

# Notes On Graduate Education

The Graduate School - University of Washington

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## Doctoral Time to Degree

### Framing the issue: Increasing Time to Degree?

Recent studies of time-to-degree in US colleges and universities have reached similar conclusions, namely that the length of time required for a student to attain a doctoral degree is increasing. This increase "raises the total costs of doctoral education for students and their sponsoring institutions and often contributes to heightened doctoral attrition rates."<sup>1</sup>

This report describes the results of a study of time-to-doctorate within the University of Washington. Studies of attrition and retention rates are currently being conducted by the Graduate School and will contribute to a more detailed assessment of graduate student outcomes at this institution.

### Methodology

The time required to complete a post-graduate degree can be measured in three different ways: 1) total time-to-degree; 2) elapsed time-to-degree; and 3) registered time-to-degree. Total time-to-degree (TTD) is defined as the number of years between the awarding of the baccalaureate degree and the attainment of the advanced degree. Elapsed time-to-degree (ETD) is the time from entry into a UW graduate program to the awarding of the degree. Registered time-to-degree (RTD) takes into consideration only the time in which the student was registered in graduate school, excluding any time taken off during graduate study. This study provides information only on ETD and RTD

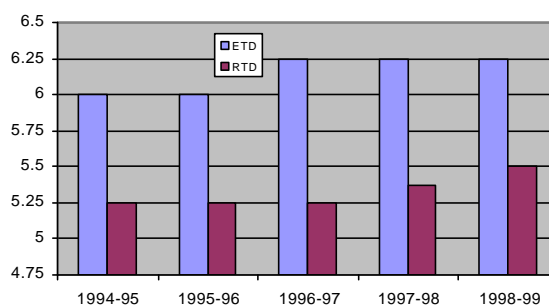
The study was based on data maintained by the Graduate School in a longitudinal database. Students were grouped by the year in which the doctoral degree was conferred rather than the year in which the student entered a graduate program at the University. Students who discontinued graduate study before attaining their declared degree goal were excluded from the analysis. Figures in this report are based on data compiled for the last five academic years, 1994-95 through 1998-99. Measures of time-to-degree are expressed as medians rather than the means, as means tend to be more influenced by extreme observations.

### University Overview

During the five-year study period, the University ETD rose slightly, from 6 yrs for 1994-95 and 1995-96, to 6.25 yrs for the three most recent academic years (Fig. 1). RTD showed a similar increase, from 5.25 yrs for the first three years of the study to 5.5 yrs at the end. Efforts to compare UW data with national data met with some difficulty. For example, when calculating RTD for its *Survey of Earned*

*Doctorates*, the National Research Council included time spent in any sort of post-baccalaureate study, whether part of a graduate program or not. Using this definition, the NRC reported national RTD hovering between 7.0 and 7.3 yrs.<sup>2</sup> Using the same definitions, the UW RTD (7.5 yrs) was close to the national average.

Figure 1  
University Time-to-Degree (Median Years)



### Demographics: Gender and Ethnicity

Demographic analyses based on gender revealed little difference in time-to-degree. Median ETD for female students (6.5 yrs) was 0.25 to 0.75 years longer than that for male degree recipients in four of the five years; however, data from prior years showed ETD for male and female degree recipients to be identical. Examination of RTD showed roughly equal time-to-degree for both genders (5.25 yrs).

There was no consistent pattern among ethnic minority groups (comprised of the self-identified categories of African-American, American Indian, Asian-American and Hispanic-American). For a given group the total time-to-degree fell well below the University median one year, and exceeded it the next. This randomness could be attributed, in part, to the small number of doctorates granted to certain groups. In some years, fewer than five degrees were granted to persons of a particular ethnic minority group. Even when we considered cases in which more than five degrees were granted, the data did not provide much information about time-to-degree because they did not reflect discipline-specific factors.

### Demographics: International vs. US Citizens

Comparison of International students to US citizens and University totals yielded more consistent trends. For the period from Summer 1994 through Spring 1999, international students comprised between 15.0% and 20.8% of total doctoral

degree recipients. During this period, the ETD ranged from 0.5 to 1 yr shorter than that for the University as a whole. RTD was also shorter for four out of five years, with differences between 0.25 and 0.75 yrs.

The findings summarized above are similar to those of Nerad and Cerny in their analysis of time-to-degree at the University of California, Berkeley. They write: "We did not see substantial differences between minority and non-minority students or between men and women. Foreign students across disciplines completed their degrees more quickly than domestic students" (28).<sup>3</sup>

### Time to the Doctorate by Discipline

Pronounced differences in time-to-degree were found when we compared various disciplines. For example, in the Social Sciences Division of the College of Arts and Sciences, the ETD was 0.5-1.63 yrs longer than the University median. Since the RTD for the Division fell within the University range (4.75-5.5 yrs), the extended ETD was attributable to time-not-registered. Certain departments within the Division exemplified the trend more so than others. Anthropology, Political Science and Sociology had the longest ETD for the five-year period, frequently in the range of 7-10 years.

Overall time-to-degree in the Humanities Division was somewhat shorter, with an RTD of 4.25-5.25 yrs. ETD exceeded the University average by only 0.25-0.75 yrs. As with the Social Sciences Division, extended ETD was due primarily to time-not-registered (1.5 years on average vs. the University figure of 0.5 yrs).

In other disciplines, time-not-registered had little effect on time-to-degree. For example, in the School of Medicine, time-not-registered was consistently shorter than the University median, and over half of the departments in the School had a median of zero years of time-not-registered for the entire five-year period. Paradoxically, the School of Medicine's RTD was slightly longer than the University average.

Research conducted at other institutions has similarly shown significant differences in time-to-degree within fields of study. Bowen and Rudenstine, for example, compared the combined group of English-History-Political Science versus Mathematics-Physics and found that time-to-degree in the former group was 1.3-2 yrs longer than that of the latter group.<sup>4</sup> Another study reported that the longest RTD occurred in the social sciences.<sup>5</sup> In a study of doctoral recipients at the University of California, Berkeley, Nerad and Cerny discovered "substantial differences in mean time to doctorate...between students in engineering (5.5 years) and the natural sciences (6.0-6.2 years)..., and students in the social sciences (8.4 years), arts (8.6 years), and languages and literature (8.9 years)" (28).<sup>6</sup>

### Time to the Master's Degree

Time to Master's degree fell outside the scope of the present study; however, it resembled the general pattern of time to the doctorate in that there were more pronounced variations in time-to-degree across disciplines than along

demographic divisions. A higher incidence of part-time enrollment at UWB, UWT and selected programs at UWS, contributed to longer time-to-degree in some cases. While time-not-registered is a factor at this stage of the graduate career, a more important determinant of time-to-degree is whether or not a program requires a thesis. Non-thesis programs, in general, had a shorter time-to-degree.

### For further information

Additional information, including tables and other figures may be found on the World Wide Web at the following address:

<http://www.grad.washington.edu/stats/TTD/>

### Notes

1. Haworth, J.G. (1996) Doctoral Programs in American Higher Education. In John C. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (Volume XI). New York: Agathon Press.
2. National Research Council. (1999). *Summary Report 1997: Doctorate Recipients from United States Universities*. Washington, D.C.: National Academy Press.
3. Nerad, M., and Cerny, J. (1993). From Facts to Action: Expanding the Graduate Division's Educational Role. In L. Baird (Ed.), *Increasing Graduate Student Retention and Degree Attainment*. (New Directions for Higher Education, No. 80.) San Francisco: Jossey-Bass.
4. Bowen, W.G., and Rudenstine, N.L. (1992). *In Pursuit of the Ph.D.* Princeton, NJ: Princeton University Press. Figures based on university and fellowship recipient data sets grouped by BA Cohorts.
5. Tuckman, H.P., Coyle, S., And Bae, Y. (1990). *On Time to the Doctorate*. Washington, D.C.: National Academy Press.
6. See note 3 above.