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The economics profession is interesting to economists for a number of interrelated reasons:

(1) For prurient and professional interest: It is fun to know about oneself and one's profession.

(2) As a case study: If economic theory is correct, it should apply to the economics profession. Since economists have firsthand knowledge of the economics profession and relatively easy access to data, it makes an excellent case study.

(3) Because one has an interest in the sociology of knowledge: Recent developments in methodology and philosophy of science have made a knowledge of the scientists an important aspect of a knowledge of science; they are the lens through which science is interpreted. Understanding the tendency of scientists to aim that lens in particular directions and to distort the reality they are studying is necessary if one is to interpret their analyses correctly.

These three reasons are interrelated, of course, and knowledge for one reason is often useful for others. But the division provides a useful way of organizing research about the profession.

In this article I survey some recent contributions to research on the profession, both to bring nonspecialists up to date on what is being done and to inform specialists of other researchers who are doing similar work. No attempt is made to survey all research, nor is any attempt made to provide a comprehensive bibliography. A bibliography, by itself, would take up the entire space allocated for this article. Instead, whenever possible, focus is given to unpublished papers which have been sent to me in response to the call for papers published in this journal. Researchers who are

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Table 1
Tschirhart's Ranking for Ten Top Schools (1974–1985)

Rank	*Department*	*Total QAS Articles*[a]
1	MIT	169.49
2	Harvard	153.82
3	Princeton	148.33
4	Yale	137.74
5	Chicago	136.56
6	Pennsylvania	102.51
7	Minnesota	89.26
8	UCLA	84.63
9	Columbia	80.40
10	Stanford	76.14

[a]Quality Adjusted Standardized articles, based on Liebowitz and Palmer's (1984) rankings.

interested in the papers are encouraged to write to the authors for a copy, sending your own papers along for comment. (An address list for the authors of all unpublished papers referred to in this article is provided in the Appendix.) These papers generally have long and complete bibliographies and the interested reader is referred to them.

Prurient and Professional Interest

Probably the most well-known research on the profession is that which ranks various departments. Previous well-known studies include Graves, Marchand, and Thompson (1982); Davis and Papanek (1984); Hirsch, Austin, Brooks, and Moore (1984); and Laband (1985). As one quickly discovers when reading this literature, there are numerous ways of ranking departments. Some include: ranking by opinion survey, by publications in some set of journals (weighted, or unweighted, by quality, length, and so on); by citations (weighted or unweighted); and by various combinations of those.

Ranking of Departments

John Tschirhart (forthcoming) has expanded upon previous rankings by extending the length of time and the number of journals available and adjusting for quality. Tschirhart's rankings by quality-adjusted articles in the period 1974–1985 are presented in Table 1.[1] Tschirhart's adjustments do not significantly change which schools are listed among the top 10 from the Graves, Marchand, and Thompson rankings. The usual schools are there.

[1]As a basis for his quality adjustment, Tschirhart uses Liebowitz and Palmer's (1984) rankings, which looked at citations of one journal in another journal.

Tschirhart's adjustments make a more significant difference for the lower-ranked schools. For example, after adjustment Arizona moved from 87 to 30 and Cal Tech moved from 65 to 13. (All comparisons are with the Graves, Marchand, and Thompson rankings.) In his rankings of schools by articles per capita, George Mason University moved up from 133 to 31; North Carolina State moved up from 142 to 49, and Brigham Young University moved up from 200 to 24. For these lower-ranked schools, the movement of a major publisher from one school to another can significantly change the results.

Another new ranking is that by DeLorme and Kamerschen (1987), who ranked departments based upon inclusion in Blaug and Sturges' (1986) "Who's Who in Economics," which itself was based primarily on citations.

Ranking of Departments by Field

More interesting, and of potentially more use to students, are the rankings of departments by fields. A number of recent papers ranked departments in a variety of fields. For example, using 108 journals, Tschirhart ranked 152 departments in 16 fields. To give you an idea of the results, an abbreviated version of Tschirhart's rankings in microeconomics and urban/regional studies is shown in Table 2.

Another recent contribution to ranking by fields is a paper by Tremblay, Tremblay, and Lee (forthcoming). Their general rankings are similar to rankings by other researchers, with seven of ten schools in their "top 10" also in Hirsch et al., and the remaining three in the top twenty. Also they ranked schools in eighteen separate fields. Their top ten ranking in history of thought, economic history, and labor theory is presented in Table 3. Baumann, Werden, and Williams (1987) also rank departments by field, but not adjusting for quality of journals. Their results for international economics and industrial organization are presented in Table 4.

Table 2
Tschirhart's Top Ten Schools in Selected Fields (1974–1985)

Rank	*Microeconomics (QAS articles)*[a]	*Urban and Regional (QAS articles)*[a]
1	Princeton (36.13)	MIT (3.07)
2	Pennsylvania (22.80)	Johns Hopkins (2.81)
3	MIT (18.48)	USC (2.34)
4	Chicago (18.34)	Wisconsin-Milwaukee (1.89)
5	Harvard (15.80)	UC-Irvine (1.68)
6	Texas A & M (15.53)	Illinois-Urbana (1.41)
7	Carnegie Mellon (14.24)	SUNY-Binghamton (1.31)
8	Yale (11.54)	Cornell (1.27)[b]
9	Columbia (9.35)	Georgia State (1.27)[b]
10	Northwestern (9.26)	Houston (0.99)

[a]Quality Adjusted Standardized articles, based on Liebowitz and Palmer's (1984) rankings.
[b]Tied in the rankings.

Table 3

Tremblay, Tremblay, & Lee's Ranking of Departments by Selected Fields, 1980–1986

Rank	*History of Economic Thought (faculty / pages)*[a]	*Economic History (faculty / pages)*[a]	*Labor Theory (faculty / pages)*[a]
1	MIT (3/127.71)	Rochester (3/49.21)	Princeton (13/305.41)
2	Chicago (5/73.30)	Princeton (2/45.05)	Chicago (8/269.07)
3	Yale (4/51.84)	UNC-Chapel Hill (2/41.48)	MIT (8/248.51)
4	George Mason (2/50.22)	New Mexico (1/33.80)	Stanford (7/236.79)
5	Duke (3/39.85)	Harvard (4/33.50)	Columbia (6/172.49)
6	Carnegie Mellon (1/37.18)	Minnesota (1/33.40)	UCLA (10/164.68)
7	Columbia (4/35.13)	Georgia (4/32.45)	Cornell (9/160.70)
8	UNC-Chapel Hill (1/32.92)	Yale (1/29.04)	Northwestern (6/125.85)
9	USC (1/31.32)	Kansas (2/25.46)	Pennsylvania (7/116.29)
10	UC-Berkeley (3/25.37)	Stanford (3/25.40)	Harvard (8/116.14)

[a]Faculty is the number of faculty members who have published in the field. Pages is the number of pages published.

Table 4

Baumann, Werden, and Williams' Ranking of Departments by Selected Fields, 1975–1984

Rank	*International (share of total publications)*[a]	*Industrial Organization (share of total publications)*[a]
1	MIT (100.00)	Harvard (100.00)
2	Columbia (99.92)	Yale (68.13)
3	Ohio State (55.04)	MIT (62.57)
4	Princeton (54.06)	Pennsylvania (45.09)
5	Chicago (50.55)	Princeton (42.84)
6	Illinois (48.59)	Michigan State (38.89)
7	Pennsylvania (48.01)	Stanford (38.01)
8	Duke (46.25)	Washington (36.85)
9	Harvard (37.47)	Penn State (34.80)
10	Wisconsin (34.35)	Texas A & M (34.21)

[a]Number of publications by this faculty as a percentage of publications by faculty of the Leading Department in this field.

Where the above three studies considered similar fields, these studies confirm each others' results: most top-10 rankings included five or six of the same schools. However, the ranking by fields reveals some of the problems with rankings generally. For example, the field I feel most comfortable with ranking is history of thought, and I would not send anyone to study history of thought at the top three schools listed. Those schools do not focus on, and probably don't even teach, history of thought! Similarly with economic history: Princeton is ranked second, but it has no courses in economic history, nor do any of the faculty consider themselves economic historians. Some of what they have written might be classified as economic history, but that doesn't make them economic historians. One must have much more specific contextual information than is provided in these studies to come up with a reasonable ranking system.

Other Rankings

Economics departments are not the only institutions that can be ranked. In a well-known article, Liebowitz and Palmer (1984) ranked journals, and in a forthcoming paper Medoff ranked economists and young economists by citation. His top 25 economists and the top 25 young economists are reported in Tables 5a and 5b.

Ninety-six percent of the top 25 economists, as defined and computed by Medoff, were concentrated at only twelve universities. They were the usual universities.

Ranking Rankings

Brar, Chow, and Hsing (undated Xerox) demonstrated that rankings do not change significantly for top schools with changes in measures. They ranked economics departments based on pages in the *American Economic Review*. At the end of their paper they compared their rankings with other, more complicated, rankings, and did not find statistically significant differences. Lower-ranked schools—from, say, 20 to 200—are much more sensitive to what measure is chosen by which to rank, showing the limitations of rankings.

My own general feeling is that the ranking game has been beat to death. Everyone knows that any ranking loses important dimensions and, among those active in the profession, the information about which schools rank where is known more precisely than the rankings disclose, especially in view of how quickly top individuals move from school to school and how quickly topics considered important change. When _____'s chairman moved to _____ to become a dean and all _____'s associate professors left in 1988, the profession knew that _____ was in trouble, but the rankings won't show that until 1992. When _____ moved from _____ to _____, taking _____ Journal with him, _____'s ranking went up significantly and _____ started searching for a replacement for _____. If you can fill in the blanks, there's no sense checking rankings. If you can't fill in the blanks, then you should confer with somebody who can before you say where a department ranks.

If rankings primarily tell either what one already knows or don't provide enough current information to be useful in advising students, why the enormous interest in

Table 5a
Medoff's Top Economists Ranked by Total and Mean Citation, 1971–1985[a]

Rank	*Name*	*Total Number of Citations*	*Rank by Mean Number*	*Mean Number*[b]
1	Becker, G. (Chicago)	4776	3	154.06
2	Theil, H. (Chicago)	3988	6	113.94
3	Feldstein, M. (Harvard)	3662	1	192.74
4	Lucas, R. (Chicago)	2655	4	120.68
5	Barro, R. (Rochester)	2624	2	154.35
6	Williamson, O. (Yale)	2287	7	99.43
7	Solow, R. (MIT)	2205	26	63.00
8	Griliches, Z. (Harvard)	2150	17	74.14
9	Sargent, T. (Minnesota)	2095	5	116.39
10	Olson, M. (Maryland)	2069	10	89.96
11	Mincer, J. (Columbia)	2060	21	71.03
12	Nerlove, M. (Pennsylvania)	1826	31	60.87
13	Stiglitz, J. (Princeton)	1823	9	91.15
14	Bowles, S. (Massachusetts)	1789	12	85.19
15	Goldberger, A. (Wisconsin)	1764	27	63.00
16	Jorgenson, D. (Harvard)	1751	24	64.85
17	Zellner, A. (Chicago)	1696	33	58.48
18	Phelps, E. (Columbia)	1681	28	62.26
19	Thurow, L. (MIT)	1595	18	72.50
20	Mansfield, E. (Pennsylvania)	1544	44	49.81
21	Caves, R. (Harvard)	1541	40	55.04
22	Freeman, R. (Harvard)	1529	13	84.94
23	Dornbusch, R. (MIT)	1484	8	98.93
24	Harberger, A. (UCLA)	1464	62	40.66
25	Demsetz, H. (UCLA)	1460	42	54.07

[a]The institutional affiliation is as of 1985. Nobel winners and economists over 65 (also as of 1985) were excluded.
[b]The mean number is determined by dividing the total number of citations by the number of years since the person received a Ph.D.

them? The answer, I believe, lies in their political (show them to the dean to support your budget increase request), psychological, and sociological (show them to your friends and to yourself to make them feel worse and you feel better) roles. More rankings increase the probability that one's school will have done well in one of them; cognitive dissonance takes care of the rest.

Economics as a Case Study

A second set of papers uses the economics profession as a case study for economic theories. Since economists have direct knowledge of the economics profession, why not study the way markets work by considering the economics profession? How are economists' salaries determined? What accounts for the differentials? Do gender and

Table 5b

Young Economists (under 40 in 1985), Ranked by Total and Mean Citation, 1971–1985

Rank	*Name*	*Total Number of Citations*[a]	*Rank by Mean Number*	*Mean Number*
1	Berndt, E. (MIT)	1099	1	78.50
2	Blinder, A. (Princeton)	1073	3	71.53
3	Pindyck, R. (MIT)	877	4	58.47
4	Grossman, S. (Princeton)	788	2	71.64
5	Hausman, J. (MIT)	635	5	48.85
6	Green, J. (Harvard)	582	10	35.13
7	Deaton, A. (Princeton)	543	6	45.25
8	Polinsky, M. (Stanford)	540	8	41.38
9	Boskin, M. (MIT)	483	15	32.20
10	Joskow, P. (MIT)	466	13	33.29
11	Schmidt, P. (MSU)	461	19	28.81
12	Varian, H. (Michigan)	442	11	34.00
13	Kouri, P. (NYU)	428	21	38.91
14	Darby, M. (UCLA)	428	9	26.75
15	Hamilton, B. (Johns Hopkins)	390	20	27.86
16	Taylor, J. (Stanford)	384	18	29.54
17	Ehrenberg, R. (Cornell)	375	28	23.44
18	Buiter, W. (Yale)	360	14	32.73
19	Shiller, R. (Yale)	353	23	25.21
20	Hansen, L. (Chicago)	352	7	44.00
21	Willig, R. (Princeton)	325	24	25.00
22	Polachek, S. (SUNY)	315	26	24.23
23	Rosen, H. (Princeton)	305	22	25.42
24	Shoven, J. (Stanford)	281	36	21.62
25	Trussel, J. (Princeton)	272	30	22.67

[a]When total number of citations is equal, ranking is based on mean number.

racial discrimination exist in the economics profession and, if so, why and how much? While I suspect there is a fair amount of this analysis going on, I did not receive significant numbers of working papers which would be classified in this group.

Taube and Davis (1987), looking at the AEA clearinghouse for economists, in preliminary results, found that publications had little impact on the initial academic salary offers. Instead, they found that economists' age, teaching experience, and the prestige of the college they attended did.

Sauer (1988) considered the value of a published paper to an academic economist. He found that a publication in the top journal was worth an increase in salary of $1602. Publication in lower journals also increased income, but by a smaller amount. For example, a publication in the 40th ranked journal was worth 45 percent of a publication in the top journal. Looking at the returns to authorship, he found some discounting for co-authorship, but could not reliably estimate how much.

Diamond (1986), expanding on earlier work by Hamermesh, Johnson, and Weisbrod (1982), studied economists' salaries and found that the marginal value of a

citation is between $50 and $1300. In this paper there are 38 citations; thus I have created between $1900 and $49,400 in wealth, unless no citation illusion exists and the Diamond effect, like the Pigou effect, is a zero sum game. Hamermesh (1989), using data on economists' salaries, showed that the higher pay associated with citations is robust. He concludes that in economics, pay reflects performance. Kasa (1988) looks at the speed at which economic human capital depreciates. His evidence suggests that economic knowledge depreciates at about the same rate as does knowledge of physics, while knowledge of psychology and philosophy depreciates at a somewhat slower rate.[2]

Stapleton (1988) looks at forecasts of the economic labor market and determines supply and demand equations for economists. He finds that a rational expectations model best fits the data and concludes that predictions of "baby boom" shortages and surpluses of economists are wrong. Economists correctly predict future shortages and surpluses and adjust for them. Whitten (forthcoming) using survey data, considered the criteria used for tenure. He found that although criteria for tenure differ among schools, on average, teaching and publications were equally important and that grants were ranked about half as important as teaching and publications. Public service and administration ranked somewhat lower than the other criteria. In judging the value of publication, refereed articles ranked highest, books ranked second (significantly below articles), and contributions to edited volumes ranked third. Publication in non-refereed journals ranked fourth, book reviews fifth, and newspaper articles last.

About half of the schools Whitten surveyed discounted co-authored articles. Looking at this same issue, Barnett, Ault, and Kaserman (1987) found that the number of co-authored articles has been increasing. They attributed this growth to expansion due to division of labor, increasing opportunity cost of time, and a rising incentive to diversify. Diamond and Haurin (1987) studied changes in the fields of interest among economists, finding that elite schools were trend-setters.

Discrimination in Economics

Diamond (December 1987) considered the issue of minority representation in the AEA. He found some evidence of increased representation of women and blacks in the profession from 1965 to 1985, but concludes that both groups remain underrepresented in relation to their proportion in the population. In another paper considering minority representation, Kymn and Elkin (1988) looked at the percentage of female authors presenting papers at the AEA meetings. They found that it averaged 3 percent from 1946 to 1970, at which time it increased to about 8 percent, where it has remained. Taube and Davis (1987) found that women economists received statistically significant lower salary offers than men, although they do not explore why.

Predominance of U.S. Economists

Most of the previously discussed work focused on the U.S. economics profession. As pointed out in a paper by Frey and Pommerehne (1988), this is not unusual. They report that 67 percent of the "eminent living economists" are U.S. residents, and that

[2]Depreciation is measured by how recent the citations in articles are.

"Anglo-Saxon" countries (which they identify as the U.S., the United Kingdom, and Canada exclusive of French Canada) account for 86 percent of all eminent living economists. Two explanations they offer for this predominance are: (1) a self-fulfilling definition of "eminent"—to be eminent you must be published in U.S. journals; and (2) the greater incentives to publish which U.S. economists have compared to economists in other countries.

A paper by Malouin and Outreville (forthcoming) provides some additional insight into the "self-fulfilling definition" explanation. They surveyed economists to consider ranking of journals by country. They found that the *American Economic Review* ranked first in the U.S. and second in the other countries surveyed (the United Kingdom, France, and the French Canadian province of Quebec). *Econometrica* ranked first in the United Kingdom and Quebec; the *Journal of Political Economy* ranked first in France. Only two French-language journals ranked in the top ten economic journals in France and no French-language journal ranked in the top ten in Quebec.

Methodological Interest in the Economic Profession

A final reason economists are interested in the economics profession is that understanding economists is necessary to understanding economics. As methodology has evolved from logical positivism to Lakatosian to the new sociological, rhetorical, and economic methodologies, understanding the economics profession has become increasingly important to understanding the economy.[3] As discussed in Colander and Coats (1989), in methodologies such as logical positivism, economists search for the truth or the best representation of it that they can find. There is no need to analyze the nature of the economics profession in order to understand economics. In the new approaches to methodology, one must understand economists to understand economics. For example, in the economic approach to methodology, it is not assumed that economists search for truth; they maximize utility, of which "discovering truth" may be one element.

Thus, these new methodologies raise the question of whether there exists an "invisible hand of truth" which guides the progression of science. To discover whether an "invisible hand of truth" exists which guides economists, one must study the economics profession. Only by doing so can one interpret economic research results.

Positivism and its derivative methodologies assume that if a theory is false, scientists will search it out and demonstrate its falsity by formal empirical testing. The new economic methodologies do not accept this premise. They argue that one must

[3]Since the methodological terminology may well be unfamiliar to many readers, brief definitions may be helpful. Positivism (hypothesis testing by formal empirical tests) begat Popperianism, which was negative positivism. Empirical testing is not done to discover truth but to weed out false hypotheses. Lakatosian methodology questions the objectivity of empirical testing and breaks down hypotheses into hard core (hypotheses accepted without testing) and peripheral (derived hypotheses which are tested). The new sociological, rhetorical, and economic methodologies argue that formal empirical testing is only one of the ways in which scientific theories are chosen; they differ in what selection criteria they assume are used. References and further discussion can be found in Landreth and Colander (1989).

understand the profession to know whether such a search for truth is taking place. Often, they argue, it is not.

The papers in this area are many; the arguments are complicated and controversial, and all I can present here are brief summaries in a single sentence of the argument of some of the papers. Five papers questioning the positivist and Lakatosian methodologies are the following: (1) Dewald, Thursby, and Anderson (1986), who find that inadvertent errors in published empirical articles are commonplace, thus correct empirical tests of hypotheses are not guiding the choices among hypotheses; (2) Grubel and Boland (1986), who argue that the structure of economic papers reflects interest-group behavior; (3) Ault and Ekeland (1987), who argue that it is non-economic to search the literature "too hard"; (4) Colander (1988), who argues that publishability and teachability criteria predominate in determining the choice of macroeconomic theories; (5) Frey, Schneider, and Pommerehne (1985), who present empirical evidence to support the argument that "the views of professional economists on the desirability of the incentive as opposed to the regulatory approach [to solve problems such as pollution] is significantly influenced by organization, professional orientation, political ideology, and country of residence."

A paper supporting the invisible hand of truth argument is Diamond (September 1987). He argues that scope and elegance of theories is an important element in scientists' utility function and that this accounts for the progression in scientific theories. Other papers that fit into this broad category are surveyed in an annotated bibliography by Diamond (September 1987).

Conclusion

The survey has been brief; I hope it has whetted your interest in some of these articles so that you will look up those that have been published and write for those which haven't. In studying the economics profession, one quickly learns the importance of informal networks, contacts, and exchanges of ideas. Much if not most of the debate and discussion about economic ideas takes place at the pre-working paper, workshop, and working paper stages.

Publication is often a tombstone: the end of debate, not the beginning. By focusing on not-yet-published work, this paper may help to encourage more debate and to include more people in the invisible colleges that make up our profession.

Appendix
Names and Addresses of Authors of Unpublished Papers Referenced Here

Jagjit Brar, Department of Economics, P.O. Box 813, University Station, Southeastern Louisiana University, Hammon, Louisiana 70402.

Arthur M. Diamond, Jr., Department of Economics, College of Business Administration, University of Nebraska at Omaha, Omaha, Nebraska 68182-0048.

Kenneth Kasa, Johnson Graduate School of Management, Malott Hall, Cornell University, Ithaca, New York 14853.

Kern O. Kymn, Department of Economics, West Virginia University, P.O. Box 6025, Morgantown, West Virginia 26506.

David C. Stapleton, Department of Economics, Dartmouth College, Hanover, New Hampshire 03755.

Paul M. Taube, Department of Economics and Finance, College of Business Administration, Northeast Louisiana University, Monroe, Louisiana 71209-0130.

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