

The Relative Impacts of Economics Journals: 1970–1990

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Our data collection and database assembly efforts were assisted by John P. Sophocleus, Mark Gwartney, Michele Butler, and Scott Ralston. We received extremely valuable computer programming assistance from Jon Brunson and Edward Novak. Constructive comments were received from two anonymous reviewers. Financial support from the Faculty Development Committee at Salisbury State University is gratefully acknowledged.

I. Introduction

IN THIS PAPER we seek to: (1) update and backdate the paper by Stanley Liebowitz and John Palmer (L-P) that appeared in this *Journal* in 1984, which permits us to (2) investigate the changing “industrial organization” of the economics journal market over the period 1970–1990. The rationale for an update of the L-P paper is purely utilitarian: the L-P rankings are used at a number of colleges and universities to help evaluate an individual’s scholarly “productivity,” for purposes of allocating salary increases, as well as making promotion and tenure decisions. To the extent the relative impact of journals changes over time, and we shall see that it does, a periodic update of the index provides more accurate information for decision makers. By backdating the L-P analysis, we are able to

shed light on a number of structural issues regarding the academic journal market in economics. We examine the changing extent of the market for scientific knowledge claims in economics, in terms of both pages published and citations to the literature. We investigate the changing concentration of citations among the premier journals and market penetration by new journals. Finally, we examine changes in the distribution of citations via Lorenz-curve analysis.

II. *The Relative Impact of Journals: Methodology and Findings*

Liebowitz and Palmer based their rankings of economics journals on the relative “impact” of the material published. Their measure of “impact” was the number of citations each journal was credited with receiving in 1980 for material pub-

lished in previous years. There has been substantial discussion of the pros and cons of using citations to measure the value of a scholar's intellectual contribution (Dennis Gerrity and Richard McKenzie 1978; Laband and Sophocleus 1985; George Stigler and Claire Friedland 1975). Our position is that citations are the scientific community's version of dollar voting by consumers for goods and services. Holding price constant, an individual consumer purchases goods from certain sellers because of the quality of their merchandise; however, the purchase decision may also be influenced by the buyer's friendship or family relationship with the seller and/or the buyer's hope that the seller will, in turn, patronize the buyer's establishment. Economists who study industrial organization do not make any distinctions between "good" sales and "bad" sales. Nor, we surmise, do many sellers. Sales are sales, period. All sales count towards determining each producer's market share. We do not treat the consumption of scientific literature any differently.¹

Our methodology is the same as that employed by Liebowitz and Palmer. We collected detailed information on citations in 1970 for 50 selected economics journals indexed by the *Index of Economics Articles*. The citations referenced articles published during the period 1965–69. Thus, to be included in our sample,

a journal had to have published during that entire period (it could not have started up, say, in 1967) and must have been indexed by the *IEA*.² The 1964–65 volume of the *IEA* indexed 127 journals. Several of these journals (e.g., *Journal of Economic Behavior* and *Journal of Economic and Business History*) were not indexed through 1969 and thus fell out of our sample. In addition, we did not include in our sample journals indexed by the *IEA* that did not bear directly on economics.³ We also did not include most of the journals whose coverage of English articles was selective. Finally, and quite obviously, the journals included in our sample must have been indexed by the *Social Science Citation Index*. Our rankings for 1970 include all of the major journals in economics and many of the lesser ones.

In determining which journals to include in the 1990 rankings, we started with the set of journals ranked by Liebowitz and Palmer. A few journals ranked by L-P are not included in our 1990 rankings because they were not indexed by the *Social Science Citation Index* in 1990. Thus we were unable to obtain citation information for them. A small number of established journals do not appear on either the L-P list or our rankings for 1990, even though they have been published for years. Again, the omission is due to the absence of indexing of citations of these journals by the

¹ It might be argued that the market for scientific knowledge claims differs from more conventional product markets. In this regard, the putative drawback to citations is that intensive citation may indicate shoddy science, if not downright fraud and that consumers would never knowingly spend their money on defective items. We have two responses. First, shoddy production is known to enhance value (and sales) occasionally in goods markets, such as when postage stamps are misprinted. Second, and more to the point, some portion of sales in goods markets occurs precisely because the buyers of that merchandise analyze it in hopes of producing an even better product than the seller from which they have just purchased.

² A number of well-known journals started up during the 1965–69 period and thus are excluded from the 1970 rankings. Included in this set of new entrants are the *Canadian Journal of Economics*, *Applied Economics*, *Journal of Financial and Quantitative Analysis*, *Journal of Transport Economics and Policy*, *Journal of Economic Issues*, *Journal of Human Resources*, and the *Journal of Economic Theory*.

³ A large number of journals fell into this category and, thus, do not appear in our rankings. These include the *Accounting Review*, *American Historical Review*, *American Political Science Review*, *American Statistician*, *Foreign Affairs*, *Management Accounting*, *Michigan Academician*.

SSCI.⁴ Entry by a number of new journals during the late 1970s and early 1980s pushed the total number of journals for which we collected citation information in 1990 to 130. The citations reference articles published in each journal during the period 1985–89.⁵ The only exception in this regard is the *Journal of Economic Perspectives*, which commenced publication in the summer of 1987. Citations in 1990 for the *JEP* thus drew from a smaller pool of articles than would have been the case had it published during the entire 1985–89 period. We did not extrapolate the reported numbers for the *JEP*.

In Table 1 we report journal rankings in 1970, 1980, and 1990 by citations per article.⁶ We included as citable literature

⁴ Included in this set of journals are the *Eastern Economic Journal* and the *Atlantic Economic Journal*. As of July 1, 1991 the Institute for Scientific Information (ISI), which compiles the *Social Sciences Citation Index* collected citation information on 155 journals classified as "Economics & Business" and 90 journals classified as "Law." By contrast, the *Journal of Economic Literature* reported publication information for 249 journals in the June 1991 issue. The *JEL* listed publication information for only four of the journals classified as law journals by ISI (*Journal of Legal Studies*, *Michigan Law Review*, *Journal of Law, Economics and Organization*, and *Yale Law Journal*). The journals classified by ISI as "Economics & Business" included 23 noneconomics journals, whereas only eight journals indexed by the *JEL* were obviously outside of the traditional sphere of economics. It thus appears that the *JEL* indexes approximately 90 economics journals that ISI does not. The 130 journals identified in our rankings for 1990 represent nearly the full set of economics journals indexed by ISI in that year, but clearly does not comprise an exhaustive set of the economics journals published during 1985–89. We are confident, however, that our rankings include all of the major economics journals published during that time.

⁵ Since 1977 the (ISI), which publishes both the *Social Science Citation Index* and the *Science Citation Index*, has published annually a compilation of citations for cited journals.

⁶ The *Journal of Economic Literature* began publishing in 1969. Hence, it is not included in the 1970 rankings. In both 1980 and 1990, however, it was the top journal in terms of unadjusted citations per article. This is undoubtedly due to the *Journal's* editorial policy of publishing a relatively small number of review articles that tend to be heavily cited. In

articles, notes, comments, replies, and review articles; we did not include book reviews or advertising. Each of these counted as an "article." The reported values in Table 1, which range from 0 to 100, represent citations per article received by each journal in the reference year as a percentage of the citations per article received by the leading journal that year.⁷

In Table 2 we report journal rankings in 1970, 1980, and 1990 by impact-adjusted citations per article, using the iterative procedure developed by Liebowitz and Palmer.⁸ In the initial stage of the iterative procedure citations received from journals not included in that year's rankings are assigned a weight (or value) of zero and all other citations are

in addition, prior to 1969 the *American Journal of Agricultural Economics* was known as the *Journal of Farm Economics* and *Explorations in Economic History* was known as *Explorations in Entrepreneurial History*. Finally, the rankings are not affected significantly by the fact that we count citations for single years (1970, 1980, and 1990) only. Our data were sufficiently detailed to permit us to construct rankings based on two or three years' worth of citations for the 1965–69 and 1975–79 publications. The correlations between the rankings based on citations from a single year and those based on citations from two or three years are uniformly greater than .95.

⁷ We stress that our reliance on journals indexed by the *Index of Economics Articles* for the 1970 rankings and journals indexed by the *Social Sciences Citation Index* for all three years inevitably means that we do not have exhaustive information about citations in each year. However, the nonindexed journals probably are not cited with great frequency. Moreover, it seems unlikely that the distribution of citations in the nonindexed journals differs dramatically from the distribution in the indexed journals. Thus, we are confident that the reported rankings are fairly accurate.

⁸ We are happy to report that we were able to replicate the L-P results virtually perfectly (William Dewald, Jerry Thursby, and Richard Anderson 1986). We qualify the perfectly for two reasons: (1) there is at least one inconsistency in the L-P tables, where in Table 1, column 1 they rank *Population and Development Review* yet in columns 2 and 3 of that Table they rank *Population Studies*, and (2) we did not attempt to provide approximate values for the *Journal of Econometrics* and the *Journal of Mathematical Economics*.

weighted by the percentage frequency relative to the most highly cited journal.⁹ This provides a new ranking and new set of relative citation frequencies that are used in the second iteration, and so forth.¹⁰ As in Table 1, the reported values, ranging from 0 to 100, represent impact-adjusted citations per article received by each journal in the reference year as a percentage of the adjusted citations per article received by the leading journal that year.

One possible shortcoming of rankings based on citations per article is that different journals have different policies regarding notes, comments, and replies. Because comments and, especially, replies tend to be end-of-discussion contributions, they attract relatively few citations. At the same time, because they are typically shorter than full articles, comments and replies inflate the number of "articles" from which citations are drawn, which results in reduced *measured* impact for journals publishing notes and comments relative to journals that do not publish such fare.

In light of this possible drawback, we also report, in Appendix Tables A1 and A2, the relative impact of each journal with respect to both unadjusted and impact-adjusted citations per typed character space. The number of typed character spaces published by a journal was found by multiplying the number of pages devoted to the above-listed types of scholarly contributions by the estimated number of typed characters per

journal page. The latter was determined by multiplying the number of lines per page (on a representative page with no footnotes, figures, equations, or other interruptions in the prose) by the average number of typed characters per line (an average of three full lines). The citations per character measure thus controls for the volume of printed material that citations are drawn from.

III. *The Changing Industrial Organization of the Economics Journal Market*

The Extent of the Market

Between 1970 and 1990, membership in the American Economic Association grew roughly 14 percent, from 18,908 to 21,578 (George Stigler, Friedland, and Stephen Stigler 1992). However, over the same time period, the increase in the production of scholarly economic literature was much more rapid, on both the intensive and extensive margins. We are able to shed empirical light on both.

For the 41 journals that appear in both the 1970 and 1990 rankings we were able to determine the total number of articles and pages published during the relevant preceding five-year period.¹¹ Between 1965 and 1969, these 41 journals published 7,939 articles, notes, comments, etc., representing 86,578 pages of scholarly literature; between 1985 and 1989, these same journals published 9,790 articles, notes, comments, etc., representing 130,182 pages of scholarly literature. This represents a 23 percent increase in the number of articles published and a 50 percent increase in the number of

⁹The *American Economic Review* received the most citations in 1970, 1980, and 1990 to articles published during the five-year period preceding each of these years. Tables reporting journal rankings by total citations and total impact-adjusted citations are available upon request from the authors.

¹⁰Like Liebowitz and Palmer, we found that convergence to a stable set of rankings occurred fairly quickly, in the neighborhood of 15–20 iterations. The rankings reported in Table 2 are the result of running 50 iterations.

¹¹Of the 50 journals ranked in 1970, the ones not ranked in 1990 are: *Economics of Planning*, *Lloyds Bank Review*, *Problems of Economics*, *IMF Staff Papers*, *Social and Economic Studies*, *South African Journal of Economics*, *German Economic Review*, *Indian Economic Journal*, and *Economia Internazionale*.

TABLE 1
RANKINGS BASED ON CITATIONS
PER ARTICLE

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c
1 Rev. Econ. Studies	100.0	J. Econ. Lit.	J. Econ. Lit.
2 Amer. Econ. Rev.	93.3	Yale Law J.	J. Finan. Econ.
3 Rev. Econ. Statist.	68.6	Brookings Pap. Econ. Act.	Yale Law J.
4 Quart. J. Econ.	68.2	J. Polit. Econ.	Michigan Law Rev.
5 J. Reg. Sci.	64.5	J. Finan. Econ.	J. Cons. Res.
6 Econometrica	62.2	Michigan Law Rev.	Econometrica
7 J. Polit. Econ.	59.0	Amer. Econ. Rev.	J. Acc. Econ.
8 J. Bus.	56.7	J. Legal Stud.	J. Polit. Econ.
9 Economica	55.4	Bell J. Econ. (Rand J. Econ.)	J. Amer. Statist. Assoc.
10 J. Law Econ.	51.8	J. Law Econ.	J. Legal Stud.
11 Econ. J.	47.5	Inquiry	Amer. Econ. Rev.
12 J. Finance	41.9	Econometrica	J. Monet. Econ.
13 J. Amer. Statist. Assoc.	40.7	J. Monet. Econ.	J. Bus.
14 Int. Econ. Rev.	38.5	J. Cons. Res.	J. Econ. Perspectives
15 Econ. Planning	38.0	Rev. Econ. Stud.	Bell J. Econ. (Rand J. Econ.)
16 Amer. Econ. Rev. Papers & Proc.	37.0	J. Roy. Statist. Soc. Ser. B—Meth.	Quart. J. Econ.
17 Ind. Rel.	36.2	Econ. J.	J. Roy. Statist. Soc. Ser. A—Gen.
18 Oxford Econ. Pap.	35.2	Rev. Econ. Statist.	J. Finance
19 J. Econ. Hist.	33.3	Demography	Demography
20 Lloyd's Bank Rev.	33.1	Public Pol.	J. Law Econ.
21 Yale Essays on Econ.	32.0	J. Urban Econ.	Rev. Econ. Stud.
22 Econ. Devel. Cult. Change	30.5	Reg. Stud.	J. Roy. Statist. Soc. Ser. B—Meth.
23 Southern Econ. J.	26.6	J. Finance	Population Devel. Rev.
24 Econ. Hist. Rev.	26.2	J. Amer. Statist. Assoc.	J. Health Econ.
25 Kyklos	25.1	J. Hum. Res.	J. Int. Bus. Stud.
26 Int. Monet. Fund Staff Pap.	23.5	Int. Econ. Rev.	Oxford Bull. Econ. Statist.
27 Public Finance	22.8	J. Math. Econ.	Brookings Pap. Econ. Act.
28 Nat. Tax J.	22.7	Quart. J. Econ.	J. Econometrics
29 J. Roy. Statist. Soc. Ser. A—Gen.	21.7	Population Stud.	Econ. J.
30 Explorations Econ. Hist.	21.0	J. Econometrics	Ind. Lab. Relat. Rev.

TABLE I (Continued)
RANKINGS BASED ON CITATIONS
PER ARTICLE

	1970 Citations to Articles Published 1965-1969*	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c	
72	Labor Hist.		Reg. Sci. Urban Econ.	10.8
73	Lloyds Bank Rev.		J. Policy Anal. Manage.	10.6
74	Natural Res. J.		Soc. Res.	10.5
75	Weltwirtsch. Arch.		Canadian J. Econ.	10.2
76	Kyklos		Europ. Econ. Rev.	10.1
77	J. World Trade Law		Southern Econ. J.	10.0
78	J. Devel. Stud.		J. Econ. Dynamics & Control	10.0
79	Sci. Society		J. Lab. Res.	9.9
80	Hist. Polit. Econ.		Int. Reg. Sci. Rev.	9.9
81	J. Econ. Issues		Cambridge J. Econ.	9.9
82	Appl. Econ.		J. Devel. Stud.	9.6
83	Oxford Bull. Econ. Stat.		Kyklos	9.2
84	Soc. Res.		Sci. Society	9.0
85	J. Developing Areas		J. Devel. Econ.	9.0
86	Mon. Lab. Rev.		Nat. Tax J.	8.9
87	J. Transport Econ. Policy		Scand. J. Econ.	8.7
88	Public Finance		Manchester Sch. Econ. Soc. Stud.	8.6
89	J. Risk Ins.		J. Banking Finance	8.6
90	Int. Lab. Rev.		Soc. Choice Welfare	7.8
91	Int. J. Soc. Econ.		J. Finan. Res.	7.4
92	California Manage. Rev.		Urban Stud.	7.4
93	Public Finance Quart.		World Econ.	7.1
94	Econ. Record		J. Econ. Educ.	7.1
95	Int. Soc. Sci. J.		Weltwirtsch. Arch.	7.1
96	J. Int. Bus. Stud.		Rev. Soc. Econ.	6.5
97	Quart. Rev. Econ. Bus.		J. Risk Ins.	6.5
98	Amer. J. Econ. Sociology		Econ. Modelling	6.4
99	Rev. Social Econ.		J. Post Keynesian Econ.	6.3
100	Bus. Hist. Rev.		J. Econ. Issues	6.2
101	J. Common Market Stud.		J. Transport Econ. Policy	6.1
102	J. Econ. Bus.		Public Finance Quart.	6.1

31	Econ. Record	19.7	J. Econ. Theory	21.0	J. Lab. Econ.	23.3
32	Econ. Inquiry (Western Econ. J.)	18.7	J. Pub. Econ.	20.8	J. Acc. Res.	22.9
33	Land Econ.	18.7	J. Roy. Statist. Soc. Ser. A—Gen.	20.1	J. Econ. Theory	22.5
34	J. Develop. Stud.	17.5	Amer. Econ. Rev. Papers & Proc.	19.8	J. Money Credit Banking	22.1
35	Ind. Lab. Relat. Rev.	17.0	Economica	18.9	Ind. Rel.	21.9
36	J. Ind. Econ.	14.9	Ind. Lab. Relat. Rev.	18.8	Amer. Econ. Rev. Papers & Proc.	21.8
37	Bus. Hist. Rev.	14.0	J. Bus.	18.5	California Manage. Rev.	20.7
38	Manch. Sch. Econ. Soc. Stud.	13.9	J. Money Credit Banking	18.5	J. Finan. Quant. Anal.	20.0
39	Scand. J. Econ.	13.5	J. Int. Econ.	18.2	J. Int. Econ.	19.6
40	Soc. Econ. Stud.	11.5	J. Econ. Hist.	17.8	J. Hum. Res.	18.5
41	Amer. J. Agri. Econ.	10.9	J. Acc. Res.	17.8	J. Math. Econ.	17.7
42	Scottish J. Polit. Econ.	10.9	Econ. Inquiry	17.5	Econ. Geogr.	17.5
43	Quart. Rev. Econ. Bus.	9.7	Econ. Geogr.	17.4	Rev. Econ. Statist.	17.1
44	Rev. Social Econ.	8.9	Oxford Econ. Pap.	16.8	Sloan Manage. Rev.	16.5
45	Problems of Econ.	7.8	J. Ind. Econ.	16.4	J. Ind. Econ.	16.0
46	German Econ. Rev.	7.6	Urban Stud.	16.1	J. Bus. Econ. Statist.	15.9
47	South African J. Econ.	7.3	Nat. Tax J.	15.7	Econ. Hist. Rev.	15.5
48	Weltwirtsch. Arch.	6.6	Brit. J. of Ind. Rel.	15.6	J. Public Econ.	15.4
49	Economia Internazionale	3.1	J. Reg. Sci.	14.9	Economica	15.0
50	Indian Econ. J.	1.2	Amer. J. Agri. Econ.	14.5	Inquiry—J. Health Care Org.	14.7
51			Scand. J. Econ.	14.4	J. Reg. Sci.	14.4
52			Policy Analysis	14.2	J. Urban Econ.	14.1
53			Reg. Sci. Urban Econ.	13.9	Explorations Econ. Hist.	13.8
54			Ind. Rel.	13.7	Land Econ.	13.5
55			Sloan Manage. Rev.	13.6	Int. Econ. Rev.	13.5
56			Econ. Devel. Cult. Change	13.5	Reg. Stud.	13.4
57			J. Environ. Econ. Manage.	13.3	J. Environ. Econ. Manage.	13.3
58			Soc. Sci. Quart.	13.3	J. Forecasting	13.3
59			Scottish J. Polit. Econ.	13.3	Econ. Inquiry (West. Econ. J.)	13.1
60			World Devel.	12.5	Amer. J. Agri. Econ.	12.7
61			Econ. Hist. Rev.	12.5	Mon. Lab. Rev.	12.7
62			Manchester Sch. Econ. Soc. Stud.	12.4	Soc. Sci. Quart.	12.6
63			Explorations Econ. Hist.	12.3	World Devel.	12.5
64			European Econ. Rev.	12.2	Oxford Econ. Pap.	12.4
65			Canadian J. Econ.	11.8	Public Choice	12.3
66			J. Devel. Econ.	11.7	J. Econ. Behav. Organ.	12.3
67			Public Choice	11.7	J. Econ. Hist.	12.2
68			Land Econ.	11.2	British J. Ind. Rel.	11.6
69			Southern Econ. J.	11.0	Econ. Devel. Cult. Change	11.4
70			J. Finan. Quant. Anal.	10.8	J. Compar. Econ.	11.2
71			Econ. Letters	10.7	Int. J. Ind. Organ.	11.1

103	Nebraska J. Econ. Bus.			Labor Hist.	5.8
104	J. Econ. Educ.	2.6		J. World Trade	5.8
105	Malayan Econ. Rev.	2.4		J. Macroecon.	5.8
106	J. Econ. Stud.	2.2		J. Common Market Stud.	5.7
107	Australian J. Agr. Econ.	0.7		Int. Lab. Rev.	5.2
108	Matekon	0.7		Int. J. Soc. Econ.	5.2
109		0.4		Econ. Letters	5.2
110				Natural Res. J.	5.0
111				Appl. Econ.	5.0
112				Cato J.	4.9
113				Public Finance	4.8
114				Energy Econ.	4.7
115				J. Econ. Bus.	4.4
116				J. Developing Areas	4.4
117				Econ. Record	4.3
118				Scottish J. Polit. Econ.	4.2
119				Hist. Polit. Econ.	4.2
120				Quart. Rev. Econ. Bus.	4.1
121				Bus. Hist. Rev.	4.0
122				Amer. J. Econ. Sociology	3.4
123				Rev. Black Polit. Econ.	2.8
124				Int. Soc. Sci. J.	2.6
125				Managerial Dec. Econ.	2.6
126				J. Econ. Stud.	2.3
127				Australian J. Agr. Econ.	2.0
128				Rev. Bus. Econ. Res.	1.5
129				Econometric Theory	1.4
130				Matekon	0.0

Sources:

^a Tabulated by the authors from the 50 journals listed.

^b Liebowitz and Palmer, as calculated from the *Social Science Citation Index*, vol. 6, 1980.

^c Calculated from the *Social Science Citation Index*, vol. 6, 1990.

TABLE 2
RANKINGS BASED ON IMPACT
ADJUSTED CITATIONS PER ARTICLE

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c	
1 Rev. Econ. Stud.	100.0	J. Econ. Lit.	J. Finan. Econ.	100.0
2 Amer. Econ. Rev.	93.3	Brookings Pap. Econ. Act.	Econometrica	78.4
3 Quart. J. Econ.	65.6	J. Finan. Econ.	J. Polit. Econ.	63.0
4 J. Polit. Econ.	63.5	J. Polit. Econ.	J. Monet. Econ.	41.9
5 Rev. of Econ. & Statist.	59.8	Bell J. of Econ. (Rand J. Econ.)	Quart. J. Econ.	41.6
6 Econometrica	46.6	Amer. Econ. Rev.	Rev. Econ. Stud.	40.7
7 J. Bus.	38.5	J. Monet. Econ.	Amer. Econ. Rev.	40.2
8 J. Finance	37.8	Econometrica	Bell J. Econ. (Rand J. Econ.)	40.2
9 Econometrica	36.7	Econometrica	J. Econ. Theory	34.9
10 Int. Econ. Rev.	35.1	Rev. Econ. Stud.	J. Finance	34.1
11 Econ. of Planning	32.8	J. Math. Econ.	J. Econ. Lit.	28.8
12 Econ. J.	32.7	J. Law Econ.	J. Acc. Econ.	25.8
13 Yale Essays on Econ.	28.3	J. Econ. Theory	J. Econ. Perspectives	23.3
14 Amer. Econ. Rev. Pap. & Proc.	26.9	J. Public Econ.	J. Bus.	21.2
15 J. Amer. Statist. Assoc.	16.8	Int. Econ. Rev.	J. Math. Econ.	20.6
16 Oxford Econ. Pap.	16.2	J. Econometrics	J. Econometrics	18.6
17 J. Royal Stat. Soc. Ser. A—Gen.	16.1	J. Ind. Econ.	Brookings Pap. Econ. Act.	15.9
18 J. Law Econ.	13.8	Quart. J. Econ.	J. Lab. Econ.	15.4
19 Econ. Rec.	13.7	Econ. J.	J. Finan. Quant. Anal.	14.3
20 J. Devel. Stud.	10.2	J. Finance	Int. Econ. Rev.	12.3
21 Southern Econ. J.	9.9	Amer. Econ. Rev. Pap. & Proc.	J. Law Econ.	11.7
22 J. Econ. Hist.	9.0	J. Int. Econ.	J. Money Credit Banking	9.0
23 Lloyd's Bank Rev.	6.3	J. Hum. Res.	Amer. Econ. Rev. Pap. & Proc.	8.8
24 Econ. Devel. Cult. Change	5.8	Public Finance	J. Public Econ.	8.6
25 Econ. Inquiry (Western Econ. J.)	4.8	Nat. Tax Journal	J. Amer. Statist. Assoc.	8.0
26 Weltwirtsch. Arch.	4.6	J. Money Credit Banking	J. Bus. Econ. Statist.	7.9
27 Kyklos	4.5	Canadian J. Econ.	J. Int. Econ.	7.6
28 Nat. Tax J.	4.2	Manchester Sch. Econ. Soc. Stud.	Econ. J.	7.5
29 J. Reg. Sci.	4.0	Ind. Lab. Rel. Rev.	Rev. Econ. Statist.	6.5
30 Int. Monet. Fund Staff Pap.	3.7	J. Legal Studies	J. Ind. Econ.	6.1
31 Quart. Rev. Econ. Bus.	3.7		J. Banking Finance	5.5

32	Manchester Sch. Econ. Soc. Stud.	3.5	J. Bus.	8.3	Int. J. Ind. Organ.	5.2
33	Public Finance	3.5	J. Urban Econ.	8.1	J. Econ. Dynam. Control	4.9
34	Rev. Soc. Econ.	3.4	Econ. Inquiry	7.9	Demography	4.9
35	J. Ind. Econ.	3.1	Scand. J. Econ.	7.1	J. Hum. Res.	4.6
36	Economia Internazionale	3.0	J. Acc. Res.	7.0	Soc. Choice Welfare	4.6
37	Explorations Econ. Hist.	3.0	European Econ. Rev.	6.7	Ind. Lab. Rel. Rev.	4.4
38	Scand. J. Econ.	2.5	Public Finance Quart.	5.5	J. Econ. Ed.	4.3
39	Amer. J. Agri. Econ.	2.0	Oxford Econ. Pap.	4.9	Econ. Inquiry (West. Econ. J.)	4.1
40	Land Econ.	1.8	Southern Econ. J.	4.8	J. Roy. Statist. Soc. Ser. B—Meth.	3.1
41	Ind. Rel.	1.6	British J. Ind. Rel.	4.8	Econ. Letters	3.0
42	Problems of Econ.	1.5	Appl. Econ.	4.4	J. Econ. Hist.	3.0
43	Econ. Hist. Rev.	0.6	Kyklos	4.3	Oxford Bull. Econ. Statist.	2.9
44	Bus. Hist. Rev.	0.3	J. Environ. Econ. Manage.	4.2	J. Acc. Res.	2.7
45	Ind. Lab. Relat. Rev.	0.2	J. Roy. Statist. Soc. Ser. A—Gen.	4.1	Economica	2.6
46	Scot. J. Polit. Econ.	0.0	Public Choice	4.1	J. Finan. Res.	2.5
47	Indian Econ. J.	0.0	J. Finan. Quant. Anal.	3.4	Explorations Econ. Hist.	2.3
48	South African J. Econ.	0.0	J. Amer. Statist. Assoc.	3.0	J. Risk Ins.	2.3
49	Ger. Econ. Rev.	0.0	Inquiry	3.0	European Econ. Rev.	2.1
50	Soc. Econ. Stud.	0.0	J. Devel. Econ.	2.3	J. Econ. Behav. Organ.	2.1
51			Scot. J. Polit. Econ.	1.9	Scand. J. Econ.	2.1
52			J. Cons. Res.	1.8	Public Choice	2.0
53			J. Reg. Sci.	1.8	J. Compar. Econ.	1.9
54			Yale Law J.	1.8	Econometric Theory	1.7
55			Lloyds Bank Rev.	1.7	J. Legal Stud.	1.6
56			Econ. Letters	1.6	J. Urban Econ.	1.6
57			Weltwirtsch. Arch.	1.6	J. Lab. Res.	1.5
58			Rev. Soc. Econ.	1.3	Public Finance	1.2
59			J. Econ. Issues	1.3	J. Devel. Econ.	1.2
60			Quart. Rev. Econ. Bus.	1.3	Southern Econ. J.	1.1
61			Reg. Sci. Urban Econ.	1.2	Cato J.	1.0
62			Ind. Rel.	1.2	Canadian J. Econ.	0.8
63			Nebraska J. Econ. Bus.	1.1	J. Health Econ.	0.7
64			Urban Stud.	1.0	Oxford Econ. Pap.	0.7
65			Econ. Rec.	1.0	J. Macroecon.	0.7
66			Oxford Bull. Econ. Statist.	1.0	Kyklos	0.7
67			Amer. J. Agr. Econ.	0.9	Amer. J. Agr. Econ.	0.7
68			Land Econ.	0.9	J. Roy. Statist. Soc. Ser. A—Gen.	0.6
69			J. Econ. Hist.	0.8	Ind. Rel.	0.6
70			Explorations Econ. Hist.	0.7	British J. Ind. Rel.	0.6
71			J. Econ. Bus.	0.6	Public Finance Quart.	0.6

TABLE 2 (Continued)
RANKINGS BASED ON IMPACT
ADJUSTED CITATIONS PER ARTICLE

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c		
72	J. Devel. Areas	0.6	0.6	Manchester Sch. Econ. Soc. Stud.	0.6
73	Econ. Devel. Cult. Change	0.6	0.6	Population Devel. Review	0.4
74	Mon. Lab. Rev.	0.6	0.6	Econ. Modelling	0.4
75	J. Econ. Educ.	0.5	0.5	World Econ.	0.4
76	Hist. Polit. Econ.	0.5	0.5	Appl. Econ.	0.4
77	J. Transp. Econ. Pol.	0.4	0.4	Nat. Tax J.	0.4
78	J. Roy. Statist. Soc. Ser. B—Meth. Public Policy	0.4	0.4	J. Forecasting	0.3
79	J. Devel. Stud.	0.4	0.4	J. Int. Bus. Stud.	0.3
80	Michigan Law Rev.	0.4	0.4	Scot. J. Polit. Econ.	0.3
81	Int. J. Soc. Econ.	0.4	0.4	Quart. Rev. Econ. Bus.	0.2
82	Int. Lab. Rev.	0.4	0.4	Reg. Sci. Urban Econ.	0.2
83	J. Risk Ins.	0.4	0.4	Cambridge J. Econ.	0.2
84	Reg. Stud.	0.3	0.3	Econ. Devel. Cult. Change	0.2
85	Sloan Manage. Rev.	0.3	0.3	Econ. Record	0.1
86	J. Int. Bus. Stud.	0.2	0.2	Mon. Lab. Rev.	0.1
87	Malayan Econ. Rev.	0.2	0.2	Land Econ.	0.1
88	Econ. Geogr.	0.1	0.1	Weltwirtsch. Arch.	0.1
89	World Devel.	0.1	0.1	J. Environ. Econ. Manage.	0.1
90	Econ. Hist. Rev.	0.1	0.1	Econ. Hist. Rev.	0.1
91	Labor Hist.	0.1	0.1	J. Econ. Stud.	0.1
92	Amer. J. Econ. Sociolgy	0.0	0.0	J. Reg. Sci.	0.1
93	Soc. Sci. Quart.	0.0	0.0	Australian J. Agr. Econ.	0.1
94	Population Stud.	0.0	0.0	Bus. Hist. Rev.	0.1
95	Policy Analysis	0.0	0.0	Energy Econ.	0.1
96	Natural Res. J.	0.0	0.0	J. Devel. Stud.	0.1
97	Australian J. Agr. Econ.	0.0	0.0	Int. J. Soc. Econ.	0.1
98	California Manage. Rev.	0.0	0.0	Yale Law J.	0.1
99	Demography	0.0	0.0	J. Common Market Stud.	0.1
100	Bus. Hist. Rev.	0.0	0.0	Rev. Soc. Econ.	0.1
101		0.0	0.0	J. Transport Econ. Policy	0.1

102	J. World Trade Law	0.0	J. Post Keynesian Econ.	0.0
103	J. Common Market Stud.	0.0	J. Econ. Bus.	0.0
104	Sci. Society	0.0	World Devel.	0.0
105	Soc. Res.	0.0	J. Econ. Issues	0.0
106	Int. Soc. Sci. J.	0.0	Michigan Law Rev.	0.0
107	Matekon	0.0	Reg. Stud.	0.0
108	J. Econ. Stud.	0.0	J. Pol. Anal. Manage.	0.0
109			Hist. Polit. Econ.	0.0
110			Inquiry—J. Health Care Org.	0.0
111			Urban Stud.	0.0
112			Manager. Dec. Econ.	0.0
113			Amer. J. Econ. Soc.	0.0
114			California Manage. Rev.	0.0
115			Int. Lab. Rev.	0.0
116			Int. Soc. Sci. J.	0.0
117			Econ. Geogr.	0.0
118			J. Cons. Res.	0.0
119			J. Devel. Areas	0.0
120			Labor Hist.	0.0
121			J. World Trade	0.0
122			Sci. Society	0.0
123			Matekon	0.0
124			Natural Res. J.	0.0
125			Sloan Manage. Rev.	0.0
126			Soc. Sci. Quart.	0.0
127			Soc. Res.	0.0
128			Rev. Black Polit. Econ.	0.0
129			Rev. Bus. Econ. Res.	0.0
130			Int. Reg. Sci. Rev.	0.0

Sources:

^a Tabulated by the authors from the fifty journals listed.

^b S. J. Liebowitz and J. P. Palmer, as calculated from the *Social Science Citation Index*, vol. 6, 1980.

^c Calculated from the *Social Science Citation Index*, vol. 6, 1990.

pages published. Expansion on the external margin can be analyzed in terms of entry into the economics journal market by new journals. Between 1976 and 1985, at least 55 new economics journals commenced publication.¹² This represents a 51 percent increase over the number of journals ranked by Liebowitz and Palmer just 10 years ago. We were able to determine pages published during 1985–89 for 27 of these new entrants at 59,716. It seems clear that the market for scholarly economic literature expanded rapidly during the period of time covered by our analysis.¹³

Our findings suggest that the overall growth in citations to scholarly economics literature over the 1970–1990 period exceeded the growth in the quantity of published, scholarly economic literature. The number of pages published in scholarly economics journals, including new entrants, more than doubled between 1970 and 1990. However, we doubt that there was a tripling of pages published during this time period. In terms of citations to the previous five years' publications, the growth rate in citations between 1970 and 1990 was 484 percent. In terms of citations to all previous literature, we estimate the growth rate in citations between 1970 and 1990 to be approximately 536 percent. Total citations in 1970, 1980, and 1990 for all journals in each sample are reported in Table 3.

¹² Since Liebowitz and Palmer's methodology was based on citations in 1980 to papers published 1975–79, journals which commenced publication in 1976 would not have appeared in their 1984 rankings. Similarly, because our methodology for 1990 was based on citations in 1990 to articles published 1985–89, with the exception of the *Journal of Economic Perspectives*, our rankings do not include journals that started up more recently than 1985. A list of these 55 journals is available from the authors.

¹³ Our growth figures correspond closely with the growth rates found by Michael Lovell (1973) for output of economic articles from the late 1800s through 1965 and the number of economic journals from 1850–1969.

TABLE 3
CITATIONS TO SCHOLARLY ECONOMIC LITERATURE,
1970–1990

Number of Citations to:	1970	1980	1990
Papers published 1965–69	4,815		
All papers (est.)	13,192		
Papers published 1975–79		17,798	
All papers		45,018	
Papers published 1985–89			28,122
All papers			83,948

To determine whether the growth in citations occurred primarily within the set of journals that published over that entire time period or was attributable in large measure to citations appearing in new journals, we analyzed the change in citations among the group of 41 journals that appeared in both the 1970 and 1990 rankings. That is to say, we counted citations originating among the 41 journals citing papers published in the same set of 41 journals. In 1970 the total number of citations sent back and forth among these 41 journals was 2,695; in 1990 that number was 3,741. This increase of 39 percent in within-group citations is larger than the previously noted increase in the number of articles published by that set of journals during that 20-year period (23%), but smaller than the increase in the number of pages published (50%) and much smaller than the overall increase in citations over that period. It thus appears that most of the growth in citations during the period 1970–1990 is attributable to new journals citing established journals and new journals citing other new journals.

Given the fact that the growth in within-group citations to the set of 41 journals that are consistent across the 1970–1990 period is lower than the increase in the number of pages published by those journals, it seems clear that market entry must be responsible for a sub-

stantial proportion of the noted growth in citations. Some of these journals have been extremely successful, as judged by their rapid accumulation of market share vis-à-vis citations. For example, the *Journal of Accounting and Economics*, which commenced publication in 1979, ranked 7th in 1990 by citations to articles published 1985–1989 (see Table 1). In this regard, it outperformed numerous better-known and well-respected journals.

The performance demonstrated by the American Economic Association's *Journal of Economic Perspectives* may be even more impressive. The inaugural volume of the *JEP* appeared in mid-1987. Thus the citation totals reported in Tables 1, 2, A1, and A2 are to approximately one-half the publication period of the other journals. Even with this limited publication experience to draw citations from, the *JEP* was the 26th most highly cited journal in economics in 1990 and ranked 13th that year in terms of citations per article. This powerful market penetration came within three to four years of first publication!¹⁴

¹⁴ The extremely successful market penetration by the *JEP* likely has to do with its status as an AEA-sponsored journal. The AEA puts its credibility and reputational capital on the line with a new journal. This serves as an implicit guarantee of product quality to potential subscribers, thus serving to attract greater numbers of subscribers than a journal started up by an organization (such as an economics department) with less reputational capital at stake. The analogy to product markets, such as automobiles, is virtually perfect. It is easier for Ford than Laband-Piette Motors to successfully introduce a new car. That said, it is also true that brand name is no guarantee of successful market penetration with a new product, as Ford discovered with the Edsel. The strong market penetration by the *JEP* probably also is influenced by (high) caliber of authors invited to contribute papers, the timeliness, variety, and importance of the topical matter and the low marginal cost of receiving the journal. The three AEA-sponsored journals (*AER*, *JEL*, and *JEP*) collectively attracted nearly 8.5 percent of all 1990 citations to the scholarly economics journal literature published during the preceding five years.

TABLE 4
CONCENTRATION OF CITATIONS
AMONG ECONOMICS JOURNALS,
1965–1990

	Herfindahl Index for Entire Market			
	1965*	1970	1980	1990
Unadjusted Citations	0.071	0.049	0.025	0.020
Impact-Adjusted Citations		0.088	0.077	0.059

* Source: Derived from Lovell (1973, p. 41).

Concentration and Market Dominance

One general change that occurred over the 1970–1990 period concerns the distribution of influence across economics journals. In 1980 only six journals received more than 50 percent of the citations per article accrued by the *American Economic Review*. In 1970 and 1990 nine journals received more than 50 percent of the citations per article received by the *AER*. A simple way of measuring the competitiveness of journals, along the citations per article dimension, is to sum the scaled numbers: the higher the number, the more competitive journals are with the *AER*. The top ten journals in 1970, 1980, and 1990 had aggregate relative impact values of 679.78, 619.35, and 701.62, respectively. This suggests that the competitiveness of the economics journal market declined slightly during the 1970s but increased during the 1980s.

Table 4 reports summary information with respect to concentration of citations among scholarly economics journals. Let s_j be journal j 's citations expressed as a fraction of all citations reported for the journals in our rankings. The Herfindahl Index, H , is then defined as $\sum_j (s_j)^2$ and ranges from zero to one. In Table 4 we

TABLE 5
INDIVIDUAL AND COLLECTIVE MARKET SHARES OF CITATIONS FOR 9 "CORE"
ECONOMICS JOURNALS, 1965-1990

Journal	Market Share of 9 "Core" Journals						
	Percentage of Unadjusted Citations			Percentage of Impact-Adjusted Citations			
	1965*	1970	1980	1990	1970	1980	1990
Amer. Econ. Rev.	11.7	13.0	7.6	6.3	19.4	16.4	11.9
J. Polit. Econ.	10.7	7.4	6.0	3.7	11.8	13.6	9.3
Quart. J. Econ.	6.2	5.6	1.4	1.8	8.0	1.6	4.7
Rev. Econ. Stat.	7.9	7.1	2.8	1.7	9.3	1.9	1.4
Rev. Econ. Stud.	5.2	5.6	2.0	1.4	8.4	4.0	4.0
Econometrica	14.9	5.2	5.0	4.5	5.8	12.9	11.6
Econ. J.	5.0	3.8	1.6	1.6	3.9	1.3	1.2
J. Monet. Econ.			1.7	1.9		4.8	4.8
J. Econ. Theory			1.9	1.6		4.7	5.1
All Core Journals	61.6	47.6	30.0	24.5	66.6	61.2	54.1

* Source: Derived from Lovell (1973, p. 41).

report the Herfindahl Indexes for 1965 (derived from Michael Lovell 1973), 1970, 1980, and 1990 for the journals included in our rankings in those years.¹⁵

The reported Herfindahl Indexes show a steady reduction in the degree of concentration in the academic journal market in economics over the 1965-1990 period and are in close agreement with values calculated by Pencavel (1992) for 320 economics journals indexed by the *Journal of Economic Literature*. The erosion is less pronounced with regard to impact-adjusted citations than unadjusted citations. Whereas the Herfindahl Indexes calculated on the basis of unadjusted citations declined much more rapidly during the 1970s than the 1980s, the Herfindahl Indexes based on impact-adjusted citations fell much more rapidly in the 1980s than the 1970s.

Table 5 reports the individual and joint market shares, with respect to citations,

of nine "core" economics journals in 1965, 1970, 1980, and 1990.¹⁶ Between 1970 and 1990 the share of all citations attributed to the nine core economics journals identified in Table 5 dropped by 50 percent. Indeed, the drop is probably greater than that, as the *Journal of Economic Theory* and the *Journal of Monetary Economics* were not indexed by the *Index of Economics Articles* for the entire 1965-69 period that was required to place them in the 1970 rankings; thus, we have no reported market share figures for these two journals for that year. It seems safe to say, however, that nearly half of all citations to the scholarly economics literature in 1970 went to articles published in the nine core journals. By 1990 less than 25 per-

¹⁵ These journals were identified by G. Stigler, Friedland, and S. Stigler (1992). Pencavel (1992) suggested a set of eleven "Gold Medal" journals that includes eight of Stigler's nine core journals. Arthur Diamond (1989) proposed a set of 27 core journals in economics. Our purpose is not to play favorites in this regard. Rather, our use of a set of "core" journals permits us to derive specific indices of market concentration and to observe changes in market concentration over time.

¹⁶ Lovell reported citations in 1965 among 108 journals, the "overwhelming majority being in economics" (p. 41).

cent of all citations to the scholarly economics literature went to articles published in the nine core journals.

With respect to impact-adjusted citations, the concentration of citations among the core journals has been much greater and has eroded away much more slowly over time. In 1970, two-thirds of all impact-adjusted citations were to articles published in the seven core journals identified in Table 5. Although there was steady erosion of concentration in this regard with the passage of time, by 1990 well over 50 percent of all impact-adjusted citations were still attributed to articles published by the nine core journals.

It seems appropriate to remind the reader at this stage that over the 1970–1990 period the number of citations to scholarly economic literature increased by roughly 500 percent. While the core journals participated to some degree in this expansion, collectively they lost much of their citations market share to noncore journals.

Barriers to Entry?

While it appears to be the case that new entrants have taken market share away from the top journals in economics, in some cases becoming top journals themselves, there is a certain stability among the core journals over time. Noting this asymmetry, Pencavel (1992, p. 4) suggested that it is “easier for journals to enter the class of high quality journals than for journals to fall out of that class.” The evidence bears out Pencavel’s insight. Of the top seven most highly cited economics journals in 1965, five are ranked among the top eleven economics journals in 1990 by impact-adjusted citations per article published during 1985–1989 (see Table 2). The other two, the *Economic Journal* and the *Review of Economics and Statistics* are ranked 24th and 28th with respect to that measure. In

terms of impact-adjusted citations per character (Table A2), the stability is even more striking: four of the top five journals in 1965 (*AER*, *Econometrica*, *JPE*, *QJE*), were ranked in the top five a quarter-century later.

It is hardly surprising that the increasing extent of the market from 1965–1990 supported an increase in the number of high-quality economics journals. As noted, Herfindahl Indexes indicate decreasing concentration over that time period, with respect to citations. However, even though the number of high-quality journals increased over that time period, the *proportion* of journals attracting the lion’s share of citations did not increase. Table 6 reports the cumulative percent of citations attracted by economics journals in 1970, 1980, and 1990 (Figure 1 plots the associated Lorenz Curves).

The degree of inequality in the distribution of citations diminished somewhat during the 1970s but remained virtually constant from 1980 to 1990. For all three years, the top 16 (35, 58) percent of all journals attracted 50 (75, 90) percent of all citations in each year to articles published in the preceding five years. However, in terms of impact-adjusted citations, the cumulative distribution of citations is skewed much more heavily in favor of the top journals. Approximately five (12, 21) percent of the journals attract 50 (75, 90) percent of all impact-adjusted citations. Moreover, in terms of both unadjusted and impact-adjusted citations, the inequality in the distribution of citations has remained relatively constant over the decades in question. It thus appears that expansion of the market supports greater numbers of high quality journals, but only up to a point.

IV. Discussion

Like Liebowitz and Palmer before us, we have endeavored to rank economics

TABLE 6
THE CUMULATIVE DISTRIBUTION OF CITATIONS, 1970-1990

Cumulative Percent of Journals	Cumulative Share of Unadjusted Citations			Cumulative Share of Impact-Adjusted Citations		
	1970	1980	1990	1970	1980	1990
10	0.8	0.6	0.9	0.00	0.00	0.00
20	2.4	2.4	2.7	0.00	0.00	0.26
30	4.6	5.4	5.6	0.05	0.06	0.89
40	7.5	9.3	9.6	0.20	0.20	1.78
50	12.3	15.1	15.0	0.59	0.54	3.15
60	19.0	22.1	22.3	2.60	1.60	5.52
70	27.5	31.6	31.3	5.15	4.40	9.74
80	39.8	43.4	43.2	11.74	11.57	18.83
90	61.4	59.7	60.6	26.78	28.10	43.07
100	100.0	100.0	100.0	100.00	100.00	100.00
percentage of top journals with 50% of all citations	16.0	16.0	16.0	10.0	5.1	5.4
percentage of top journals with 75% of all citations	34.0	35.5	37.2	18.0	12.6	10.9
percentage of top journals with 90% of all citations	56.0	58.9	59.7	32.0	21.5	21.7

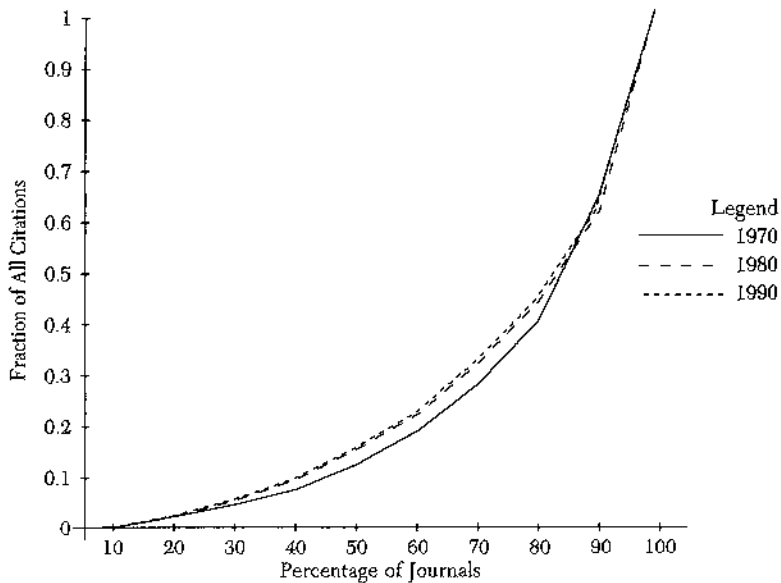


Figure 1. Lorenz Curves of Citations, 1970-1990

journals in a manner that members of the profession find meaningful. Our rankings of economics journals in 1970 and 1990, using the methodology pioneered by L-P, in conjunction with their findings for 1980, permit us to draw a number of conclusions.

There was a steady decline in concentration of citations among the top economics journals over the period 1965–1990. In part this was due to existing journals taking market share, defined in terms of citations, from the premier journals.

New entrants into the economics journal market have also taken market share away from the long-established, premier journals. Nonetheless, the inequality in the distribution of citations in economics remained virtually constant from 1970 to 1990.

Inequality in the distribution of citations in economics is more pronounced with respect to impact-adjusted citations than unadjusted citations. That is, the citations that have the greatest impact tend to be sent from and received by a relatively small subset of economics journals.

Although the top general-interest journals in economics have more-or-less maintained their prominence over the past 20 years (in terms of rankings, not in terms of collective market share), there has been a decline in the influence of most of the “second-tier” general-interest journals. Their bad fortune in this regard apparently results from the increase in influence/importance of a number of specialty journals. The rapid entry by and success of field journals surely reflects the advantages of specialization. It has become virtually impossible to stay abreast of the scholarly literature in economics. One could probably do so in 1970 by “browsing” through the journals in the university library. The combination of budget cuts affecting library

acquisitions during the 1980s and the previously documented explosion in the volume of economic journal literature, implies that the “browsing” technique of yesteryears is no longer an efficient means of identifying all relevant new contributions to the corpus of economic knowledge. The library no longer is able to subscribe to all of the journals that publish material that a scholar might find of interest. Moreover, even assuming no change in scholars’ opportunity cost of time over the 1970–1990 period, the time constraint has become more binding due to the increased number of journals and articles being published. It is, however, cost-effective for scholars to browse through “field” journals that focus on topics of specific interest to them. While the scholar will not find all, or even most, of the articles published of direct and immediate relevance, the search costs of finding the relevant ones are minimized by the presence of field journals. This suggests that in the general competition among journal editors for high-quality papers (Laband and Piette 1994), life must be getting increasingly difficult for editors of the second-tier, general-interest journals.

The relatively poor showing by economic history journals, considered as a group, in 1990 is consistent with the findings of the American Economic Association’s Commission on Graduate Education in Economics (Lee Hansen 1991). So, too, is the substantial entry by and impressive performance of numerous applied specialty journals.

The relative impact of economics journals focused on mathematics and statistics increased markedly between 1970 and 1990. In this regard our behavior as academic researchers stands in stark contrast to the fact that faculty, current graduate students and recent graduates all decry the emphasis on mathematics in the graduate economics curriculum of

the late 1980s (Hansen 1991). We cannot help but wonder whether the strong market showing (popularity) of the *Journal of Economic Perspectives*, with its emphasis on presentation of arguments and findings in essay form, reflects a widespread reaction within the profession to the mathematical/statistical emphasis of the 1970s and 1980s. If so, we would expect some fraction of new entrants, as well as current editors, in the 1990s to follow the *JEP*'s example with respect to style.

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TABLE AI
RANKINGS BASED ON CITATIONS PER CHARACTER

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c
1 J. Polit. Econ.	100.0	J. Polit. Econ.	100.0
2 Rev. Econ. Stud.	46.5	Amer. Econ. Rev.	93.0
3 Amer. Econ. Rev.	44.5	J. Econ. Lit.	81.6
4 Quart. J. Econ.	38.4	J. Finan. Econ.	61.6
5 Rev. Econ. Statist.	37.2	Rev. Econ. Statist.	61.2
6 Economica	33.8	J. Finance	58.6
7 Econ. J.	32.6	Yale Law J.	58.2
8 J. Reg. Sci.	29.9	Econometrica	57.4
9 Econometrica	28.8	J. Monet. Econ.	56.7
10 J. Bus.	27.0	Bell J. Econ. (Rand J. Econ.)	54.0
11 J. Finance	27.0	J. Amer. Statist. Assoc.	48.6
12 Amer. Econ. Rev. Papers & Proc.	24.2	Brookings Pap. Econ. Act.	46.7
13 Oxford Econ. Pap.	20.2	Econ. J.	43.7
14 Int. Econ. Rev.	17.7	J. Cons. Res.	42.1
15 J. Law Econ.	16.4	J. Roy. Statist. Soc. Ser. B—Meth.	41.9
16 Kyklos	16.3	J. Urban Econ.	41.8
17 J. Amer. Statist. Assoc.	15.7	Quart. J. Econ.	41.6
18 Public Finance	15.6	Rev. Econ. Stud.	41.1
19 Ind. Rel.	15.1	J. Law Econ.	40.8
20 J. Econ. Hist.	14.9	Demography	39.4
21 Southern Econ. J.	14.8	Amer. Econ. Rev. Papers & Proc.	38.1
22 Land Econ.	14.4	J. Legal Stud.	37.3
23 Econ. Devel. Cult. Change	14.1	Inquiry	37.0
24 Lloyd's Bank Rev.	13.5	J. Human Res.	36.2
25 Econ. Inquiry (Western Econ. J.)	13.4	J. Math. Econ.	35.3
26 Econ. Planning	13.3	J. Econometrics	35.2
27 Nat. Tax J.	13.2	Int. Econ. Rev.	34.7
28 Econ. Record	10.2	J. Econ. Theory	33.9
29 Econ. Hist. Rev.	9.5	Ind. Lab. Relat. Rev.	32.2
30 Amer. J. Agr. Econ.	9.1	Economica	32.1
31 Ind. Lab. Relat. Rev.	8.5	Econ. Inquiry	32.1
32 Explorations Econ. Hist.	7.6	Scand. J. Econ.	30.7
33 J. Ind. Econ.	7.4	J. Public Econ.	30.6
		Amer. Econ. Rev.	100.0
		J. Cons. Res.	78.0
		J. Finan. Econ.	75.8
		Econometrica	69.2
		J. Polit. Econ.	65.8
		J. Acc. Econ.	64.5
		Amer. Econ. Rev. Papers & Proc.	61.8
		J. Econ. Lit.	60.4
		Ind. Lab. Relat. Rev.	58.3
		Yale Law J.	56.6
		J. Econ. Perspectives	55.2
		Quart. J. Econ.	52.6
		J. Finance	50.6
		J. Monet. Econ.	49.8
		Mich. Law Rev.	47.7
		J. Legal Stud.	46.5
		J. Bus.	44.7
		J. Urban Econ.	43.4
		J. Roy. Statist. Soc. Ser. B—Meth.	42.4
		J. Money Credit Banking	41.2
		Bell J. Econ. (Rand J. Econ.)	39.5
		Econ. J.	38.0
		Ind. Rel.	37.2
		J. Health Econ.	36.3
		J. Roy. Statist. Soc. Ser. A—Gen.	35.5
		Population Devel. Rev.	35.4
		Oxford Bull. Econ. Statist.	35.4
		Rev. Econ. Statist.	34.9
		J. Amer. Statist. Assoc.	34.7
		J. Law Econ.	34.1
		Rev. Econ. Stud.	33.9
		J. Int. Bus. Stud.	33.8
		Demography	33.3

TABLE A1 (Continued)

RANKINGS BASED ON CITATIONS PER CHARACTER

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c	
34	Bus. Hist. Rev.	6.0	J. Econometrics	33.0
35	Manchester Sch. Econ. Soc. Stud.	6.0	J. Int. Econ.	29.4
36	Rev. Soc. Econ.	5.9	Amer. J. Agr. Econ.	29.3
37	J. Roy. Statist. Soc. Ser. A—Gen.	5.8	Ind. Relat.	29.1
38	Quart. Rev. Econ. Bus.	5.7	J. Bus.	28.2
39	Scot. J. Polit. Econ.	5.5	Mich. Law Rev.	27.9
40	Int. Monet. Fund Staff Pap.	5.3	Reg. Stud.	27.0
41	Ger. Econ. Rev.	5.2	Public Pol.	26.8
42	J. Devel. Stud.	5.1	Econ. Geogr.	25.9
43	Scandinavian J. Econ.	4.8	Nat. Tax J.	25.5
44	Soc. Econ. Stud.	4.2	J. Reg. Sci.	25.4
45	Yale Essays Econ.	4.1	Urban Stud.	25.2
46	S. African J. Econ.	3.7	Kyklos	24.8
47	Prob. Econ.	3.0	Oxford Econ. Pap.	23.8
48	Weltwirtsch. Arch.	2.4	Soc. Sci. Quart.	23.7
49	Economia Internazionale	1.4	Pol. Anal.	23.4
50	Indian Econ. J.	0.6	Public Choice	22.2
51			Southern Econ. J.	22.0
52			Brit. J. Ind. Relat.	21.8
53			Population Stud.	21.7
54			Sloan Manage. Rev.	20.9
55			Can. J. Econ.	20.0
56			J. Acc. Res.	19.5
57			Land Econ.	19.3
58			J. Finan Quant. Anal.	19.2
59			J. Environ. Econ. Manage.	18.9
60			J. Econ. Hist.	18.6
61			Labor Hist.	18.4
62			J. Ind. Econ.	18.1
63			Econ. Devel. Cult. Change	17.9
64			Manchester Sch. Econ. Soc. Stud.	17.9
65			Econ. Letters	17.9
66			Scot. J. Polit. Econ.	17.7
			J. Money Credit Banking	30.1
			Amer. J. Agr. Econ.	29.4
			Ind. Relat.	29.3
			J. Bus.	28.2
			Mich. Law Rev.	27.9
			Reg. Stud.	27.0
			Public Pol.	26.8
			Econ. Geogr.	25.9
			Nat. Tax J.	25.5
			J. Reg. Sci.	25.4
			Urban Stud.	25.2
			Kyklos	24.8
			Oxford Econ. Pap.	23.8
			Soc. Sci. Quart.	23.7
			Pol. Anal.	23.4
			Public Choice	22.2
			Southern Econ. J.	22.0
			Brit. J. Ind. Relat.	21.8
			Population Stud.	21.7
			Sloan Manage. Rev.	20.9
			Can. J. Econ.	20.0
			J. Acc. Res.	19.5
			Land Econ.	19.3
			J. Finan Quant. Anal.	19.2
			J. Environ. Econ. Manage.	18.9
			J. Econ. Hist.	18.6
			Labor Hist.	18.4
			J. Ind. Econ.	18.1
			Econ. Devel. Cult. Change	17.9
			Manchester Sch. Econ. Soc. Stud.	17.9
			Econ. Letters	17.9
			Scot. J. Polit. Econ.	17.7
			J. Econometrics	33.0
			Amer. Agr. Econ.	32.3
			J. Econ. Theory	30.8
			Sloan Manage. Rev.	29.5
			J. Acc. Res.	29.3
			J. Fin. Quant. Anal.	27.9
			J. Human Res.	27.3
			Mon. Lab. Rev.	27.1
			Calif. Manage. Rev.	26.4
			J. Math. Econ.	26.1
			J. Int. Econ.	26.1
			Land Econ.	24.6
			J. Lab. Econ.	24.3
			J. Bus. Econ. Statist.	23.4
			J. Ind. Econ.	23.3
			Public Choice	22.5
			Economia	22.3
			Inquiry—J. Health Care Organ.	21.2
			Brookings Pap. Econ. Act.	21.0
			J. Environ. Econ. Manage.	20.4
			Econ. Geogr.	19.6
			J. Econ. Educ.	19.0
			J. Reg. Sci.	18.2
			J. Econ. Hist.	18.2
			J. Public Econ.	18.1
			J. Pol. Anal. Manage.	18.1
			J. Compar. Econ.	17.8
			Econ. Inquiry (West. Econ. J.)	17.4
			Int. J. Ind. Organ.	17.2
			Int. Econ. Rev.	17.1
			Oxford Econ. Pap.	17.1
			Econ. Hist. Rev.	16.5
			Europ. Econ. Rev.	16.1

67	J. Roy. Statist. Soc. Ser. A—Gen.	17.5	J. Forecasting	16.1
68	Lloyds Bank Rev.	17.1	J. Econ. Dynam. Control	15.6
69	Reg. Sci. Urban Econ.	16.9	Brit. J. Ind. Relat.	15.4
70	Econ. Hist. Rev.	16.5	Econ. Letters	15.3
71	Europ. Econ. Rev.	15.9	J. Lab. Res.	15.2
72	J. World Trade Law	15.7	J. Econ. Behav. Organ.	15.0
73	Weltwirtsch. Arch.	14.9	Southern Econ. J.	14.8
74	Natural Res. J.	14.4	Reg. Stud.	14.5
75	J. Devel. Econ.	13.5	Scand. J. Econ.	14.2
76	World Devel.	13.2	Reg. Sci. Urban Econ.	14.2
77	Explorations Econ. Hist.	13.0	Kyklos	14.1
78	Econ. Rec.	12.8	Nat. Tax J.	13.4
79	J. Devel. Stud.	11.6	Soc. Sci. Quart.	13.4
80	Appl. Econ.	11.4	Soc. Res.	13.3
81	Sci. Society	11.2	Econ. Devel. Cult. Change	13.3
82	Public Finance Quart.	11.1	J. Post Keynesian Econ.	13.2
83	J. Risk Ins.	10.9	Exploration Econ. Hist.	13.1
84	J. Econ. Issues	10.8	Int. Reg. Sci. Rev.	12.7
85	Calif. Manage. Rev.	10.6	J. Devel. Econ.	12.5
86	Soc. Res.	10.3	Can. J. Econ.	12.4
87	Amer. J. Econ. Soc.	10.1	J. Devel. Stud.	12.3
88	Oxford Bull. Econ. Statist.	9.9	Weltwirtsch. Arch.	12.0
89	J. Econ. Educ.	9.9	Rev. Soc. Econ.	12.0
90	Mon. Lab. Rev.	9.4	Cambridge J. Econ.	11.8
91	J. Econ. Bus.	9.4	Manchester Sch. Econ. Soc. Stud.	11.8
92	Quart. Rev. Econ. Bus.	9.3	World Devel.	11.7
93	Int. J. Soc. Econ.	9.1	Soc. Choice Welfare	11.6
94	Public Finance	8.8	J. Finan. Res.	11.6
95	J. Transp. Econ. Pol.	8.5	J. Macroecon.	11.3
96	Hist. Polit. Econ.	8.5	J. Risk Ins.	10.1
97	Int. Lab. Rev.	7.8	Sci. Society	10.1
98	J. Devel. Areas	7.5	J. Econ. Issues	10.0
99	Rev. Soc. Econ.	7.2	World Econ.	9.8
100	J. Common Market Stud.	7.0	J. Banking Finance	9.7
101	J. Int. Bus. Stud.	6.0	Public Finance Quart.	9.5
102	Bus. Hist. Rev.	5.4	Urban Stud.	8.9
103	Nebraska J. Econ. Bus.	5.1	J. World Trade	8.4
104	Int. Soc. Sci. J.	5.0	Cato J.	8.2
105	Malayan Econ. Rev.	2.7	Public Finance	8.2
106	J. Econ. Stud.	1.2	J. Transp. Econ. Pol.	8.0

TABLE A1 (Continued)
RANKINGS BASED ON CITATIONS PER CHARACTER

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c
107	Matekon	0.8	Energy Econ.
108	Australian J. Agr. Econ.	0.5	Labor Hist.
109			Quart. Rev. Econ. Bus.
110			Appl. Econ.
111			Amer. J. Econ. Soc.
112			Int. Lab. Rev.
113			Econ. Rec.
114			J. Common Market Stud.
115			Hist. Polit. Econ.
116			J. Econ. Bus.
117			Scott. J. Polit. Econ.
118			Natural Res. J.
119			J. Devel. Areas
120			Rev. Black Polit. Econ.
121			Int. J. Soc. Econ.
122			Manage. Dec. Econ.
123			Bus. Hist. Rev.
124			Econ. Modelling
125			Int. Soc. Sci. J.
126			J. Econ. Stud.
127			Australian J. Agr. Econ.
128			Rev. Bus. Econ. Res.
129			Econometric Theory
130			Matekon

Sources:

^a Tabulated by the authors from the 50 journals listed.

^b Liebowitz and Palmer, as calculated from the *Social Science Citation Index*, vol. 6, 1980.

^c Calculated from the *Social Science Citation Index*, vol. 6, 1990.

TABLE A2

RANKINGS BASED ON IMPACT ADJUSTED CITATIONS PER CHARACTER

	1970 Citations to Articles Published		1980 Citations to Articles Published		1990 Citations to Articles Published	
	1965-1969 ^a	1975-1979 ^b	1975-1979 ^b	1985-1989 ^c	1985-1989 ^c	1985-1989 ^c
1 J. Polit. Econ.	100.0		J. Polit. Econ.	100.0	Amer. Econ. Rev.	100.0
2 Rev. Econ. Stud.	43.2		J. Finan. Econ.	99.0	J. Finan. Econ.	90.7
3 Amer. Econ. Rev.	41.4		Amer. Econ. Rev.	76.6	Econometrica	89.0
4 Quart. J. Econ.	34.4		J. Monet. Econ.	61.1	J. Polit. Econ.	79.1
5 Rev. Econ. Statist.	30.2		J. Finance	60.1	Quart. J. Econ.	64.5
6 J. Finance	22.6		J. Econ. Lit.	55.0	J. Monet. Econ.	59.3
7 Econ. J.	20.9		Econometrica	47.6	J. Econ. Theory	51.1
8 Economica	20.7		Bell J. of Econ. (Rand J. Econ.)	46.4	J. Finance	51.0
9 Econometrica	20.0		Brookings Pap. Econ. Act.	37.0	Rev. Econ. Stud.	47.6
10 J. Bus.	17.0		Rev. Econ. Stud.	36.5	Bell J. Econ. (Rand J. Econ)	46.5
11 Amer. Econ. Rev. Pap. & Proc.	16.3		Econometrica	36.2	J. Econ. Perspectives	37.0
12 Int. Econ. Rev.	15.0		J. Math. Econ.	35.6	J. Math. Econ.	32.4
13 Econ. Planning	10.7		Quart. J. Econ.	35.2	J. Acc. Econ.	28.7
14 Oxford Econ. Pap.	8.6		J. Econ. Theory	32.1	J. Bus.	27.1
15 Econ. Rec.	6.6		Amer. Econ. Rev. Papers & Proc.	31.4	J. Econometrics	26.8
16 J. Amer. Statist. Assoc.	6.0		Rev. Econ. Statist.	30.0	Amer. Econ. Rev. Pap. & Proc.	26.7
17 Southern Econ. J.	5.1		J. Econometrics	29.6	J. Finan. Quant. Anal.	21.3
18 J. Law Econ.	4.1		J. Inter. Econ.	29.6	J. Econ. Lit.	18.6
19 J. Roy. Statist. Soc. Ser. A—Gen.	4.0		Int. Econ. Rev.	29.3	J. Money Credit Banking	17.9
20 J. Econ. Hist.	3.7		J. Human Res.	28.1	J. Lab. Econ.	17.1
21 Yale Essays Econ.	3.4		J. Money Credit Banking	24.2	Int. Econ. Rev.	16.7
22 Econ. Inquiry (Western Econ. J.)	3.2		J. Public Econ.	23.6	Brookings Pap. Econ. Act.	14.7
23 J. Devel. Stud.	2.7		Econ. J.	22.5	Rev. Econ. Statist.	14.0
24 Kyklos	2.7		Econ. Inquiry	22.4	J. Law Econ.	12.8
25 Econ. Devel. Cult. Change	2.5		Scand. J. Econ.	22.3	Econ. J.	12.8
26 Lloyd's Bank Rev.	2.4		J. Law Econ.	21.7	J. Bus. Econ. Statist.	12.4
27 Nat. Tax J.	2.3		J. Bus.	21.1	J. Econ. Edu.	12.2
28 Public Finance	2.2		Ind. Lab. Relat. Rev.	18.5	Ind. Lab. Relat. Rev.	11.7
29 Rev. Soc. Econ.	2.1		Can. J. Econ.	18.0	J. Public Econ.	10.8
30 Quart. Rev. Econ. Bus.	2.0		J. Finan. Quant. Anal.	13.2	J. Int. Econ.	10.8
31 J. Reg. Sci.	1.7		J. Ind. Econ.	12.6	Econ. Letters	9.6
32 Weltwirtsch. Arch.	1.6		Southern Econ. J.	12.4	J. Ind. Econ.	9.5
33 Amer. J. Agri. Econ.	1.5		J. Urban Econ.	12.2	Int. J. Ind. Organ.	8.5

TABLE A2 (Continued)

RANKINGS BASED ON CITATIONS PER CHARACTER

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1980 Citations to Articles Published 1985-1989 ^c			
34	J. Ind. Econ.	1.4	Nat. Tax J.	11.8	J. Econ. Dynam. Control	8.1
35	Manchester Sch. Econ. Soc. Stud.	1.4	J. Acc. Res.	10.6	Soc. Choice Welfare	7.3
36	Land Econ.	1.3	Kyklos	10.0	J. Human Res.	7.3
37	Economia Internazionale	1.2	Manchester Sch. Econ. Soc. Stud.	9.5	J. Banking Finance	6.7
38	Exploration Econ. Hist.	1.0	J. Amer. Statist. Assoc.	7.5	Econ. Inquiry (West. Econ. J.)	5.9
39	Scand. J. Econ.	0.8	J. Legal Stud.	7.3	J. Amer. Statist. Assoc.	5.5
40	Int. Monet. Fund Staff Pap.	0.8	Public Finance	7.2	J. Urban Econ.	5.3
41	Ind. Relat.	0.6	Europ. Econ. Rev.	6.5	Demography	5.1
42	Prob. Econ.	0.5	Oxford Econ. Rev.	6.2	J. Roy. Statist. Soc. Ser. B—Meth.	4.8
43	Econ. Hist. Rev.	0.2	Public Choice	5.3	J. Econ. Hist.	4.8
44	Bus. Hist. Rev.	0.1	Public Finance Quart.	4.7	Oxford Bull. Econ. Statist.	4.4
45	Ind. Lab. Relat. Rev.	0.1	J. Reg. Sci.	4.6	J. Finan. Res.	4.2
46	Indian Econ. J.	0.0	Appl. Econ.	4.1	Economica	4.1
47	Scot. J. Polit. Econ.	0.0	J. Devel. Econ.	3.7	Public Choice	3.9
48	S. African J. Econ.	0.0	Ind. Rel.	3.5	J. Risk Ins.	3.8
49	Soc. Econ. Stud.	0.0	J. Roy. Statist. Soc. Ser. A—Gen.	3.5	J. Acc. Res.	3.7
50	Ger. Econ. Rev.	0.0	J. Econ. Educ.	3.2	Europ. Econ. Rev.	3.6
51			J. Environ. Econ. Manage.	3.2	Scand. J. Econ.	3.6
52			Brit. J. Ind. Relat.	3.1	Econometric Theory	3.3
53			Weltwirtsch. Arch.	3.0	J. Comp. Econ	3.1
54			Amer. J. Agr. Econ.	2.6	J. Econ. Behav. Organ.	2.7
55			Lloyds Bank Rev.	2.6	J. Lab. Res.	2.5
56			Econ. Letters	2.5	Explorations Econ. Hist.	2.4
57			J. Cons. Res.	2.4	Public Finance	2.2
58			Reg. Sci. Urban Econ.	2.2	Cato J.	1.8
59			Scot. J. Polit. Econ.	2.1	J. Devel. Econ.	1.8
60			Land Econ.	2.0	Amer. J. Agr. Econ.	1.8
61			Urban Stud.	1.9	Southern Econ. J.	1.7
62			J. Econ. Bus.	1.8	J. Legal Stud.	1.6
63			Oxford Bull. Econ. Statist.	1.7	J. Macroecon.	1.4
64			J. Econ. Issues	1.5	Ind. Relat.	1.1
65			Inquiry	1.5	Kyklos	1.1

66	Quart. Rev. Econ. Bus.	1.3	J. Health Econ.	1.1
67	Econ. Rec.	1.3	Can. J. Econ.	1.1
68	Explorations Econ. Hist.	1.1	Oxford Econ. Pap.	1.0
69	J. Econ. Hist.	1.1	Public Finance Quart.	1.0
70	Econ. Devel. Cult. Change	1.1	Brit. J. Ind. Relat.	0.8
71	J. Develop. Areas	1.0	Manchester. Sch. Econ. Soc. Stud.	0.8
72	Yale Law J.	1.0	J. Royal Stat. Soc. Ser. A—Gen.	0.7
73	Nebr. J. Econ. Bus.	0.9	World Econ.	0.6
74	J. Roy. Statist. Soc. Ser. B—Meth.	0.9	Population Devel. Rev.	0.6
75	Sloan Manage. Rev.	0.9	Nat. Tax J.	0.6
76	Rev. Soc. Econ.	0.9	Appl. Econ.	0.5
77	Mon. Lab. Rev.	0.8	Quart. Rev. Econ. Bus.	0.4
78	Hist. Polit. Econ.	0.7	J. Int. Bus. Stud.	0.4
79	J. Risk Ins.	0.7	J. Forecasting	0.4
80	J. Devel. Stud.	0.6	Sect. J. Polit. Econ.	0.4
81	Int. Lab. Rev.	0.5	Reg. Sci. Urban Econ.	0.3
82	Int. J. Soc. Econ.	0.5	Mon. Lab. Rev.	0.3
83	J. Transp. Econ. Pol.	0.4	Econ. Model.	0.3
84	Reg. Stud.	0.4	Cambridge J. Econ.	0.3
85	Public Pol.	0.3	Econ. Devel. Cult. Change	0.2
86	Econ. Geogr.	0.3	Land Econ.	0.2
87	Malayan Econ. Rev.	0.3	Weltwirtsch. Arch.	0.2
88	J. Int. Bus. Stud.	0.2	Econ. Rec.	0.2
89	Lab. Hist.	0.2	J. Environ. Econ. Manage.	0.2
90	World Devel.	0.1	J. Econ. Stud.	0.2
91	Econ. Hist. Rev.	0.1	Australian J. Agr. Econ.	0.1
92	Amer. J. Econ. Sociology	0.1	J. Reg. Sci.	0.1
93	Mich. Law Rev.	0.1	Econ. Hist. Rev.	0.1
94	Soc. Sci. Quart.	0.0	Energy Econ.	0.1
95	Natural Res. J.	0.0	Rev. Soc. Econ.	0.1
96	Calif. Manage. Rev.	0.0	J. Devel. Stud.	0.1
97	Population Stud.	0.0	J. Post Keynesian Econ.	0.1
98	Australian J. Agr. Econ.	0.0	Bus. Hist. Rev.	0.1
99	Pol. Anal.	0.0	J. Transp. Econ. Pol.	0.1
100	Bus. Hist. Rev.	0.0	Int. J. Soc. Econ.	0.1
101	Demography	0.0	J. Common Market Stud.	0.1
102	J. World Trade Law	0.0	J. Econ. Bus.	0.1
103	J. Common Market Stud.	0.0	Yale Law J.	0.1
104	Sci. Society	0.0	J. Econ. Issues	0.1
105	Soc. Res.	0.0	J. Pol. Anal. Manage.	0.0
106	Matekon	0.0	World Devel.	0.0

TABLE A2 (Continued)
RANKINGS BASED ON CITATIONS PER CHARACTER

	1970 Citations to Articles Published 1965-1969 ^a	1980 Citations to Articles Published 1975-1979 ^b	1990 Citations to Articles Published 1985-1989 ^c
107			0.0
108	Int. Soc. Sci. J.	0.0	Reg. Stud.
109	J. Econ. Stud.	0.0	Hist. Polit. Econ.
110			Inquiry—J. Health Care Org.
111			Urban Stud.
112			Manag. Dec. Econ.
113			Mich. Law Rev.
114			Amer. J. Econ. Sociology
115			Calif. Manage. Rev.
116			Int. Lab. Rev.
117			Int. Soc. Sci. J.
118			Econ. Geogr.
119			J. Cons. Res.
120			J. Devel. Areas
121			Lab. Hist.
122			J. World Trade
123			Sci. Society
124			Matekon
125			Nat. Res. J.
126			Int. Reg. Sci. Rev.
127			Rev. Bus. Econ. Res.
128			Rev. Black Polit. Econ.
129			Soc. Res.
130			Soc. Sci. Quart.
			Sloan Manage. Rev.

Sources:

^a Tabulated by the authors from the 50 journals listed.

^b Liebowitz and Palmer, as calculated from the *Social Science Citation Index*, vol. 6, 1980.

^c Calculated from the *Social Science Citation Index*, vol. 6, 1990.