

The Academic Advisor's Guide to Quality Rankings in Various Fields of Study

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The author discusses nearly 100 academic quality rankings, most of them published since 1980, of a variety of arts and sciences disciplines and professional school fields.

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I Introduction

Academic advisors who counsel students about where they might apply to graduate or professional school, or to what undergraduate college they might transfer, already know that many frequently used sources of information about colleges and universities contain little or no useful material about the quality of different programs and institutions. Lists of accredited institutions show which ones have been judged worthy of accreditation, but they make few or no distinctions in quality among those schools that are accredited or, for that matter, among those that are not. College catalogues and bulletins offer little information about how the colleges they describe differ in quality from other institutions. College guides, such as *Barron's Profiles of American Colleges*, *Lovejoy's College Guide*, and *Peterson's Guide to Four-Year Colleges*, despite

all their facts and figures, say little or nothing about which colleges and universities are better than others.

One resource, however, that academic advisors can use to inform students about leading institutions and departments is academic **quality rankings**—lists of, for example, the best **Ph.D.-granting departments** in chemistry, history, or sociology or the best business, engineering, or medical schools in order of their quality according to one or more criteria. Hundreds of **academic quality rankings** have been compiled since James **McKeen Cattell**, the distinguished Columbia University psychologist, published the first in 1910. They appear in the journals of many different disciplines so that, as the author of several annotated bibliographies of academic **quality rankings** has observed, they "are not indexed in any one source or under consistent subject headings" (Hattendorf, 1989, p. 340). They are, consequently, often quite difficult to find.

For this article, I have assembled almost 100 academic **quality rankings** from dozens of journals and other sources. I describe the most useful **rankings** in many different disciplines and fields of study. Far more **rankings** have been published, over the years, of **Ph.D.-granting departments** in the arts and sciences and of graduate level professional education than of master's level **programs** in the arts and sciences and of undergraduate programs and institutions. So most of the **rankings** included here are **rankings of Ph.D.-granting departments** in the arts and sciences of graduate level professional schools.

Advisors who consult this article might use it as follows. Those who advise students that are generally seeking information about a particular type of program might consult only the section devoted to it. Prelaw advisors, for example, might consult only section VII (D), and pre-medical advisors might consult only section VII (F). Those who **provide** advice about a large number of programs might consult the entire article, skipping over information concerning areas about which they are seldom if ever asked for advice.

I report on academic **quality rankings** selectively; many disciplines and fields of study are the subjects of academic **quality rankings** not included here. Advisors who wish to find academic **quality rankings** not reviewed here can find them in four other places: (a) Hattendorf's *Educational Rankings Annual* (1990b & subsequent

volumes); (b) the literature reviews of academic **quality rankings** discussed briefly in section III; (c) the review articles for individual fields of study that are described here before the ranking of those fields (for those fields for which good review articles exist); and (d) in many of the individual **rankings** of particular disciplines listed here, which often discuss previous ranking of the discipline. Advisors can also consult the appropriate issues of *U. S. News & World Report*, which plans to rank undergraduate education in an issue to be published every fall and graduate education at four types of professional schools—business, engineering, law, and medicine—in an issue to be published every spring.

In selecting academic **quality rankings** to include, I used the following criteria:

1. I preferred **rankings** that were fairly recent—published, that is, from 1980 to July 1, 1990. Only about 13% of the **rankings** and other materials included here were published before 1980. Of the few **rankings** published prior to 1980, some, like those of Cartter (1966), Roose and Andersen (1970), and Ladd, Jr., and Lipset (Scully, 1979, January 15) are included because they are multidisciplinary. Some, like the one by Cole and Lipton of medical schools (1977), are included because they are more useful and methodologically better than more recent rankings. Some, like the one by Parker, Jr., and Goldfeder (1979) of criminal justice programs, are included because I knew of few recent **rankings** in the field.

2. I preferred **rankings** of many departments or institutions to those of only a few. All else equal, I chose a ranking of, say, the 50 leading law schools over a ranking of the 20 leading ones.

3. I preferred **rankings** that were fairly well done, methodologically. By no means are all, most, or even many of the **rankings** included here methodological **masterpieces**. Academic **quality rankings**, as they are currently done, have many shortcomings. Still, I selected, all else equal, the methodologically better **rankings** from what was available. Of those **rankings** that are available since 1980, more than half have been excluded because they are methodologically weak. In fields in which **rankings** are plentiful, such as business, psychology, and sociology, I have excluded more than 75% of the **rankings** available because of methodological shortcomings of one kind or another. Because all the **rankings** included in this article are, in my opinion, reasonably sound, I seldom critique

their methodologies. For discussion of the methodologies of the rankings, the reader can refer to some of the articles listed here that review the literature of particular kinds of rankings (e.g., Webster, 1986b).

4. I preferred rankings that were published in reasonably accessible sources, generally omitting those that were published in difficult-to-obtain sources such as unpublished doctoral dissertations.

I do not claim to have included every fairly recent, reasonably well-done ranking in every field of study. In some fields, I may well have failed to find rankings that are more useful than ones I do list. In others, I may have included no ranking at all out of ignorance of one or more recent, useful, reasonably accessible rankings. Nonetheless, in preparing this article I examined the several hundred academic quality rankings I have collected over more than a decade. I also read the recent bibliographical articles of Hattendorf, described below in section II, "Bibliographical Materials About Academic Quality Rankings," and the literature reviews of academic quality rankings that have been published since 1980, described below in section III, "Literature Reviews of Academic Quality Ranking." I believe that this article covers more academic quality rankings in more disciplines than does any bibliographical article or literature review of academic quality rankings published to date.

Sections V through X list and briefly describe academic quality rankings. The longer of these sections are further divided, first into subsections on broad fields of study, then into subsections of rankings of particular disciplines and fields of study. The three longest sections cover rankings of Ph.D.-granting departments of arts, sciences, and engineering; graduate level professional schools; and undergraduate institutions and programs. In the first two of these sections, rankings are listed alphabetically by field—in the case of professional schools, for example, from business through social work.

The number of rankings included for different fields of study varies widely, according to the quantity, methodological soundness, and usefulness of rankings in a particular field. Economics has eight (two review articles and six individual rankings); law has seven (two review articles and five individual rankings); and many fields have only one.

In listing rankings for a particular field, I first discuss review articles, if any—that is, arti-

cles that examine several rankings of schools or departments in the field. Then I list individual rankings, if any. In listing rankings, I almost always use reverse chronological order—that is, I list the most recently published rankings first. I depart from this practice in three places, as follows:

1. In the section on nursing school rankings, I discuss the one by Hayter (1984) before the one by Grout (1985) because Grout's ranking is a response to Hayter's.

2. In the section on undergraduate rankings, I discuss one by Samuels (*Where the Colleges Rank*, 1973) before several more recent ones because I want to make the point early in my discussion that even though Samuels' booklet is possibly the most useful ranking of undergraduate institutions ever published, it is virtually unavailable.

3. In discussing the five *U. S. News & World Report* rankings of undergraduate education published from 1983 to 1989, I list some of them before other rankings of undergraduate education that were published later because I wanted to discuss all the rankings done by *U. S. News & World Report* in one place.

II Bibliographical Materials About Academic Quality Rankings

From 1986-90, Hattendorf published five articles, one per year (Hattendorf, 1986, 1987, 1988, 1989, 1990a) in *RQ*, a journal read by librarians, summarizing and critiquing recently published academic quality rankings. Each article reviews a few dozen rankings published in the three to five years before Hattendorfs critique of them appeared; altogether, her five articles cover more than 300 rankings and sources related to rankings, dating back to 1981. She covers not only rankings of professional fields and academic disciplines but also those of a variety of subdisciplines, such as accounting, advertising, biogeography, and counselling psychology.

The 1990 article was Hattendorfs last one in the series. In late 1990, she will begin to cover rankings of all levels of education in the first book of what is planned to be an annual series, *Educational Rankings Annual* (1990b). This book will be by far the most complete guide to academic quality rankings ever published, listing and providing bibliographical information about, in addition to rankings of K-12 educa-

tion, hundreds of rankings of colleges, universities, and individual fields of study.

For a dated but still useful list of 74 sources related to academic quality, about 30 of them actual academic quality rankings, see Gerhan (1979).

III Literature Reviews of Academic Quality Rankings

A. *Rankings of Ph.D.-Granting Departments and Graduate Professional Schools*

Three long, useful reviews that focus mostly on academic quality rankings of Ph.D. programs in the arts and sciences and graduate level professional education were published in the 1980s—those by Tan (1986), Conrad and Blackburn (1985b), and Lawrence and Green (1980).

B. *Rankings of Undergraduate Institutions and Programs*

For an article that reviews much of the small amount of material ranking undergraduate colleges and the undergraduate programs at universities, see Webster (1986b). Lawrence and Green (1980, pp. 32-41) also discuss rankings of undergraduate institutions and programs.

IV The Gourman Reports

Since 1967, Jack Gourman has been publishing "rankings" of colleges and universities. These rankings are without merit and should not be used. For an extended critique of Gourman's "rankings," see Webster (1984); for briefer critiques, see Webster (1985 & 1986a).

V The National Academy of Sciences Ranking (1982)

Throughout, I will refer repeatedly to one ranking, edited by Jones, Lindzey, and Coggeshall (1982) and published by the National Academy of Sciences (NAS) in 1982. It ranks almost 2700 doctoral programs in 32 disciplines at 228 institutions, and it uses, depending upon the particular discipline, anywhere from 12 to 16 criteria by which to rank them. This work, which almost a decade ago cost more than \$500,000 to complete, is the biggest and best academic quality ranking ever published.

Unfortunately, for all its virtues, it was published in deliberately obfuscatory form, with the Ph.D. programs in each discipline being displayed not from the highest ranked to the

lowest ranked but rather in alphabetical order, from Adelphi to Yale or whatever. It is difficult to make much use of the five volumes published by the NAS without spending enormous amounts of time rearranging their data.

However, some help is available for those who despair of making much sense out of these rankings in the form in which they were released. Webster (1983a) has published a kind of Rosetta Stone for them, explaining how to interpret them. The *Chronicle of Higher Education* published, in five installments (for mathematics and the physical sciences, Scully, 1982, September 29; for the humanities, Scully, 1982, November 10; for engineering, "Evaluations of 326 Programs," 1982, December 1; for the biological sciences, "616 Doctoral Programs," 1983, January 12; and for the social sciences, "Final Report in Assessment," 1983, January 19) a list of the schools ranked by the NAS in all 32 disciplines, showing how they ranked according to each of the four reputational measures that the NAS used. These were reputation for faculty quality, for program effectiveness, for program improvement during the last five years, and for raters' familiarity with the program.

While the *Chronicle's* lists of programs, like those of the NAS, are arranged in alphabetical order, not in what would be the more useful order of descending quality, they are still far easier to comprehend than the NAS rankings themselves. The *New York Times* (Fiske, 1983, p. B7) published rankings of the 10 top-ranked programs, according to the faculty's reputation for scholarly quality, for all 32 disciplines. For 23 of these—all except those in the humanities, for which the NAS did not collect these data—the *Times* showed the 10 top-ranked programs by the number of articles their faculty had recently published. Also, *Changing Times* ("Best Places," 1983, November) published the rankings, in descending order of quality, of about 10% of the programs in each of the 32 disciplines covered by the NAS. This resulted, depending on the number of Ph.D. programs in a particular discipline, in rankings of the top 4 to 16 schools in each discipline.

Through the NAS, like the compilers of almost all other multidisciplinary academic quality rankings, did not aggregate its rankings, discipline by discipline, into institution-wide rankings, others have published at least three such lists. Webster (1983a, Table 3, p. 18) lists what would have been the NAS's 30-highest-ranked institutions, overall, plus ties, in faculty reputa-

tion for scholarly quality (see Table 1). Astin (1985, Table 3, p. 30) lists what would have been the NAS's 20 top institutions according to the same measure. The *New York Times* (Fiske, 1983, p. B7) lists what would have been the NAS's 11 top universities in faculty reputation for scholarly quality and what would have been its top 13 universities by the number of articles their faculty members had recently published.

VI Ph.D.-Granting Departments of Arts and Sciences

Below are listings of the best academic quality rankings of Ph.D.-granting departments in various arts and sciences disciplines. I have classified these disciplines into five broad groups, exactly as the NAS did in its rankings. But within each group I do not necessarily follow the

TABLE 1
Leading Ph.D.-granting Institutions in the Arts, Sciences, and Engineering, according to Data in the Assessment of Research-Doctorate Programs in the United States
(Number of programs in each field with standard scores of 60 or higher in reputation for "faculty quality")

Rank Order	Institution	Phys. Sci., Math	Hum.	Eng.	Biol.	Soc. Sci.	Programs rated 60 or higher	Programs rated 70 or higher	TOTAL SCORE
1	U. of California (Berkeley)	6	9	4	4	7	30	15	45
2	Stanford U.	6	4	4	4	6	24	10	34
3	Harvard U.	5	5	-	4	6	20	12	32
3	Yale U.	6	7	-	6	6	25	7	32
5	MIT	5	2	4	3	3	17	12	29
6	Princeton U.	5	7	4	-	5	21	7	28
7	U. of Chicago	5	4	-	4	7	20	7	27
8	UCLA	5	5	2	6	6	24		24
8	U. of Michigan	2	6	3	4	6	21	3	24
8	U. of Wisconsin (Madison)	5	3	2	5	6	21	3	24
11	Columbia U.	5	6	-	4	6	21	2	23
11	Cornell U.	6	6	3	4	3	22	1	23
13	U. of Illinois (Urbana)	4	2	4	4	3	17	2	19
14	U. of Pennsylvania	2	5	1	3	5	16	1	17
15	Caltech	4		4	1	-	9	6	15
16	U. of Minnesota	3		2	2	4	11	2	13
16	U. of Texas (Austin)	3	3	3	2	2	13		13
18	U. of N. Carolina (Chapel Hill)	2	3	-	2	4	11		11
18	Northwestern U.	1	1	3	1	5	11		11
20	U. of Washington (Seattle)	2		1	5	2	10		10
21	U. of California (San Diego)	2	2	-	3	1	8		8
21	Indiana U. (Bloomington)	1	4		-	3	8		8
21	New York U.	1	4		1	1	7	1	8
21	Rockefeller U.	1		-	4	-	5	3	8
25	Brown U.	1	3	1	-	2	7		7
25	Duke U.			-	5	2	7		7
25	Purdue U.	2		4	1	-	7		7
28	CUNY Graduate School		3		-	3	6		6
28	U. of Virginia		3	-	1	1	5	1	6
30	Carnegie-Mellon U.	1		2	-	1	4	1	5
30	Johns Hopkins U.		1	1	1	2	5		5

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NAS classification because I have often included rankings for disciplines the NAS did not cover. The five groups are (a) humanities, (b) social sciences, (c) engineering, (d) mathematical and physical sciences, and (e) biological sciences.

A. Humanities

Few rankings have ever been published of any humanities disciplines, so that the best available ranking is, for every humanities discipline that has been ranked at all, the one published by the NAS in 1982. For the next most recent multidisciplinary academic quality rankings, the reader can refer to those by Ladd, Jr., and Lipset (Scully, 1979, January 15) and by Roose and Andersen (1970). The former is about 10 years newer, but the latter is far better methodologically and rates, for each discipline, more departments. The humanities disciplines ranked by the NAS are:

1. art history
2. classics
3. English (For a review article discussing the rankings of English departments in the six major, multidisciplinary rankings published from 1925-82, see Webster, 1990.)
4. French
5. German
6. linguistics
7. music
8. philosophy
9. Spanish

B. Social Sciences

1. Agricultural economics
 - a. Beilock, Polopolus, and Correal rank (1986, Table 1, p. 598) 25 departments of agricultural economics according to their faculty's number of citations in journals covered by the *Social Sciences Citation Index* (SSCI), 1980-84.

- b. Tauer and Tauer rank (1984, Table 1, p. 171) 34 agricultural economics departments by the number of pages their graduates from 1972-81 had published in the *American Journal of Agricultural Economics*, 1973-82.

2. Anthropology (NAS, 1982)

3. Economics

a. Review Literature

- i. For a review of about a dozen rankings of economics departments and a great many statistical tables about graduate departments of economics, see Owen and Cross (1984). As of

mid-1990, this is still the most recent edition of the book.

- ii. Graves, Marchand, and Thompson (1982), while they have not written a review article, per se, provide a useful table (Table 3, p. 1135) showing the leading departments in each of 13 rankings of economics departments published from the mid-1950s to the late 1970s.

b. Individual Rankings

- i. Liebowitz and Palmer (1988) rank 60 departments of economics according to a variety of measures based on the citations their faculty received in the SSCI for 1982 (Table 1, pp. 98-100).

- ii. Baumann, Werden, and Williams (1987) rank the leading departments in each of seven subfields of economics. Based on the number of articles published by faculty, 1975-84, in 27 top economics journals, they rank (pp. 58-61) the top 20 economics departments, plus ties, in econometrics, industrial organization, international trade, labor economics, macromonetary economics, microeconomics, and public finance.

- iii. Laband (1986) ranks 80 Ph.D.-granting departments of economics according to how many pages of articles and notes those who were granted Ph.D.s by those departments, 1975-84, published in 24 top economics journals, 1975-84 (Table 1, pp. 72-74).

- iv. Laband (1985) provides 14 rankings of the top 50 American economics departments, based on many different criteria, including pages published in 27 top economics journals, pages published per faculty member, number of citations, and number of citations per faculty member, all for the years 1971-83; placement of graduates in 1 of the top 50 economics departments; number of faculty who attended graduate school at 1 of the top 50 economics departments; pages graduates published in 1 of the top 27 economic journals, 1971-83; and others, as well. Table 16 (Laband, pp. 238-239) displays a composite ranking for the top 50 economics departments, based on seven of Laband's measures. (For Laband's 50 top economics departments, according to the number of pages per faculty member they published in 27 leading economics journals, 1971-83, see Table 2, below.)

- v. Graves, Marchand, and Thompson (1982) rank a large number of economics departments, not just at Ph.D.-granting universities but also at institutions that grant the master's and even the bachelor's as the highest degree. They provide one table showing the 240

TABLE 2
The Top 50 Economics Departments by
Pages Published per Faculty Member

School	Pages	Rel. Rank
1. Chicago	93.04	1.000
2. Princeton	73.52	.790
3. MIT	63.94	.687
4. Harvard	60.49	.650
5. Stanford	59.63	.641
6. UC-San Diego	52.18	.561
7. Yale	49.57	.533
8. Penn	45.48	.489
9. UCLA	43.43	.467
10. Minnesota	40.74	.438
11. Wisconsin	39.19	.421
12. Johns Hopkins	38.39	.413
13. Virginia	36.64	.394
14. Northwestern	35.90	.386
15. Washington	34.69	.373
16. Tulane	32.68	.351
17. Cornell	32.31	.347
18. Brown	31.63	.340
19. SMU	31.16	.335
20. Georgia	30.35	.326
21. Houston	29.84	.321
22. Columbia	29.39	.316
23. Illinois	28.42	.305
24. N. Carolina	28.04	.301
25. Rochester	27.86	.299
26. George Mason	27.41	.295
27. Texas A&M	26.98	.290
28. SUNY-Stony Brook	26.38	.284
29. Michigan	25.30	.272
30. UC-Berkeley	24.41	.262
31. USC	23.53	.253
32. Maryland	23.05	.248
33. Ohio State	21.91	.235
34. Rice	21.87	.235
35. UC-Davis	20.90	.225
36. Duke	20.80	.224
37. New York	19.09	.205
38. Swarthmore	19.05	.205
39. Purdue	16.55	.178
40. CUNY	14.15	.152
41. Penn State	14.02	.151
42. Rutgers	13.72	.147
43. Boston College	13.10	.141
44. Iowa	13.08	.141
45. Texas	7.80	.084
46. Oregon	6.72	.072
47. Carnegie-Mellon	4.61	.050
48. American	4.28	.046
49. Wisconsin-Parkside	2.23	.024
50. SUNY-Buffalo	0.86	.009

schools, in order, whose faculty members published the most American Economic Review-sized pages in 24 top economics journals, 1974-78 (Table 1, p. 1133). Another table shows the 240 leading economics departments in pages published per capita faculty member in these 24 journals, 1974-78 (Table 2, p. 1134).

vi. NAS (1982).

4. Geography

a. Review Articles

i. Webster (1983b, Table 2, pp. 133-134) lists the leading **Ph.D.-granting** departments of geography in each of eight rankings, 1925-80. He also lists (Table 1, p. 130) all 49 geography departments, in descending order of excellence, the NAS (1982) ranked according to three criteria: faculty reputation for scholarly quality, number of articles faculty recently published, and department reputation for improvement during the last five years.

ii. Koelsch (1981, Table 1, p. 166) shows the leading geography departments in seven rankings, 1924-80.

b. Individual Ranking

i. NAS (1982).

5. History—NAS (1982).

6. Mass Communications Research

Schweitzer (1988) ranks the 30 most productive institutions (Table 1, p. 481) by the number of research articles their faculty members published in nine important mass communications journals, 1980-85. Because, in some cases, the publications of faculty in more than one department or unit of an institution were combined, this ranking should not be regarded as one of the publication productivity of mass communications departments.

7. Physical Education

a. Review Article

Hasbrook and **Loy** (1983) review five studies that assess the quality of physical education doctoral programs. These five studies, dating from 1979-82, contain 12 rankings, each showing the top 20 or so programs. Three are based on faculty or program reputation for quality; the other nine are based on faculty research and publication productivity, including the citations that their publications received. **Hasbrook** and **Loy** display a table (Table 4, p. 140) showing the 22 top-ranked doctoral programs, overall, based on a composite of the 12 rankings.

b. Individual Rankings

i. Massengale (1983) ranks (Table 1, p. 57) the 20 top graduate physical education programs by their reputation in the eyes of college level physical educators. He also lists (Table 2, p. 58) the top 20 or so graduate departments of physical education according to three separate measures of faculty research and publication productivity.

ii. Baker (1980), based on the opinions of directors of graduate programs in physical education and active Fellows of the American Academy of Physical Education, ranks the top 20 doctoral programs in physical education (p. 32).

8. Political Science

a. Klingemann (1986) ranks the 70 leading American Ph.D.-granting departments of political science (Table 2, p. 656) according to their faculty's number of citations in the SSCI, 1981-85. He also lists (Table 1, p. 652) the 40 highest-rated political science departments in the NAS (1982) ranking according to reputation for quality of faculty.

b. Rudder (1983) discusses the NAS (1982) ranking of political science departments. She shows (Table 1, p. 51) the 40 top political science departments in the U.S. by taking the average of the NAS (1982) rankings of reputation for scholarly quality of faculty and of reputation for program effectiveness. She also shows the 20 top political science departments by reputation for improvement in program quality during the previous five years (Table 2, p. 52) and the 20 top political science departments by the number of articles their faculty published, 1978-80 (Table 3, p. 53).

c. NAS (1982).

9. Psychological Research

Howard, Cole, and Maxwell's article (1987), while not really a review article, serves to some extent as one because it compares its findings to those of three major rankings of psychology departments—those by the NAS (1982), Cox and Catt (1977), and Roose and Andersen (1970). The authors state that their own rankings are not of psychology departments because Levin et al. (1978) showed that for Cox and Catt's (1977) top-ranked psychology department, the one at the University of Wisconsin at Madison, only 60% of the articles credited to it were actually written by faculty in it. The others were written by people in several different departments and units throughout the university. So Howard, Cole, and Maxwell present their rankings as

those of entire institutions in the publication of psychological research. They show (Table 1, pp. 977-978) the 75 leading universities in publication productivity in 13 journals published by the American Psychological Association, 1976-85. They also show the 44 leading universities (Table 5, p. 984) in psychological research adjusted for faculty size, defining faculty size as their own estimate of the number of psychologists employed at the university.

10. Psychology

a. NAS (1982).

b. Endler, Rushton, and Roediger, III (1978) list the top 100 American, British, and Canadian departments of psychology (Table 1, pp. 1070-1073) by the number of citations their faculty received in the SSCI for 1975. (For their 25 top-ranked departments, see Table 3, below.) They also list (Table 3, pp. 1076-1078) the top 100 American, British, and Canadian graduate departments of psychology by the number of publications their faculty wrote that were listed in the SSCI for 1975.

11. Regional Science

Kau and Johnson (1983) rank the 25 leading international universities (Table 1, p. 178) in publishing research in 15 regional science journals, 1965-80. They also rank the 25 leading international institutions in publishing research in some of the 15 journals and the 25 leading international institutions in publishing research, 1975-80.

12. Sociology

a. Review Article

Webster, Conrad, and Jensen (1988) review the findings of more than a dozen rankings of Ph.D.-granting sociology departments published in the *American Sociologist* from 1965-75. They also review ratings of sociology departments in three major, multidisciplinary rankings, those of Cartter (1966), Roose and Andersen (1970), and the NAS (1982). They show (Table 7, p. 196) the 10 leading sociology departments according to each of these criteria: faculty aggregate research and publication productivity, faculty per capita research and publication productivity, and doctoral recipients' productivity in publication and other professional activity. They also show the rankings of all 92 sociology departments included in the NAS (1982) ranking by faculty reputation for scholarly quality (Table 4, pp. 191-192); the top 25 sociology departments, plus ties (Table 5, p.

TABLE 3
Ranking of the Top 100 British, Canadian, and U.S. Graduate Departments of Psychology by the Total Number of Citations Received by Faculty in the 1975 *Social Science Citation Index*

Rank	University	Total citations	Number of faculty	Mean citations	Rank based on mean	Median citations	Rank based on median	Roose & Andersen (1970) rating	Number of faculty with citations	
									>25	>100
1	Stanford University	3,574	45	79.4	1	36.0	1	1	26	12
2	University of Michigan	3,288	135	24.4	21	8.3	27.5	2	40	6
3	Harvard University	2,740	41	66.8	2	16.0	6	4	16	11
4	University of Illinois	2,364	85	27.8	16	11.3	17	5	25	6
5	Yale University	2,189	60	36.5	7.5	18.5	4	7	24	9
6	University of Pennsylvania	2,033	45	45.2	5	16.4	5	6	15	6
7	Purdue University	1,824	69	26.4	20	6.0	44.5	40.5	10	3
8	University of Chicago	1,701	54	31.5	11	21.0	3	16	21	1
9	University of Toronto (Canada)	1,598	52	30.7	12	7.5	33	—	10	5
10	U. of California, Los Angeles	1,581	75	21.1	28	8.6	26	10	15	4
11	U. of London (United Kingdom)	1,570	124	12.7	55.5	1.7	A 100	—	12	2
12	University of California, Berkeley	1,244	35	35.5	10	14.3	11	3	14	4
13	Rutgers—The State University	1,209	77	15.7	41	5.8	46.5	40.5	17	2
14	City University of New York	1,206	124	9.7	73	4.0	64.5	—	11	1
15	University of Washington	1,198	50	24.0	23	6.0	44.5	27	11	3
16	University of Connecticut	1,119	38	29.5	13	9.0	24	40.5	11	3
17	Northwestern University	1,094	30	36.5	7.5	7.5	33	16	6	1
18	State U. of New York, Stony Brook	1,092	50	21.8	27	10.5	21	—	12	1
19	University of North Carolina	1,079	78	13.8	50.5	3.0	84.5	24	14	2
20	University of Wisconsin	1,060	37	28.7	14	10.0	22	7	13	1
21	Rockefeller University	1,026	51	20.1	32	1.6	>100	—	11	1
22	University of Colorado	1,025	49	20.9	29	10.8	20	14	15	1
23	Columbia University	976	22	44.4	6	13.0	13	27	7	4
24	University of Rochester	936	82	11.4	62.5	2.4	A 100	20	11	2
25	University of Oregon	925	33	28.0	15	14.7	10	24	11	2

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1993), by their reputation for overall improvement during the last five years; and the top 25 sociology departments (Table 6, p. 194) by the number of articles their faculty published, 1978-80.

b. Individual Ranking—NAS (1982)

13. Urban Affairs

Bingham, Henry, and Blair (1981) rank urban affairs graduate programs in three areas: reputation, as seen by the chairpersons or directors of graduate urban and public affairs programs; number of books published, 1974-78; and number of citations in the SSCI, 1974-78. Their article ranks 31 urban affairs departments by a composite of reputation, aggregate books published by faculty, and aggregate faculty citations (Table 1, p. 362). It also ranks these departments by a composite of reputation, per capita books published by faculty, and faculty per capita citations (Table 2, p. 363).

C. Engineering

Rankings of engineering schools can be classified into three groups: global rankings, which rank engineering schools as a whole; rankings of the four major fields of engineering—chemical, civil, electrical, and mechanical; and rankings of other engineering fields. I will discuss each in turn.

1. Global Rankings

a. U. S. *News & World Report* (Toch et al., 1990, p. 70) ranks the 25 leading graduate level engineering schools according to a composite of five measures: reputation in the eyes of engineering school deans and academic affairs deans, reputation in the eyes of practicing engineers, selectivity in admitting applicants, instructional resources, and the amount of research the faculty recently conducted.

b. An earlier U. S. *News & World Report* ranking (Solorzano et al., 1987, p. 76) ranks the 20 top engineering schools based on their reputation in the eyes of deans of graduate schools of engineering.

c. Glower (1980) also ranks engineering schools, using several different measures. His ranking, unlike almost any other, considers colleges of engineering as a whole, their baccalaureate, master's, and doctoral programs combined. He lists: (a) the top 60 schools by the number of graduates who are listed in *Who's Who in Engineering* (Table 1, p. 790), (b) the top 60 schools by the proportion of their living

graduates who are listed in *Who's Who in Engineering* (Table 2, p. 791), (c) the top 30 schools by their research expenditures (Table 3, p. 791), (d) the top 30 schools by their research expenditures per faculty member (Table 4, p. 792), (e) the top 20 schools by their graduates' engineering citations in *Who's Who in Engineering* (Table 5b, p. 792), and (f) the top 20 engineering schools, overall, based on the average of the above measures (Table 5A, p. 792).

2. Rankings of Major Engineering Fields

The sources below rank engineering's four major fields—chemical, civil, electrical, and mechanical.

a. The issue of U. S. *News & World Report* (Toch et al., 1990) mentioned above for its global rankings of engineering schools also lists (p. 71) the top five schools in each of these four fields.

b. The NAS ranking (1982) devotes an entire volume to these four fields.

c. The Glower (1980) article, listed above for its global rankings of engineering schools, also displays tables showing the top 18 schools based on the citations of their graduates who had earned an M.S. and/or a Ph.D. in chemical (Table 6, p. 793), civil (Table 7, p. 793), electrical (Table 8, p. 794), or mechanical (Table 9, p. 794) engineering.

3. Rankings of Other Engineering Fields

U. S. *News & World Report* (Toch et al., 1990, p. 71) ranks the top five engineering schools in each of eight fields: aerospace, biomedical, computer, environmental, industrial, materials and metallurgical, nuclear, and petroleum.

D. Mathematical and Physical Sciences

Few rankings of the disciplines of mathematics and the physical sciences have ever been published. For rankings of Ph.D.-granting programs in the following disciplines, see the NAS (1982) volume on mathematical and physical sciences.

1. chemistry
2. computer science
3. geoscience
4. mathematics
5. physics
6. statistics/biostatistics

Five of these disciplines are also ranked in

one or both of the two major multidisciplinary rankings published before the NAS ranking, those by Ladd, Jr., and Lipset (Scully, 1979, January 15) and Roose and Andersen (1970).

E. Biological Sciences

Few rankings of biological science disciplines have ever been published. The following are ranked, though, by the NAS (1982).

1. biochemistry
2. botany
3. cellular/molecular biology
4. microbiology
5. physiology
6. zoology

Five of these disciplines are also ranked by Roose and Andersen (1970). The field of biological sciences, as a whole, is ranked by Ladd, Jr., and Lipset (Scully, 1979, January 15).

VII Graduate Professional Schools

A. Business

1. *U. S. News & World Report* (Toch et al., 1990, p. 52) ranks the top 25 graduate schools of business in the United States based on five criteria: academic reputation, as judged by business school deans and heads of M.B.A. programs; reputation in the eyes of the chief executive officers of some of the nation's largest companies; selectivity in admitting applicants; success in placing graduates into jobs; and graduation rate of M.B.A. candidates. It also ranks (p. 53) the five best business schools in the United States, in the eyes of graduate school deans and the heads of M.B.A. programs, in each of 10 departments: accounting, finance, human resources, business information systems, international business, management, marketing, production management, not-for-profit management, and real estate.

2. *Business Week* (Byrne, 1988, November 28, p. 78) ranks the top 20 U.S. graduate schools of business by averaging the results of two reputational rankings, one of 1988 graduates of leading business schools, the other of corporate recruiters.

3. Niemi, Jr., (1988) ranks the 50 leading American business schools (Table 1, pp. 5-6) accord-

ing to the number of pages their faculty published, 1975-85, in 14 journals, 2 each in seven business subfields. He also ranks the 54 leading business schools according to the number of pages their faculty published, 1975-85, per capita (Table 9, p. 13). In addition, he shows, for each of seven business subfields, the 20 leading programs (Tables 2-8, pp. 7-12), by the number of pages their faculty published, 1975-85, in 2 leading journals of the subfield. These subfields are accounting, finance, management, management science, marketing, real estate and insurance, and general business.

4. *U. S. News & World Report* (Solorzano et al., 1987, p. 82) lists the top 20 business schools in the United States, based on their reputation in the eyes of business school deans.

5. Brecker and Merryman, a consulting company, ranks the 21 leading business schools (1985) based on the opinions of executives at 134 large companies that hire many M.B.A.s. This report was apparently never published in a book, journal, or magazine, but it is summarized, and a table ranking the top 21 business schools is displayed, by Mackay-Smith (1985, p. 31).

B. Criminal Justice

1. Thomas and Bronick (1984) rank 36 criminology doctoral programs according to the number of citations their faculty received in the SSCI from 1979-80 (Table 2, pp. 28-29). They also rank (Table 3, pp. 32-33) these programs by the average of four subscores: total citations; citations per faculty member; total citations, adjusted for years of professional experience; and citations per faculty member, adjusted for years of professional experience.

2. Parker, Jr., and Goldfeder (1979) rank 34 doctoral programs according to the number of articles their faculty published in 10 top criminal justice journals from 1972-77 (Table 2, p. 130) and 33 doctoral programs by their number of publications per faculty member, 1972-77, in the same journals (Table 3, p. 131).

C. Education

1. Review Article

Schubert (1979), while his is not, strictly speaking, a review article, does display a useful table (Table 1, pp. 14-15) showing the top-ranked schools of education in six rankings,

which employed a variety of methodologies, published from 1972-79.

2. Individual Rankings

a. Kroc (1984) ranks 51 schools of education (Table 1, p. 19) selected "to include as many of the most productive schools as possible" (p. 18) according to the number of citations, per capita, their faculty received in the SSCI for 1981.

b. Eash (1983) ranks the 25 most productive schools of education (Table 1, pp. 8-9) by research productivity. He defines research productivity as the average of two measures: the participation rate of people affiliated with these schools at the annual meetings of the American Educational Research Association, 1975-81 and the number of people affiliated with them who had published in 14 leading journals of education, 1975-81.

D. Law

1. Review Literature

a. *Barron's Guide to Law Schools* ("Law School Ratings," 1984, pp. 41-44) displays the results of four reputational rankings of law schools published from 1974/75-79.

b. Van Alstyne (1982) discusses the results of seven rankings of law schools. But because one of these was published as long ago as 1957, another is by Jack Gourman (see the discussion of Gourman's "rankings," above in section IV), and a third, listing the top 10 law schools in alphabetical order, is of dubious methodology and was published in an outlet—*Town and Country* magazine (Strong, 1979, August)—that seldom publishes significant social science research, these three rankings, at least, should be regarded cautiously.

2. Individual Rankings

a. *U. S. News & World Report* (Toch et al., 1990) ranks the top 25 law schools in the United States, plus ties (p. 59), according to six criteria: reputation in the eyes of top officials at law schools, reputation in the eyes of practicing lawyers and judges, selectivity in admitting applicants, starting salaries for recent graduates, recent graduation rates of students, and instructional resources.

b. The *IIT Chicago-Kent Law Review* Faculty Scholarship Survey (Executive Board, 1989) displays eight tables (Tables 4-11, pp. 211-218), each ranking the 50 leading law schools according to various measures of their faculty's per capita publication of articles and pages in lead-

ing law reviews. These eight rankings are then averaged to give an overall ranking of the 50 leading law schools for faculty per capita publication in leading law reviews (Table 3, p. 208). *IIT Chicago-Kent Law Review* plans to publish a new ranking of law schools every year.

c. *U. S. News & World Report* (Solorzano et al., 1987) lists the top 20 U.S. law schools (p. 73), based on their reputation in the eyes of law school deans.

d. Swygert and Gozansky (1985) rank 71 American law schools (Table 5, p. 389) according to the publication productivity of their senior faculty. Publication productivity is defined as the average of these two measures: the senior faculty's per capita publications and the proportion of the senior faculty who had recently had at least one publication.

e. Ellman (1983, Table 3, p. 687) ranks the 41 law schools whose faculties had published the most pages in 23 leading law journals from September, 1979, to June, 1982. He also ranks the top 45 law schools (Table 4, p. 688) by the pages per capita their faculty published in these journals and the top 20 law schools by the pages per capita their faculty published (Table 5, p. 691) in 10 select journals.

E. Library Science

1. Review Article

Danton (1983) reviews seven rankings of library science programs published from 1970-83 and one unpublished ranking. Six of the eight are reputational rankings. His article includes separate tables showing the top 15 or so schools in each of these rankings and also one table (Table 8, p. 115) that shows the top 10 or so schools in all eight rankings.

2. Individual Rankings

a. White (1987) displays six tables showing reputational rankings of library science schools in the eyes of full-time faculty at such schools. Two rank the 15 or so schools that provide the highest-quality education for librarianship at the master's level (Tables 1 and 2, p. 260). Two rank the 13 or so schools that provide the highest quality education for librarianship at the doctoral level (Tables 3 and 4, p. 261). Two more (Table 5, p. 262, and Table 6, p. 263) show the 16 or so schools whose faculties "contribute most significantly to the advancement of the profession through research, publication, and leadership" (p. 262).

b. **Bobinski** (1986) ranks (Table 7, p. 707) 22 American library science schools by how many students who were awarded doctoral fellowships under Title II-B of the Higher Education Act chose to attend them, 1966-85.

F. Medicine

1. *U. S. News & World Report* (Toch et al., 1990) ranks the top 15 American medical schools (p. 64) on the average of five measures: reputation in the eyes of top medical school officials, reputation in the eyes of directors of the largest medical-intern residency programs, selectivity in admitting applicants, instructional resources, and faculty research funding from the National Institutes of Health.

2. *U. S. News & World Report* (Solorzano et al., 1987) ranks the top 10 American medical schools (p. 78) in the eyes of medical school deans.

3. Cole and **Lipton's** (1977) ranking is dated, but it is unusually well done and includes a large proportion of American medical schools. Full-time clinical and basic science medical school faculty rank all the medical schools that were approved, at the time, by the American Medical Association. The result is a reputational ranking of 94 medical schools (Table 2, pp. 669-671).

G. Nursing

1. Hayter (1984) ranks the 32 leading nursing schools (Table 5, p. 361) by their faculty's aggregate publication in 13 nursing journals, 1978-82.

2. Grout (1985), in a letter to the editor commenting on Hayter's (1984) ranking, argues that it is flawed because many of the 13 journals she used were not recognized by nursing school deans as among the "highest in overall quality" (p. 204). He selects the 3 nursing journals that another study ranked highest in quality and ranks the top 17 nursing schools based on faculty aggregate publication in them, 1978-82.

3. Chamings (1984) ranks the top 35 nursing schools (Tables 1 and 2, p. 238) based on the opinions of nursing school deans and research-oriented nurses.

H. Public Administration and Public Affairs

1. Morgan and Meier (1982) rank (Table 1, p. 172) the top 50 institutions granting the Master

of Public Administration (M.P.A.) according to a reputational ranking of public administration practitioners. They also rank (Table 2, p. 172) the 50 leading schools, according to a reputational ranking of 50 public administration academics, that grant the M.P.A.

2. Morgan, Meier, Kearney, Hays, and Birch (1981) rank the top 40 public administration and public policy graduate programs (Table 1, p. 669) according to a reputational ranking of principal representatives of the National Association of Schools of Public Affairs and Administration. They also rank (Table 3, p. 670) the 50 top institutions, plus ties, according to faculty publication productivity, 1970-80, in 10 public administration and public policy journals.

I. Social Work

Thyer and **Bentley** (1986) list, in six separate tables (Tables 3-8, pp. 69-71) the 25 or so leading schools of social work according to how much their faculties published in each of six major social work journals, 1979-83. They then average these six rankings to form a composite ranking showing the top 20 schools of social work, plus ties, based on publication in these six journals (Table 9, p. 72).

VIII Master's Degree Programs

Far fewer rankings of master's degree programs have been compiled than of programs that grant the doctorate, either the **Ph.D.** or the professional doctorate such as the **M.D.**, the **LL.D.**, or the **Ed.D.**

Some rankings are available of master's degree programs in those professional fields in which far more people earn the master's degree than the doctorate. Several rankings of business schools, a few rankings of library science schools, and one ranking of schools of social work, for example, were described in the section VII, "Graduate Professional Schools."

So far as master's degree programs in departments that also grant the **Ph.D.** are concerned, the ranking of the **Ph.D.** program can probably be taken, in many cases, as a rough indication of how high the master's degree program would rank. There are few rankings, however, of master's degree programs in arts and sciences disciplines for the thousands of departments that confer the master's as the highest degree. Such rankings would be useful. For a discussion of the departmental and institutional

characteristics on which such a ranking might be based, see Conrad and Blackburn (1985a).

IX Undergraduate Institutions and Programs

For reasons worthy of study in themselves, although far more institutions confer the bachelor's degree than the doctorate, and although far more applicants, at any time, are planning to enter undergraduate than graduate programs, far fewer **rankings** of undergraduate institutions and programs have been published than of **Ph.D.-granting** departments and graduate professional schools. Such **rankings** of undergraduate institutions and departments as do exist, moreover, tend to be much worse, methodologically, and not nearly so well known and easy to find as many **rankings** of **Ph.D.-granting** departments and graduate level professional schools.

While those who want to know the ranking of master's degree programs in **Ph.D.-granting** departments can probably obtain a rough idea of the quality of a master's program from the ranking of an institution's doctoral program in the same discipline, the same is definitely not true of bachelor's degree programs. No one should infer the ranking of an institution's undergraduate offerings in, say, biology, chemistry, or history from the ranking of its doctorate programs in these disciplines.

A. Review Literature

Two literature reviews of **rankings** of undergraduate institutions and programs are listed above in section III, "Literature Reviews of Academic Quality Rankings."

B. Individual Rankings

1. Because there are so few **rankings** of undergraduate institutions and programs, in this section I review some that fail to meet the standards I have ordinarily used in other sections, in order to be able to include at least a handful of recent undergraduate rankings. Specifically, I review some **rankings** that are difficult to obtain (Clark, 1986) and based on data that are more than a decade old (Clark, 1986; Fuller, 1986; Tidball, 1985).

2. Abram Samuels, at the time a manufacturer in Allentown, Pennsylvania, in 1973 published a useful ranking of undergraduate institutions (*Where the Colleges Rank*). It ranks 785 colleges

and universities based on seven measures. The mediocre quality of **rankings** of undergraduate institutions can be understood by the fact that this ranking, arguably the most useful one of undergraduate institutions ever published, was compiled by Samuels for no more scholarly purpose than as a means to entertain his friends, many of whom, at the time, had children about to enter college.

3. U. S. News & World Report Rankings

a. *U. S. News & World Report* has published five **rankings** of undergraduate education from 1983 to July 1, 1990. Most recently (Sheler, Toch, Morse, Heupler, & Linnon, 1989), it ranks several types of institutions by averaging the subscores of five measures: (a) academic reputation in the eyes of college presidents, academic deans, and admissions officers; (b) how many freshmen remain in school until their sophomore year; (c) how many freshmen graduate with bachelor's degrees within five years; (d) the quality of instruction; and (e) the institution's financial resources. Averaging these measures, the magazine ranks the 25 best national universities (p. 66); the 25 best national liberal arts colleges (p. 69); the 15 best regional colleges and universities (pp. 72-73) in each of four regions—North, South, Midwest, and West; and the 10 best regional liberal arts colleges in each of these regions (p. 77). These **rankings** have been reprinted in *U. S. News & World Report* (1990, pp. 4-25).

b. In 1988 (Bauer et al.), *U. S. News & World Report* published an earlier ranking of undergraduate colleges. In it, based on the average of five measures similar to the ones it later used in its 1989 ranking, it ranks the 25 best national universities (p. C6), the 25 best national liberal arts colleges (p. C8), the 25 best comprehensive colleges (p. C15), the 25 best small comprehensive colleges (p. C20), and the 25 best regional liberal arts colleges (p. C22).

In addition to its multidimensional rankings, *U. S. News & World Report* (Bauer et al., 1988) also published separate **rankings** of the 25 best national universities (p. C12) and the 25 best national liberal arts colleges (p. C12) by their academic reputation in the eyes of college presidents, academic deans, and admissions officers.

c. *U. S. News & World Report* had previously published **rankings** of undergraduate education in 1987 (Solorzano et al.), 1985 (Peterson), and 1983 (Solorzano with Quick). For several reasons, these **rankings** are not as methodologically

sound or as useful as the magazine's 1988 and 1989 **rankings** of undergraduate education.

d. The magazine plans to publish **rankings** of undergraduate education every fall.

4. Other Rankings

a. Clark (1986) ranks 336 private, four year, primarily undergraduate institutions (p. 22) by the number of their graduates who went on to earn doctorates from 1975-84. In addition to this composite ranking, she provides many **rankings** (pp. 23-42) based on the institutions' number of graduates who went on to earn doctorates in particular fields of study and various groups of fields of study. However, because the doctoral recipients on whom these **rankings** are based often earned their undergraduate degrees five or more years before receiving their doctorates, the data in this ranking reveal more about the doctorate-earning patterns of students at these institutions 10 or 20 years ago than of students today.

b. Fuller (1986) ranks all accredited colleges and universities by the proportion of those who earned baccalaureate **degrees** from them who went on to earn Ph.D.s from 1951-80. Unlike Clark's rankings, which are based on an institution's number of graduates who went on to earn doctorates, Fuller's are based on the proportion of an institution's graduates who later earned Ph.D.s. She displays tables showing the approximately 70 institutions whose graduates went on to earn Ph.D.s in all fields (Table 1, p. 43); in the humanities (Table 3, pp. 44-45); mathematics, the physical sciences, and engineering (Table 4, pp. 46-47); the life sciences (Table 5, pp. 48-49); and the social sciences (Table 6, pp. 50-51).

Because these **rankings** are based on students who earned doctorates from 10 to 40 years ago and these students ordinarily received their undergraduate degrees four or more years before their doctorates, the **rankings** reveal much more about the doctorate-attaining patterns of students who attended these schools 15 to 50 years ago than those of more recent students.

c. Tidball (1985) ranks undergraduate institutions by the number and proportion of their baccalaureate degree recipients who later entered medical school. She provides four **rankings**: (a) the 20 U.S. colleges and universities with the largest number of male baccalaureate graduates entering medical school from 1975-78 (Table 2, p. 391), (b) the 20 U.S. colleges and universities with the largest number of female

baccalaureate graduates entering medical school from 1975-78 (Table 2, p. 391), (c) the 20 U.S. colleges and universities with the largest proportion of male baccalaureate graduates entering medical school, 1975-78 (Table 3, p. 392), and (d) the 20 U.S. colleges and universities with the largest proportion of female graduates entering medical school, 1975-78 (Table 3, p. 392).

d. Most **rankings** of undergraduate education, like those discussed above, rank entire institutions, as opposed to individual departments and fields of study. Of the few **rankings** of particular departments or programs in undergraduate education, one—on undergraduate business programs—should be singled out because so many undergraduates major in business. Hunger and Wheelen (1980) rank the 11 best undergraduate business programs by reputation in the eyes of deans of business schools with accredited undergraduate programs (Table 1, p. 26) and also the 11 best undergraduate business programs by reputation in the eyes of senior personnel executives at leading firms (Table 1, p. 26).

X Community Colleges

Because a large majority of those attending community colleges attend one close to home and don't seek the best one nationally, regionally, or even in their own state, there is not a large demand for **rankings** of community colleges, and few have ever been published.

There is, however, at least one recent ranking of a few outstanding ones. Based on the nominations of 12 experts who were asked to nominate community colleges "known nationally for success in classroom instruction" (p. 9), the resulting list of five (Rouche & Baker, III, 1987, p. 10) can be taken as a rough approximation of a ranking of some of America's leading community colleges.

XI Conclusion

Academic quality **rankings** have often been criticized. An entire book (Dolan, 1976) has even been published excoriating reputational rankings, the most prominent type of ranking. Nevertheless, they have improved considerably in recent years. The reputational **rankings** by Cartter (1966), Roose and Andersen (1970), and the NAS (1982), whatever shortcomings they may have, are all far superior to the ranking by Keniston (1959), which, until Cartter's ranking,

was the most frequently consulted reputational ranking.

Rankings based upon faculty publication productivity, which in their early years were often done crudely, based simply on the number of books and articles the faculty of an entire department had published, are now often done in a more sophisticated manner, by the number of publications or pages published per individual faculty member. **Rankings** based on faculty citations in the *Science Citation Index* or *Social Sciences Citation Index*, which also used to be based on the number of citations a department had achieved, recently have been based more frequently on citations per faculty member. The **rankings** done by *U. S. News & World Report* have improved greatly since they began, with the magazine's **1989** ranking of undergraduate education (Sheler et al.) being far superior methodologically to its **1983** ranking (Solorzano with Quick).

Academic quality **rankings** can be, all things considered, useful tools in helping academic advisors counsel their students.

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