a very high percentage, we must be concerned with the 14% who did not obtain positions related to their doctoral training, although we do not know at this time whether or not this was by choice or circumstance.

TABLE 1. IS POST DOCTORAL EMPLOYMENT RELATED TO DOCTORAL TRAINING?

	YES	NO
Humanities	73%	27%
Life Sciences	93%	7%
Physical Sciences	84%	16%
Social Sciences	89%	12%
Education & Info Sciences	86%	14%
Engineering	90%	10%
Other GC Professional Schools	80%	20%
Health Sc Academic Programs	82%	18%
Health Sc Professional Schools	89%	11%
TOTAL	86%	14%

As with the issue of specific employment, there were marked differences by field, as shown in Table 1 above. Degree recipients from Humanities (73%) and Other General Campus Professional Schools (80%) were least likely to indicate that their status was related to their doctoral training, while those in the Life Sciences (93%), Engineering (90%), Social Sciences (89%) and Health

Figure 2. Permanence of Post Doctoral Employment



Science Professional Schools (89%) were most likely to indicate that their status was related to their doctoral training.

Permanence of the Position

This question asked the doctoral recipients to determine whether the position was career or temporary. Overall, 35% said the position was a definite career, 20% indicated that it was a possible career, 24% said that it was temporary employment until something better could be found, and 21% indicated that it was a temporary fellowship/traineeship to be held for a limited time.

Figure 2 shows the responses to this question by field of study. The results of this question are related to the question on the specific type of position. 48% of those in the Health Science Academic Programs, 47% of those in the Life Sciences, and 42% of those in the Physical Sciences were entering temporary Postdoctoral Study positions. Comparatively, 54% of those in Education and Information Science, 51% of those in Health Science Professional Schools, and 49% of those in Engineering indicated that their positions were definitely career positions.

These data are important for our understanding of what happens when our doctoral recipients initially leave UCLA. They show that most of our students obtain appropriate employment. However, one of the limitations of these data is related to the timing of the data collection. Many doctorates do not have firm plans at the time they are filing their dissertations and it is necessary to update the data on "first employment" by collecting data during the year following the award of the degrees. We also need to have more longitudinal data on employment after the doctorate to track those who first

entered temporary positions. As a result, we have initiated a data collection project to obtain these data.

What We Need to Do

It is important that the tracking, documentation, and analysis of doctoral placement become a routine and well-integrated activity woven into the fabric of our activities. The Graduate Division has begun to:

- coordinate a campuswide approach to the long-term collection of doctoral placement data;
- inquire into a vast array of graduate program, faculty, and graduate student outcome questions;
- initiate comparative studies of doctoral placement across disciplines at UCLA, across University of California campuses, and among a set of comparable universities across the country;
- utilize an electronic system for the dissemination of placement data and as a way of providing update access by academic departments and doctoral recipients themselves.

GRADUATE FOCUS

David Unruh, Assistant Dean, Graduate Division
Ellen Benkin, Coordinator, Information Services
Susan McCormick, Publications Coordinator

For details regarding the survey instrument and the methodology for conducting the survey, contact Dr. Ellen Benkin, Coordinator of Graduate Information Services, at (310) 206-0282 or by email at EBENKIN@GDNET.UCLA.EDU.

UNIVERSITY OF CALIFORNIA, LOS ANGELES
GRADUATE DIVISION
1237 MURPHY HALL
BOX 951419
LOS ANGELES, CA 90095-1419

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