

IMAGINING DOCTORAL EDUCATION FOR THE FUTURE: A DISCUSSION PAPER

The PhD is the signature degree of research institutions. Despite its heterogeneous content, the PhD is relatively homogeneous across disciplines in both structure and objectives: it is a research degree comprising some variation of coursework, qualifying examination, and dissertation; and it is intended by tradition to produce a contribution to original research in a field and to result in a position in the professoriate. Though professional doctoral degrees differ from the PhD, they too, as a group, are heterogeneous in content and relatively homogeneous in structure and objectives

At present, roughly 50% of successful doctoral graduates nationally elect careers in sectors of the economy other than the academy—an effect explained only in part by diminished opportunities in the academy. Meetings of the Council of Graduate Schools (551 members), Association of Graduate Schools (62 AAU members), and Deans of the CIC Graduate Schools (14 members) devote considerable time and attention to the implications of this effect. NSF and NIH, as major funders of graduate students in STEM fields, have taken a serious interest in this issue, and *Pathways Through Graduate School and Into Careers*, a recent report of a national commission comprising leaders from higher education, government, and business, focuses on it.

The national conversation on doctoral education, in short, has evolved from an unstated premise that we train PhD students exclusively or primarily for positions in the U.S. professoriate to a current understanding that we train them for the professoriate *and* for alternative careers in an increasingly global society. The resulting new focus on career alternatives to the academy, moreover, likely will evolve next to a focus on the academy as only one among many career alternatives.

UMD can and should take a national lead in imagining doctoral education for the future and in exemplifying that future in our campus doctoral program. Toward that end, the GS proposes to devote efforts and resources to four objectives: 1) increased fellowship support; 2) international opportunities for all graduate students; 3) expanded and enhanced professional development opportunities; and 4) reimagined structures and goals for some doctoral programs, and newly imagined doctoral programs for higher education in the future.

1. Graduate Student Fellowship Support

Whatever shape and direction doctoral education takes, robust fellowship support will continue to be critical to excellence. Fellowships provide students not only funding, but also precious time without other distraction for their research and scholarship. The GS is well positioned to ensure that enhancement of fellowship support is vigorous, systematic, and campus wide, and also that campus resources are deployed effectively to leverage philanthropic and other external fellowship funding.

Graduate assistantships, however, and not fellowships, provide UMD's principal student support: in approximate figures, the campus expended, \$145M in total graduate student support in FY13, only \$27.5M of it, or 19%, in fellowships, and only \$11M, or 7.6% in *state funded* fellowships. As a result, the GS has advanced fellowship policies and programs that urge and enable programs to employ state funded fellowship monies as supplements to graduate assistantships; this makes the most effective use of scarce fellowships resources to create competitive recruitment packages for top students. Clearly, the campus must expand and enhance such innovative hybrid support packages as our primary source of student support, and this alone will require substantial new fellowship funding to achieve true excellence. Providing every doctoral student with a one-year

dissertation fellowship, for example, would cost approximately \$18.4M annually, and spendable income in that amount would require some \$360M in endowment.

The GS will review and revise allocation of the University, Dean's, and Merit Fellowship pool to create incentives for external fellowship support.

2. Graduate Student International Opportunities

International experience is increasingly critical for doctoral student success, particularly interdisciplinary research and field experience. This holds for students entering the professoriate (emerging nations, for example, have a high demand for faculty), as well as for students looking toward other career paths. The GS Office for International Initiatives collaborates with colleges, departments, and the Office of International Affairs, producing economies of scale and effecting innovations in international graduate programs and international recruitment of outstanding students, in international seminars and research projects for students, and in exchanges for graduate faculty and students. We must continue to grow these activities if our graduates are to succeed in a global society and economy.

Current GS initiatives include, for example, establishing, funding, and administering International Graduate Research Fellowships (IGRF) and International Conference Student Support Awards (ICSSA); cost-sharing China Scholarship Council, Fulbright, and similar fellowships; developing and funding a joint interdisciplinary seminar and research project with University College Cork focused on Frederick Douglass; and developing and funding a major long-term UMD-University of Tübingen collaboration in bioscience, neuroscience, and cognitive science, involving many scientists and doctoral students from each university. (The UMD-UT collaboration launched in 2013 with five projects funded with \$225,000 in support and seed monies.)

Faculty and students have responded with enthusiasm to these initiatives. They address a campus need and should be nurtured and grown. Currently totaling ~\$500k annually, they provide excellent opportunities for external fundraising.

3. Graduate Student Professional Development

As we prepare doctoral students both for a rapidly changing academy and for other careers, we must develop a robust campus program of innovative and varied professional development opportunities. While the individual faculty-student mentor relationship will continue to define doctoral education, for example, institutions cannot expect faculty mentors to provide all things to their students. We therefore also must develop *programmatic* initiatives that not only help students prepare for success, but that also help faculty to help students. Many UMD doctoral programs currently provide outstanding academic and professional development opportunities, but opportunities vary significantly across campus in rigor, resources, and effectiveness, and they are generally targeted toward success in the academy. The GS proposes to collaborate with colleges and programs to ensure that every doctoral student has access to excellent professional development opportunities for success in the academy and elsewhere.

Achieving this goal will require pyramidal collaborations at campus, college, and program levels, with coordinated activities occurring at each level. The new GS Office for Teaching, Learning, and Professional Development has initiated two strategic projects: 1) *The Graduate Student Writing Project*, successfully launched this past year, that includes our new and successfully piloted Graduate Student Writing Center, Writing Fellows, Language Learner Writing Group, and Research and Writing Workshops; and 2) *The Excellence in Graduate Teaching Project*, now in the planning phase, that will include innovative programming to support both faculty mentoring and training of graduate students, and graduate student teaching of undergraduates. Both projects are

focused on skills, with the latter oriented toward skills for success in the academy. Eventually, we will want to develop a parallel project or projects for other career avenues, as well as to offer professional development opportunities to students in masters degree programs.

Resources for initiatives of this magnitude will be substantial, in time, effort, and funding, particularly if the initiatives are to be sustainable.

4. Graduate Programs for the Future

Doctoral education has a new output: the placement and success of students in a rapidly changing academy and, increasingly, in other sectors of the economy. Doctoral training, or the throughput, it follows, must evolve accordingly. UMD can lead the nation in imagining doctoral education not only for the new academy, and not only for careers outside of the academy, but also for an unknown and unknowable social and economic global future. Such leadership might include a) rethinking the curriculum of coursework and qualifying exams, as well as the dissertation, in fields with lengthy time to degree and with unpromising academic career opportunities; b) creating a coherent and unified sequence of graduate certificates, masters degrees, and doctoral degrees in Liberal Arts and Sciences—perhaps as revenue generating programs targeted toward nontraditional students and careers; c) going far outside the box and imagining new possibilities for doctoral degrees in the post-industrial, post-modern, global culture that we inhabit and whose future we cannot ken.

Such a project would be transformational and long term, and would demand extensive community consultation and collaboration in many fora and at many levels, starting with the Graduate Council and the Council of Deans. The full support and engagement of the Graduate Faculty would be critical for any success. We might begin the process by starting conversations within relevant colleges on point *a* above; by forming a small working group of faculty and administrators to investigate point *b* above, and by forming a high level campus “thinking group” to explore point *c* above.

These initiatives, at this nascent stage, would require an investment of effort and time, but not of funding. At a later stage, new funding would be required.

The Graduate School

September 2013