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NRC Rankings: National Research Council survey places CU research doctorate graduate fields among top in U.S.

In a comprehensive national study of research doctorate programs sponsored by the National Research Council (NRC), over 75% of participating Cornell University Graduate School and Weill Cornell Graduate School of Medical Sciences graduate fields were included within the top 20 range of rankings on an overall measure.

The 2010 NRC study, based on data collected in 2006, compares 4,838 individual research doctorate programs in 62 subject areas across 212 surveyed institutions. Unlike the last NRC study, in 1995, the new study does not give each program a specific numbered ranking overall, but rather produces a range of rankings for each graduate program, derived from 20 key variables. For example, a program that performed strongly on some variables but weakly on others might be assigned a ranking range of 6 to 29, indicating it is among the 6th through 29th-best programs.

The study used two types of overall rankings. One ranking, based on a regression analysis linking reputational factors to program factors (the R-ranking), placed 29 Cornell research doctorate graduate fields in the top 10 range of rankings and 47 fields in the top 20. The other, based on faculty opinions obtained via survey (the S-rankings), included 20 programs in the top 10 range and 40 in the top 20.

At the top of the NRC's overall rankings were the Cornell graduate fields of Food Science and Technology (ranked 1st through 11th overall on the R-ranking) and Plant Breeding (ranked 1st – 8th on the S-ranking). Over 75% of Cornell's fields were in the top 20 range of overall R-rankings, while two thirds were in the top 20 on the S-rankings. Across both the S-rankings and R-rankings top 10, Cornell fields within this range included all of the NRC disciplines, with 7 Cornell fields included in Agricultural Sciences, such as those named above; 7 in the Humanities, such as English and Classics; 6 in Biological and Health Sciences, such as Medical Sciences-Pharmacology and Genetics and Development; 8 in Physical, Engineering, and Mathematical Sciences, such as Operations Research and Computer Science; and 3 in the Social and Behavioral Sciences, such as Communication and Applied Economics and Management.

Sixty-one Cornell research doctorate programs were ranked in the study, more than any other private institution. According to the NRC, public universities housed 72% of the doctoral programs ranked. "Cornell is uniquely positioned as both a land grant and a private university. The breadth and number of our doctoral programs places us at the top of the list of private universities in number of programs ranked in this report," said Barbara A. Knuth, vice provost and dean of the Graduate School.

Cornell University collected and contributed data for 63 fields as part of this effort, among its 81 doctoral fields in the Graduate School and 7 doctoral fields in the Weill Cornell Graduate School of

Medical Sciences. Not all fields fit the NRC criteria for inclusion in the study, either because they did not match well to any of the NRC subject area definitions because of their interdisciplinary structure or they did not meet the size threshold needed to participate.

“This study confirms what most of us already know, which is that the quality of Cornell’s graduate fields is outstanding,” University Provost Kent Fuchs said. “In addition to highlighting Cornell’s many strong fields of study, the survey and its program rankings provide another resource for ongoing efforts to assess and improve Ph.D. programs.”

“Our goal, as always, is to understand our strengths and to find ways to improve,” said Barbara Knuth, dean of the Graduate School. “We will carefully review the results from this exhaustive study to determine how they can be used to improve our ongoing efforts to enhance doctoral education at Cornell, and help continually provide high-quality degree programs across all of our major fields of study.”

Some of these rankings vary from the NRC’s 1995 study, which used nearly 20 fewer areas of analysis and employed a simpler methodology. Improvements in rankings from 1995 to 2010 typically reflect changes Cornell implemented since the last survey, such as boosting faculty or building new facilities. However, the 2010 rankings do not reflect changes enacted since the data were collected four years ago.

“NRC data reflects a snapshot of the 2005-2006 academic year. Certain aspects of graduate education at Cornell have changed since then,” Dean Knuth explained. According to Graduate School analysis, since 2005 the Graduate School has become more competitive. Applications to doctoral programs increased 5%, the acceptance rate has declined 17% to 15%, the matriculation rate has increased from 38% to 42%, and the university has provided more funding for graduate student assistantships and fellowships. The number of PhDs awarded in the social sciences and life sciences has also gone up by 10% and 5%, respectively.

Cornell faculty has changed considerably since the NRC data were collected. Nearly one in five faculty members currently at Cornell were not here in 2005 when the data were collected. The new hires resulted in a modest increase in the number of women and minority faculty members.

“U.S. graduate schools prepare the highly skilled workforce necessary to participate and remain competitive in today’s knowledge-based economy,” said Debra W. Stewart, President of the Council of Graduate Schools. “This NRC assessment provides important information about the quality of doctoral education which is so critical to our future.”

Prospective graduate students and others will have direct access to the NRC rankings via a new website. The research tools will help students find doctoral programs that are most appropriate to their academic needs. The NRC website, <http://researchdocs.nas.edu/>, will be available after the public release on September 28, 2010. For more information on the Graduate School rankings, please visit www.gradschool.cornell.edu/nrc.