

**NATIONAL RESEARCH COUNCIL 1993 SURVEY - RESEARCH-DOCTORATE PROGRAMS IN THE UNITED STATES  
 UC COMPARISON PROGRAMS**

**ASTRONOMY AND ASTROPHYSICS DEPARTMENT**

NRC Program Taxonomy	See Definitions of Terms						
	Rank	Percentile	Rating Score	Rating Description	Total Faculty Participating	Total Graduate Students	# PhD's Produced

TOTAL PROGRAMS SURVEYED 33

**Scholarly Quality of Program Faculty**

UCB	3.0	91%	4.65	Distinguished	17	40	15
<b>UCSC</b>	<b>6.0</b>	<b>82%</b>	<b>4.31</b>	<b>Distinguished</b>	<b>17</b>	<b>32</b>	<b>20</b>
UCLA	16.0	52%	3.27	Strong	15	23	14
UCD	not ranked						
UCI	not ranked						
UCR	not ranked						
UCSB	not ranked						
UCSD	not ranked						
UCSF	not ranked						

**Effectiveness of Program in Educating Research Scholars/Scientists**

UCB	2.0	94%	4.53	Extremely Effective
<b>UCSC</b>	<b>4.0</b>	<b>88%</b>	<b>4.14</b>	<b>Extremely Effective</b>
UCLA	18.0	45%	3.05	Reasonably Effective
UCD	not ranked			
UCI	not ranked			
UCR	not ranked			
UCSB	not ranked			
UCSD	not ranked			
UCSF	not ranked			

Distribution of Program Ratings - NRC Table 3-1 and 3.2 page 32-33.  
 Physical Sciences and Mathematics

**Scholarly Quality of Program Faculty**

12% - Distinguished (4.01+)  
 29% - Strong (3.01-4.0)  
 19% - Good (2.51-3.00)  
 19% - Adequate (2.00-2.50)  
 19% - Marginal (1.00-1.99)  
 2% - Not Sufficient (less than 1.0)

**Effectiveness of Program**

20% - Extremely Effective (3.5-5.0)  
 44% - Reasonably Effective (2.5-3.49)  
 26% - Minimally Effective (1.5-2.49)  
 10% - Not Effective (0.0-1.49)

## Definitions of Terms

### **RESEARCH-DOCTORATE PROGRAMS IN THE UNITED STATES - Continuity and Change**

Conducted by Studies and Surveys Unit, Office of Scientific and Engineering Personnel, National Research Council

Survey Conducted 1993  
Published - National Academy Press, 1995

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#### **Program Taxonomy**

Chapter 2 - Study Design

Fields selected to include in the 1993 survey were based on a combination of three factors: 1) The number of Ph.D.s produced nationally; 2) the number of programs training Ph.D.'s within a particular field; and 3) the average number of Ph.D.s produced per program.

Omission from the list does not signal that a program is "poor" or "not distinguished". It simply means that the program may not have been included because patterns of degree production as recorded by the Doctorate Records File did not identify it as eligible and/or the Institutional Coordinator did not include it in the list of programs to be rated at that institution.

*Note:* The taxonomy of Biological Sciences represented a special challenge to analysts because of the wide variation in their administrative organization on campuses throughout the United States.

#### **Rank**

Appendix H-I

The program's ranking within a field. Ranking of the 2 significant variables, 1) quality of the faculty and 2) effectiveness of the program are distinct.

#### **Rating Score**

Appendix J-N

Trimmed mean rating reported by broad field and by institution. The trimmed mean is obtained by dropping the two highest and two lowest scores on the survey before computing the average. Raw scores were converted to a scale of 0 to 5, ratings for each program were summed and an average rating computed.

#### **Rating Description - Faculty Scholarly Quality**

Appendix J-N

For purposes of analysis, scores were converted to a scale of 0 to 5, with 0 denoting "Not Sufficient for doctoral education" and 5 denoting "Distinguished".

The interdisciplinary nature of doctorate studies **allowed multiple listing of the same faculty and program in related fields.**

**Rating Description - Program Effectiveness**

Appendix J-N

For purposes of analysis, scores were converted to a scale of 0 to 5, with 0 denoting "Not Effective" and 5 denoting "Extremely Effective".

**Total Faculty Participating**

Appendix J-N

Total number of faculty participating in the program.

**Total Graduate Students**

Appendix J-N

The number of full and part time graduate students enrolled in the Fall of 1992.

**# Ph.D.s Produced**

Appendix J-N

The number of PhDs produced by that program for the period academic year 1987-1988 to 1991-1992