Graduate Schools and Career Transparency: The Graduate Deans’ Perspective

The ground-breaking report, *Pathways Through Graduate School and Into Careers*, examined the pathways through graduate school into the world of professional occupations. The report provided high-level results based on input from three groups that directly observe and experience graduate career pathways: graduate deans, students, and employers.

To further understand the graduate dean perspective, two one-hour focus groups were held in December 2011 in conjunction with the Council of Graduate Schools’ Annual Meeting. A total of 15 graduate deans participated in the focus groups. The participants represented a diverse set of institutions including doctoral and master’s-focused institutions, public and private institutions, minority-serving institutions, and institutions geographically dispersed across the United States.

The focus groups followed a semi-structured interview protocol and explored five broad topics: the variability of support for career outcomes within and across institutions; what is and what is not being done to support career transparency; the populations of students who are best served or underserved in terms of career resources; models of specific efforts that promote career transparency; and opportunities to improve career transparency for graduate students.

What did the graduate deans tell us? The following is a summary of some of the most relevant issues discussed.

**Guidance on career alternatives**

Variation in the types and quality of career support services

There was general agreement that the level and quality of career support services for graduate students varies significantly. While many graduate schools are actively engaged in providing career-focused support for graduate students, for some degree programs this support is, in the words of one dean, “highly inadequate.”

At the doctoral level in particular, graduate departments are actively engaged in preparing students for academic positions but they are doing relatively less work to inform students about, or to prepare them for, nonacademic career pathways. Career services for graduate students tend to be ad hoc, informal, student-led, or a byproduct (or unintended consequence) of either a funding or grant requirement or a result of a required internship.

University career services offices traditionally have been, and in most cases continue to be, geared toward serving undergraduates. Career service offices are often inadequately equipped to deal with graduate students. As one graduate dean stated, “When graduate students do go to them, they aren’t prepared to meet their needs.”

**Workforce demands and their impact**

Focus group participants acknowledged that a number of trends are forcing graduate schools to improve their support for nonacademic career paths. These trends include changes in economic conditions, including the shrinking market in certain academic fields, such as those in the humanities, and the expansion in others, such as health care, as well as high levels of student debt. As one dean pointed out, “I think the recession and the job market have forced a shift already in how faculty are mentoring students through completion and their careers. In some cases departments have been forced to help their students look for different opportunities.” At the same time, the creation of more master’s level professional degrees, such as the professional science master’s (PSM), represent the academy’s response to changes in local and national economies and labor market needs.

Variations by discipline and program type

One dean remarked that disciplines that are in high demand tend to have better career resources available to students because organizations are actively trying to fill these positions. These disciplines often have an association with well-organized web-based career resources or a job clearinghouse to help students find positions. Fewer such resources are available to students in low-demand disciplines. To pursue careers in these fields, students have to “get into networking. They need...”
mentoring help to get their foot in the door in some capacity.” In addition, career resources available through professional organizations often focus on academic positions rather than alternate career pathways.

Within more traditional academic areas, the degree to which students were encouraged to pursue nonacademic career pathways varies; ‘applied’ disciplines may be open to more diverse options. One dean reported,

“What we see is that the graduate faculty and graduate fields in engineering and agriculture and life sciences, for the most part, don't really think of [nonacademic careers] as ‘alternative’ careers. They’re quite encouraging—and have been as a culture—that students are going to go into government...industry ...and nonprofits as well as academia. Perhaps related to that, the career service offices in those colleges support not only undergraduates, but they also support graduate students—master's and Ph.D.”

In contrast to this view, another dean reported that biomedical science faculty feel that students should pursue traditional academic career tracks. As a result, these students are flocking to career service offices, despite their focus on undergraduate careers, because they are unable to get information from their own advisors about alternative careers.

Although doctoral students in applied fields such as engineering and life sciences may enjoy better career services, the focus group discussions suggest that, on the whole, students in master's degree programs have more support to explore a wider diversity of career pathways than doctoral students, who are generally expected to be oriented towards academic careers.

However, it is unclear from these discussions whether this is true of research master's students as well as those in professional degree programs.

Reflecting findings from the survey, professional degree programs are believed to offer the highest levels of career service and support, especially at the master's level. The development of new master's degree programs has been an engine of change. As one participant commented, “The advent of the professional science master’s… has pushed the faculty into relationships with industry, particularly those in the life sciences. For that set of faculty it's been a way for them to understand the job market better.” Deans also indicated that many professional master's degrees provide opportunities for career guidance as a part of internships. Here, the internship coordinator or site-based internship supervisor is an important source of career information for students as well as providing links to career opportunities.

At least one institution reported activities that supported career advancement across all programs at a science-focused institution. A dean from a small institution with only a few graduate programs focused on professional life sciences reported no variation across programs in terms of the quality of career support for graduate students. Further, the dean indicated that the institution was “founded on the idea of preparing students for jobs in industry and life sciences.” The institution conducts exit interviews, and, through annual alumni surveys, tracks career trajectories and salaries of its graduates.

Focus group participants agreed that, in general, social sciences and humanities programs offer graduate students the least career support and faculty in those areas are least likely to know about or encourage their students to explore alternatives to academic careers. Because of the premium put on academic careers in graduate programs in arts and sciences and the humanities, students in those fields were reportedly reluctant to discuss nonacademic careers with their professors.

**Responsibilities of the graduate dean's office**

Most focus group participants agreed that the graduate dean's office needs to take more responsibility for improving the level and quality of career services for its students. The deans stated that, at the department level, faculty may not really know about career alternatives. Many deans agreed that it is their office that has the clout to effect change and promote greater consistency across departments. As stated by one participant, “It can't just come from the individual departments; you need support from the dean's office.”

The deans identified several barriers that need to be addressed in order to improve career services for graduate students and to create greater career transparency. In addition to the need for more resources, the barriers they identified fall into three broad categories.

- Focus group participants were unsure about what kinds of support and services students need most. As one put it, “What does it mean to create more services? Is it just more workshops, more fairs, more connections, more professional development? I'm not sure what these services are or should be.”
- Difficulty in tracking students after degree completion was cited as a barrier to increasing transparency for their graduate students. As a result, they are unable to provide students with accurate information about career outcomes. They agreed there was no consensus on how to define successful placement, and they wondered if they should present exemplary success cases (to show what is possible), or the statistics on degree completion rates and the percentage of students who are employed in particular fields after graduation (to show what is realistic to expect).
- Another barrier is the mindset of faculty in departments that value, and give priority to, academic research career paths for their graduates. In this context, deans admitted that nonacademic career alternatives can be stigmatized, leading to a situation where graduate students may be reluctant to talk to faculty about nonacademic jobs. One focus group participant provided an example of a colleague who viewed a faculty member as unsuccessful if the faculty member's students took positions at teaching colleges rather than research universities.

**Promising models and practices**

Several promising practices were described by focus group participants. These are being implemented by existing career services offices as well as by specific departments. Examples include:

- A group of life scientists have put together a program that explores alternative career options in the sciences. They bring in doctorate-holding scientists who work outside academia for monthly seminars and networking events. As one dean commented, “It's been extraordinary in both getting information out across disciplines and also several jobs have arisen from the effort.”
• Two deans reported that their career services office recently hired a staff person to focus on graduate students. In one case, the staff person will focus on doctoral students from the humanities and qualitative social sciences seeking nonacademic, alternative careers. As indicated by the dean, “We think that will help infiltrate ideas about support for graduate students into the central career services organization.” The other dean indicated that graduate students lack effective networking techniques and talked enthusiastically about the impact of workshops in supporting this skill: “Career services staff have done fantastic networking workshops to the point where our alums now want to come back and take the workshops—which I consider to be the perfect mark of success.”

• The career services office at two other universities are taking advantage of web-based career resources. One has a database that works with LinkedIn, an internet career networking service. According to the university’s career services website, students (both undergraduate and graduate) are invited to join a “LinkedIn Lab” at which they can have their profile “reviewed by a staff member.”

• Some social sciences and humanities departments are offering classes designed to develop students’ skills relevant to nonacademic careers. One dean reported that comparative literature department faculty are working with students to understand museum work, grant-writing, and editing and other nonacademic uses of their degrees and commented “We have heard from grad students that they find this helpful.”

• Finally, the deans indicated that students themselves have initiated activities that support nonacademic career paths, bringing in speakers or organizing seminars. One notable example is a student-generated consulting club that was started by doctoral students in the engineering department, which rapidly spread to disciplines across the university. This effort is supported by some operational funding from the graduate school and fundraising by the students themselves. As the dean reported, “They bring in alumni to talk with them, they network, they have just a very, very active group of students who are defining consulting quite broadly as really any kind of position in business, industry, nonprofits, that could be making use of their Ph.D. in a way that’s leveraging their skill set.”

With increasing state and national attention on the outcomes of graduate education it can be anticipated that career pathways for graduate students will become a very important topic for graduate deans. A series of additional reports, based on the student survey, will be forthcoming shortly and will be the topic of a session at the CGS annual meeting in Washington, DC in December.

By Cathy Wendler, Senior Strategic Advisor, Educational Testing Service; Lauren J. Kotloff, Research Associate, Educational Testing Service; Julia Kent, Director of Global Communications and Best Practices, Council of Graduate Schools; Brent Bridgeman, Distinguished Research Scientist, Educational Testing Service; Jeff Allum, Director of Research and Public Policy, Council of Graduate Schools; and Deirdre Mageean, Dean in Residence, Council of Graduate Schools

Footnote

CGS Welcomes New Staff

Leila Gonzales joined the Council of Graduate Schools in November 2012 as Manager of Surveys and Information Services. Leila will be managing the day-to-day operations of CGS’ enrollment and degrees survey, international survey, annual meeting and summer workshop evaluations, as well as project-specific surveys and data analyses that support CGS’ best practice projects. Leila comes to CGS from Matrix Knowledge Group International, where she analyzed large higher education data sets to provide insight into the return on investment of postsecondary credentials and the performance of higher education institutions. Prior to Matrix, Leila was the geoscience workforce analyst at the American Geosciences Institute, where she oversaw research on higher education and workforce issues, including student surveys. She holds a Ph.D. in physical geography from the University of Wisconsin-Madison, a M.S. in geophysical sciences from the University of Chicago, and a B.S. & A. in Mathematics and Spanish from Regis University.

New Members

Regular:
Texas A&M—Central Texas

Corresponding Associate:
QS - Quacquarelli Symonds, Ltd.
Data Sources: Preliminary Data Indicate Slight Increase in Domestic First-Time Graduate Enrollment

While the focus of the CGS International Graduate Admissions Survey is on the participation of international students in U.S. graduate schools, the 2012 Phase III survey asked respondents to provide preliminary data on the number of U.S. citizen and permanent resident first-time graduate students in fall 2011 and fall 2012. An analysis of the findings from that question is presented below.

Methodology and Response Rate

The survey population for the 2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment (Allum, 2012) consisted of all 506 U.S. colleges and universities that were members of CGS as of September 2012. A link to the survey instrument was e-mailed to the graduate dean (or equivalent) at each member institution on September 26, 2012, and responses were collected electronically through October 22, 2012.

A total of 244 institutions provided first-time graduate enrollment data for U.S. citizens and permanent residents for both fall 2011 and fall 2012, a response rate of 48% on this question. For some institutions, the Phase III survey was administered before final first-time enrollment numbers were known, therefore, these institutions provided preliminary figures as of the same date each year.

Of the 244 respondents to this survey question, 176 (72%) were public institutions, 67 (27%) were private, not-for-profit institutions, and one was a private, for-profit institution. By basic Carnegie classification, 164 (67%) of the respondents were doctoral institutions, 59 (24%) were master’s-focused institutions, and 21 (9%) were classified as specialized or baccalaureate institutions. By geographic region, 59 (24%) of the responding institutions are located in the Midwest, 54 (22%) in the Northeast, 40 (16%) in the West, and 91 (37%) in the South. Respondents to the question included 74 of the 100 largest institutions, and eight of the ten largest institutions in terms of the number of graduate degrees awarded to U.S. citizens and permanent residents (National Science Foundation, 2012). Given this diverse set of survey respondents, it is likely that the preliminary data from these institutions reflect the current trends in first-time enrollment of U.S. citizens and permanent residents in graduate schools across the United States.

Findings

Overall, the institutions responding to the survey reported a 1% increase in first-time graduate enrollment of U.S. citizens and permanent residents between fall 2011 and fall 2012 (see Table 1). Public institutions reported a 1% increase in U.S. citizen and permanent resident first-time graduate enrollment between fall 2011 and fall 2012. There was no change in first-time graduate enrollment in private, not-for-profit institutions during the same time period. By basic Carnegie classification, the number of U.S. citizen and permanent resident first-time enrollees increased at doctoral institutions and master’s-focused institutions, at 1% and 3% respectively. First-time enrollments among U.S. citizens and permanent residents decreased by 15% at all other specialized or baccalaureate institutions. It should be noted that this large percentage drop is based upon a comparatively small number of reporting institutions and should therefore be interpreted with this in mind.

U.S. citizen and permanent resident first-time graduate enrollment increased in three of four major regions of the United States between fall 2011 and fall 2012. In the West and Midwest, the number of U.S. citizens and permanent residents enrolling in graduate school for the first time increased by 2%. In the Northeast, first-time enrollment among U.S. citizens and permanent residents increased by 1%. There was no change in first-time enrollment among U.S. citizens and permanent residents in institutions in the South between the fall of 2011 and fall of 2012.

Discussion

The 1% increase in first-time enrollment among U.S. citizens and permanent residents between fall 2011 and fall 2012 is a preliminary estimate, but it may be an indication that the decline in first-time enrollments in U.S. graduate schools may be stabilizing. This finding represents a reversal from the 1% decrease in first-time enrollments among U.S. citizens and permanent residents reported by the 2011 Phase III survey (Bell, 2011a). This finding also represents an apparent reversal from results presented in previous CGS/GRE Graduate Enrollment and Degrees 2001-2011 reports (Allum, Bell, & Sowell, 2012; Bell, 2011b), in which first-time enrollment among U.S. citizens and permanent residents declined by 2.3% between 2010 and 2011, and by 1.2% between 2009 and 2010. Declines in first-time enrollment among U.S. citizens and permanent residents declined by 2.3% between 2010 and 2011, and by 1.2% between 2009 and 2010.

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<td>Changes in US Citizen and Permanent Resident First-Time Graduate Enrollment, Fall 2011 to Fall 2012</td>
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* Based upon a comparatively small number of reporting institutions

Source: 2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment
permanent residents have a particularly significant impact on overall graduate enrollments due to the fact that this population constitutes the majority (83.1%) of first-time graduate enrollments in U.S. graduate schools (Allum, Bell, & Sowell, 2012). This explains why, despite a growing number of temporary residents enrolled in U.S. graduate schools, first-time enrollment among all graduate students, regardless of nationality, declined by 1.7% between 2010 and 2011, and by 1.1% between 2009 and 2010 (Allum, Bell, & Sowell, 2012; Bell, 2011b).

Growth in first-time graduate enrollment among temporary residents has outpaced domestic first-time graduate enrollment for the past two years, growing by 7.8% between 2010 and 2011 (Allum, Bell, & Sowell, 2012) and by 4.7% between 2009 and 2010 (Bell, 2011b). Such growth is in contrast to the trend that has been seen over the past decade. Between fall 2001 and fall 2011, first-time graduate enrollment of U.S. citizens and permanent residents increased by 3.3% annually on average, compared with a 1.8% average annual gain for temporary residents (Allum, Bell, & Sowell, 2012).

First-time graduate enrollment among U.S. citizens and permanent residents fell in six of 11 broad fields of study between fall 2010 and fall 2011 (Allum, Bell, & Sowell, 2012). Decreases in first-time enrollment among U.S. citizens and permanent residents were greatest in the fields of education (8.6%), other fields (7.1%), arts and humanities (5.0%), and mathematics and computer sciences (4.1%), engineering (3.6%), and biological and agricultural sciences (0.8%). The 8.6% decline in first-time enrollments among U.S. citizens and permanent residents enrolled in education programs is particularly important given that this broad field constitutes the largest proportion (17.9%) of all first-time graduate enrollments. The only field in which there was a substantial increase in first-time enrollment among U.S. citizens and permanent residents was in the field of health sciences (7.6%), the third most popular broad field of graduate study among this population at 12.7%. The 2012 CGS/GRE Survey of Graduate Enrollment and Degrees, currently in the field, will offer a more robust dataset than what the CGS International Graduate Admissions Survey can provide. That report will be available in September of 2013.

By Jeff Allum, Director, Research and Policy Analysis

References: