

AN EXCELLENT PROGRAM

The condition of the programs that prepare education researchers in America is reminiscent of the little girl with the curl: When they are good, they are very, very good and when they are bad, they are horrid. We saw excellent doctoral research programs from one end of the country to the other, from Boston College in Massachusetts to Stanford University in California. This section profiles a program in between—the special education doctoral research preparation program at Peabody College, Vanderbilt University, in Nashville, Tennessee.

Each of the excellent programs we saw was unique. For example, the Boston College program was rooted more in public schools and practice than most other programs, while Stanford’s had a stronger connection with the university’s graduate school of arts and sciences.

However, excellent programs shared a number of characteristics. They were committed to research preparation; had clarity of vision regarding the skills and knowledge students needed to become researchers; agreed on the contours, methodologies and quality expectations for their fields; created curriculums that mirrored the vision of what researchers need to know in the context of their fields; offered apprenticeships with faculty that began early in the doctoral program; were staffed by highly productive faculty with major research funding who served as mentors to their students; admitted qualified students who wanted to be researchers and provided financial aid sufficient to support their full-time attendance; had enrollments and workloads commensurate with faculty numbers and research commitments; and provided other resources such as appropriate facilities, equipment and support services.

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1,101 undergraduates, 308 master's students and 301 doctoral students. Nineteen percent of Peabody graduate students are enrolled in special education, a concentration the college began offering in the early 1950's that includes three areas: high-incidence special education, incorporating learning disabilities and emotional/behavior disorders; severe disabilities, including hearing and visual impairments; and early childhood special education.

This program typically enrolls eight to 10 new doctoral students each year, although occasionally the number is higher. The overwhelming majority of students are women, ranging in age from 23 to 45. Students generally have backgrounds in special education, education or psychology; most have experience as classroom teachers. Their GRE scores, in the mid-1100's on the verbal and quantitative portions of the exam, are lower than the average for Peabody, but considerably higher than the national average for graduate students in special education. Peabody's dean is pressing for a rise to 1200, which will require the special education faculty to create a new program catering to younger students, more recently graduated from college, who tend to have higher scores on the GRE.

Even without the change, admission to the doctoral program in

special education at Peabody is highly competitive. For the entering class of 2003, 13 students were admitted. Of these, 11 chose to enroll and a 12th deferred admission for a year, for an extraordinary 92 percent yield rate. Indeed, the special education program is ranked number one in the country by *U.S. News and World Report*.⁷

The Vanderbilt special education Ph.D. program is unabashedly research-oriented. It expects students to produce research as graduate students and to go on to careers in the academy or government. A faculty member interviewed at another top-ranked school in this field complained that his program "loses students all the time to Vanderbilt." He described Vanderbilt as "a high-powered research place," noting that his program did not "do as good a job in preparing people for [faculty positions in] Research I [Doctoral Extensive] universities."

Students are expected to attend full time; all admitted students receive full financial aid packages, typically tuition plus a stipend of \$1,200 per month for at least two years, to make it possible for them to enroll full time, though many still apply for student loans to supplement the aid package. Much of the support is made possible through U.S. Department of Education training grants and faculty extramural

research funding. There are also honors, diversity and dean's fellowships for the most outstanding students admitted to the program.

In exchange for the full aid packages, all doctoral students are required to work 20 hours per week as research assistants, a commitment regarded as an apprenticeship in research and, therefore, a primary part of the doctoral education experience. Accordingly, full support is viewed as essential both for getting the students the special education faculty want and offering them a rigorous and intensive graduate education. Still, the arrangement is a struggle for the institution to sustain financially, and faculty wish the high cost of Vanderbilt tuition, \$1,155 per credit, were lower.

Most students complete the doctoral program, including their dissertations, in three to four years. The formal program requires 72 credit hours of course work. Virtually all students, however, enter with a master's degree, typically arriving with approximately half the credits completed. Hence, many students require just two years to finish the 36 hours outstanding.

The remaining course work covers the content of the doctoral field, supervised college teaching and a heavy dose of research preparation, including statistics, research design in special education, qualitative

methodology, single-subject research methodologies in special education, contrasting research methodologies in special education and implementing research in special education.

The program is competency-based, so beyond taking courses, students must demonstrate mastery in each of these research areas as well as in college teaching. The university, however, has few teaching opportunities for doctoral candidates in special education, so the department is attempting to create a program in which local teachers would take courses from its doctoral students at reduced rates—a situation viewed as a plus for both the teachers and the graduate students.

The program includes a three-semester proseminar. The first semester focuses on writing different types of research; the second emphasizes research design; and the third stresses grant writing and establishing a research program. All students are required to write a grant, and there is a small pot of money available for student-initiated studies. All students also write articles with the expectation that they will have published at least one paper as senior author before they graduate.

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of the requirements, except for the dissertation, within four years. A strong incentive to complete the degree is that federal training grants have to be repaid, if the student fails to graduate.

While the formal requirements are substantial, the heart of the program is the apprenticeship. For a student to be admitted, a faculty member must agree to work with her, and that work begins as soon as the student arrives. The goal is for the student to join the professor's research team, work closely with the professor as a mentor, assume a growing role in the professor's research throughout her residency, write and present at conferences and produce a dissertation, often an extension of the mentor's work.

The apprenticeship is possible for four reasons. First, faculty in special education have light teaching loads—two courses per term—and, as a result, have sufficient time to give to doctoral students. With grant money, faculty can buy out of one course each term, so most special education faculty teach only two courses each year, one undergraduate and one graduate.

Second, there is a high faculty-to-doctoral-student ratio. Given that the department has 16 full-time faculty, the dissertation load per professor is no more than two a year. More common is one or none in a given year.

Third, faculty members are top scholars in their fields, so they have the skills and knowledge to prepare students for research. They are also extraordinarily productive. In 2002, the average associate or full professor had, at this point of his or her career, published 2.5 books and was sole author of 1.7 book chapters and 6.7 articles. He or she had delivered 8.8 refereed papers or invited speeches and was editor of or sat on the editorial boards of five journals.

There were also software and test authorships. The average professor had 4.4 active grants, totaling over \$3.25 million. Most had long lists of honors and awards for their publications and career achievements. And 90 percent had spent almost three years, on average, as schoolteachers or counselors, most commonly in the area of special education, before entering the academy.⁸

Fourth, faculty are supported in their scholarly activities. For instance, an administrative assistant, knowledgeable and experienced in federal grant making, works with professors preparing grant proposals.

She takes the lead on logistics, budgets and numbers and other routine but laborious matters related to successful proposal writing. The results show: Peabody has an excellent track record in winning special education grants from Washington.

Because of this approach, Peabody graduates are eagerly sought for faculty positions in special education programs around the country. As one student put it, “This program gives me prestige when I go out there. I am head and shoulders above others because of the research reputation of Peabody.”

Over the past decade, approximately two out of three graduates have gone on to become college and university professors. In 2003, students were hired at schools ranging from the University of Wisconsin, Madison to Samford University. When asked why a number of students went to work at less research-oriented schools, the department chair said it was largely a matter of self-selection. After watch-

ing their professors and the amount and kind of work they do, some graduates opt not to work in research universities and others are required by personal circumstances to look for employment in a particular location. In any given year, moreover, a limited number of faculty positions are available at the top research universities, even though special education as a field claims to have a shortage of potential professors prepared to engage in quality research.

Conclusion

Using the nine criteria presented in the previous section, Table 4 summarizes what Vanderbilt demonstrates about the ingredients that make for strong research preparation.

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TABLE 4

Criterion for Excellence Applied to Exemplary Doctoral Program to Prepare Researchers (Special Education at Vanderbilt University)

| Criterion | Generally Meets Criterion | Explanation |
|--|---------------------------|---|
| <p style="text-align: center;"><i>Purpose</i></p> <ul style="list-style-type: none"> ● Purpose is explicit, focusing on the preparation of education researchers and scholars. ● The field of research is explicitly defined and the skills and knowledge needed by researchers are clearly identified. ● Success is tied quality of research by graduates and its impact on research, practice and policy. | Yes | <p>The goal of the program is unambiguous—the preparation of top special education researchers. The field and its domains are explicitly defined, as are the methodologies for advancing them. The skills and knowledge needed by a quality researcher/scholar in the field are clear. The success of the program is measured by faculty productivity, grant support, research salience and the achievements of graduates.</p> |
| <p style="text-align: center;"><i>Curricular Coherence</i></p> <ul style="list-style-type: none"> ● Curriculum is rigorous, coherent and organized to teach the skills and knowledge needed by researchers. | Yes | <p>The curriculum mirrors program purposes in its design, content and sequence. It focuses not only on the content of special education, but also strongly on research and research methodology designed for the field. There is a mix of practice and theory, including formal instruction and practice in skills that researchers must master to be successful in the field, such as the preparation of grant proposals and the writing and presentation of research papers. Ultimately, providing all students with substantial teaching experience is a goal of the program.</p> |
| <p style="text-align: center;"><i>Curricular Balance</i></p> <ul style="list-style-type: none"> ● Curriculum integrates the theory and practice of research; apprenticeship is combined with classroom instruction. | Yes | <p>Beginning in the earliest days of the program, students enter into an apprenticeship, which involves one-on-one work and instruction with the professor as well as with advanced graduate students. Students are asked to take on larger and more responsible roles in faculty research projects the longer they participate in the apprenticeship. By the close of the apprenticeship, students have worked in a faculty research project from conception to conclusion. The formal curriculum and the apprenticeship are well connected, each teaching skills and knowledge generally well applied in the other. The match is not perfect.</p> |
| <p style="text-align: center;"><i>Faculty Composition</i></p> <ul style="list-style-type: none"> ● The faculty is composed of highly productive scholars with the capacity and commitment to prepare the next generation of researchers. Their research is well funded. They receive competitive awards and fellowships for their work. But most of all, they model high standards in research and are expert teachers, scholars, advisors and placement agents. They are dedicated to the preparation of their students, the advancement of their fields and the enhancement of their programs, schools and institutions. ● Total faculty numbers and fields of expertise are aligned with curriculum and student enrollment. | Yes | <p>The faculty is composed of highly productive researchers, very well regarded in their field, high in grant funding, who sit on journal boards, and receive a great deal of grant funding. Many have experience working in the field of special education. They are expected to serve as mentors to their students, though some are so busy professionally that they are not as available as students would like. Faculty numbers are more than commensurate with student enrollments.</p> |

| Criterion | Generally Meets Criterion | Explanation |
|--|---------------------------|--|
| <i>Admissions</i> | | |
| <ul style="list-style-type: none"> ● Admissions criteria are designed to recruit students with the capacity and motivation to become successful scholars and researchers. | Yes | <p>While standardized test scores are not among the highest in the country for graduate students, they are very high for special education. The dean is pushing the program to raise them. Students generally come to the program with substantial experience in the field and high motivation to engage in special education research. No student is admitted unless a faculty member is willing to work with her. Student numbers are small relative to the number of faculty in the program in order to permit individualization of preparation for each student and close personal interaction between professors and students.</p> |
| <i>Graduation and Degree Standards</i> | | |
| <ul style="list-style-type: none"> ● Graduation standards are high and the degrees awarded are appropriate to the field. ● After graduation, alumni commonly receive major research fellowships and positions in strong universities and research organizations. | Yes | <p>Students are required to and do complete their course work and exams in a relatively short and clearly specified period of time. There is also the pressure of having to repay traineeships should they fail to do this. Quality standards are enforced by continuing assessment of student performance in classes, apprenticeship, comprehensive exams, a major project and a dissertation. All students are expected to write a grant proposal and publish an article as lead author before earning a degree. Not surprisingly, special education students do very well in competition for faculty positions at research universities when they graduate.</p> |
| <i>Research</i> | | |
| <ul style="list-style-type: none"> ● Research is of high quality, is well funded and is valued by policymakers, practitioners and/or scholars. | Yes | <p>See Faculty Composition above. Publication rates in top journals, prestigious awards and the levels of extramural funding are impressively high. Research support structures include a special education administrative assistant to aid faculty in obtaining research funding.</p> |
| <i>Finances</i> | | |
| <ul style="list-style-type: none"> ● Resources are adequate to support the program, the faculty who teach in the program, the students enrolled in the program and the physical and intellectual infrastructure needed to support the program. | Yes | <p>The program is well supported, though there is a desire for greater support for students. Because faculty have light course loads and no more than two doctoral students a year, they have sufficient time to serve as mentors to doctoral students. Because all students are fully funded, though some support needs to be cobbled together, all students can attend full-time.</p> |
| <i>Assessment</i> | | |
| <ul style="list-style-type: none"> ● The program undertakes continuing self-assessment and performance improvement. | ? | <p>This is uncommon in higher education. The special education faculty do talk about program improvements.</p> |