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Assessing the Relative Impacts of Economic Journals

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ASSESSING THE RELATIVE IMPACTS OF ECONOMIC JOURNALS

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Department of Economics Library

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Academic journals have played an increasingly important role in the dissemination of scientific information throughout this century, particularly during the last decade. This fact is no less true in economics than it is in other disciplines. The number of journals in existence has also greatly increased in recent decades. For these as well as other reasons, several recent efforts have been made to judge the various qualities and merits of individual journals. Besides being a rather enjoyable form of navel gazing for those within a given discipline, such activities also provide valuable information. Where one publishes articles can affect promotion, tenure, and salary decisions at one's present job; it can also affect one's brand name and the ability to change jobs.

The purpose of this study is to provide a ranking of journals based on two criteria. The first, and most important criterion will be the measurement of a journal's impact on the writings of other academics, either within the economics profession only or in the world at large. The measurement used to create this ranking, to be described in detail below, is the number of citations authors make to articles appearing in various journals. The second criterion is the value of journals as perceived subjectively by department chairmen. Data from surveys sent to department chairmen are used to create this particular ranking. In creating both sets of rankings, we attempted

This can be illustrated by the fact that academic libraries have increased their budget for journals by about 70% and yet the budget for books rose by only about 8% during the early 1970's. See Fry and White [5]. This increased use of journals is probably at least partially attributable to the advent of the photocopier. See Liebowitz [8].

to preserve some form of cardinality, so that these rankings might be of maximum value to readers. After a brief discussion of several previous studies, we will proceed to a more complete explanation of our procedures and results.

I. <u>Past Studies</u>

Within our discipline there have been several studies attempting to measure journal 'quality'. The most recent flurry of activity occurred in the early 1970's. In his 1971 article, Coats [4] foreshadowed our work to some extent by examining the citations from major AEA survey volumes to articles in ten different journals in the early 1950's and again in the mid 1960's. In a 1972 study by Moore [9] the institutional affiliations of authors were used to measure journal quality. Of course the institutional rank had to be determined in some manner, and this created possible circularities if institutional rankings were dependent on the publication records of individual faculty members. Two other 1972 studies attempted to rank journals: the first, by Billings and Viksnins [1], used citations from three top journals to other journals in order to determine the quality of other journals; the second study, by Skeels and Taylor [10], used articles on graduate reading lists to rank journals. The three journals used by Billings and Viksnins [American Economic Review, Econometrica and Economic Journal] were picked in a somewhat arbitrary manner, and there was no attempt to adjust for journal size or age. Such adjustments could be of importance,

We are aware of several studies rating Psychology journals using citations. White and Geoffrey [14] used a ten percent sample of pages of the (1974) citation index to derive a citation per article ranking based on 1972 and 1973 articles. Rushton and Roediger [10] use results calculated by the authors of the citation index (called the 'impact factor' which is defined as the number of citations in a year to articles from the two previous years divided by the number of articles) to rank psychology journals. For a criticism of these rankings see Voos and Dagaev [13].

³Since quality is a somewhat arbitrary and subjective term and since it is possible that some of the best quality work exists in some person's filing cabinet or in a very low circulation journal, we find the use of the term somewhat egocentric. Although we are hesitant to use the term 'quality' to describe the characteristic of journals which we shall be measuring, others have been much less reluctant to use this term.

since older and longer journals can reasonably be expected to receive more citations. The Skeels and Taylor study, besides using only a small portion of all reading lists, also neglected to control for the size or age of a journal. In addition, the rankings were based on only a small percentage of the published output of the journals.

In 1973, a paper by Hawkins, Ritter and Walter [6] provided what was probably the most influential recent ranking of economics journals. Their methodology consisted of sending out questionnaires to a heterogeneous group of academic economists asking them to rank economic journals. After the first survey was completed, the respondents were given the results and asked to rank the journals once again, a process known as the Delphi technique. No attempt was made to keep the rankings cardinal. Our study includes a survey of department chairmen, which attempts to provide cardinality but does not use the Delphi technique.

A ranking performed in 1974 by Bush, Hamelman and Staaf [2] is something of a precursor to some of the work in our study. They calculated the number of citations each of fourteen journals received from itself and from the other thirteen and used these numbers to create a ranking of these fourteen journals. Our study differs from theirs in at least three important ways: (1) we standardize journals to compensate for size differentials; (2) we include a much larger number of journals; (3) we use an iterative process to 'quality adjust' the number of citations received by individual journals

In 1980, their article received more citations and in journals ranked higher by our study than did any of the other articles cited in this section.

2. Rankings Based on Citations

(a) Impact Per Journal

The major rankings of journals which we shall present are based on citations to articles in particular journals by articles in other journals. At least part of the reason that previous studies using citations were based on a very small sample of journals was the high cost involved in looking up and counting citations from a large number of journals. Fortunately, the advent of the Social Science Citation Index (SSCI) eliminates the need for such laborious work.

The SSCI provides information on the total number of citations from approximately 4300 journals covering all of the social sciences. These citations can be to books, journals, unpublished materials, etc. The economics journals included in the SSCI and included in this study are almost all the journals which might be of use to academic economists. Volume 6 of the 1980 SSCI gathers data for individual journals in a form which allows journals to be ranked in several different ways. For example, the SSCI totals all the citations from the universe of SSCI journals which accrue to any particular journal. This information is further categorized into citations to articles appearing in a particular journal in a given year.

Table I provides rankings of journals based on these numbers. Column 1 ranks journals by the total number of citations received from other journals in 1980 as a percentage of the citations to the leading journal. The citing articles were all published in 1980 although the cited articles may have been published at any time during the life of the journal. The journals chosen to be included in Table I come from several recent issues of the <u>Journal of Economic Literature</u>. The numbers in column 1 reflect a journal's accumulated impact on current authors, and the rankings will probably not be very

TABLE 1

Impact of Journals Rankings Based on Citations in 1980

Rankings Based on Citations to All Articles Ever Published by Journals			Rankings Bas on Citations Articles Publ 1975-1979	to	Rankings Based on Quality Adjusted Citations to Articles Published 1975-1979		
1.	Am Ec Rev (4065)	100.00	Am Ec Rev (1355)	100.00	Am Ec Rev	100.00	
2.	J Am St Ass	81.57	J Pol Ec	79.56	J Pol Ec	80.88	
3.	J Pol Ec	78 •45	Econometrica	66.13	Econometrica	63.96	
_	Econometrica	71 .51	J Am St Ass	56.24	J Mon Ec	22.96	
_	Yale Law J	55.06	Yale Law J	55.13	J Ec Theory	22.58	
	Rev Ec Stat	39.02	J Finance	42.80	Rev Ec Stud	22.5 2	
7.	J Finance	31.93	Rev Ec Stat	36.31	Int Ec Rev	19.04	
	Rev Ec Stud	29.50	Am J Ag Ec	32.03	Bell J Ec	17.43	
9.	Quart J Ec	29.13	Bell J Ec	30.11	J Finance	17.42	
10.	J Roy St Ass B	26.67	Rev Ec Stud	26.49	J Econometrics*	15.99	
11.	Ec J	26.64	J Ec Theory	24.58	Scand J Econ	15.13	
12.	Mich Law Rev	21.89	Mich Law Rev	23.84	Brookings Pap	13.74	
13.	J Ec Theory	19.75	J Mon Ec	21.70	J Pub Ec	12.12	
-	Bell J Ec	18.15	Ec J	20.66	J Fin Ec	11.57	
15.	Am J Ag Ec	16.78	J Fin Ec	20.44	Rev Ec Stat	11.45	
16.	Int Ec Rev	16.75	Int Ec Rev	20.37	J Am St Ass	10.87	
17.	Demography	15.79	Brookings Pap	19.70	Quart J Ec	10.70	
18.	J Law and Ec	15.25	Demography	19.26	J Hum Res	9.93	
19.	Mon Lab Rev	14.86	J Ec Lit	18.38	J Ec Lit	9.69	
20.	Economica	14.19	Quart J Ec	17.64	Ec J	9.59	
21.	J Business	13.11	J Cons Res	16.53	J Law Ec	9.11	
-	Pop Dev Rev	11.59	J Econometrics*	16.31	Can J Ec	8.80	
23.	Brookings Pap	11.49	J Roy St Ass B	16.31	Ec Inquiry	8.70	
24.	Southern Ec J	11.05	J Pub Ec	16.24	J Math Ec*	8.13	
25.		10.70	Southern Ec J	15.65	J Int Ec	7.96	
26.	J Ec Hist	10.26	J Law Ec	15.65	Southern Ec J	7.67	
27.	J Ec Lit	10.01	Reg Stud	14.91	J Mon Cr Bk	7.22	
	Ec Hist Rev	9.62	World Dev	14.61	Economica	5.89	
29.	J Fin Q An	9.57	Ec Inquiry	13.87	Nat Tax J	5.25	
30.	J Mon Cr Bk	9.32	J Hum Res	13.87	Am J Ag Ec	4.20	
31.	J Pub Ec	8.81	J Mon Cr Bk	13.14	J Legal Stud	3.09	
32.	Nat Tax J	8.73	J Urban Ec	12.99	J Fin Q An	2.76	
33.	Inquiry	8.51	Ec Letters	12.69	J Business	2.72	
34.	J Hum Res	8.44	J Legal Stud	12.03	Ind Lab Rev	2.51	
35.	J Reg Sci	8.36	Month Lab Rev	11.88	J Reg Sci	2.27	
36.	Ec Dev Cult Ch	8.22	Soc Sc Quart	11.81	J Urban Ec	2.26	
37 .	Reg Stud	8.22	Nat Tax J	11.81	Eur Ec Rev	2.15	
° 38.	J Fin Ec	8.02	Scand J Ec	11.70	Kyklos	2.03	
39.	Soc Sc Quart	7.95	Pop Stud	11.59	J Dev Ec	1.71	
40.	Ind Lab Rel Rev	7.92	Inquiry	11.14	Yale Law J	1.66	
				•			

				1		
41.	J Mon Ec	7.43	J Fin Q An	11.14	J Ind Ec	1.61
42.	J Leg Stud	7.28	J Ec Hist	9.89	Manchester Sch	1.53
43.	Ec Geography	7.06	J Business	9.52	J Acctg Res	1.44
44.	Land Ec	6.86	Economica	9.08	Mon Lab Rev	1.43
45 .	J Acctg Res	6.84	J Acctg Res	8.86	J Roy St Ass A	1.43
46.	Ox Ec Pap	6.79	Ind Lab Rev	8.56	Pub Choice	1.05
47.	J Cons Res	6.57	Can J Ec	8.56	J Ec Iss	.99
48 .	Ind Rel	6.35	J Math Ec*	8.52	Pub Fin	.93
49.	World Dev	5.88	J Int Ec	8.49	Ox Ec Pap	.82.
50.	Urban Stud	5.83	J Reg Sci	8,34	Ec Letters	.82
51.	Ec Inquiry	5.66	Pub Pol	8.34	Welt Archiv	.79
52.	Can J Ec	5 . 54	Urb Stud	8.27	J Ec Hist	.67
53.		5.51	Ec Dev Cult Ch	8.19	Reg Sci	.62
54.	Pub Choice	5.34	Pub Choice	8.12	J Ec Ed	.62
55.		4.90	Nat Res J	7.68	Ox Bull Ec	.61
-	Ec Letters	4.45	Ox Ec Pap	7.60		.56
	Nat Res J	4.40	Ec Geog	7.53	J Dev Areas	.55
	Kyklos	4.38	Land Ec	7.45	J Roy St Ass B	.46
59.		4.33	J Roy St Ass A	7.45	Ex Ec Hist	.38
60.	Int Lab Rev	4.26	Ind Rel	7.45	Land Ec	.38
	Manch Sch Ec	4.11	Policy Anal	7.08	Applied Ec	.29
62.		4.03	Ec Hist Rev	6.64	J Env Ec M Sc	.29
63.	Pub Pol	3.99	J W1d Tr Law	6.57	Brit J Ind Rel	.28
64.	J Dev Stud	3.47	Brit J Ind Rel	6.42	Pub Fin Q	.23
65.	Ec Record	3.42	Welt Archiv		Inquiry	.23
66.	J Wld Tr Law	3.42		6.27	Urban Stud	
67.	Int Soc Sci J	3.30	J Env Ec M Sc	5.61	Ec Dev Cult Ch	.19
68.		3.30	Eur Ec Rev	5.61	Scot J Pol Ec	.18
59.	Welt Archiv J Risk Ins	3.20	Kyklos	5.46	J Ec Bus	.17-
70.		3.15	J Ec Issues	5.09	Hist Pol Ec	.14
70.	Eur Ec Rev	3.08	Reg Sci	5.09	Ind Rel	.13
72.	J Ind Ec	2.76	Lab Hist	4.72	Q Rev Ec Bus	.12=
	Scot J Pol Ec	2.68	J Risk Ins	4.65	Ec Record	.12
73. 74.	J Env Ec M Sc	2.68	Int Lab Rev	4.43	Lloyd B Rev	.11
	Lab Hist	2.56	J Dev Stud	4.35	Mich Law	.11
75.	Cal Mngt Rev		Sloan Mntg Rev	4.28	Int Lab Rev	.11
76.	J Ec Issues	2.46 2.41	Soc Res	4.28	J Cons Res	.11
77.	Policy Anal		Int Soc Sc J	4.06	J Dev Stud	.10
78.	Applied Ec	2.34	Ex Ec Hist	4.06	World Dev	.09
79.	Sloan Mngt Rev	2.24	Scot J Pol Ec	4.06	Reg Stud	.07
80.	Ex Ec Hist	2.14	J Dev Ec	3.99	J Risk Ins	.04
81.	Ox Bull Ec St	2.04	Cal Mngt Rev	3.76	Ec Geog	.04
82.	Hist Pol Ec	2.02	Manchester Sch	3.62	Rev Soc Ec	.04
83.	Pub Fin	1.99	Ec Record	3.47	Neb J Ec Bus	.04
34.	Sci and Soc	1.99	J Ind Ec	3.47	Sloan Mngt Rev	.03
35.	Reg Sc Urb Ec	1.97	Applied Ec	3.32	Pub Pol	.03
36.	Reg Ec Bus	1.89	Hist Pol Ec	3.25	Malay Ec Rev	.03
87.	Am J Ec Soc	1.85	Q Rev Ec Bus	2.80	Ec Hist Rev	.03
88.	Bus Hist Rev	1.57	Am J Ec Soc	2.66	J Trans Ec	.02
39.	J Dev Ec	1.55	Ox Bull Ec	2.66	Int J Ec	.02
90.	Pub Fin Q	1.48	Pub Fin Q	2.66	Int J Soc Ec	.02
		!			1	

TABLE I (CONTINUED)

≠ 91.	J Trans Ec P	1.45	Pub Fin	2.51	Soc Sci Q	.02
	Lloyds B Rev	1.33	Sci and Soc	2.36	Austln J Ag Ec	.01
93	J Dev Areas	1.28	Lloyds B Rev	2.14	Am J Ec Soc	.01
94.	J Com Mrk St	.91	J Dev Areas	2.07	Nat Res J	.00
95.	J Ec Bus	.91	J Trans Ec	1.99	Pop Stud	•00
96.	Rev Soc Ec	.91	J Ec Bus	1.92	Lab Hist	.00
-	J Int Bus St	.76	J Int Bus	1.77	J W1d Tr Law	.00
98.	J Ec Ed	.62	Int J Soc Ec	1.55	Demography	.00
99.	Int J Soc Ec	.57	J Com Mrk St	1.40	Policy Anal	.00
-	Malay Ec Rev	•44	Rev Soc Ec	1,33	Cal Mngt Rev	.00
	Neb J Ec Bus	.37	Bus Hist Rev	1.03	Bus Hist Rev	.00
-	Austln J Ag Ec	•32	J Ec Ed	.89	J Com Mrkt Stud	.00
03.	_	.17	Neb J Ec B	.81	Soc Res	.00
	Matekon	.07	Malay Ec Rev	•44	Sci and Soc	.00
05.	J Econometrics	n/A	Austln J Ag Ec	.15	Int Soc Sc J	.00
06.	J Math Ec	n/A	J Ec Stud	. 15	Matekon	.00
07.	Scand J Ec**	n/a	Matekon	. 15	J Ec Stud	.00
		1				

^{*}approximate value - see text.

^{**}The SSCI did not contain information on the $\underline{\text{Scandinavian Journal of Economics}}$ prior to 1976 when its name changed.

surprising to most readers.⁵ The <u>American Economic Review</u> leads the list with a total of 4065 citations garnered from 1980 articles in the SSCI universe of journals.⁶ Of course, the <u>American Economic Review</u> has had changes in its influence over its life, as have many other journals, and the numbers in column 1 mask such changes.⁷ More importantly, journals of recent vintage have a much smaller inventory of articles to be cited and will certainly be at a disadvantage relative to longer lived journals.

For these reasons journals were standardized to equivalent ages. The citations to articles published only in the 1975-1979 period were used in the rankings of column 2 (1355 for <u>AER</u>), as well as for all other rankings based on citations. Column 2, therefore measures the 1980 influence of articles appearing in journals in the 1975-1979 period. There are a few notable changes in rankings. The <u>Journal of Monetary Economics</u> moves up from rank 41

⁵Readers might be surprised by the standing of some journals such as the <u>Yale Law Journal</u>. It is important, however, to remember that the <u>Yale Law Journal</u> is an influential law journal and its inclusion in the rankings was dictated by its inclusion in the <u>JEL</u>. An attempt to adjust the rankings by the influence of the citing journal will be attempted shortly (in column 3) and many seeming anomalies will disappear.

⁶The numbers in Table 1 do not represent the total number of cites. Instead they represent the cites as a percentage of the number of cites in the leading journals. This form of measurement will be used in the next two tables as well.

⁷For a history of the relative influence of several leading journals see Coats [3] and Leamer [6].

Two journals, Economic Letters and Scandanavian Journal of Economics, did not have data for the early years. In this case the data were extrapolated back based on the average pattern of citations to articles written in different years of the existence of other, less new journals. Two other journals for which data were not available in column 1 of Table 1 did not have data explicitly collected for them in the SSCI, but data were available for these journals in the listings of citations by articles in other journals and they were included in the study. The Journal of Econometrics' impact was approximated by comparing the number of citations it received from a given journal with those received from the same journal to Econometrica. The ratio formed was then used to scale the impact of the Journal of Econometrics as a percentage of Econometrica's rankings in Tables 1-3, with differences in the number of characters or articles taken into account. The same procedure was used in calculating values for the Journal of Mathematical Economics, which was compared with the Journal of Economic Theory.

Quarterly Journal of Economics moves down from 9 to 20; Journal of Urban

Economics moves from 53 to 32; Economic Inquiry moves from 51 to 29; Economica

moves from 20 to 44. Most of the journals which significantly moved up in

the rankings are relatively new journals which do not have a large inventory

of articles prior to 1975. In other instances when a journal dramatically

changes rank, it most likely indicates an alteration in the journal's impact

over time or perhaps a change in size or frequency of publication. We

suspect, however, that most readers will be less interested in the impact of

a journal's old articles than in the impact of a journal's recent articles and

therefore expect that column 2 should prove of greater interest than column 1.

The first two columns of Table I provide a measure of a journal's impact on all journals contained in the SSCI. Therefore, the total impact includes a journal's impact on many disciplines other than economics. For many purposes this may be an entirely reasonable measure of influence, but economists, being a rather narrow-minded and self-centered group, are probably more concerned with a journal's influence on the economics profession. And even within the discipline, a journal's impact on highly regarded journals is probably of greater value than its impact on low quality journals. In column 3 of Table 1 we create a ranking which addresses these issues.

A ranking which gives less credit for citations from non-economic or low quality economic journals can be created in the following manner. First we weight each citation according to the total number of citations received by the citing journal if it is on our list; otherwise the citation receives a weight of zero. This has two immediate impacts: (1) citations from

Data for the <u>Journal of the American Statistical Association</u> and the <u>Journal of the Royal Statistical Association</u> (sections A and B) were collected primarily from the <u>Science Citation Index</u>. Both indexes were cross-researched to make the data base as complete as possible.

Unfortunately all of the data provided by the <u>SSCI</u> and the <u>SCI</u> are somewhat incomplete in that they don't list citations from one journal to another if there were relatively few of them over the past five or ten years. To calculate our

journals not on our list get zero weight and therefore the influence of 'non-economic' journals disappears; (2) the quality of a citation from an economics journal is determined by its initial ranking in column 2 of Table I. The numbers contained in this new ranking are then used as weights in the next iteration of this procedure.

The initial scheme can be represented as:

$$Q_{\mathbf{i}} = \sum_{j=1}^{N} C_{\mathbf{i}, \mathbf{j}} \cdot \frac{\sum_{k=1}^{C} \mathbf{j} k}{m} \qquad \qquad C_{\mathbf{i}, \mathbf{j}} = \text{\# of citations to journal i from journal j.}$$

$$m = \text{\# of journals in SSCI.}$$

$$m = \text{\# of 'economics' journals.}$$

$$C_{\text{max,k}} = \text{\# of citations to the most heavily cited journal from journal k.}$$

where the Q_i 's are the quality adjusted values. The logic of the procedure is such that once a set of Q_i 's are calculated, these values can then be used to calculate a new set of Q_i 's. In general, the hth iteration of this procedure can be represented as:

$$Q_{i,h} = \sum_{j=0}^{N} C_{ij} \frac{Q_{j,h-1}}{Q_{max,h-1}}.$$

$$Q_{i,h} = h^{th} \text{ iterative value of } Q_{i}.$$

$$Q_{max,h-1} = \text{value of } Q \text{ for journal with the largest value in the h-1 iteration.}$$

This process could go on ad infinitum but fortunately the results always converged after only a small number of iterations. The results after fifty

rankings, we assumed that these citations, listed as "other" in the indexes, were as likely to be from economics journals of similar rankings as those for which data were available. This assumption allowed us to attach pro-rated weights to the citations tabulated in the "other" category, both for the initial rankings and for our iterative process.

The reader will, of course, notice the circularity inherent in creating a quality adjusted ranking. The purpose is to rank journals in some sense, based on their 'quality' and so how can we rate the 'quality' of any particular citation before the ranking of journal quality has been completed? We unabashedly ignore this problem by treating each interim ranking as an appropriate ranking on which to judge quality and use it to create the next ranking.

This type of convergence is not a necessary property of this process. For example assume that there are only two journals in the sample, that both cite only articles in themselves and that the first journal has 100 cites to itself and the second journal has 200. The non-quality-adjusted ratio is 2:1. After one iteration to adjust

iterations (well after convergence) are portrayed in column 3 of Table I.

There are some fairly general characterizations that can be made about these quality adjusted results. First, there is a much larger differential between the top and bottom journals than existed in the previous ranking. Second, journals not considered primarily economic journals (e.g., Yale Law Journal, Journal of the American Statistical Association) drop significantly, as one would hope for this type of ranking. Third, the value of almost every journal falls in comparison with the American Economic Review or Journal of Political Economy, indicating that articles in most journals receive not only fewer cites than these two but lower quality cites as well.

There are some major changes in these rankings compared to those in column 2. The <u>Journal of Monetary Economics</u> moves from 13 to 4; <u>The Canadian Journal of Economics</u> moves from 44 to 21; <u>The Journal of Public Economics</u> moves from 24 to 12; <u>The Journal of Human Resources</u> moves from 38 to 16. Each reader can determine for himself other major changes of interest.

(b) Impact Per Manuscript

While the <u>overall</u> impact of particular journals in the 1975-79 period is certainly of interest, the average reader is probably much more interested in knowing which journals are likely to provide the greatest impact for any given manuscript. A journal might, after all, attain a rather high degree of total influence through brute force, say, by publishing 12 issues per year and having each issue comprise 500 pages. A measure of influence, holding the size of journals constant, should indicate the relative "bang for the buck" provided by various journals.

for quality the ratio of $Q_{2,1}/Q_{1,1}$ becomes 4:1. After two iterations the ratio of $Q_{2,2}/Q_{1,2}$ becomes 8:1. Then 16:1 and so forth. Convergence only occurs when the ratio approaches infinity.

¹³This is partially due to the iterative process which tends to make the differentials between journals greater in a manner akin to that portrayed in footnote 12.

We performed two different adjustments to correct for this problem. The first, and we believe more successful, adjustment was to divide citations by the total number of characters published by a journal in the 1975-79 period. The number of characters was calculated as the number of pages published in this period (excluding book reviews, advertisements, etc.) times the number of characters contained on a complete page with no mathematical notation. Adjustments were made when the sizes of pages changed over the period. The iterative procedure then used citations per character as the weights in the first iteration and $Q_{i,h-1}/Z_i$ as the weight in the h^{th} iteration (where Z_i = number of characters in journal i). After each iteration the resulting number for each journal was divided by the number of characters published by that journal in order that the results always be consistent. This can be represented as:

$$Q_{i,h} = (\sum_{j=1}^{N} C_{ij} \cdot Q_{i,h-1})/Z_{i}$$
 $Z_{i} = \text{number of characters published}$ by journal i.

where

$$Q_{i,1} = \sum_{j=1}^{N} C_{ij}/Z_{i}$$
.

The rankings based on citations/character are reported in the first two columns of Table 2. Column 1 represents total citations/total characters and can be derived from column 2 of Table 1 by dividing each of the values in Table 1 by the number of characters published by the journal and normalizing the highest value to 100. Controlling for the number of characters causes some fairly notable changes in the rankings. Journals with a small amount of printed matter (such as <u>Journal of Economic Literature</u>, <u>Journal of Financial</u> Economics) move up in the rankings while others with a large amount of printed

TABLE 2

Impact of Journals Adjusted for Size Rankings Based on 1980 citations to articles published 1975-1979

	Rankings Based Citations Per Character	on	Rankings Based on Quality Adjusted Citati Per Character	ons	Rankings Based o Citations Per Article	on	Rankings Based on Quality Adjusted Citation Per Article	ns
1.	J Pol Ec	100.00	J Pol Ec	100.00	JEc Lit 1	00.00	J Ec Lit	100.00
2.	Am Ec Rev	93.00	J Fin Ec	98.97	Yale Law J	76.62	Brookings Pap	96.86
	J Ec Lit	81.61	Am Ec Rev	76.56		75.32	J Fin Ec	62.15
3.	J Fin Ec	61.64	J Mon Ec	61.07		66.35	J Pol Ec	59.12
4.	Rev Ec Stat	61.20	J Finance	60.11	J Fin Ec	61.34	Bell J Ec	39.45
5.		58.55	J Ec Lit	55.00	Mich Law Rev	56.69	Am Ec Rev	34.48
6.	J Finance	58.22	Econometrica	47.59	** **	48.36	J Mon Ec	33.00
7.	Yale Law J	57.35	Bell J Ec	46.44		45.98	Economica	31.63
8.	Econometrica	56.66	Brookings Pap	37.04		45.39	Econometrica	31.60
9.	J Mon Ec	53.95	Rev Ec Stud	36.45		43.30	Rev Ec Stud	30.36
10.	Bell J Ec	48.57	Economica	36.20		42.09	J Math Ec*	24.73
11.	J Am St Ass	46.65	J Math Ec*	35.60		38.96	J Law Ec	22.89
12.	Brookings Pap	43.74	Quart J Ec	35.17		37.66	J Ec Theory	22.28
13.	Ec J	42.05	J Ec Theory	32.09	J Cons Res	33.59	J Pub Ec	19.65
14.	J Cons Res	41.85	AEA PP	31.37		30.06	Int Ec Rev	19.04
15.	J Roy St Ass B	41.84	Rev Ec Stat	29.98	J Roy St Ass B	28.93	J Econometrics*	17.32
16.	J Urban Ec	41.59	J Econometrics		Ec J	27.99	J Ind Ec	16.55
17.	Quart J Ec			29.55	Rev Ec Stat	27.76	Quart J Ec	16.17
18.	Rev Ec Stud	41.10	J Int Ec	29.33	Demography	27.73		14.96
19.	J Law Ec	40.77	Int Ec Rev	28.06		27.60	J Finance	14.63
20.	Demography	39.36	J Hum Res	24.15	J Urban Ec	26.56		14.13
21.	AEA PP	38.12		23.61		25.46		14.12
22.	J Legal Stud	37.27		22.51	J Finance	24.45		13.63
23.	Inquiry	37.01	Ec J	22.44		24.33		12.40
24.	J Hum Res	36.19		22.29		23.95		11.92
25.	J Math Ec*	35.28	Scand J Ec	21.68		23.36		9.90
26.	J Econometrics		J Law Ec	21.13		22.51	J Mon Cr Bk	9.88
27.	Int Ec Rev	34.65	J Business	18.52		22.36	Can J Ec	9.43
28.	J Ec Theory	33.85	Ind Lab Rev	17.99		22.01	Manchester Sch	9.38
29.	Ind Lab Rev	32.20	Can J Ec	13.20				8.95
30.	Economica	32.14	J Fin Q An	12.60		21.04	J Legal Stud	8.43
31.	Ec Inquiry	32.08	J Ind Ec	12.38		20.77		8.29
32.	Scand J	30.74	Southern Ec J	12.38		20.11	J Urban Ec	8.07
33.	J Pub Ec	30.58	J Urban Ec	11.76		19.80		7.88
34.	J Mon Cr Bk	30.13	Nat Tax J	10.63		18.93		7.11
35.	J Int Ec	29.43	J Acctg Res	9.95	8	18.83		6.98
36.	Am J Ag Ec	29.25	Kyklos		J Business	18.53		6.66
37.	Ind Rel	29.05	Manchester Sch	9.50	2 Dustiicss	,	1	

TABLE 2 (CONTINUED)

		1		7.45	J Mon Cr Bk	18.50	Pub Fin Q.	5.52
38.	J Business	28.20	J Am St Ass	7.31	J Int Ec	18.17	Ox Ec Pap	4.86
39.	Mich Law	27.85	J Legal Stud	7.15	J Ec Hist	17.84	- -	4.83
40.	Reg Stud	27.00			J Acctg Res	17.77	Brit J Ind	4.75
41.	Pub Pol	26.83		6.46	Ec Inquiry	17.47	Applied Ec	4.39
42.	Ec Geog	25.88	Ox Ec Pap	6.22		17.39	Kyklos	4.30
43.	Nat Tax J	25.47		5.27	Ec Geog	16.83	J Env Ec M Sc	4.16
44.	J Reg Sc	25.41	Pub Fin Q	4.71	Ox Ec Pap J Ind Ec	16.38	J Roy St Ass A	4.14
45.	Urban Stud	25.21	J Reg Sc	4.55	Urban Stud	16.08	Pub Choice	4.09
46.	Kyklos	24.81	Applied Ec	4.11	1	15.73	J Fin Q An	3.44
47.	Ox Ec Pap	23.84	J Dev Ec	3.71	Nat Tax J Brit J Ind	15.62	J Am St Ass	3.02
48.	Soc Sc Q	23.66	Ind Rel	3.50	1	14.88		3.01
49.	Policy Anal	23.40	J Roy St Ass A	3.47	J Reg Sc	14.46	J Dev Ec	2.29
50.	Pub Choice	22.16	J Ec Ed	3.24	Am J Ag Ec	14.38		1.90
51.	Southern Ec J	21.97	J Env Ec M Sc	3.19	Scand J		J Cons Res	1.84
52.	Brit J Ind	21.82	Brit J Ind	3.10	Policy Anal	14.22	J Reg Sci	1.82
53.	Pop Stud	21.65	Welt Archiv	3.02	Reg Sci	13.86	Yale Law J	1.79
54.	Sloan Mngt Rev	20.85	Am J Ag Ec	2.62	Ind Rel	13.68	Lloyds B Rev	1.73
55.	Can J Ec	19.99	Lloyds B Rev	2.61	Sloan Mngt Rev	13.61	Ec Letters	1.61
56.	J Acctg Res	19.46	Ec Letters	2.54			Welt Archiv	1.60
57.	Land Ec	19.25	J Cons Res	2.41	J Env Ec M SC	13.34	Rev Soc Ec	1.30
58.	J Fin Q An	19,19	Reg Sci	2.18	Soc Sci Q	13.30	J Ec Issue	1.26
59.	J Env Ec M Sc	18.87	Scot J Pol Ec	2.08	Scot J Pol Ec	13.30	Q Rev Ec Bus	1.26
60.	J Ec Hist	18.60	Land Ec	1.95	World Dev	12.54	Reg Sci	1.24
61.	Lab Hist	18.38	Urban Stud	1.86			Ind Rel	1.18
62.	J Ind Ec	18.14	J Ec Bus	1.81	Manchester Sch	12.35	Neb J Ec Bus	1.14
63.	Ec Dev Cult Ch	17.94	Ox Bull Ec	1.66		12.29	Urban Stud	1.02
64.	Manchester Sch	17.51	J Ec Issue	1.51	Eur Ec Rev	12.17		.98
65.	Ec Letters	17.85	Inquiry	1.46	Can J Ec	11.80	A B 44 B.	.96
66.	Scot J Pol Ec	17.66	Q Rev Ec Bus	1.33	J Dev Ec	11.74	Am J Ag Ec	.93
67.	J Roy St Ass A	17.52	Ec Record	1.30	Pub Choice	11.69	Land Ec	.88
68.	Lloyds B Rev	17.11	Ex Ec Hist	1.08	Land Ec	11.18		.75
69.	Reg Sci	16.94	J Ec Hist	1.06	Southern Ec J	10.97		.71
70.	Ec Hist Rev	16.52	Ec Dev Cult Ch	1.05	J Fin Q An	10.78	J Ec Bus	.64
71.	Eur Ec Rev	15.88	J Dev Area	1.03	Ec Letters		T D A	.62
72.	J Wld Tr Law	15.69	Yale Law J	.99	Lab Hist	10.60	n n . 0 .1+ 01-	.59
73.	Welt Archiv	14.93	Neb J Ec Bus	.92	Lloyds B Rev		34 T T D	.57
74.	Nat Res J	14.40	J Roy St Ass B	.91	Nat Res J	10.18	J Ec Ed	.49
75.	J Dev Ec	13.48		.90	Welt Archiv	8.55		.45
76.	World Dev	13.20	Rev Soc Ec	•90		8.47		.44
77.	Ex Ec Hist	13.00	Mon Lab Rev	.75	J Wld Tr Law J Dev Stud	8.13		.40
78.	Ec Record	12.76	1	.71		8.07		.37
79.	J Dev Stud	11.60		.70	Hist Pol Ec	7.72		.36
80.	Applied Ec	11.38		•55		7.11		.36
81.	Sci and Soc	11.20	Int Lab Rev	.48		6.97		.36
82.	Pub Fin Q	11.05	Int J Soc Ec	.45				.35
83.	J Risk Ins	10.90	J Trans Ec	.43		6.77 6.74		.35
84.	J Ec Issue	10.76	Reg Stud	.41		6.50		.32
85.	Cal Mngt Rev	10.60		.32		6.47		.29
86.	Soc Res	10.27		.25 .25		6.40		.15
87.		10.06				6.34		.15
88.		9.87		.23	-	6.33	1	.12
89.		9.85		.17	1	6.05		.12
90.	Mon Lab Rev	9.36		.13	1	6.00	l _	.09
91.	J Ec Bus	9.35	Ec hist Rev	.11	1 THE O DOC ME	3.00	TC UIRT KEA	.07

TABLE 2 (CONTINUED)

matter (American Journal of Agricultural Economics, American Economic Review, Econometrica) fall in the rankings. 14

Column 2, which represents rankings based on quality adjusted citations per character probably comes closest to an ideal measure of the impact on the economics profession of publishing a manuscript in any journal. Authors who wish to have the greatest influence from their publications should look to this column for guidance in submitting their manuscripts.

Since column 2 is probably the ranking closest to 'journal quality', it might be instructive to compare the ranking with the Hawkins-Ritter-Walter survey of 1973 [6]. There are some substantial changes which can be broadly generalized. English journals are less highly ranked in our study (Review of Economic Studies drops from 6 to 10; Economic Journal drops from 7 to 23; Economica drops from 9 to 11 and Oxford Economic Papers drops from 12 to 42). Harvard journals have also dropped (Quarterly Journal of Economics drops from 4 to 13; Review of Economics and Statistics drops from 5 to 16 and their new entry Economic Letters comes in at 56). History journals seem to do very poorly. Several new journals not previously rated do very well (Journal of Financial Economics, Journal of Monetary Economics, Brookings Papers, Journal of Mathematical Economics) while other new journals have yet to gain as much influence (Journal of Legal Studies, Journal of Environmental Economics and Management Science, Economic Letters). The relatively new but previously rated Bell Journal of Economics has moved up considerably (from 27 to 8).

¹⁴ The reader will notice that the American Economic Review is now distinct from the Papers and Proceedings Issue. This distinction is made because of our finding that citations per character were much less in the Papers and Proceedings Issue than in the regular journal. For example, in 1975, the ratio of citations per character in the regular AER compared to the P and P was 2.63:1 and in 1977 it was 2.21:1. Other journals which had special issues (e.g., Journal of Finance) were not found to have this dichotomous result.

The third and fourth columns of Table 2 represent rankings based on citations per article. Using articles to control for journal size might be thought to be as good a way to control for journal size as using citations per character. Unfortunately the number of articles (taken from the SSCI which lists them as 'source items') does not distinguish between full size articles and comments, replies and short articles. Therefore journals which do not contain much dialogue or short articles (e.g., Brookings Papers) move up relative to those journals which do contain these types of papers (e.g., American Economic Review). Nevertheless, these rankings may contain information of value to some and so we present these results as well. The rankings are not too dissimilar from those in columns 1 and 2 and most of the qualitative generalizations which hold for one also hold for the other.

(c) Citation Practices of Journals and the Breadth of Impact

The use of citations to measure a journal's impact on the world or profession may be misleading for several reasons. First, articles are often cited because they are considered to be wrong in some important way, particularly if the citing article is a comment. Nevertheless, influence is still demonstrated by the citation even though the positive connotation associated with influence may be inappropriate. After all, many flawed articles probably appear in the less influential journals but fewer people bother to write a comment or make references to them. Leamer [7] gives several other reasons

Even the article in which Jacob Viner [11] lost his argument with his draftsman, an article with merit despite its flaws, received only five citations in 1981, and it did not make Leamer's "Hit Parade of Economics Articles" [7], which is based on citations.

why citations might not be considered a worthwhile measure of quality:

"Many of you will conjure up reasons why the number of citations should be ignored. There are fads; there are self-citations; there are citation conspiracies; there are derogatory citations; there are bribes to editors and referees; there are sycophantic students; and there are subjects capable of direct understanding only by the few. But why didn't your papers start fads; why don't you publish more and cite yourself; why did your conspiracies fail; why don't you become an editor; why don't your students care about your welfare; and why do you insist on writing about obscure issues?"

One potentially important problem with citation counts concerns the citation practices which are considered appropriate for various types of journals. For example, it might be thought that history articles will do more citing per character than mathematics articles, say, because the practices of scholarship are different. Since many economics journals specialize in only one or two fields, the practices of scholarship may differ significantly between journals. Since history journals probably cite other economic history journals and economic theory journals probably mainly cite other theory journals, different citation practices may move groups of journals higher or lower in our ratings.

In order to determine the likelihood of these impacts we calculated the citations per character <u>from</u> the <u>citing</u> journal. The results are portrayed in Table 3. Not surprisingly, the <u>Journal of Economic Literature</u> gives the greatest number of citations per published character. History related journals, as a group, do seem to use more citations in their articles than average, even though they do quite poorly at receiving citations; quite likely many of these citations are to documents, letters, or monographs. Finance journals, which tend to receive quite a large number of citations, generally do <u>less</u> citing than

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Journals Ranked by the Number of Citations They Give

Per Character Published

			I			í		
1.	J Ec Lit	100.00	34.	Manchester Sch	26.61	67.	J Fin Q An	20.10
2.	Lab Hist	82.99	35.	J Ind Ec	26.29	68.	J Acctg Res	19.60
3.	Bus Hist Rev	59.63	36.	Rev Ec Stud	26.01	69.	Econometrica	19.17
4.	Ec Hist Rev	54.04	37.	Applied Ec	25.53	70.	J Law Ec	19.10
5.	J Cons Res	48.30	38.	Can J Ec	25.43	71.	Am J Ag Ec	18.70
6.	Quart J Ec	45.02	39.	Eur Ec Rev	25.36	72.	Pop Stud	18.24
7.	Hist Pol Ec	43.06	40.	Soc Sci Q	24.97	73.	J Risk Ins	18.20
8.	Kyklos	42.74	41.	J Reg Sci	24.83	74.	Policy Anal	17.57
9.	Yale Law J	42.63	42.	Economica	24.78	75.	J Trans Ec	16.99
10.	Reg Sci	41.89	43.	Ex Ec Hist	24.50	76.	Inquiry	16.87
11.	J Ec Hist	38.02	44.	Urban Stud	24.26	77.	Demography	16.68
12.	Sci and Soc	35.22	45.	Nat Res J	24.22	78.	Scot J Pol Ec	16.35
13.	J Urban Ec	34.99	46.	Pub Fin Q	24.05	79.	Cal Mngt Rev	16.10
14.	J Ec Bus	34.81	47.	Land Ec	24.02	80.	J Pub Ec	15.30
15.	Int J Soc Ec	34.62	48.	Ec Record	23.90	81.	J En Ec M Sc	14.86
16.	Southern Ec J	33.21	49.	Q Rev Ec Bus	23.49	82.	Lloyds B Rev	14.49
17.	Welt Archiv	32.84	50.	J Mon Ec	23.32	83.	J Dev Stud	14.45
18.	J Ec Issues	32.65	51.	Pub Choice	23.15	84.	Ox Bull Ec	14.44
19.	Ec Geog	32.24	52.	J Int Ec	23.12	85.	Reg Stud	14.35
20.	Ind Lab Rev	30.40	53.	J Hum Res	23.02	86.	J Wld Tr Law	14.26
21.	J Mon Cr Bk	30.20	54.	J Dev Ec	22.87	87.	J Ec Stud	14.12
22.	Am J Ec Soc	29.05	55.	J Business	22.73	88.	J Fin Ec	13.96
23.	Mich Law	28.83	56.	Austln J Ag Ec	22.61	89.	J Int Bus	13.91
24.	Ind Rel	28.83	57.	J Com Mkt Stud	22.33	90.	Int Lab Rev	13.54
25.	J Dev Area	28.71	58.	Neb J Ec Bus	22.31	91.	J Ec Ed	12.80
26.	Ec J	28.59	59.	J Pol Ec	22.22	92.	Nat Tax J	11.59
27.	Rev Ec Stat	28.17	60.	Pub Policy	22.18	93.	J Ec Theory	11.30
28.	Brit J Ind	28.05	61.	Pub Fin	21.92	94.	Matekon	8.64
29.	Ec Inquiry	28.02	62.	Am Ec Rev	21.62	95.	Bell ^J Ec	8.13
30.	Sloan Mngt Rev	27.85	63.	Scand J	21.27	96.	Brookings Pap	7.64
31.	Ec Dev Cult Ch	27.49	64.	Rev Soc Ec	21.01	97.	Mon Lab Rev	7.54
32.	J Finance	27.38	65.	World Dev	20.74	98.	Ec Letters	5.41
33.	Ox Ec Pap	26.84	66.	Int Ec Rev	20.12	99.	Int Soc Sc J	4.85
						100.	Soc Res	.57

Note: This table ranks only 100 journals because the citing package of the SSCI did not contain information on the Malayan Economic Review, Journal of Legal Studies, Journal of Mathematical Economics, Journal of Econometrics, Journal of the American Statistical Association or Journal of the Royal Statistical Association.

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average, particularly the highly rated <u>Journal of Financial Economics</u>. Economic theory journals might do slightly less citing on average mainly because the <u>Journal of Economic Theory</u> does much less than average although the <u>Review of Economic Studies</u> does more than average. The leading general interest journals, with the exception of the <u>QJE</u>, seem to be very close to average. Overall, these numbers do not seem capable of explaining the journal rankings found in Table 2, and our confidence in the rankings of Table 2 is enhanced.

A related consideration is the general impact of articles on readers of other journals. That is to say, since authors usually submit papers to journals with which they are already familiar, they will tend to cite articles appearing in the journal which they publish in. It might be of some value to determine a journal's impact on authors of papers published in other journals. Such a ranking would also eliminate any bias due to an author's gratuitously citing articles in the journal in which he or she submits a paper in order to make the paper seem appropriate for that journal.

It is possible to construct such a ranking by eliminating all citations from articles in a journal to all other articles in the same journal. Journal self-citations were removed in rankings holding the number of characters or articles constant, and controlling for quality of citations. These rankings are portrayed in Table 4. With few exceptions, the ranking did not change very much. The most important change in the 'per character' ranking was the drop of 15 positions by the <u>Journal of Finance</u> and a drop of 11 positions by the <u>Journal of Financial and Quantitative Analysis</u>. The most significant changes in the 'per article' rankings were an increase of 9 positions by the <u>Journal of Legal Studies</u> and a drop of 8 positions by the <u>National Tax Journal</u>. All in all, we conclude that journal self-citations do not significantly distort the measurement of journal impact derived from the use of all citations.

TABLE 4

Breadth of a Journals Impact-Quality Adjusted

Top 30 Journals

Self-Citations Removed

<u>c</u>	Citations per Char	acter	<u>Citations per A</u>	rticle
1.	J Pol Ec	100.00	J Pol Ec	100.00
2.	Am Ec Rev	68.07	Brookings Pap	99.39
3.	J Mon Ec	64.85	J Ec Lit	88.29
4.	Econometrica	52.44	J Mon Ec	63.45
5.	J Fin Ec	51.85	Bell J Ec	59.98
6.	J Ec Lit	50.86	J Fin Ec	57.06
7.	Economica	47.47	Econometrica	56.67
8.	Bell J Ec	45.99	Am Ec Rev	55.91
9.	Rev Ec Stud	42.21	Economica	52,60
10.	Brookings Pap	41.85	Rev Ec Stud	51.29
11.	J Math Ec*	40.07	J Math Ec*	42.74
12.	Int Ec Rev	39.75	Int Ec Rev	41.97
13.	J Ec Theory	37.45	J Law Ec	41.91
14.	Quart J Ec	35.65	J.Ec Theory	39.94
15.	J Econometrics*	32.62	J Econometrics*	31.05
16.	Scand J Ec	30.16	Ес Ј	30.64
17.	Rev Ec Stat	30.15	J Pub Ec	30.14
18.	J Int Ec	30.00	Quart J Ec	29.75
19.	Ec J	29.91	J Int Ec	26.81
20.	J Finance	29.80	J Hum Res	25.12
21.	J Hum Res	28.05	J Ind Ec	24.68
22.	AEAPP	27.89	J Legal Stud	22.94
23.	J Law Ec	26.81	AEAPP	22.92
24.	J Mon Cr Bk	26.24	Rev Ec Stat	22.21
25.	J Pub Ec	25.91	J Mon Cr Bk	22.13
26.	Ec Inquiry	24.01	J Finance	18.63
27.	Ind Lab Rev	20.36	Scand J Ec	18.51
28.	Can J Ec	19.82	Can J Ec	17.56
29.	J Business	16.39	Ind Lab Rev	17.43
30.	J Ind Ec	15.28	Ec Inquiry	17.00
31.		12.44	Pub Fin	16.59
32.	Nat Tax J	12.23	Manchester Sch Eur Ec Rev	15.28 13.99
33.		12.18	J Business	13.73
34.		11.09	Nat Tax J	13.61
35.	Kyklos	10.73	Ox Ec Pap	10.24
36.	Eur Ec Rev	9.91	J Roy St Assoc A	
37.	Pub Finance	9.59	J ROY SE ASSUC A	10.13

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TABLE 4 CONTINUED)

80. Sloan Mgmt Rev

81. Int Lab Rev

82. J Trans Ec

83. Pub Policy

85. J Risk Ins

86. Malay Ec Rev

87. J Int Bus

84. Reg Stud

88. Ec Geog

<u>0</u>	Citations per Charac	ter	Citations pe	r Article
38.	J Urban Ec	9.49	J Urban Ec	9.36
39.	Ох Ес Рар	8.95	Southern Ec J	8.46
40.	J Am St Assoc	8.85	Brit J Ind	7.51
41.	J Fin Q An	7.71	Pub Fin Q	7.36
42.	Pub Fin Q	5.80	J Acctg Res	6.92
43.	J Acctg Res	5.79	J Am Stat Assoc	6.87
44.	J Roy St Assoc A	5.79	Kyklos	6.74
45.	Applied Ec	5.52	Applied Ec	6.60
46.	Pub Choice	4.94	Inquiry	5.80
47.	J Dev Ec	4.83	J Env Ec M Sc	5.61
48.	Brit J Ind	4.71	J Dev Ec	5.54
49.	J Reg Sci	4.52	Pub Choice	5.21
50.	Ind Rel	4.21	J Fin Q An	4.91
51.	J Ec Ed	4.02	Scot J Pol Ec	4.28
52.	Lloyds B Rev	3.89	Lloyds B Rev	3.94
53.	Welt Archiv	3.65	Welt Archiv	3.45
	J Env Ec M Sc	3.64	J Reg Sci	3.42
	Scot J Pol Ec	3.33	Ec Letters	3.26
56.	Ec Letters	3.26	Yale Law J	2.86
57.	J Ec Bus	2.77	Reg Sci	2.78
58.	Reg Sci	2.75	Ind Rel	2.77
	Am J Ag Ec	2.39	Ox Bull Ec St	2.27
	Ox Bull Ec St	2.21	Urban Stud	1.91
	Inquiry	2.15	Q Rev Ec Bus	1.81
	Urban Stud	2.11	Am J Ag Ec	1.73
	Land Ec	1.95	J Ec Issues	1.71
	Q Rev Ec Bus	1.72	Rev Soc Ec	1.69
	Ec Record	1.68	Neb J Ec Bus	1.62
66.	J Ec Issues	1.52	Ex Ec Hist	1.61
	Ec Dev Cult Ch	1.51	J Dev Areas	1.59
	J Dev Areas	1.38	J Ec Rus	1.58
	Ex Ec Hist	1.34	Ec Dev Cult Ch	1.57
70.	-		J Ec Hist	1.57
71.		1.28	Land Ec	1.52
	J Ec Hist	1.27	Ec Record	1.51
73.	Yale Law J	1.17	J Ec Ed	1.20
74.	Rev Soc Ec	1.14	Hist Pol Ec	1.16
75.	Hist Pol Ec	1.03	J Dev Stud	1.14
76.	J Dev Stud	.98	J Roy St Assoc B	1.10
77.	J Cons Res	.94	J Cons Res	1.08
78.	Mon Lab Rev	.93	Mon Lab Rev	1.03
79.	Int J Soc Ec	. 81	Int J Soc Ec	.91
80.	Sloan Momt Rev	. 74	Date Date	0.6

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Pub Policy

J Trans Ec

Int LabRev

Sloan Mgmt Rev

Malay Ec Rev

J Risk Ins

World Dev

Reg Stud

Mich Law

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TABLE 4 (CONTINUED)

<u>C</u> :	itations per Char	acter	Citations per Article		
89.	World Dev	.22	J Int Bus	. 36	
90.	Lab Hist	.22	Ec Geog	. 31	
91.	Ec Hist Rev	.16	Ec Hist Rev	.22	
92.	Am J Ec Soc	.09	Lab Hist	.13	
93.	Mich Law	. 08	Pop Stud	.08	
94.	Soc Sc Q	.06	Am J Ec Soc	.06	
95.	Pop Stud	. 05	Policy An	.06	
96.	Policy An	. 04	Soc Sc Q	.05	
97.	Nat Res J	. 04	Aust J Ag Ec	. 04	
98.	Cal Mgmt Rev	.03	Nat Res J	.03	
99.	Aust J Ag Ec	.02	Cal Mgmt Rev	. 02	
100.	Bus Hist Rev	. 01	Demography	.01	
101.	Demography	. 01	Bus Hist Rev	.01	
102.	J Wld Tr Law	. 01	J Wld Tr Law	.01	
103.	J Com Mkt Stud	.00	J Com Mkt Stud	.00	
104.	Int Soc Sc J	.00	Int Soc Sc J	.00	
105.	J Ec Stud	.00	J Ec Stud	.00	
106.	Sci and Soc	.00	Sci and Soc	.00	
107.	Matekon	.00	Matekon	.00	
108.	Soc Res	.00	Soc Res	.00	

4. The Survey of Department Chairmen

We sent questionnaires to 107 department chairmen in the U.S., Canada and Great Britain. They were given the following instructions:

We would like you to rank each of the journals listed, assigning the number 100 to the journal which is, in your opinion, the best journal, and assigning numbers of 100 or less to each of the remaining journals.

We would like for you to try to preserve cardinality in these rankings and therefore suggest the following procedure: Assume that you would give a \$100 raise to a faculty member who published an article of average length and of average quality (for that journal) in the top journal. Then simply write next to each remaining journal how much of a raise that same faculty member would receive for a publication of average length and quality for that journal. Please feel free to give zeros if you deem them appropriate. If you haven't heard of a particular journal and would be reluctant to give it a zero, please leave its blank empty.

A long list of journals then followed with a blank next to each journal title. The list was so long that many chairmen chose to leave a large percentage of blanks empty. The number of questionnaires returned to us was 37. The results derived from these questionnaires are displayed in Table 5. The first ranking gives the average value for respondents who gave a value for a particular journal. The second ranking assigns a value of zero when a respondent failed to give a value to a journal.

These rankings seem quite similar to Hawkins-Ritter-Walter (H-R-W) survey which is not surprising since these evaluations were probably influenced by that study. In fact, the top 5 journals are the same in both and the second 5 differ by only one (Economica). Below the top ten, however, some differences do appear. The Bell Journal is ranked number 11 in column 1 of Table 5 although it was ranked 27th in the H-R-W study. Thus the respondents seem to have correctly gauged the magnitude of Bell's present influence as measured in Table 2. Another change between Table 5 and H-R-W is Economic

Inquiry's move up from 34 to 16. Table 2 also indicated that Economic Inquiry now deserves a higher ranking, though perhaps not as high as the department chairmen think.

Among the new journals the <u>Journal of Monetary Economics</u>, which was not rated in the H-R-W study, ranks 17th in Table 5, which is much lower than the rank indicated in Table 2. The <u>Journal of Financial Economics</u>, which is rated number 42 in Table 5 (and which also was not included in the H-R-W study) also does much worse than its very high ranking in Table 2.

On the other hand, two other journals not rated by H-R-W, the <u>Journal of Econometrics</u> and the <u>Journal of Mathematical Economics</u>, do about the same on the chairmen's rankings (25 and 19 respectively) as they do in Table 2. While we cannot know the reason for these differences, it could be that chairmen, having imprecise information about these journals tend to underestimate the value of 'less technical' journals relative to more technical journals. 15

The chairmen's ratings had several other major variations from ours. They thought that the <u>Journal of the American Statistical</u>

<u>Association</u>, <u>Economic Journal</u>, and <u>Review of Economics and Statistics</u> were much more important than we found them to be and that the <u>Journal of Finance</u>,

<u>Brookings Papers</u>, and the <u>AEA Papers and Proceedings</u> were much lower than we found them to be. All in all, the differences between table 5 and 2 are rather significant and may be due in part to the fact that only chairmen of economic departments were surveyed and not those of business schools. They may also be due to

¹⁵ The reader familiar with the H-R-W study will remember their test of this hypothesis. They constructed two fictitious journals, one with a technical and one with an empirical title. The technical sounding journal was ranked much higher than the non technical one, especially by university administrators. Additional evidence of this bias might come from the fact that 21 of the 37 respondents assigned numbers to the Annals of Mathematical Statistics, giving it a rank of 27th, despite the fact that it ceased publication in 1972.

TABLE 5

Rankings Based on Chairmens' Evaluations

A	verage for Chairman who a number for the particular journal		Number of Chairmen giving value for journal	Average assuming the values equal zero ("Prestige Ranki	ero
1.	Econometrica	98.7	36	Am Ec Rev	98.1
2.	Am Ec Rev	98.1	37	Econometrica	95.9
3.	J Pol Ec	93.9	36	J Pol Ec	91.4
4.	Quart J Ec	87.2	36	Quart J Ec	84.8
5.	Rev Ec Stat	85.5	36	Rev Ec Stat	83.2
6.	J Ec Theory	83.6	35	J Ec Theory	79.1
7.	J Am St Ass	81.3	31	Ec J	75.8
8.	Rev Ec Stud	81.1	34	J Ec Lit	74.9
9.	Ec J	80.1	35	Bell J	74.6
10.		79.2	35	Rev Ec Stud	74.5
	Bell J Ec	78.9	35	Int Ec Rev	72.0
12.	•	78.5	26	Economica	70.5
	Int Ec Rev	78.3	34	J Am St Ass	68.1
14.		72.4	36	J Finance	64.1
15.	J Law Ec	71.2	33	J Law Ec	63.5
16.	Ec Inq	70.7	32	Ec Inquiry	61.1
17.	J Mon Ec	69.9	28	Brookings Papers	60.7
18.	J Finance	69.8	34	J Business	60.7
19.	J Econometrics	68.3	31	Can J Ec	60.1
20.	J Business	68.1	33	J Mon Cr Bk	58.6
21.	Brookings Pap	68.0	33	Ох Ес Рар	58.4
22.	J Pub Ec	67.9	27	J Econometrics	57.3
23.	J Mon Cr Bk	67.8	32	Southern Ec J	56.7
24.	Can J Ec	67.3	33	AEA PP	55.6
25.	J Math_Ec	65.9	27	J Roy St Ass	55.2
26.	Ox Ec Pap	65.5	33	J Mon Ec	52.9
27.	Annals Math St	65.6	21	J Ec Hist	51.1
_	J Ec Hist	63.0	30	J Pub Ec	49.5
-	Southern J Ec	59.9	35	J Math Ec	48.1
30.	J. Hum Res	58.8	26	Kyk1os	47.4
	AEA PP	58.7	35	Ec Dev Cult Ch	46.2
32.	J Int Ec	58.2	26	J Hum Res	41.4
33.	Ec Dev Cult Ch	57.0	30	J Int Ec	40.9
34.	Ec Hist Rev	55.7	22	Ec Record	39.3
35.	J Urb Ec	54.0	25	Ann Math St	37.2
36.	Kyklos	53.2	33	Pub Choice	36.6
37.	Pub Fin	52.6	22	J Urban Ec	36.5
38.	Ec Record	52.0	28	J Reg Sci	35.1
39.	Ox Bull Ec Stat	51.3	21	Eur Ec Rev	34.9
40.	Yale Law J	51.3	19	J Fin Q Ana	34.9

TABLE 5 (CONTINUED)

41.	J Fin Ec	50.8	18	Ex Ec Hist	34.8
42.	Pub Choice	50.1	27	Ec Hist Rev	33.1
43.	J Reg Sc	50.0	26	Ind Lab Rel Rev	33.1
44.	Eur Ec Rev	49.7	26	Ec Letters	32.6
45.	Pub Fin Q	48.9	20	Scand J Ec	32.2
46.	Manchester Sch	48.4	22	Am J Ag Ec	31.5
47.	J Fin Q An	47.8	27	Pub Fin	31.3
48.	Ex Ec Hist	47.8	27	Scot J Pol Ec	30.3
49.	Scand J Ec	47.7	25	Hist Pol Ec	30.2
50.	Ind Lab Rel	47.1	26	Land Ec	29.3
51.	J Dev Ec	47.0	22	Ox Bull Ec St	29.1
52.	Am J Ag Ec	46.6	25	Manchester Sch	28.8
53.	Hist Pol Ec	46.6	24	Applied Ec	28.3
54.	Welt Archiv	45.4	21	J Dev Ec	28.0
55.	Scot J Pol Ec	44.8	25	J Ind Ec	27.1
56.	Q Rev Ec Bus	44.7	21	Pub Fin Q	26.5
57.	J Ind Ec	43.6	23	Yale Law J	26.3
58.	Land Ec	43.4	25	Welt Archiv	25.8
59.	Ind Rel	41.8	18	Q Rev Ec Bus	25.4
60.	Ec Letters	41.7	29	J Fin Ec	24.7
61.	Demography	41.3	18	J Ec Iss	23.3
62.	Applied Ec	40.3	26	J Env Ec Mgt Sc	20.5
63.	Nat Res J	40.3	14	Ind Rel	20.3
64.	Pub Pol	39.2	11	J Ec Bus	20.2
65.	J Ec Stud	38.7	12	Demography	20.1
66.	J Ec Bus	37.5	20	J Dev Stud	19.4
67.	J Ec Iss	37.4	23	Mon Lab Rev	19.0
68.	Reg Stud	37.3	12	Soc Sci Q	17.6
69.	J Dev Stud.	36.0	20	Bus Hist Rev	15.6
70.	Mon Lab Rev	35.2	20	Nat Res J	15.2
71.	Reg Sci	34.3	10	Am J Ec Soc	14.9
72.	J Risk Ins	33.9	14	Brit J Ind Rel	13.0
73.		33.7	10	J Risk Ins	12.8
73. 74.	Pop Dev Rev	33.0	23	J Ec Stud	12.5
-	J Env Ec M Sc	32.8	20	Urban Stud	12.5
75 .	Soc Sci	32.7	11	Reg Stud	12.1
76.	Lab Hist			J Tran Ec P	11.8
77.	Pop Stud	32.6	10		11.8
78.	Brit J Ind Rel	32.0	15 14	Lloyds B R	11.6
79.	J Tran Ec P	31.0	14	Pub Pol	11.6
80.	Urban Stud	30.8	15	J Acctg Res	11.6
81.	J Acctg Res	30.6	14	Int Lab Rev	11.6
82.	Bus Hist Rev	30.4	19	J Ec Ed	10.6
83.	Sloan Mgmt Rev	30.0	13	World Dev	
84.	J Com Mkt St	30.0	11	Net J Ec Bus	10.6
85.	Int Lab Rev	28.7	15	Sloan Mgmt Rev	10.5
86.	Am J Ec Soc	26.3	21	Rev Soc Ec	9.9
87.	World Dev	26.2	15	Lab Hist	9.7
88.	Pol Anal	24.6	13	Reg Sci	9.3
89.	Ec Geog	24.5	14	Ec Geography	9.3
90.	Rev Soc Ec	24.4	15	Pop Dev Rev	9.1

TABLE 5 (CONTINUED)

91.	Mich Law Rev	24.4	12	J Com Mkt Stud	8.9
92.	Lloyds B R	24.2	18	Pop Stud	8.8
93.	Soc Res	24.2	10	Policy Anal	8.6
94.	Int J Soc Ec	24.0	9	J Dev Areas	8.6
95.		23.8	18	Austln J Ag Ec	8.2
96.	J Dev Area	22.7	14	Mich Law Rev	7.9
97.	Sci and Soc	22.2	13	Sci and Soc	7.8
98.	Inquiry	21.9	12	Inquiry	7.1
99.		21.2	11	Soc Res	6.5
100.	Austln J Ag Ec	19.1	16	J Cons Res	6.3
101.	Int Soc Sci J	18.6	8	Calf Mngt Rev	6.2
102.	Net J Ec B	17. 9	22	Int J Soc Ec	5.8
103.	J Wld Tr Law	16.0	9	Malay Ec Rev	5.8
104.	J Int Bus	14.4	9	Int Soc Sci J	4.0
105.	Cal Mgmt Rev	14.3	16	J Wld Tr Law	3.9
	Malay Ec Rev	14.3	15	J Int Bus	3.5
107.	Matekon	14.1	9	Matekon	3.4

the fact that the rankings respond to different questions: Table 2 ranks journals according to influence on other academic journal writing, whereas Table 5 ranks them according to chairmen's subjective judgments, which are likely to take into consideration much more than impact on the profession. Chairmen may value publications as evidence of keeping up to date in one's field, and they may also have some university-imposed incentives to reward quantity as well as quality. They may also value certain areas of research more than others, quite independently of that area's influence on the profession.

5. Conclusions

We have endeavored to rank journals in a way which will prove meaningful to members of the profession. We have attempted to control for both journal size and age in constructing a measure of journal impact and consider this procedure to be a significant improvement over previous methods. We have also included a survey of chairmen, with which the measurements of journal impact might be compared.

One final word of caution. If these results should ever play an important role in promotions, salary or tenure, we would expect the 'practices of scholarship' to change in a manner which would lead to citation-inflation. Such endogenous behavior could alter the significance and meaning of future studies of this kind.

These differences are also likely to account for the substantial difference in the cardinality distributions in Tables 2 and 5.

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