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# Rating Physics Programs What the NRC Report Says ...and Doesn't Say

By David S. Webster and Tad Skinner

"All these guys in the faculty lounge talk about is where we are ranked; if we could get this guy in our department or get that guy in our department, maybe we can be ranked 15th. *Their aim in life is to be ranked 15th in the nation.*" A University of Illinois/Urbana-Champaign economics professor, quoted by Charles J. Sykes in ProfScam: Professors and the Demise of Higher Education



ith almost the regularity of the United States census and new postscripts to Clark Kerr's Uses of the University, academic quality rankings of PhD-granting programs in the arts, sciences, and engineering in American universities continue to appear about every 10 years. The American Council on Education's last ranking, Kenneth D. Roose and Charles J. Andersen's A Rating of Graduate Programs, was published in 1970, and the Conference Board of Associated Research Councils' five-volume An Assessment of **Research-Doctorate Programs in the** United States appeared in 1982 and early 1983. These were followed, last September, by the publication of Research-Doctorate Programs in the United States: Continuity and Change, a massive volume containing information collected by the National Research Council's Committee for the Study of Research-Doctorate Programs in the United States at the Conference Board's request.

The 1995 rating (hereafter called the *Report*) includes more of almost everything than did the 1982 rating (hereafter called the *Assessment*). It covers 41 disciplines, compared to 32 for the earlier one (up 28 percent); 274 institutions, compared to 228 (up 20 percent); 3,634 programs, compared to 2,699 (up 35 percent); and its reputational ratings are based on the judgments of 7,876 faculty members who returned usable ratings, compared to 5,019 (up 57 percent). It also cost much more to produce—some \$1.2 million, compared to about \$500,000 (up 140 percent).

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The most important change between the Assessment and the Report is that in 1982, tables displaying statistics for programs in each discipline were invariably arranged in alphabetical order by name of institution, not by rank order. That organizational scheme made it exceptionally difficult to determine how institutions rated in any discipline. The Report, on the other hand, arranges a great many numbers in the much more useful format of rank order, although the NRC Committee did not go off the deep end and lower itself to the point of publishing the actual numerical rankings-first, second, third, and so onthat any program held.

As always with academic quality rankings that contain both reputational ratings and objective data, the former-particularly the rating based on "Scholarly Quality of Program Faculty"-have attracted far more attention than any of the objective data. To arrive at its reputational ratings, the Committee asked faculty respondents to rate individual doctoral programs on a scale of 0 ("Not sufficient for doctoral education") to 5 ("Distinguished"). It then discarded the two highest and lowest ratings for each program, and based each program's score on the responses only of "faculty from institutions that were from the upper half of all programs in this field in the overall Faculty Quality ratings."

In addition to this reputational rating, the Report also included an enormous amount of data on other measures, as follows: two other reputational ratings (of "Program Effectiveness in Educating Research Scholars and Scientists" and "Change in Program Quality in the Last Five Years"); eight measures concerning faculty research ability, most of them relating to matters such as publications, citations, and awards and honors; two measures relating to doctoral students; and seven about recent PhD recipients, for a total of 20 measures. (For disciplines in the arts and humanities, the Committee used only two measures of faculty research prowess, rather than five as in other disciplines.)

Although the *Report* is much easier to understand than the utterly unfathomable *Assessment*, it is still anything but reader-friendly. More than 80 percent of its 740 pages consist of tables and figures. Its pages of text contain a great deal of information about the study's design and a few discussions of its findings, but the chapter on findings covers only material about all the institutions included. It reports, for example, only general findings, like "Top-rated programs in most fields tend to have a larger number of faculty and more graduate students than lower-rated programs," and "The vast majority of research-doctorate programs included in the study had faculty who received some type of federal support for research between 1986 and 1992."

The *Report* does not, however, contain so much as a word of discussion about what will interest many readers the most—how individual PhD programs' ratings changed from 1981, when the *Assessment*'s reputational ratings were compiled, to 1993, when the Committee conducted its reputational ratings. That is not all the *Report* leaves out. As Daniel Zalewski put it in a recent piece in *Lingua Franca*, "Its first 146 pages form a sort of how-not-to manual, in which the authors detail the hundreds of things the data *don't* reveal."

#### **FENTON'S CRITICISM**

Allan M. Cartter's 1966 An Assessment of Quality in Graduate Education (hereafter, the Cartter Report) and Roose and Andersen's 1970 Rating of Graduate Programs both received some of their most incisive criticism not from social scientists but from the humanists quoted by W. Patrick Dolan in his bitter denunciation of reputational rankings, The Ranking Game: The Power of the Academic Elite (1976). The ranking that Everett Carll Ladd, Jr., and Seymour Martin Lipset published in 1979 found its most acerbic critic not from among social scientists but rather from the world-class Yale mathematician and enfant terrible, Serge Lang, in his one-ofa-kind book published in 1981, The File: Case Study in Correction (1977-1979). Continuing the tradition of rankings' most provocative critics appearing from the most unpredictable places, by far the most trenchant criticism of the Report we have seen so far has come from one David W. Fenton, a graduate student in musicology at New York University now writing his doctoral dissertation on, of all things, "The Piano Quartet and Quintet in Vienna, 1780-1810." All other critics of the Report

with whose work we are familiar play Salieri to this young expert on Mozart.

Working entirely from the *Report*'s statistics for the discipline of music, he points out some serious problems with them, which he has indefatigably made available on the Internet in more than 100 single-spaced pages of his own criticism and others' responses to it. (It can be found at http://www.bway.net/~dfenton/nrc\_report/nrcintro.html.)

Fenton's attack on the Report's data is devastating. He shows, for example, that there are enormous disparities between the numbers of faculty members teaching in many music PhD programs as listed in the Report, and the numbers as listed in the Directory of Music Faculties in Colleges and Universities, U.S. and Canada, 1993-94 (hereafter, the Directory). For example, the Report lists Indiana University's School of Music as having only six faculty members who teach PhD students, while the Directory lists it as having at least 18. It lists 83 such faculty members for the University of North Texas' College of Music, while the Directory lists 15; 38 for Temple University, while the Directory lists 11; 74 for the University of Illinois at Urbana-Champaign, while the Directory lists 21; and 32 at the State University of New York at Stony Brook, while the Directory lists only 12.

What accounts for these (and many other) enormous discrepancies between the numbers listed in the Report and those in the Directory? According to Fenton, since the Committee's instructions to the Institutional Coordinators in charge of data collection at each institution listed clearly and without ambiguity exactly what it wanted, the coordinators-whose identity the National Research Council won't reveal-must have made a great many errors. In the case of Indiana University, which enrolls more music students, undergraduates and graduates combined, than any music school or department in the United States, he thinks the reason the Report listed only six faculty-less than 10 percent as many as it listed for either the University of North Texas or the University of Illinois at Urbana-Champaign-is because the Report counted only professors in music history and musicology and omitted those in music theory and analysis.

For Illinois at Urbana-Champaign,

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As always with academic quality rankings that contain both reputational ratings and objective data, the former have attracted far more attention than any of the objective data.

on the other hand, the Report may have counted not only all of its faculty in performance, but also all of its adjuncts. According to Fenton, in the case of Temple's music program—which offers a PhD only in music education and has just six faculty members-the Report's figure (38) must have included faculty members teaching all Temple doctoral students. SUNY-Stony Brook's figure, Fenton speculates, must have included its music program's entire faculty, not just those who teach PhD students, and must also have included-despite the Committee's instructions not to do sosome part-time and emeritus faculty.

Fenton also points out that the Report lists some strange figures concerning the number of students in many PhD programs. It lists New York University, his own institution, as having only two graduate students in music, while the actual number in 1993 when the survey was done was about 30 or 40. The number of PhD students the Report lists for other music programs, he argues, including those at the CUNY Graduate School and University Center, the University of Rochester's Eastman School of Music, and the University of Texas at Austin, all seem exceptionally high, strongly suggesting that the Report's figures were based on all doctoral students, or even all graduate students.

Furthermore, Fenton reports, the Committee made absolutely no attempt to check the accuracy of the figures provided by the Institutional Coordinators. An official of the National Research Council told Fenton it would have been impossible for the Committee to check the accuracy of data furnished for more than 3,600 programs. Nevertheless, Fenton argues, the Committee certainly could have attempted to check the accuracy of a small sample-say, 5 percent-or about 180 of the programs. In many cases, Fenton argues, the numbers it published are so far from reality, and would be so obviously wrong to anyone with even a casual knowledge of the discipline of music, that simply eyeballing the data would have revealed many errors.

It is very likely the *Report* contains more errors, even far more errors, for the discipline of music than for most, or even all, other disciplines. This is because music doctoral programs often grant more than one kind of doctoral degree-not only the PhD, but also the Doctor of Arts, Doctor of Musical Arts, Doctor of Music, and Doctor of Education, among others-with many or most faculty in these programs instructing both PhD students and other doctoral students. Most disciplines included in the Report, by contrast, confer only one type of doctoral degree, the PhD. Still, in at least one other discipline, more than one kind of doctoral degree may be granted by the same program. Some programs in religion, for example, may grant both the PhD and the Doctor of Divinity degree.

At any rate, the figures that Fenton challenges are those provided by the Institutional Coordinators. Of the 20 different measures (17 for disciplines in the arts and humanities) for which the *Report* published data, only five were based on data provided by the Institutional Coordinators—those concerning the number of faculty members, the percentage of full professors, the number of PhDs recently produced, the number of students, and percentage of female students in each program.

The *Report*'s reputational ratings, however, although obviously not supplied by the Institutional Coordinators, may also be tainted, because the coordinators provided the faculty members who rated each program with rosters listing the names and academic ranks of the tenure-track faculty members in programs at the coordinators' institutions. If these rosters included more or fewer faculty members than were actually teaching in the programs, or if they erroneously included or excluded the names of well-known scholars, these mistakes could certainly affect the reputational ratings, as well.

#### THE HIGHEST-RATED Comprehensive Institutions

The Committee rated programs from 274 institutions on a five-point scale. Institutions were rated if they offered even one program from among the 41 disciplines the Report covered that met the Committee's eligibility criteria. These criteria were based on how many PhDs the program had granted from 1986 to 1992, and were liberal enough so that those programs included in the Report, taken together, were responsible for about 90 percent of the PhDs conferred in their disciplines between those years, with the proportions ranging from 98 percent in electrical engineering to 79 percent in religion.

To show how universities offering a substantial number of PhD programs compared with each other, we have listed institutions the Committee rated in 15 or more disciplines in Table 1, according to the mean of their programs' ratings for "Scholarly Quality of Program Faculty." Most of the institutions we eliminated from the table—those the Committee rated in fewer than 15 disciplines-were universities with relatively small graduate programs in the arts and sciences, such as the University of Vermont (10 programs), Wake Forest (eight programs), and the University of Maine (five programs). Others were health sciences centers and medical schools, schools emphasizing engineering and technology, and schools offering doctorates in only one discipline, often theology or psychology.

In the tables in this article, we've included ranks for the institutions based on the following method: when two or more institutions were tied in mean score, the ranks at which they were tied were added and the sum was then divided by the number of institutions that were tied. If two institutions were tied for 20th and 21st places, for example, 20 and 21 were added; the sum, 41, was divided by two; and each institution was ranked as tied for the position of 20.5. If three institutions were tied for 20th, 21st, and 22nd places, they were all ranked as tied for 21st.

# Table 1"Scholarly Quality of Program Faculty" by MeanScore of All Programs, for Institutions With 15 orMore Programs Rated

Rank	Institution	Mean Score	Number of Programs Rated
1	Massachusetts Institute of Technology	4.60	23
2	University of California-Berkeley	4.49	37
3	Harvard University	4.40	30
4.5	California Institute of Technology	4.29	19
4 5	Princeton University	4.29	29
6	Stanford University	4.21	43
7	University of Chicago	413	30
<u>,</u> 8	Vale University	4.15	30
0	Cornell University	3.95	37
/ 10	University of California-San Diego	3.03	29
10	Columbia University	3.92	34
11	University of California-Los Angeles	3.85	36
12.5	University of Michigan	3.05	41
12.3	University of Pannaulyania	3.05	36
14	University of Wissensin Medicon	2 70	20
15	University of Wisconsin-Madison	3.70	אכ דכ
10	University of Texas at Austin	3.03	20
1/	University of wasnington	3.00	39
18	Northwestern University	3.58	30
20.5	Carnegie Mellon University	3.50	15
20.5	Duke University	3.56	33
20.5	University of Illinois at Urbana-Champaign	3.56	37
20.5	Johns Hopkins University	3.56	34
23	University of Minnesota	3.45	39
24	University of North Carolina at Chapel Hill	3.44	34
25	Brown University	3.40	30
26	New York University	3.37	25
27	University of California-Irvine	3.35	24
28	University of Virginia	3.34	32
29	Purdue University	3.31	25
30	University of Arizona	3.25	29
31	University of Rochester	3.24	28
32.5	Emory University	3.23	16
32.5	Rutgers University-New Brunswick	3.23	33
34	Washington University	3.22	27
35.5	University of California-Davis	3.18	26
35.5	Pennsylvania State University	3.18	39
37	Ohio State University	3.16	39
38	Indiana University	3.15	28
39	State University of New York		
	at Stony Brook	3.13	30
40	Rice University	3.11	22
41	University of California-Santa Barbara	3.08	32
42.5	University of Colorado	3.05	31
42.5	CUNY Grad. School and University Center	3.05	26
44 5	University of Maryland College Park	3.04	28
44 5	University of Southern California	3.04	26
46	North Carolina State University	3.03	23
47	Texas A&M University	3,00	27
	Vanderhilt University	2.00	26
- <del>1</del> 0 <u>4</u> 0	University of Massachusetts at Amherst	2.99	31
50	University of Iowa	2.97	33

Donk	Institution	Mean	Programs
капк	Institution	Score	Kated
52	University of Florida	2.92	32
52	Georgia Institute of Technology	2.92	16
52	University of Pittsburgh	2.92	40
54	University of Utah	2.90	20
55	Michigan State University	2.89	30
56	Case Western Reserve University	2.88	21
57	Iowa State University	2.81	23
58.5	Arizona State University	2.76	26
58.5	University of Illinois at Chicago	2.76	22
60	Virginia Polytechnic Institute		
	and State University	2.73	19
61	University of California-Riverside	2.72	19
62	University of California-Santa Cruz	2.71	17
63	University of Oregon	2.70	20
64	Oregon State University	2.68	20
65.5	State University of New York at Buffalo	2.65	35
65.5	Syracuse University	2.65	24
68	Colorado State University	2.64	16
68	University of Georgia	2.64	22
68	University of Notre Dame	2.64	22
70	University of Kansas	2.60	33
71	University of Connecticut	2.58	28
72	Florida State University	2.56	24
73	State University of New York at Albany	2.54	16
74	University of Kentucky	2.50	30
75	University of Miami	2.48	18
76 5	University of Hawaii at Manoa	2.10	21
76.5	University of Houston	2.17	21
78	Boston University	2.17	29
70	Louisiana State University		
,,,	and A&M College	2 41	27
80	Temple University	2.11	21
82	Lehigh University	2.10	16
82	Washington State University	2.37	21
87	Wayne State University	2.37	10
82	University of South Carolina	2.37	- 19 
0 <del>4</del> 95 5	University of Cincinnati	2.30	22
05.5	University of Missouri Columbia	2.23	20
00	University of Missouri-Columbia	2.23	24
00		2.22	21
88	University of Oklanoma	2.22	24
00	Vinversity of Tennessee, Knoxvine	2.22	21
90	Character University	2.18	1/
91	Clemson University	2.10	15
92	Texas Tech University	2.14	17
93	State University of New York at Binghamton	2.11	1/
94	West Virginia University	2.10	16
96	George Washington University	2.09	18
96	Tulane University	2.09	24
96	University of Wisconsin-Milwaukee	2.09	16
98	Auburn University	2.01	17
99	Kent State University	1.96	18
100	University of Alabama-Tuscaloosa	1.87	15
101	Oklahoma State University	1.72	16
102	Ohio University	1.71	15
103	Catholic University of America	1.69	19
104	Howard University	1.66	16

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The Committee grouped the 41 disciplines it covered into five broad fields, as follows: arts and humanities; biological sciences; engineering; physical sciences and mathematics; and social and behavioral sciences. The top 20 institutions in each field are shown in Tables 2 through 6. (Note that the Report listed institutions in order of their mean scores only for individual disciplines, not for broad fields such as the arts and humanities and the social and behavioral sciences. Rank orders and mean scores for the five broad fields and for entire institutions [see Tables 1-6] were provided to us by Jean Fort, Assistant Dean of Graduate Studies and Research at the University of California-San Diego.)

There were large differences between some universities' ranks in these broad fields and their ranks as a whole. For example, Cornell rated ninth overall, but only 26th in biological sciences; Columbia, 11th overall, but 37th in engineering; the University of Pennsylvania, 14th overall, but 32nd in physical sciences and mathematics; the University of Wisconsin-Madison, 15th overall, but tied for 27th in arts and humanities; the University of Texas at Austin, 16th overall, but 33rd in biological sciences; the University of Washington, 17th overall, but 34th in arts and humanities; Duke, tied for the rank of 20.5 overall, but 34th in physical sciences and mathematics and 47th in engineering; and Brown, 25th overall, but 53rd in biological sciences.

#### PROGRAMS RATING MUCH Higher Than Their Institutions

The ratings of programs in all 41 disciplines were published in the Chronicle of Higher Education (Sept. 22, 1995) and will not be reprinted here. It is worth noting, however, that some programs rated far higher than did their university as a whole. Duke, for example, which tied for the rank of 20.5 overall, fared much better than that in the humanities. In the area of languages and literatures, it ranked second in comparative literature, second in Spanish and Portuguese, third in French, and was tied at 5.5 in English; it also ranked fourth in religion. The University of California-Irvine likewise fared much better in two language and literature programs than it

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did overall. It ranked 27th overall, but eighth in comparative literature and 10th in French. Other institutions that did much better in particular disciplines than overall were the University of Virginia (28th overall, but fourth in English); CUNY Graduate School and University Center (tied at 42.5 overall, but fourth in music); the University of Massachusetts at Amherst (49th overall, but fourth in linguistics); and the University of Pittsburgh (tied for 52nd overall, but with no fewer than two of the five highest-rated philosophy programs-its philosophy program rated second, and its program in the history and philosophy of science, which split off from Pitt's philosophy department in 1970, rated fifth).

In the social sciences, the University of Arizona rated 30th overall, but was fifth in anthropology; Penn State tied for 35.5 overall, but was first in geography; the University of Florida tied for 52nd overall, but was 11th in anthropology; Washington State University tied for 82nd overall, but was 32nd in sociology; and Boston University rated 78th overall, but was 21st in economics (up from 39th in the 1982 Assessment). This rating—as great an improvement as it represented-still raised the hackles of one Boston University economist who claimed, in a sharply worded letter sent to all Committee members, that the economics program actually deserved to be rated much higher. His evidence consisted partly of a study published in the December 1995 issue of the Journal of Economic Literature, which rated Boston University's economics department eighth in the United States in pages published per faculty member in eight leading economics journals from 1987 to 1991.

#### **PROGRAMS RATING MUCH** LOWER THAN THEIR **INSTITUTIONS**

The most astonishing disparity between an institution's overall rating and its score in any particular discipline in the arts and humanities and the social sciences may have occurred at Yale. Yale ranked eighth overall, yet its philosophy program-which in the Cartter *Report* had rated third in the nation but which never recovered after losing Wilfred Sellars, Adolf Grunbaum, and other philosophers to Pitt in the early

The University of California-Berkeley (pictured) not only achieved the second highest overall mean rating (4.49) of all 274 institutions rated, it had 36 programs rated in the top 10 in their disciplinesahead of Stanford (32), Harvard (26), Princeton (22), and MIT (20).



Number of

#### TABLE 2 TOP 20 INSTITUTIONS IN ARTS AND HUMANITIES (OF THOSE THAT HAD AT LEAST FIVE OF THE 11 SUCH PROGRAMS RATED)

Rank	Institution	Mean Score	Programs Rated
1	University of California-Berkeley	4.36	10
2	Princeton University	4.28	10
3	Harvard University	4.20	11
4	Columbia University	4.12	9
5	Yale University	3.95	9
6	Cornell University	3.93	10
7	University of Pennsylvania	3.88	11
9	University of Chicago	3.85	10
9	Duke University	3.85	8
9	Stanford University	3.85	11
11	University of California-Los Angeles	3.67	10
12	University of Michigan	3.66	10
13	University of California-Irvine	3.63	6
14	Johns Hopkins University	3.55	7
15	University of Virginia	3.54	8
16	CUNY Graduate School		
	and University Center	3.45	8
17	Brown University	3.42	10
18	University of Texas at Austin	3.40	10
19	University of California-San Diego	3.37	6
20	Northwestern University	3.23	7

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## TABLE 3TOP 20 INSTITUTIONS IN BIOLOGICAL SCIENCES (OF THOSE THATHAD AT LEAST THREE OF THE SEVEN SUCH PROGRAMS RATED)

D I		Mean	Number of Programs
Rank	Institution	Score	Rated
1	University of California-San Francisco	4.67	5
2	Massachusetts Institute of Technology	4.54	5
3	Harvard University	4.43	6
4.5	University of California-San Diego	4.42	7
4.5	Stanford University	4.42	8*
6	Yale University	4.40	7
7	University of California-Berkeley	4.36	5
8	Rockefeller University	4.31	3
9	Washington University	4.19	5
10	University of Washington	4.18	7
11	Columbia University	4.15	6
12.5	California Institute of Technology	4.07	6
12.5	Duke University	4.07	7
14	University of Wisconsin-Madison	4.04	7
15	University of Pennsylvania	4.03	7
16.5	University of Chicago	3.99	7
16.5	Johns Hopkins University	3.99	7
18	University of Texas Southwestern		
	Medical Center	3.94	5
19	University of California-Los Angeles	3.93	6
20	Baylor College of Medicine	3.87	6

\* Stanford is listed as having eight programs because it had two programs rated in cell and developmental biology, one in its School of Medicine and one in its School of Arts and Sciences. In addition to being rated first in the Biological Sciences (Table 3), the University of California-San Francisco secured the highest rating for program effectiveness with its Molecular and General Genetics program (Table 9).





When institutions with a substantial number of PhD programs were compared according to the mean of their programs' ratings for faculty scholarly quality, MIT (pictured) rated first—ahead of UC-Berkeley, Harvard, CalTech, Princeton, and Stanford (Table 1). In addition, MIT was first in Engineering (Table 4), second in Physical Sciences and Mathematics (Table 5), and had three of the 12 programs that scored the highest for program effectiveness (Table 9).

# TABLE 4TOP 20 INSTITUTIONS IN ENGINEERING (OF THOSE THAT HADAT LEAST FOUR OF THE EIGHT SUCH PROGRAMS RATED)

Rank	Institution	Mean Score	Number of Programs Rated
1	Massachusetts Institute of Technology	4.65	7
2	University of California-Berkeley	4.47	7
3	Stanford University	4.33	8
4	California Institute of Technology	4.31	6
5	Cornell University	4.16	6
6	Princeton University	4.13	5
7	University of Illinois at		
	Urbana-Champaign	4.05	7
8	University of Michigan	4.00	8
9	University of California-San Diego	3.92	4
10	University of Minnesota	3.85	7
11	Northwestern University	3.84	7
12	Purdue University	3.83	7
13	University of Texas at Austin	3.82	7
14	Carnegie Mellon University	3.80	5
15	University of Pennsylvania	3.71	5
16.5	University of California-Santa Barbara	3.70	4
16.5	University of Wisconsin-Madison	3.70	7
18	Georgia Institute of Technology	3.60	7
19	University of California-Los Angeles	3.50	6
20	Pennsylvania State University	3.44	8

# Table 5Top 20 Institutions in Physical Sciences and Mathematics(of Those That Had at Least Four of the Eight SuchPrograms Rated)

Rank	Institution	Mean Score	Number of Programs Rated
1	University of California-Berkeley	4.74	8
2	Massachusetts Institute of Technology	4.69	7
3	California Institute of Technology	4.61	6
4	Harvard University	4.50	7
5	Princeton University	4.48	6
6	Cornell University	4.36	7
7	University of Chicago	4.30	7
8	Stanford University	4.22	10*
9	University of California-San Diego	4.07	6
10	University of Texas at Austin	4.04	6
12	University of California-Los Angeles	3.97	7
12	Columbia University	3.97	8
12	Yale University	3.97	6
14	University of Washington	3.91	9**
15	University of Illinois at Urbana-Champaign	3.89	7
16	University of Wisconsin-Madison	3.81	8
17	Brown University	3.73	6
18	Carnegie Mellon University	3.66	5
19	Purdue University	3.58	6
20	Rice University	3.56	6

\* Stanford is listed as having 10 programs because it had three programs that were rated in geosciences—its programs in geosciences, geophysics, and applied earth sciences.

\*\*The University of Washington is listed as having nine programs because it had two in mathematics (one in mathematics and one in applied mathematics) and two in the discipline of statistics and biostatistics (one in statistics and one in biostatistics).

Princeton (pictured), rated fifth in the Physical Sciences and Mathematics (Table 5), had 22 of 29—or 76 percent of its programs rated among the top 10 in their disciplines, behind UC-Berkeley, Harvard, and MIT.



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1960s—plummeted to tied for 59.5, behind the philosophy programs at Temple, the University of Miami, and the University of Nebraska-Lincoln, and in the lowest 20 percent of all philosophy programs the *Report* rated.

Neither Stanford nor the University of Wisconsin-Madison fared nearly as well in the humanities as overall. Stanford, while sixth overall, rated 15th in music, 16th in classics, and 17th in Spanish and Portuguese. The University of Wisconsin-Madison, while 15th overall, rated 22nd in English, 32nd in linguistics (out of only 41 programs rated in this discipline), 32nd in music, 35th (of 38) in art history, and 37th (of 44) in comparative literature. Thus Wisconsin-Madison—which ranked behind only the University of Michigan in the Big Ten Conference and was the fifthrated public institution in the entire survey-saw its programs in linguistics, art history, and comparative literature all rated in the bottom quarter of programs in their disciplines.

In the social sciences, programs that rated considerably lower than their institutions included Cornell's (ninth overall) anthropology program, 31st, and its sociology program, 35th; Pur-

# Table 6Top 20 Institutions in Social and Behavioral Sciences(of Those That Had at Least Three of the Seven SuchPrograms Rated)

Rank	Institution	Mean Score	Number of Programs Rated
1	Harvard University	4.61	6
2	University of Chicago	4.56	6
3	University of California-Berkeley	4.48	7
4	University of Michigan	4.45	6
5	Stanford University	4.43	6
6	Yale University	4.33	6
7.5	University of California-Los Angeles	4.22	7
7.5	Princeton University	4.22	6
9	University of Wisconsin-Madison	4.15	7
10	Columbia University	3.97	6
11	University of Pennsylvania	3.94	6
12.5	University of California-San Diego	3.78	6
12.5	Northwestern University	3.78	6
14	University of Minnesota	3.76	7
15	Cornell University	3.67	6
16	Duke University	3.63	6
17	University of Washington	3.57	7
18	University of North Carolina		
	at Chapel Hill	3.55	7
19	University of Texas at Austin	3.53	7
20	University of Illinois at		
	Urbana-Champaign	3.50	7





Mean

Of the 3,634 programs rated, Stanford's (pictured) Computer Science program had the highest mean score for faculty scholarly quality (Table 7), and Stanford had the second largest number (32) of programs rated in the top 10 in their disciplines, after UC-Berkeley's 36 programs. TABLE 7 The 10 Highest Scores, Plus Ties, for "Scholarly Quality of Program Faculty"

Institution	Discipline	Score
Stanford University	Computer	
	Science	4.97
University of California-Berkeley	Chemistry	4.96
University of Chicago	Economics	4.95
Harvard University	Economics	4.95
University of California-Berkeley	Mathematics	4.94
California Institute of Technology	Chemistry	4.94
Princeton University	Mathematics	4.94
Massachusetts Institute		
of Technology	Economics	4.93
Princeton University	Philosophy	4.93
Massachusetts Institute		
of Technology	Mathematics	4.92
Stanford University	Economics	4.92

### Table 8The 10 Lowest Scores for "Scholarly Quality of Program Faculty"

		Mean
Institution	Discipline	Score
University of Southern Mississippi	Cell & Developmental Biology	0.13
University of Alaska	Biochemistry & Molecular Biology	0.15
Georgia Institute of Technology	Cell & Developmental Biology	0.16
Northern Arizona University	Molecular & General Genetics	0.17
Stevens Institute of Technology	Psychology	0.20
Northern Arizona University	Biochemistry & Molecular Biology	0.21
Oklahoma State University	Computer Science	0.21
University of Idaho	Molecular & General Genetics	0.24
University of California-Santa Cruz	Pharmacology	0.25
Clark University	Molecular & General Genetics	0.30

#### Table 9 The 10 Highest Scores, Plus Ties, for "Program Effectiveness in Educating Research Scholars and Scientists"

<b>N</b>	Mean
Discipline	Score
Molecular & General Genetics	4.80
Astrophysics & Astronomy	4.75
Chemistry	4.75
Molecular & General Genetics	4.75
Biochemistry & Molecular Biology	4.73
Chemistry	4.72
Physics	4.71
Economics	4.71
Chemistry	4.70
Economics	4.69
Mathematics	4.69
Physics	4.69
	Discipline Molecular & General Genetics Astrophysics & Astronomy Chemistry Molecular & General Genetics Biochemistry & Molecular Biology Chemistry Physics Economics Chemistry Economics Mathematics Physics

due's (29th overall) history program, 68th; and the University of Rochester's (31st overall) anthropology program, tied for 66th (of 69).

#### FACULTY SCHOLARLY QUALITY, PROGRAM EFFECTIVENESS, AND CHANGE IN PROGRAM QUALITY

Of the more than 3,600 programs the Committee rated, the 10 (plus ties) that rated highest for "Scholarly Quality of Program Faculty" are shown in Table 7. Ten of these 11—all except Princeton's philosophy program—are in quantitative disciplines, with four in economics and three in mathematics. The University of California-Berkeley, MIT, Princeton, and Stanford are each represented by two programs.

The 10 lowest-rated programs for faculty scholarly quality are shown in Table 8. Eight of these programs are in

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the biological sciences, with none from either the humanities or engineering. Northern Arizona University, although it had only eight programs included in the *Report*, has two programs rated among the bottom seven, both in biological sciences.

The programs with the 10 highest scores (plus ties) for "Program Effectiveness in Educating Research Scholars and Scientists" are shown in Table 9. All 12 of these programs are in biological sciences, physical sciences and mathematics, and economics. MIT and Princeton are each represented by three programs; the University of California-San Francisco and California Institute of Technology are both represented by two.

The programs with the 10 lowest scores (plus ties) for program effectiveness—all received scores of 0 on the scale of 0 to 5—are shown in Table 10. Twelve of these 15 programs are in the biological sciences. The University of Idaho is represented by three programs; no other institution houses more than one.

The Committee measured how faculty respondents observed the programs to have changed in quality during the five years prior to the survey, 1988 to 1993, by having them indicate the programs in their discipline that had improved in quality; had declined in quality; and had undergone little or no change. The Committee then translated the three types of responses into +1, -1, and 0, respectively, and converted the faculty responses into mean scores. If all respondents indicated that a program had improved in quality, its score was +1; if all respondents indicated that a program had declined in quality, its score was -1. Since the 1995 rating included eight disciplines that were

#### TABLE 10 The 10 Lowest Scores, Plus Ties, for "Program Effectiveness in Educating Research Scholars and Scientists"

		Mean
Institution	Discipline	Score
University of Alaska	Biochemistry & Molecular Biology	0.00
Boston University School of Arts and Sciences	Biochemistry & Molecular Biology	0.00
Georgia Institute of Technology	Cell & Developmental Biology	0.00
University of Idaho	Molecular & General Genetics	0.00
University of Idaho	Neurosciences	0.00
University of Idaho	Physiology	0.00
Indiana University of Pennsylvania	Linguistics	0.00
Miami University	Neurosciences	0.00
New Mexico Institute of Mining and		
Technology	Computer Science	0.00
Northern Arizona University	Neurosciences	0.00
University of Southern Mississippi	Cell & Developmental Biology	0.00
Stevens Institute of Technology	Psychology	0.00
Texas Woman's University	Neurosciences	0.00
University of Tulsa	Ecology, Evolution, & Behavior	0.00
Utah State University	Cell & Developmental Biology	0.00

not included in 1982, since the later rating defined the disciplines in biological sciences quite differently from the way the earlier rating defined them, and since even for disciplines that were included in both ratings, some programs were included only in one of them, the Report includes calculations of change for 1,916 of the 3,634 programs (53 percent) in 27 of the 41 disciplines (66 percent). The 10 programs that the greatest proportion of respondents rated as having improved from 1988 to 1993 are shown in Table 11. Six of these programs are in biological sciences. The University of California-Santa Barbara is represented twice, both times in engineering.

The 10 programs that the largest percentage of respondents thought had declined in quality from 1988 to 1993 are shown in Table 12. While the 11 arts and humanities disciplines are nearly absent from Tables 7 through 11, which list only three such programs, three of the 10 programs regarded by the greatest proportion of respondents as having declined in quality in the previous five years are from arts and humanities. They are philosophy at Yale, Spanish and Portuguese at SUNY-Stony Brook, and French at Johns Hopkins. Remarkably, while French at Johns Hopkins is one of the 10 programs that the most raters regarded as having declined in the previous five years, its rating for faculty scholarly quality still somehow improved from 31st in 1982 to tied for 18.5 in 1995. (Note that if we had measured change by comparing programs' mean scores or standard scores in the 1982 Assessment with those in the 1995 Report, the programs listed as having improved or declined the most would almost certainly have been quite different from the ones shown in Tables 11 and 12.)

#### PROGRAMS WITH GREAT DISPARI-TIES BETWEEN FACULTY SCHOLARLY QUALITY AND PROGRAM EFFECTIVE-NESS SCORES

As usual in reputational ratings of PhD-level education in the arts, sciences, and engineering, the Report showed a very high correlation between the measures of faculty scholarly quality and program effectiveness; of the 41 disciplines covered, the first 10 in alphabetical order-from aerospace engineering to civil engineering-had correlations ranging from .95 to .98 and averaging .97. However, for a small number of programs, there were large disparities. In 16 programs, or less than .5 percent of those covered, their program effectiveness score was at least one point higher on the five-point scale than their faculty scholarly quality score. These programs are shown in Table 13. Thirteen of these programs were from biological sciences; the other three were all from social and behavioral sciences.

In four programs, or .1 percent of

those included, there was a disparity of one point or more between the two measures, with faculty scholarly quality scoring higher than program effectiveness. These four programs are shown in Table 14. Three of these four programs are from arts and humanities.

#### THE UNIVERSITY OF CALIFOR-NIA'S OUTSTANDING RATINGS

The University of California (UC) system rated extraordinarily well in many areas, as did two of its campuses, UC-Berkeley and UC-San Diego.

#### **UC-Berkeley**

UC-Berkeley rated exceptionally high any way you look at the Report's figures. It achieved the second highest overall mean rating (4.49) of all 274 institutions rated, below only MIT. It had more programs rated in the top 10 in their disciplines (36) than did any other institution, ahead of Stanford (32), Harvard (26), Princeton (22), and MIT (20). It also had the highest proportion of its programs rated in the top 10 in their disciplines (36 of 37, or 97 percent), ahead of Harvard (26 of 30, 87 percent), MIT (20 of 23, 87 percent), Princeton (22 of 29, 76 percent), and Stanford (32 of 43, 74 percent)---the only other institutions that had more than 70 percent of their programs rated in the top 10. Of Berkeley's 37 programs included in the *Report*, five were



first, or tied for first, in their disciplines. Berkeley was rated first in chemistry and German and was tied for the rank of 1.5 in mathematics as well as in statistics (although it rated lower in biostatistics) and for the rank of 2.0 in English. Twenty of its programs were rated anywhere from second to fifth (including any ties) in their disciplines, and 11 more were rated from sixth to 10th. The only Berkeley program that rated lower than 10th was cell and developmental biology (13th).

#### UC-San Diego

UC-San Diego rated extraordinarily

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well, particularly for an institution that became a UC campus as recently as 1964. It was rated 10th in mean score (3.93) for faculty scholarly qualityhigher than older and larger UCLA, higher than any public university campus in the United States except Berkeley, and higher than such highly regarded private universities as Columbia, the University of Pennsylvania, and Northwestern. Two of its programs-in neurosciences and oceanography-rated first in the United States. Three more programs at UC-San Diego rated from second to fifth, and nine more from sixth to 10th, for a total of 14 of its 29 doctoral programs (48 perOf the University of California system's 229 programs included in the study, an impressive total of 119—or 52 percent rank in the top 20 in their disciplines. The eight UC campuses with 15 or more programs rated achieve a higher mean score than do the much older 11 schools in the Big Ten. UC-San Diego (pictured left), rating 10th for faculty scholarly quality (Table 1), passed not only older and larger UCLA (pictured below), but such highly regarded private universities as Columbia, the University of Pennsylvania, and Northwestern.



cent) that were rated in their discipline's top 10.

#### The UC System

Impressive as are the ratings of UC-Berkeley and UC-San Diego, the showing of the UC system as a whole is even more remarkable. Of its 229 programs included in the study, 119—or 52 percent—rank in the top 20 in their disciplines. The nine UC campuses represent only 3 percent of the 274 institutions included, and the eight UC campuses (all but UC-San Francisco) that have 15 or more programs rated represent only 8 percent of the 104 institutions in

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### TABLE II The 10 Programs That the Largest Proportion of Respondents Thought Had Improved, 1988-1993

		Mean
Institution	Discipline	Score
University of Alabama at Birmingham	Ecology, Evolution, & Behavior	+1.00
Lehigh University	Cell & Developmental Biology	+1.00
Loma Linda University	Ecology, Evolution, & Behavior	+1.00
University of New Orleans	Psychology	+1.00
Rutgers University-New Brunswick	Philosophy	+0.91
University of California-Santa Barbara	Materials Science	+0.88
Baylor College of Medicine	Molecular & General Genetics	+0.83
North Carolina State University	Physiology	+0.83
University of California-Santa Barbara	Chemical Engineering	+0.82
University of Tennessee, Memphis	Cell & Developmental Biology	+0.82

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University, Loma Linda University, and the

University of New Orleans.

### TABLE 12The 10 Programs That the Largest Proportion of Respondents Thought Had Declined,1988-1993

		Mean
Institution	Discipline	Score
Boston University	Neurosciences	-1.00
University of California-San Francisco	Psychology	-1.00
Stevens Institute of Technology	Psychology	-1.00
Yale University	Philosophy	-0.94
University of Notre Dame	Materials Science	-0.88
State University of New York College		
of Environmental Science and Forestry	Chemistry	-0.87
University of Idaho	Molecular & General Genetics	-0.75
Indiana University	Physiology	-0.75
State University of New York		
at Stony Brook	Spanish & Portuguese Language	
	& Literature	-0.73
Johns Hopkins University	French Language & Literature	-0.72

### Table 13Programs in Which the Program Effectiveness Score Was at Least One Point HigherThan the Faculty Scholarly Quality Score

Institution	Discipline	Difference
University of Louisville	Molecular & General Genetics	2.06
State University of New York at Binghamton	Physiology	1.83
Virginia Polytechnic Institute		
and State University	Physiology	1.70
Illinois State University	Physiology	1.55
State University of New York at Binghamton	Cell & Developmental Biology	1.34
Jewish Theological Seminary	History	1.26
University of Wisconsin-Milwaukee	Psychology	1.21
Albany Medical College	Molecular & General Genetics	1.20
University of Puerto Rico-Rio Piedras	History	1.17
Miami University	Cell & Developmental Biology	1.15
Florida State University	Molecular & General Genetics	1.13
Florida State University	Cell & Developmental Biology	1.06
Wake Forest University	Molecular & General Genetics	1.04
Bowling Green State University	Physiology	1.00
Clark Atlanta University	Biochemistry & Molecular Biology	1.00
University of Nebraska-Lincoln	Molecular & General Genetics	1.00

this category. Remarkably, however, these nine house 15 percent of the nation's top 20 programs, 19 percent of its top 10 programs, and fully 20 percent of its top five programs. Six of the nine UC campuses placed one or more programs in the top five in their disciplines, and eight of the nine—all but UC-Riverside—placed one or more programs in the top 10.

The eight UC campuses with 15 or more programs rated, taken as a group, achieve a higher mean score than do the 11 schools in the Big Ten. They score an average of 3.55 in faculty scholarly

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quality, compared to the Big Ten's 3.37, and 3.38 in program effectiveness, compared to the Big Ten's 3.32. This performance is astonishing, considering that the Big Ten universities, taken as a group, are much older than the UC campuses and have much larger faculties (reputational rankings of doctoral programs generally correlate quite highly with size of program faculty). It is all the more astonishing when one considers that eight of the Big Ten universities—all except Indiana, Michigan State, and Northwestern—are, according to the *Report*, the highest-rated public research universities in their states.

In the past 40 years or so, many states that long had only one state university campus have established one or more other campuses, and some states are developing their new campus(es) to eventually achieve parity with the flagship campus. As of now, however, none of these non-flagship campuses has achieved anything approaching parity with any of the UC's five highest-rated non-flagship campuses, as shown in Table 15.

Of the 12 non-flagship campuses that have 15 or more programs rated, fully



seven are UC campuses. The highestrated non-flagship campus that is not part of the UC system, the University of Illinois at Chicago, falls behind five non-flagship UC campuses. In addition, the other four non-flagship campusesthe SUNY campuses at Buffalo, Albany, and Binghamton, and the University of Wisconsin-Milwaukee—score below all seven UC non-flagship campuses that had 15 or more programs rated. California, with a 1994 population of about 31 million, thus had a state university system in which five of its non-flagship campuses with 15 or more programs included rated above any similar campuses in such populous states as Texas (18 million), New York (18 million), Florida (14 million), Pennsylvania (12 million), and Illinois (12 million).

UC's rating is all the more noteworthy considering that in 1978 California passed Proposition 13, which lowered property taxes and is regarded as having severely hurt public higher education. It is even more impressive considering that the Committee polled faculty members for its reputational ratings in May 1993, Table 14 Programs in Which the Faculty Scholarly Quality Score Was at Least One Point Higher Than the Program Effectiveness Score

Institution	Discipline	Difference
Johns Hopkins University	Classics	1.19
 University of California-Irvine	French	
·	Language	
	& Literature	1.07
 University of California-Berkeley	Philosophy	1.00
 Drexel University	Ecology,	
-	Evolution,	
	& Behavior	1.00

just after UC had lost many of its most senior faculty members due to the attractive financial incentives it had offered in 1990 and 1991 to induce faculty members to retire early. (Since many other major universities—especially public universities—offered attractive buy-outs to their most senior faculty just *after* the Committee polled faculty members for its reputational rating, the *Report* may have been well out-of-date by the time it was published last September.)

#### THE RATINGS OF CATHOLIC UNIVERSITIES

Cass & Birnbaum's Guide to American Colleges (16th edition, 1994) counts 194 Catholic-affiliated colleges and universities, the largest body of religious institutions in the U.S. Three Catholic institutions—Boston College, Georgetown, and Notre Dame—rate among the top 3 percent of all colleges in terms of student selectivity (Barron's *Profiles of American Colleges*, 1994);

### Table 15Non-Flagship Campuses\* and Where They Rate by Mean Score

Rank Among Institutions With 15 or More Rated Doctoral Programs	Mean Score	Rank Among Non-flagship Campuses	Institution
10	3.93	1	University of California-San Diego
12.5(T)	3.85	2	University of California-Los Angeles
27	3.35	3	University of California-Irvine
35.5(T)	3.18	4	University of California-Davis
41	3.08	5	University of California-Santa Barbara
58.5(T)	2.76	6	University of Illinois at Chicago
61	2.72	7	University of California-Riverside
62	2.71	8	University of California-Santa Cruz
65.5(T)	2.65	9	State University of New York at Buffalo
73	2.54	10	State University of New York at Albany
93	2.11	11	State University of New York at Binghamton
96(T)	2.09	12	University of Wisconsin-Milwaukee

\* Non-flagship campuses are defined as all campuses in each state university system other than the campus with the highest mean score. (T) = Tied

dozens of others command regional followings. As a group, however, the Report underscores that these institutions didn't make their reputations on the basis of PhD programs. Of the 194, only 16 offered one or more PhD programs that met the Committee's modest criteria for being rated. Three of these-Manhattan College, Marquette University, and Villanova University-chose not to participate; two more-the University of Dallas and DePaul University-didn't get their information to the Committee on time. That left just 11-6 percent of all Catholic institutionsto be rated, with the results displayed in Table 16.

Although the Committee rated PhD programs in 41 disciplines, and some 30 private universities had programs rated in at least 25 of these, no Catholic institution offered PhD programs meeting the Committee's standards for inclusion in as many as 25 disciplines, and only two-Notre Dame (22 disciplines) and Catholic University of America (19)-offered PhD programs in more than 14 disciplines. Of the 14 charter members of the Association of American Universities (AAU), founded in 1900, 12 are still among America's most highly regarded institutions, ranking tied for 26th or higher for faculty scholarly quality. Catholic University of America, by contrast, although one of the charter members, plunged to tied

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for 221st—far below any other original AAU member except Clark University, which fell to 235th.

#### BIGGEST GAINS AND LOSSES IN OVERALL ORDINAL POSITION AND MEAN SCORE, 1982 TO 1995

To determine the institutions that gained or lost the most ordinal positions and whose mean scores improved or declined the most from 1982 to 1995, we selected all institutions that had 15 or more programs rated in 1995 and that were also ranked among the top 100 institutions-counting institutions with fewer than 15 programs rated—in 1995. We then compared the institutions' ordinal positions and mean scores in the 1995 Report with their ordinal positions and mean scores in the 1982 Assessment. The institutions with the largest gains in ordinal position are shown in Table 17; those with the largest gains in mean score in Table 18; those with the largest declines in ordinal position in Table 19; and all those that declined in mean score, however slightly, are shown in Table 20.

Taken as a group, these four tables show that institutions in the Sun Belt fared better than those in the Frost Belt. Of institutions that showed the largest gains in ordinal position, eight are located in the Sun Belt; only two—Case Western Reserve and Notre Dame—are located in the Frost Belt. Of those showing the largest gains in mean score, seven are in the Sun Belt, and three—Case Western Reserve, the University of Utah, and Washington University—are in the Frost Belt. The large majority of those that declined the most in ordinal position and mean score are in the Frost Belt. Seven of those that declined the most in ordinal position are in the Frost Belt, and only three—Georgia Institute of Technology, UC-Santa Cruz, and Virginia Polytechnic Institute and State University—are in the Sun Belt. All five that declined in mean score are in the Frost Belt.

Private institutions fared better than public ones, at least in that they were not among the biggest decliners in ordinal position. The institutions shown in Tables 17, 18, and 20 are fairly evenly split between those that are private and those that are public—14 (56 percent) are public, and 11 (44 percent) are private. However, all 10 institutions shown in Table 19—those that declined most in ordinal position from 1982 to 1995 are public.

By far the biggest gainer—both in ordinal position and in mean score—was Emory University, which has obviously put the \$105 million in Coca-Cola money it got in 1979 to good use. Emory now has an endowment of more than \$2.2 billion, ranking sixth, as of June 1995, among U.S. universities and university systems.

SUNY-Buffalo declined by far more



While Georgetown, Notre Dame, and Boston College (pictured) rate among the top 3 percent of schools in admissions selectivity for freshmen, Catholic-affiliated institutions, as a group, have not made their reputations on the basis of PhD programs.



By far the biggest gainer in both ordinal position and in mean score, Emory University gained 91.5 ordinal positions between 1982 and 1995 (Table 17) and gained 1.2 points in mean score over the same period (Table 18).



ordinal positions than did any other school. It was also one of only two schools-the other is Indiana University-to rank both among the 10 schools that lost the most ordinal positions and among the five that declined in mean score. Between the 1966 Cartter Report and the 1970 Roose-Andersen study, SUNY-Buffalo's reputation improved enormously, but it has since fallen on hard times. Now tied for an ordinal position of 65.5 and a mean score of 2.65, it ranks far behind SUNY-Stony Brook

#### TABLE 16 **RANK AND MEAN SCORES OF THE CATHOLIC UNIVERSITIES**

		Number of	
		Disciplines	Mean
Rank	Institution	Rated	Score
88.5 (T)	Georgetown University	14	2.71
96 (T)	University of Notre Dame	22	2.64
111 (T)	Saint Louis University	10	2.47
124 (T)	Boston College	10	2.38
140	Loyola University of Chicago	10	2.23
194.5 (T)	Creighton University	2	1.87
202.5 (T)	Saint John's University (New York)	4	1.82
221 (T)	Catholic University of America	19	1.69
233	Duquesne University	3	1.56
234	Fordham University	11	1.55
273	University of Detroit Mercy	3	0.69
(T) = Tied	······		

#### TABLE 17 INSTITUTIONS WITH THE 10 LARGEST GAINS IN ORDINAL **POSITION, 1982-1995\***

	1982	1995	
	Ordinal	Ordinal	Positions
Institution	Position	Position	Gained
Emory University	136	44.5 (T)	91.5
Case Western Reserve			
University	122	77	45
Vanderbilt University	93	64	29
University of California-			
Riverside	112 (T)	86.5 (T)	25.5
Texas A&M University	85.5 (T)	63	22.5
Rice University	72.5 (T)	53	19.5
University of Arizona	56.5 (T)	41	15.5
University of Utah	89.5 (T)	74.5 (T)	15
North Carolina State			
University	75	62	13
University of Notre Dame	109 (T)	96 (T)	13
	Institution Emory University Case Western Reserve University Vanderbilt University University of California- Riverside Texas A&M University Rice University University of Arizona University of Utah North Carolina State University University of Notre Dame	InstitutionOrdinal PositionEmory University136Case Western Reserve122University122Vanderbilt University93University of California- Riverside112 (T)Texas A&M University85.5 (T)Rice University72.5 (T)University of Arizona56.5 (T)University of Utah89.5 (T)North Carolina State University of Notre Dame75University of Notre Dame109 (T)	Ordinal PositionOrdinal PositionInstitutionPositionPositionEmory University13644.5 (T)Case Western Reserve12277University9364University of California- Riverside112 (T)86.5 (T)Texas A&M University85.5 (T)63Rice University72.5 (T)53University of Arizona56.5 (T)41University of Utah89.5 (T)74.5 (T)North Carolina State University of Notre Dame109 (T)96 (T)

\* Includes institutions that had 15 or more programs rated in 1995 and were also rated among the top 100 institutions by mean score (counting those with fewer than 15 programs rated) in 1995. (T) = Tied

(with an ordinal position of 39 and mean score of 3.13) and barely ahead of SUNY-Albany (with an ordinal position of 73 and mean score of 2.54).

#### **PRESS COVERAGE: ASSESSMENT** VERSUS REPORT

While dozens of newspapers have published stories about the Report, almost all these have focused on how institutions in the newspapers' cities or circulation areas fared. Since none of the three largest-circulation American

newsmagazines-Time, Newsweek, and U.S. News & World Report-devoted even an inch of space to the Report, there has been little coverage of it from a national, as opposed to a local or regional, perspective. Furthermore, other than David W. Fenton's material on the Internet, little has been published analyzing, evaluating, or critiquing the Report.

Several major metropolitan newspapers gave the 1982 rating considerably more coverage than they gave the 1995 one-if they covered the latter at all.



#### TABLE 18 INSTITUTIONS WITH THE 10 LARGEST GAINS IN MEAN SCORE, 1982-1995\*

		1982	1995	
		Mean	Mean	
Rank	Institution	Score	Score	Gain
1	Emory University	2.01	3.23	1.22
2	Case Western Reserve			
	University	2.11	2.88	0.77
3	Vanderbilt University	2.32	2.99	0.67
4	Texas A&M University	2.39	3.00	0.61
5	University of California-			
	San Diego	3.35	3.93	0.58
6	Rice University	2.54	3.11	0.57
7.5	North Carolina State	••••••		
	University	2.48	3.03	0.55
7.5	University of Utah	2.35	2.90	0.55
9	University of Arizona	2.72	3.25	0.53
10	Washington University	2.72	3.22	0.50

\* Includes institutions that had 15 or more programs rated in 1995 and were also rated among the top 100 institutions by mean score (counting those with fewer than 15 programs rated) in 1995.

Even when they did cover the 1995 rating, they often gave it fewer inches and played it less prominently than they did the earlier one. Perhaps the newspaper whose coverage of the two ratings differed the most is the Washington Post. It devoted four news stories over several months, totaling more than 100 column inches, to the 1982 rating. However, more than eight months after the publication of the 1995 rating, the Post has not run a single story about it.

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Other major newspapers also covered the 1982 rating, but not the one published in 1995. The Chicago Tribune, for instance, published two stories totaling about 60 column inches on the 1982 rating-both of which started on page 1-but did not cover the 1995 rating at all. Similarly, the Philadelphia Inquirer, which gave the 1982 rating about 25 column inches, did not cover the 1995 rating.

Some newspapers covered both rat-

ings, but much more fully or prominently in 1982. The Boston Globe gave the 1982 rating about 165 column inches, starting on page 1, but gave the 1995 rating only about 100 column inches, starting on page 21. The New York Times gave the earlier rating about 100 column inches, starting on page 1, and the later one almost as many inches, but with the major story starting in the second section and a short editorial appearing near the back of the first section.

Why did many (although not all) major metropolitan newspapers give the 1982 rating more coverage than the later one? There are at least three possible reasons. First, since 1982 the public's interest in ratings of colleges and universities-at least in the eyes of newspaper editors-may have been sated by the numerous ratings of colleges and universities that have appeared in U.S. News & World Report (starting in 1983) and Money magazine (starting in 1990). Second, as Carol Innerst, education editor of the Washington Times, has suggested, newspaper editors do not generally hold the ratings of colleges and universities that appear in popular magazines in high regard, so they may have given short shrift to the recent Report because they considered it on a par with those in popular magazines. Third, as Innerst has observed, the National Academy of Sciences (NAS), which published both ratings, provided very little advance notice to newspaper editors in the way of press releases; it did not call to alert her to the Report, even though she works in the city in which the NAS is located. Nor did the NAS release the immense study early to the press, even though doing so would have given reporters time to familiarize themselves with it before it was released to the public.

#### CONCLUSION

The Committee should be congratulated for amassing and publishing an enormous amount of data, thereby providing a gold mine of material for scholars writing for the navel-gazing journals of their disciplines, such as the American Psychologist and the American Sociologist, as well as for students writing dissertations. It should also be praised for publishing its data in more reader-friendly form than in the 1982 Assessment. If uncovering the mysteries of the Assessment was the social science equivalent of watching the dance of the seven veils, understanding the Report is, by comparison, the equivalent of watching the dance of only five or six veils. Still, it is hard to imagine undergraduates who are looking for a graduate school, or even graduate students who are looking for another graduate school—not to mention their parents making a beeline for this tome.

If the Conference Board of Associated Research Councils sponsors another rating, it should make it even more reader-friendly—or, to be more accurate, even less inaccessible. It can do so by including substantially more pages of text; discussing in the text those findings likely to be of special interest to readers; not only arraying programs in rank order in the tables, but also publishing their ordinal positions; using larger type in the tables; and refraining from using a gray background with half the data in the tables, because black type on a gray background is hard to read.

The people who actually conduct any future rating should also strongly consider including some new measures. With all the attacks that have been leveled against academic quality rankings over the past several decades, the book that does more to undermine them than any hundred such attacks put together is Ernest Pascarella and Patrick Terenzini's superb review of some 2,600 empirical studies, How College Affects Students (1991). The authors show that for undergraduates, those variables most often used as measures of quality-institutional prestige, admissions selectivity, and institutional resourcesmake very little difference in how much students benefit, either cognitively or affectively, from college (although they matter more in determining students' eventual occupational attainment and income).

What matters much more concerning how much students benefit, cognitively and affectively, from college are such factors, virtually never used in academic quality rankings, as the following: students' opportunity to learn through the use of various methods of individualized instruction, the degree to which the curriculum is flexible, the amount of informal interaction students have with faculty and with each other, and students' degree of involve-

### TABLE 19Institutions With the 10 Largest Declines in OrdinalPosition, 1982-1995\*

Rank	Institution	1982 Ordinal Position	1995 Ordinal Position	Positions Lost
1	State University of			
	New York at Buffalo	61	93.5 (T)	32.5
2	Georgia Institute			
	of Technology	48	71 (T)	23
4	CUNY Graduate School			
	and University Center	35	57.5 (T)	22.5
4	Michigan State University	53.5 (T)	76	22.5
4	Oregon State University	69	91.5 (T)	22.5
6	University of Illinois-			
	Chicago	60	81.5 (T)	21.5
7.5	University of California-			
	Santa Cruz	67.5 (T)	88.5 (T)	21
7.5	Virginia Polytechnic			
	Institute and State University	64	85	21
9.5	Indiana University	30 (T)	50.5 (T)	20.5
9.5	University of Massachusetts- Amherst	45	65.5 (T)	20.5

\* Includes institutions that had 15 or more programs rated in 1995 and were also rated among the top 100 institutions by mean score (including those with fewer than 15 programs rated) in 1995. (T) = Tied

Rank	Institution	1982 Mean Score	1995 Mean Score	Loss
1	University of Illinois at			
	Urbana-Champaign	3.67	3.56	-0.11
2	Massachusetts Institute			
	of Technology	4.66	4.60	-0.06
3	Indiana University	3.20	3.15	-0.05
4.5	Harvard University	4.41	4.40	-0.01
4.5	State University of			
	New York at Buffalo	2.66	2.65	-0.01

#### TABLE 20 THE ONLY INSTITUTIONS THAT DECLINED IN MEAN SCORE, 1982-1995\*

\* Includes institutions that had 15 or more programs rated in 1995 and were also rated among the top 100 institutions (counting those with fewer than 15 programs rated) in 1995.

ment in campus life in general.

Assuming that what benefits undergraduates may also benefit graduate students, those who compile future ratings of PhD-level education should consider including some measures concerning the extent to which students are involved in the life of their program and, perhaps, the life of their entire campus. Such measures might include the proportion of students who hold teaching or research assistantships in their department, who work on campus in other capacities, who report that they have one or more faculty mentors, who have presented one or more conference paper and published one or more articles, and who live on campus.