



ECONOMIC RESEARCH
FEDERAL RESERVE BANK OF ST. LOUIS
WORKING PAPER SERIES

Journal Rankings in Economics: Handle with Care

Authors	Howard J. Wall
Working Paper Number	2009-014A
Creation Date	April 2009
Citable Link	https://doi.org/10.20955/wp.2009.014
Suggested Citation	Wall, H.J., 2009; Journal Rankings in Economics: Handle with Care, Federal Reserve Bank of St. Louis Working Paper 2009-014. URL https://doi.org/10.20955/wp.2009.014

Published In	B E Journal of Economic Analysis & Policy
---------------------	---

Federal Reserve Bank of St. Louis, Research Division, P.O. Box 442, St. Louis, MO 63166

The views expressed in this paper are those of the author(s) and do not necessarily reflect the views of the Federal Reserve System, the Board of Governors, or the regional Federal Reserve Banks. Federal Reserve Bank of St. Louis Working Papers are preliminary materials circulated to stimulate discussion and critical comment.

Journal Rankings in Economics: Handle with Care

Howard J. Wall*

Federal Reserve Bank of St. Louis

April 2, 2009

Abstract

Nearly all journal rankings in economics use some weighted average of citations to calculate a journal's impact. These rankings are often used, formally or informally, to help assess the publication success of individual economists or institutions. Although ranking methods and opinions are legion, scant attention has been paid to the usefulness of any ranking as representative of the many articles published in a journal. First, because the distributions of citations across articles within a journal are seriously skewed, and the skewness differs across journals, the appropriate measure of central tendency is the median rather than the mean. Second, large shares of articles in the highest-ranked journals are cited less frequently than typical articles in much-lower-ranked journals. Finally, a ranking that uses the *h*-index is very similar to one that uses total citations, making it less than ideal for assessing the typical impact of articles within a journal. (JEL A11)

JEL classification: A11

Keywords: Journal rankings

* Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166-0442 (<mailto:wall@stls.frb.org>). The views expressed are those of the author and do not necessarily represent official positions of the Federal Reserve Bank of St. Louis or the Federal Reserve System. I would like to thank Kristie Engemann, Cletus Coughlin, and Rajdeep Sengupta for their comments and suggestions.

I. Introduction

Journal rankings are used to compare institutions and evaluate individual economists by weighting the journals in which they publish their research (Kalaitzidakis, Mamuneas, and Stengos, 2003; Dusansky and Vernon, 1998). Because a journal's ranking is seen as a good indicator of the research quality of individual papers in the journal many institutions use rankings either formally or informally to evaluate job seekers, current staff, etc. Rankings are used in this way because one typically has little more than the journal name to use as an indicator of a paper's quality.

For an older paper, citations provide a good measure of its impact and are readily available from a number of sources. Even so, it is doubtful that evaluators find it worth their time to collect the necessary data for the many papers and people that they evaluate. For a more-recent paper, the citation record is probably not long enough to gauge impact, unless the paper is extremely successful early on. Given this information lag, perhaps the best (or at least most practical) predictor of future impact is the reputation of the journal in which the paper is published. Nonetheless, the purpose of this paper is to suggest that great care should be taken when using the a journal's ranking is used as a predictor of the future impact of a specific article.

Although there are many ranking methodologies, and rankings have been used to make important decisions regarding grants, salary, tenure, promotion, and hiring, little work has been done to assess how seriously any ranking should be taken. Error bands are *de rigueur* in economics, but, somehow, providers of journal rankings have gotten away with producing little more than point estimates. The average number of citations, however calculated and adjusted, has been taken as a useful representation of the many articles

within a journal. But how confidently can we say that an article in journal A is better than an article in journal B simply because the average article in A has tended to receive more citations than the average article in B? This paper follows Oswald (2007) by comparing the distributions of citations across the articles within journals, with the aim of helping decisionmakers derive mental error bands around journal rankings. My updated analysis, with five times as many journals as used by Oswald, should go much further in making the case that these error bands should be fairly large.

As shown below, citation distributions for journals tend to be skewed heavily by a small number of high performers. Further, there is significant overlap in citation distributions across journals to the extent that large percentages of articles published in low-ranked journals outperform the median of the four most-prestigious journals. Similarly, large percentages of articles in the most prestigious journals underperform the median of much-lower-ranked journals. Finally, I show that a ranking that uses the h -index is very similar to a simple ranking according to total citations, making it unsuitable as a predictor of the impact of individual articles.

II. The Data and a Simple Mean Ranking

I start with a list of 30 journals that correspond roughly to the top 30 or so journals identified by Engemann and Wall (2009), which excludes non-refereed or invitation-only journals (*Journal of Economic Literature*, *Brookings Papers on Economic Activity*, and *Journal of Economic Perspectives*). I also exclude journals that are primarily finance because a large percentage of their citations would come from journals outside of economics and thus might not be suitable for the present analysis. The *May Papers and*

Proceedings issue of the *American Economic Review* (*AER*) is treated separately from the rest of the journal because, as shown below, it is much less selective than the regular issues of the *AER*. Almost any list of the top 30 journals includes most of these journals and any differences are at the low end; however, for the purposes of this paper, it is not important exactly which journals are in the list. In fact, as will be apparent, my points are strengthened if I have included some journals that do not belong in the top 30.

I compiled all articles published in 2001 in these 30 journals and tallied the total number of citations to each article between 2001 and 2008 from all articles included in the Institute for Scientific Information (ISI) Web of Science database. Note that this excludes proceedings, editorial material, book reviews, corrections, reviews, meeting abstracts, biographical items, software reviews, letters, news items, and reprints as identified by the database. Also note that the citations in 2008 are all those included in the database as of the day that the data were collected: September 23, 2008.

Table 1 summarizes the citation records of articles in the 30 included journals relative to the rest of economics. The ISI database lists 6,373 articles published in economics in 2001, and the 30 included journals represent 1,543 articles, or 24 percent, of the total. These journals received a disproportionate share of citations: Of the 49,670 citations recorded by the database, 22,805 of them, or 46 percent, are to the included journals. Put another way, the average number of citations across all of economics was 7.8, the average across the included journals was 14.8, and the average across the excluded journals was 5.6.¹

¹ Some additional curiosities: Nineteen percent of articles in economics received no citations at all, while 4 percent of articles in the included journals and 24 percent of articles in the excluded journals were not cited.

Journal-level summary statistics are provided in Table 2, where journals are ranked in declining order of mean citations. This is an extremely simple ranking method in that it addresses few of the usual measurement concerns. Nearly all of the journal rankings in economics are based on a quality-weighted average of citations, often using a variant of the iterative method of Liebowitz and Palmer (1984) and correcting for some combination of self-citations, article age, and journal size. Also, following Palacios-Huerta and Volij (2004), some rankings control for differences in reference intensity—that is, differences across journals in the average number of references.² The ranking in Table 2 controls only for journal size and article age, but not for self-citations, the quality of the citing journal, or reference intensity. Nonetheless, because the purpose of this paper is to shed light on the properties of journal citations as raw inputs into the various ranking procedures, and not to provide a journal ranking, a simple ranking is preferable. It is worth noting, however, that this simple ranking is highly correlated with one that follows all of the best measurement practices.³

There is nothing surprising about the identities of the journals with the highest mean number of citations—*Quarterly Journal of Economics* (QJE), *AER*, *Econometrica*, and *Journal of Political Economy* (JPE)—although the ranking among them and the differences between them might be. Specifically, the average article in the *QJE* was cited much more frequently (45 times) than were articles in the other three journals (32, 28, and 21 times, respectively). The relative mean impact, which is the number of cites a journal

² To date, this correction has yet to be adopted widely. Kodrzycki and Yu (2006) have produced the only other ranking that includes reference intensity, although Engemann and Wall (2009) control for it indirectly.

³ Specifically, the present ranking and that of Engemann and Wall (2009) have a Spearman rank correlation coefficient of 0.75. In general, journals with exclusively or primarily theoretical papers, such as *Review of Economic Studies*, *International Economic Review*, and *Journal of Economic Theory*, are the ones whose ranking is improved the most when best practices are used.

received relative to the number of cites to the average article published in the *AER*, the profession's flagship journal, provides a useful number to compare journals to one another. According to this measure, the average article in the *QJE* was cited 43 percent more frequently than was the average article in the *AER*, whereas the average articles in *Econometrica* and the *JPE* were cited, respectively, 87 and 65 percent as frequently. There were large differences in citation frequency between the high and low ends of the list. On average, articles in journals ranked 22nd to 30th were cited between 27 and 31 percent as frequently as the average *AER* article. Also, there was a vast middle ranking of journals (ranked 5th to 21st) with relative mean impacts between 34 and 54 percent.

III. Skewness and a Median Ranking

How well does the mean number of citations summarize the citation tendency of the typical article within a journal? A look at the maximum and minimum citations reported in Table 2 provides a hint that the answer to that question might be "not so well." The maxima across journals range from 30 to 433, and this top article usually accounted for 10 percent or more of the total cites received by the journal. In fact, it is not uncommon for the share of the most-cited article to have exceeded 20 percent of the total. For example, 38 percent of all citations to the *Oxford Economic Papers* were to a single article, while the analogous numbers are 35 percent for the *Journal of Applied Econometrics* and 25 percent for the *International Economic Review*. This phenomenon is true even for a journal as large and prestigious as the *AER*, for which 15 percent of its citations were to just one of its 93 articles. Further, for most journals there were decent numbers of articles that received no citations at all during the period. The journals with the

highest shares of such articles were *Oxford Economic Papers* (12 percent), *International Economic Review* (11 percent), the *Journal of Business and Economic Statistics* (11 percent), and the *Journal of Economic Theory* (9 percent).

This quick examination of the high and low ends of citation distributions illustrates the high variance and the positive skew of any journal's citations: Citations to a journal are heavily weighted to a few articles, and many articles are cited relatively infrequently. Although all journals share these characteristics, there are large cross-journal differences in variance (which measures the degree of atypicality of the average number of cites). The five journals with the highest variance relative to mean are the *AER*, *Journal of Applied Econometrics*, *AER Papers and Proceedings*, *Oxford Economic Papers*, and *Econometrica*. At the other end are four journals with a relative variance below 10: *Journal of Human Resources*; *Journal of Risk and Uncertainty*; *Journal of Money, Credit, and Banking*; and *Journal of Law and Economic Organization*. Skewness, which measures the extent to which the mean is driven by the high end of the distribution, also differs a great deal across journals, and not just between high- and low-ranked journals. For example, the citation distribution of the *QJE* is the least skewed, while that of the *AER* is the most skewed.

The high relative variance and extreme skewness of journals' citation distributions indicate that the mean is not the appropriate measure of the central tendency of the citations received by articles in a journal. The median, which would eliminate the large effect that a single article can have on the mean, is more appropriate. Accordingly, in Table 3 the journals are ranked according to their median number of cites.⁴ As one can

⁴ As a practical matter, rankings based on the median are almost necessarily outdated because one must wait several years after an article is published to collect the article-level information, meaning that the ranking is

see, it turns out that the two rankings are not really that different from one another.⁵ There are, however, some large movements in rank for some journals as we move from Table 2 to Table 3. For example, the *Journal of Applied Econometrics* is ranked 11 places lower in the median ranking, while the *Journal of Industrial Economics* and the *AER Papers and Proceedings* fall by seven and five places, respectively. The two journals that improve their rankings the most are the *Journal of Risk and Uncertainty* and the *Journal of Law and Economic Organization*, which rise by seven and five places, respectively.

Because it is an indicator of how different the journals are from one another, perhaps the difference between the relative mean and median impacts is more interesting. Recall that the relative mean impact indicated that the average article in the *QJE* was cited 43 percent more frequently than the average article in the *AER*. According to the relative median impact, however, the distance between the *QJE* and the *AER*, as well as the rest of the journals, is much greater: The median article in the *QJE* was cited more than twice as often as the median article in the *AER*. The use of medians also tends to provide higher relative impacts for the journals ranked below the *AER*. Although the journals ranked 3rd to 30th had an average relative mean impact of 0.4, their average relative median impact was 0.47. Thus, use of the median reveals that the differences between the *AER* and the journals ranked below it are not as large as suggested when one uses the mean, although the difference between the *QJE* and all other journals is revealed to be even greater.

based on articles published several years prior to when the ranking is done. In contrast, the information demands of a mean-based ranking are much less restrictive because one can pool data for recent years. For example, Engemann and Wall (2009) look at citations received during 2001-07 to articles published during the same period. Mean-based rankings are, therefore, probably more practical than median-based ones. Nonetheless, it is useful to know the differences between the two ranking methods so that one has an idea of how seriously to take the mean-based rankings that will necessarily be done.

⁵ Their Spearman rank-correlation coefficient is 0.91.

IV. Overlapping Distributions

The previous two sections demonstrated the unsuitability of the mean as an indicator of the central tendency of citations to articles in a journal and showed how the relative ranking of journals might differ if the median were used instead. This section moves from a discussion of how to best perform a ranking to one of how seriously to take any citation-based ranking. Although the median or the mean might be appropriate for ranking journals, a look at the ends of each journal's citation distribution provides some notion of how large one's mental error bands should be when using such a ranking.

Notice from Table 2 that the most-cited article for every one of the 30 journals received more citations than did the median article across the four top-ranked journals (19). In other words, at least one article from each journal had a greater impact than did half of the articles in the top four journals. So how many other such articles are there for each journal? And, conversely, given that some articles from even the top journals received very few or even zero citations, how many articles published in each journal were cited less often than the median of the bottom four journals? To answer these and related questions, I split the journals into four tiers: Tiers 1 and 4 are composed of the top and bottom four journals, respectively. Tier 1 journals all have a relative median impact greater than 0.7, and Tier 4 journals all have a relative median impact less than 0.3. The rest of the journals are split into Tiers 2 and 3, which, respectively, have relative median impacts between 0.5 and 0.7 and between 0.3 and 0.5. The assignment of journals to tiers is shown in Table 3.

It is also possible to assign individual articles from all the journals to each of these tiers. Specifically, I define a Tier 1 article as one that was cited at least 19 times (the

median article across Tier 1 journals), a Tier 2 article as one that was cited at least 10 times but fewer than 19 times, a Tier 3 article as one that was cited at least 6 times but fewer than 10 times, and a Tier 4 article as one that was cited no more than 5 times (the median across the bottom four journals). The shares of each of these four types of article published in every journal are provided in Table 3.

The first things to note are that every journal has articles in every tier and that there is a strong tendency for a journal's ranking to be related to the shares of its articles in the highest or lowest tiers. This relationship is far from monotonic, however. For example, nearly 20 percent of the articles in *Econometrica* and 14 percent of the articles in the *AER* were Tier 4 articles, although Tier 4 articles were extremely rare for the *QJE*, which had only one. As one would expect, Tier 4 articles were more common in Tier 2 journals than they were in Tier 1 journals and the frequency might come as a surprise: Thirty-eight percent of the articles in the *Journal of International Economics* and 35 percent of the articles in the *Journal of Monetary Economics* were Tier 4 articles. Conversely, Tier 1 articles were not uncommon at the low end of the journal ranking: About 12 percent of the articles in *Games and Economic Behavior* (from Tier 4) and 27 percent of the articles in the *Journal of Industrial Economics* (from Tier 3) were Tier 1 articles.

Figure 1 summarizes the overall tendencies of journals from any tier to have articles across all four tiers. One lesson from the figure is that the tiers are fairly similar in the extent to which their articles fall into the middle two tiers—between 33 and 44 percent. Put another way, the big difference between the journal tiers is in the prevalence of Tier 1 and Tier 4 articles. For another perspective, note that Tier 1 journals publish substantial numbers of papers at least two tiers below the journals, whereas Tier 4 journals publish

substantial numbers of papers at least two tiers above the journals. Specifically, Tier 3 and 4 articles made up 29 percent of the articles published in Tier 1 journals, while Tier 1 and 2 articles made up 27 percent of the articles published in Tier 4 journals.

V. The h -Index

Hirsch (2005), responding to the perceived need for a useful quantitative measure of individual researchers' cumulative impact on their fields of research, proposed a simple index, h , which is defined as the number of papers with citations greater than or equal to h . To find an individual's h , one need only to order the person's papers from the most-cited to the least-cited. Going down the list, h is where the number of papers is greater than or equal to the number of citations to the h th paper. Recently, Braun, Glänzel, and Schubert (2006) proposed using article-level information to derive an h -index for journals. In sync with the previously noted observations about the skewed distribution of citations, the advantage of the h -index applied to journals is thought to be that a simple way to combine both quality and quantity considerations while eliminating the effect that a small number of articles might have on mean-based measures.

The h -index has become increasingly popular: The Web of Science now provides h -indices for all journals in its database, and the calculations are dependent on the time frame chosen by the user. Similarly, RePEc uses the h -index for an experimental journal ranking, although its database is drawn primarily from so-called gray literature, such as working papers, and a fairly small and unrepresentative sample of journals.

Because all articles in my data have roughly the same amount of time to accumulate citations, my data are ideal for ranking journals by their h -index and comparing

it with alternatives.⁶ Keep in mind that because the *h*-index is a measure of the overall impact of a journal, whereas the median ranking is meant to measure the impact of a typical article in a journal, the two rankings are not comparable. The *h*-index ranking should instead be compared to a ranking by total citations across all articles in a journal. Put another way, the *h*-index can be used to answer a question such as, “What journals have the greatest total impact in economics?” Median or mean rankings, on the other hand, address the question, “What kind of an impact is typical for an article in journal X?” There is no evidence that this important distinction is appreciated by either of the two sources that use the *h*-index for economics journals. On the RePEc site, for example, the *h*-index stands without qualifications alongside several mean-based rankings.

Table 4 contains the *h*-index for each of the 30 included journals, along with their total citations, their total-citations rank, and the difference between the two ranking methods. Note first how journal size affects the difference between the median rank from Table 3 and the *h*-index rank. Most obviously, the *AER*, *AER Papers and Proceedings*, the *European Economic Review*, and the *Journal of Economic Theory* (the four largest journals) leapfrog over journals with substantially higher median or mean citations. Again, the link between size and the *h*-index is deliberate in that the index was designed originally to measure cumulative impact over a researcher’s career, thereby making it less than desirable for assessing the potential impact of an individual article by looking at the journal in which it is published.

As is apparent from Table 4, there is little difference between the *h*-index ranking and the total-citations ranking. This is not necessarily surprising because they are both meant to capture total impact. In fact, given that the Spearman rank-correlation coefficient

⁶ See Braun, Glänzel, and Schubert (2006).

for the two methods is 0.98, it does not appear to have been worth the effort to gather article-level data and calculate the *h*-index for each journal.

VI. Conclusions

In and of themselves, the rankings in this paper are not intended for actual use because they use only one year's publications and do not correct or control for a number of important factors. Nevertheless, several general tendencies revealed by the analysis should be helpful in determining the amount of care to take when employing journal rankings. First, the appropriate measure of central tendency is the median rather than the mean, a correction that can lead to substantial changes in the ranking of individual journals, but which yields a ranking that differs little overall. Second, large percentages of articles in the highest-ranked journals are cited less frequently than are typical articles in much-lower-ranked journals. Similarly, large percentages of articles in the lowest-ranked journals are cited more frequently than are typical articles in much-higher-ranked journals. Finally, a ranking that uses the *h*-index is very similar to one that uses total citations, meaning that it is of little use for assessing the relative quality of research published in a journal.

References

- Braun, Tibor; Glänzel, Wolfgang and Schubert, András. "A Hirsch-Type Index for Journals." *Scientometrics*, April 2006, 69(1), pp. 169-73.
- Dusansky, Richard and Vernon, Clayton J. "Rankings of U.S. Economics Departments." *Journal of Economic Perspectives*, Winter 1998, 12(1), pp. 157-70.
- Engemann, Kristie M. and Wall, Howard J. "A Journal Ranking for the Ambitious Economist." Federal Reserve Bank of St. Louis *Review*, May/June 2009, forthcoming.
- Hirsch, Jorge E. "An Index to Quantify an Individual's Scientific Research Output." *Proceedings of the National Academy of Sciences*, November 2005, 102(46), pp. 16569-72.
- Kalaitzidakis, Pantelis; Mamuneas, Theofanis P. and Stengos, Thanasis. "Rankings of Academic Journals and Institutions in Economics." *Journal of the European Economic Association*, December 2003, 1(6), pp. 1346-66.
- Kodrzycki, Yolanda K. and Yu, Pingshan D. "New Approaches to Ranking Economics Journals." *Contributions to Economic Analysis and Policy*, 2006, 5(1), Article 24.
- Liebowitz, Stanley J. and Palmer, John P. "Assessing the Relative Impacts of Economics Journals." *Journal of Economic Literature*, March 1984, 22(1), pp. 77-88.
- Oswald, Andrew J. "An Examination of the Reliability of Prestigious Scholarly Journals: Evidence and Implications for Decision-Makers." *Economica*, February 2007, 74(293), pp. 21-31.
- Palacios-Huerta, Ignacio and Volij, Oscar. "The Measurement of Intellectual Influence." *Econometrica*, May 2004, 72(3), pp. 963-77.

Table 1. Summary Citation Characteristics of Journals

	Number of Articles	Number of Citations	Mean Citations	Article Share	Citation Share	Percent Never Cited
All journals (230)	6,373	49,670	7.8	1.00	1.00	0.19
30 included journals	1,543	22,805	14.8	0.24	0.46	0.04
200 excluded journals	4,830	26,865	5.6	0.76	0.54	0.24

Data are for citations in 2001-2008 to articles published in 2001, according to the ISI Web of Science[®] as of September 23, 2008.

Table 2. The Numbers and Distributions of Journal Citations

Mean Rank	Journal	Number of Articles	Mean Citations	Relative Mean Impact	Citation Maximum	Max Article's Share	Citation Minimum	Share with Zero Citations	Relative Variance	Skewness
1	<i>Quarterly Journal of Economics</i>	42	45.4	1.43	136	0.07	1	0.00	20.5	0.82
2	<i>American Economic Review</i>	93	31.7	1.00	433	0.15	0	0.02	74.3	6.34
3	<i>Econometrica</i>	66	27.6	0.87	194	0.11	0	0.03	38.1	2.65
4	<i>Journal of Political Economy</i>	44	20.6	0.65	76	0.08	3	0.00	16.2	1.31
5	<i>Journal of International Economics</i>	61	17.1	0.54	91	0.09	0	0.02	21.6	2.04
6	<i>Rand Journal of Economics</i>	37	16.6	0.52	127	0.21	0	0.03	30.9	3.60
7	<i>Journal of Economic Growth</i>	14	16.4	0.52	46	0.20	1	0.00	11.3	0.92
8	<i>Journal of Labor Economics</i>	32	15.0	0.47	70	0.15	3	0.00	14.5	2.49
9	<i>American Economic Review, Pap. and Proc.</i>	84	14.7	0.46	194	0.16	0	0.02	39.5	5.43
10	<i>Review of Economic Studies</i>	38	13.8	0.44	93	0.18	1	0.00	19.8	3.37
11	<i>Journal of Monetary Economics</i>	51	13.6	0.43	54	0.08	0	0.02	11.7	1.37
12	<i>Journal of Applied Econometrics</i>	35	13.4	0.42	164	0.35	0	0.06	57.4	4.98
13	<i>Journal of Econometrics</i>	77	13.1	0.41	97	0.10	0	0.03	22.4	2.86
14	<i>Review of Economics and Statistics</i>	67	13.1	0.41	69	0.08	0	0.03	12.7	2.10
15	<i>Journal of Industrial Economics</i>	26	12.6	0.40	54	0.16	0	0.08	17.0	1.45
16	<i>Journal of Business and Economic Statistics</i>	45	12.0	0.38	54	0.10	0	0.11	16.6	2.03
17	<i>European Economic Review</i>	98	12.0	0.38	112	0.10	0	0.04	24.4	3.96
18	<i>Journal of Law and Economic Organization</i>	19	11.9	0.38	46	0.20	0	0.05	9.8	1.81
19	<i>Journal of Risk and Uncertainty</i>	27	11.3	0.36	39	0.13	1	0.00	8.1	1.29
20	<i>Economic Journal</i>	66	11.3	0.36	106	0.14	0	0.06	27.8	4.02
21	<i>Journal of Law and Economics</i>	31	10.6	0.34	42	0.13	0	0.03	10.5	2.03
22	<i>Journal of Public Economics</i>	75	9.9	0.31	56	0.08	0	0.07	10.1	2.14
23	<i>Journal of Urban Economics</i>	48	9.5	0.30	61	0.13	0	0.02	11.6	3.03
24	<i>Games and Economic Behavior</i>	59	9.3	0.29	61	0.11	0	0.07	15.8	2.48
25	<i>Journal of Human Resources</i>	30	9.1	0.29	30	0.11	0	0.03	7.3	1.08
26	<i>International Economic Review</i>	45	8.9	0.28	102	0.25	0	0.11	29.1	4.75
27	<i>Journal of Development Economics</i>	69	8.7	0.27	68	0.11	0	0.06	12.7	3.26
28	<i>Oxford Economic Papers</i>	33	8.5	0.27	105	0.38	0	0.12	38.9	4.98
29	<i>Journal of Economic Theory</i>	87	8.4	0.27	54	0.07	0	0.09	10.2	2.37
30	<i>Journal of Money, Credit, and Banking</i>	44	8.4	0.27	32	0.09	0	0.07	8.6	1.46

Citations are from 2001-2008 to articles published in 2001 according to the ISI Web of Science® as of September 23, 2008.

Table 3. Median Citations and Overlaps in Citation Distributions

	Median Rank*	Journal	Median Citations	Relative Median Impact	Tier 1 Share	Tier 2 Share	Tier 3 Share	Tier 4 Share
Tier 1	1	<i>Quarterly Journal of Economics</i>	36.5	2.15	0.786	0.143	0.048	0.024
	2	<i>American Economic Review</i>	17	1.00	0.495	0.183	0.183	0.140
	3	<i>Econometrica</i>	16.5	0.97	0.470	0.197	0.136	0.197
	4	<i>Journal of Political Economy</i>	12.5	0.74	0.341	0.273	0.273	0.114
Tier 2	5	<i>Journal of Economic Growth</i>	11.5	0.68	0.429	0.143	0.214	0.214
	6	<i>Journal of International Economics</i>	11	0.65	0.311	0.197	0.115	0.377
	7	<i>Journal of Labor Economics</i>	10.5	0.62	0.219	0.344	0.219	0.219
	8	<i>Rand Journal of Economics</i>	10	0.59	0.297	0.243	0.189	0.270
	9	<i>Review of Economic Studies</i>	10	0.59	0.184	0.316	0.158	0.342
	10	<i>Journal of Monetary Economics</i>	9	0.53	0.255	0.235	0.157	0.353
	11	<i>Review of Economics and Statistics</i>	9	0.53	0.194	0.299	0.224	0.284
	12	<i>Journal of Risk and Uncertainty</i>	9	0.53	0.222	0.222	0.222	0.333
	13	<i>Journal of Law and Economic Organization</i>	9	0.53	0.158	0.263	0.263	0.316
Tier 3	14	<i>American Economic Review, Pap. and Proc.</i>	8	0.47	0.190	0.250	0.190	0.369
	15	<i>Journal of Business and Economic Statistics</i>	7	0.41	0.178	0.222	0.244	0.356
	16	<i>Journal of Econometrics</i>	7	0.41	0.182	0.195	0.247	0.377
	17	<i>Journal of Law and Economics</i>	7	0.41	0.129	0.194	0.387	0.290
	18	<i>Journal of Public Economics</i>	7	0.41	0.173	0.213	0.200	0.413
	19	<i>European Economic Review</i>	7	0.41	0.173	0.245	0.153	0.429
	20	<i>Journal of Urban Economics</i>	7	0.41	0.146	0.146	0.333	0.375
	21	<i>Journal of Human Resources</i>	6.5	0.38	0.167	0.233	0.133	0.467
	22	<i>Journal of Industrial Economics</i>	6	0.35	0.269	0.115	0.154	0.462
	23	<i>Journal of Applied Econometrics</i>	6	0.35	0.229	0.143	0.143	0.486
Tier 4	24	<i>Economic Journal</i>	6	0.35	0.121	0.197	0.212	0.470
	25	<i>Journal of Economic Theory</i>	6	0.35	0.115	0.195	0.207	0.483
	26	<i>Journal of Development Economics</i>	6	0.35	0.101	0.217	0.203	0.478
	27	<i>Games and Economic Behavior</i>	5	0.29	0.119	0.186	0.153	0.542
	28	<i>Journal of Money, Credit, and Banking</i>	5	0.29	0.114	0.205	0.159	0.523
	29	<i>International Economic Review</i>	5	0.29	0.111	0.111	0.200	0.578
	30	<i>Oxford Economic Papers</i>	4	0.24	0.061	0.152	0.152	0.636

* The ratio of Tier 1 and Tier 4 shares is used as a tiebreaker.

Table 4. Rankings Based on Total Citations and the *h*-Index

	Total Citations	Rank by Total Citations	<i>h</i> -index	<i>h</i> -Index Rank*	Difference in Rank**
<i>American Economic Review</i>	2,948	1	33	1	0
<i>Quarterly Journal of Economics</i>	1,907	2	28	2	0
<i>Econometrica</i>	1,822	3	23	3	0
<i>Journal of International Economics</i>	1,043	6	19	4	-2
<i>American Economic Review, Pap. and Proc.</i>	1,235	4	17	5	1
<i>European Economic Review</i>	1,176	5	17	6	1
<i>Journal of Econometrics</i>	1,009	7	17	7	0
<i>Journal of Political Economy</i>	906	8	16	8	0
<i>Review of Economics and Statistics</i>	878	9	16	9	0
<i>Journal of Public Economics</i>	743	11	16	10	-1
<i>Journal of Monetary Economics</i>	694	13	16	11	-2
<i>Journal of Economic Theory</i>	731	12	14	12	0
<i>Economic Journal</i>	746	10	13	13	3
<i>Rand Journal of Economics</i>	614	14	13	14	0
<i>Review of Economic Studies</i>	524	18	13	15	-3
<i>Journal of Labor Economics</i>	480	19	13	16	-3
<i>Journal of Development Economics</i>	600	15	12	17	2
<i>Games and Economic Behavior</i>	549	16	12	18	2
<i>Journal of Business and Economic Statistics</i>	540	17	12	19	2
<i>Journal of Applied Econometrics</i>	469	20	12	20	0
<i>Journal of Urban Economics</i>	456	21	11	21	0
<i>Journal of Money, Credit, and Banking</i>	370	23	11	22	-1
<i>Journal of Risk and Uncertainty</i>	305	26	11	23	-3
<i>International Economic Review</i>	401	22	10	24	2
<i>Journal of Law and Economics</i>	329	24	10	25	1
<i>Journal of Industrial Economics</i>	328	25	10	26	1
<i>Journal of Human Resources</i>	273	28	10	27	-1
<i>Journal of Economic Growth</i>	230	29	9	28	-1
<i>Journal of Law and Economic Organization</i>	226	30	9	29	-1
<i>Oxford Economic Papers</i>	281	27	8	30	3

* Ties are broken by total citations.

** The difference between the *h*-index rank and the total-citations rank.

Figure 1. Shares of Article Types Across Journal Tiers

