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AUTHOR Russell, Robert Lowell, Jr.
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ABSTRACT

This study tests for correlation between two journal ranking methods--citation rankings and expert opinion surveys. Political science professors from four major universities were asked to rank a list of the 20 most highly cited political science journals. Citation data were taken from the "Social Sciences Citation Index Journal Citation Reports" from 1992-96. In addition, each professor was asked to identify his or her area of specialization. A Pearson's correlation coefficient and a Spearman's rank order correlation coefficient were calculated from the survey data. In addition, the standard deviation for the average ranking of each journal was calculated to show the level of agreement among survey respondents. Each calculation was repeated within each area of specialization. The resulting data did not indicate a statistically significant degree of correlation between citation counts and expert opinion surveys. However, there was some indication that a significant level of agreement did exist within each area of specialization. The results suggest that further research is necessary to determine how much effect specializations have on subjective journal rankings. Appendices include a list of the 20 most frequently cited political science journals, the survey form, data on average rank assigned by survey respondents, and a list of write-in journals. (Contains 19 references.) (Author/MES)

TESTING FOR CORRELATION BETWEEN TWO JOURNAL RANKING METHODS: A COMPARISON OF CITATION RANKINGS AND EXPERT OPINION RANKINGS

A Master's Research Paper submitted to the
Kent State University School of Library
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by

Robert Lowell Russell Jr.

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Master's Research Paper by

Robert Lowell Russell Jr.

B.A. University of Houston, 1994

M.L.S. Kent State University, 1999

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I would first like to thank all the professors who chose to respond to my survey. I would also like to thank my advisor Dr. Richard Rubin for all his patience and advice during all stages of this paper. I would especially like to thank Sarah Poggione, my wife, for all her help and support during this study. Sarah, I really could not have done it with out you.

Sincerely,

Robert Russell

CHAPTER I.

INTRODUCTION

With the increasing pressure to expand access to information and the growing availability of full-text and full-image journal databases, librarians must now decide whether their libraries will provide their patrons access to these information services. When it is decided that a library will acquire or subscribe to these types of databases it is often done so in cooperative efforts with other libraries in order to reduce costs. In fact some librarians from these library networks are even using their collective bargaining power to persuade reluctant journal publishers to start releasing electronic versions of their products. However, the dilemma remains as to which journals will most effectively meet their patron's demand for expanded access to information. Given the considerable cost of these databases, it is often only feasible to purchase a select few of these journals with the assumption that only the "best" journals are to be considered. The best journals could be defined as those that offer the greatest depth of coverage and the most reliable research in a specific field of study. With this in mind, an obvious question presents itself, how do librarians choose the best journals?

One method librarians have used to help make journal subscription and other acquisition decisions is citation analysis. Citation analysis is based on the convention that when researchers write articles, they typically cite work that has contributed in some way to their own work. In this manner, citations can offer a kind of historical blueprint for current research. Citation analysis offers a quantitative means to search for patterns in these citations and can allow observations to be made about the progression of research in a particular field.

The *Social Sciences Citation Index* (SSCI) and its supplement the *Journal Citation Reports* (JCR), published by the Institute for Scientific Information (ISI),

provide the bulk of citation data for the social sciences. Eugene Garfield, ISI founder, writes that, "citations are an important indicator of how frequently current researchers are using the journal literature. By tabulating and aggregating citations, the JCR offers a unique perspective for journal evaluation and comparison."[1] One common assumption that has been heavily tested is that articles or journals that are cited more often than others are deemed more important or relevant by the citing author. Therefore, the total number of citations a journal receives over a given period of time may be an indicator of its quality in relation to other journals.

Many studies produce ranked lists of journals based on citation counts. The highest cited journals are presumed to be the most important. These ranked lists can establish journal "cores"[2], reveal holes in subject collections, or provide a means to weed less relevant journals. Many have tested the validity of these types of rankings by comparing them to other data such as the total number of articles published by a journal within a discipline, journal circulation figures, library holdings, or inter-library loan requests.

Another common method for verifying citation rankings is through expert opinion surveys. As a means of comparison, a group of individuals deemed experts by the researcher are asked to produce their own subjective list of journal rankings or are asked to verify the researcher's list in some way. Some of these studies perform statistical tests to determine the degree of correlation between citation and expert opinion rankings. However, to this point, little research has been done to verify the precision of citation based rankings.

To elaborate, other studies that test for rank order correlation typically do so to determine whether journals belong among the core journals. The purpose of these studies is generally to separate journals that are more important from those that are less important and therefore potentially suitable for de-selection. Consequently, beyond determining the

overall accuracy of the journal rankings, these studies really focus only on the middle to lower ends of these lists. In fact, Line wrote in 1978 that "the precise rankings of the top journals is of no practical interest whatever."[3]

Line's statement may have been true in 1978, but the precision of these rankings is of particular interest now when librarians must decide which of these journals are to be offered in an electronic format. Therefore, this study will focus on only the top journals in a field. This study will not identify journals to be weeded but rather those to which access could be expanded. Considering it is often feasible to only offer the most important journals electronically, perhaps the top two or three, it is vital that these journals can be accurately identified. For instance, whether a journal ranked third on a list based on citations is in fact the third most relevant journal. This study will seek to support or refute the idea that citation rankings are an effective means of determining a journal's importance relative to other journals.

Purpose of the Study

This paper is intended as an exploratory study to determine how precisely the positions of Political Science journals from a citation ranked list correspond to a list of the same journals ranked on a survey completed by a group of Political Science professors. In this fashion, it may be possible to support or refute citation analysis as a legitimate method of accurately ranking the most important journals in the field of Political Science. The major research questions explored in this study are:

1) Can citation analysis accurately identify the highest quality journals?
2) Can citation counts reliably distinguish between the quality of journals relative to one another in a ranked list?
3) Do the results of citation analysis correlate with subjective measures?

If citation rankings correlate highly with subjective rankings, then citation analysis could be considered an effective tool to help choose journals to offer electronically. If it does not, it will be necessary to seek another kind of tool for that purpose.

Limitations of the Study

There are some important limitations to this study. First, not all citations are necessarily positive. Articles are sometimes cited specifically to challenge or refute findings or conclusions. Articles that are especially controversial may be cited far more often than others. In such cases, the greater number of citations would not necessarily indicate greater quality. However, since this study will focus on journals rather than individual articles, this will be less an issue.

Another issue is that authors, either by choice or by neglect, do not always cite all the materials that they use. Articles that may legitimately serve as background material may not be cited in a final paper. Conversely, authors can cite articles from prestigious journals solely to confer a sense of legitimacy to their own work. Furthermore, authors often cite themselves or the work of their colleagues, inflating the relevance of past work. In this sense, what would seem at first glance, to be purely quantitative data may in fact be highly subjective. All the more reason to test the validity of citation data.

There are also some important issues concerning the *Social Sciences Citation Index* from which all citation data for this study will be drawn. First, articles that are cited multiple times in a paper are only counted once. This means that a journal article, which may have contributed only peripherally to a study, will be counted the same as more relevant articles, thus conferring a greater degree of quality to the publishing journal than may be appropriate. Fortunately given that only one author is attributed to each article, articles with multiple authors are only counted once, avoiding potential

overemphasis of journals. However, different articles from the same author or same journal are appropriately counted as separate citations.

Another very important issue regarding the citation data is that only journals included in the SSCI category "Political Science" will be considered. As long as a journal is listed in the Political Science category, it will be included in this study regardless of whether or not the journal is also included in another category. Due to this fact, some heavily interdisciplinary journals included in the Political Science category may in fact receive citations for articles that may not be truly relevant to the field of Political Science thus potentially skewing the results. Conversely, given the often multi-disciplinary nature of Political Science, it is likely that some professors polled will not find a specific journal listed on the survey because it was not listed as a Political Science journal by the SSCI. To account for this, there will be spaces provided on the distributed survey that will allow professors to include journals they feel belong among the top twenty most relevant to their work.

Finally, due to issues of cost and time, the professors to be surveyed for this study have not been chosen randomly but rather as a matter of convenience. Though the professors chosen are believed to be generally representative of the field of Political Science, the restricted sample means that results of this study can not be generalized. Furthermore, since this study is restricted to Political Science journals, the citation analysis method may not be appropriate for all fields and again can not be generalized. . A more detailed description of the survey and its distribution will be made in the methodology chapter.

CHAPTER II.

LITERATURE REVIEW

When ISI's first citation index, the *Science Citation Index* (SCI), was published annually for the first time in 1963, a number of studies were conducted to test the validity of the information it offered. A study conducted by ISI found that the papers of Nobel laureates were cited thirty times more frequently than the average for their field. Even after accounting for the higher rate of publication by these authors, the ISI study verified that papers written by Nobel laureates were cited at about twice the rate of their colleagues.[4] Approaching the subject from the opposite direction, ISI later found in a 1977 study that highly cited scientists also tended to be honored scientists. In this study, over sixty percent of the 250 most highly cited scientists had also won the Nobel Prize or had been elected to at least one national academy of science.[5] Studies by K. E. Clark[6], Bayer and Folger[7], and by Virgo[8], all found a correlation between citation frequency of individuals or specific papers and peer judgements of quality.

Other studies have tested the validity of citation based judgements against other measures of journal quality. In a 1978 study, Goehlert hypothesized that highly cited journals were also likely to be heavily used journals.[9] Relying on citation data from a previous study[10] he found a significant correlation between the citation counts of the most highly cited Political Science and Economics journals and the number of times articles were requested from a specific journal by Political Science and Economics professors through his university's document delivery service. He also found a correlation between the same citation data and data collected from a current content advisory service offered to the same professors. However, it is not sufficiently clear if the journals were used more frequently based on some subjective measure of their quality or if it was simply a fact that they were readily available from Goehlert's library.

In a similar 1978 study, Pan compared journal citation counts to use counts in a specific library and found that highly cited journals were also highly used journals.[11] Pan compared citation data from the SCI to library use counts of the same journals based on circulation, interlibrary loan, and in house use figures. It is again not clear if Pan's results were due to some judgement of quality or a factor of journal availability.

In a 1983 study, Nisonger compared a list of highly cited Political Science journals to the holdings of five Washington D.C. area university libraries, presuming that respected research libraries would have the best serial collections and would therefore be more likely to hold the journals in question. He found that a significantly high percentage of the most highly cited journals were indeed held by these five libraries.[12] However his citation data is a bit dubious because Nisonger based his study on citations pulled from only six Political Science journals. He also looked at only three years of citations for five of the journals and only one year in the case of the sixth.

Many studies have tested for rank order correlation between lists based on citation counts and lists produced through expert opinion surveys. In a 1991 study, Kim finds a significant correlation between highly cited library and information science literature and the perceptions of library school deans and directors.[13] Furthermore, Kim arrives at her set of "library science" journals in a rather clever way, choosing not to rely solely on the SSCI list of library science journals. However Kim acknowledges in her conclusion that further research is needed. It is important to note that her results can not necessarily be generalized for all academic disciplines.

In another paper by Nisonger, he evaluates several earlier studies that test the correlation between citation and perception based measures and even conducts a study of his own. In all the studies at least a weak correlation between citation and perception measures is found and in some he finds a very high degree of correlation.[14] However, it

is not made clear in Nisonger's article whether or not any of the correlation results were also tested for statistical significance.

A high degree of correlation between citation rankings and subjective measures was also found in a 1982 study by Gordon[15] Gordon looked at the SSCI citation figures for sociology journals and polled 250 sociology professors drawn randomly from doctorate sociology programs in the U.S. He asked the professors to rank a list of sixty-three sociology journals against the *American Sociology Review*. He determined that his results were statistically significant but his method may not be appropriate for fields that do not have an appropriate journal to act as a benchmark. Gordon also noted a high degree of standard deviation in his ranking results. This indicated a general lack of agreement among the professors as to which journals were the best.

Methodological Issues

This study is similar to the work mentioned above in the sense that it too will test the correlation between a ranked list of journals based on citation counts and a ranked list derived from the survey of experts. However there are some important differences. First, most only focus on a two to three year period. A five-year time period will better account for yearly citation fluctuations and allow for all but the most recently published journals to be fairly counted against older and more established journals. Unfortunately, journals first published less than five years ago may not be fairly ranked against older journals. To account for this fact, spaces will be included on the survey so that professors may add journals they feel should be included among the top twenty.

This study will focus on only the top twenty journal titles in a specific field, which will allow the precision of the rankings to be tested. Unlike previous work, this study will determine exactly how well the position of each individual journal correlates between the rank assigned to it by citation counting and the rank it is assigned by experts

Another important methodological issue is that this study will focus only on citation counts instead of a journal's impact score. A journal's "impact" is defined as "the average citation rate of a journal's articles,"[16] and is determined by the following ratio:

For a specific journal, where 1999 = the current year.
Journal X's impact factor =

$$\frac{\text{Total number of citations made in 1999 to 1998 and 1997 articles appearing in journal X}}{\text{Number of citable items published by journal X in 1998 and 1997}}$$

In other words, impact factor is the ratio determined by the number of times a journal's articles printed in the previous two years were cited in the current year, divided by the total number of citable articles produced by that journal in the two previous years. The stated purpose of impact factors is to compensate, "for the advantage that older, larger, or more frequently published journals would enjoy if rankings were based on total citations received."[17]

There are a number of papers both for and against the use of impact factors versus total citations. In Nisonger's papers mentioned above and in one by Buffardi and Nichols[18], the use of impact factors is strongly advised to account for the "advantage" that older or more prolific journals supposedly enjoy. The authors feel that impact scores make journal rankings fairer. However, in Pan's paper, noted earlier, she finds no correlation between actual journal usage and impact factors, but does find a correlation between, "the rankings of journals by their citation and use counts."[19] Though Gordon's intent was not to promote one measure over another, he notes that "times cited correlates most highly with subjective indicators."[20] Dometrius in fact writes in an article "fairness has nothing to do with journal stature."[21] How a journal may have attained its stature is irrelevant when comparing its citation rates to subjective judgements of its quality. This is not to say that impact factors may not be relevant when attempting to make distinctions

of quality between journals with similar citation counts. More study is needed on this issue.

CHAPTER III.

METHODOLOGY

Collecting the data involved several steps. The first step was to establish a ranked list of Political Science journals based on citation counts. All data were pulled from the SSCI *Journal Citation Reports.* Each volume of the JCR contains annual citation counts for all journals indexed by the SSCI. Journals are also grouped by subject categories and this study focused solely on those classified in the Political Science category. The number of journals classified as Political Science varies a bit from year to year but includes approximately seventy titles. For the purpose of this study, citation data came from the most recent five volumes of the SSCI JCR which are the 1992-1996 editions.

Each JCR from 1992-1996 was consulted for citation data. The total number of citations received by each Political Science journal for each year was added to the citations from the other years to form a five-year sum. A time period of this size produced a large enough sample of journals to minimize most citation aberrations and help account for relatively recent journal trends

Any journal categorized at least once as a Political Science journal for the years in question was included and ranked against the other journals. The citation counts for any journal that had a name change over this five-year period had its total citations added to the citations for the newly named journal to form a unified total listed under a combination of both names. Using the combined citation data for each journal, the top twenty most cited titles were identified and noted in Appendix A. The titles were listed in order based on citation counts with the most cited journal listed first and so on.

Using these twenty journals, a survey was constructed and distributed to Political Science professors. (Appendix B) The survey was intended to test the perceived quality of the twenty most cited Political Science journals. Those individuals considered experts in a field, are often those who write and publish articles on topics within that field. Political Science professors are often expected and even required to publish original research in their field. Given the nature of the Political Science discipline, its professors should be very familiar with the journal literature and should make excellent judges of journal quality. The survey included instructions for its completion and return and asked the professors to identify their major area or areas of specialization. There were also additional spaces included on the survey so that the professors could add journals to the list that they felt should have been included among the top twenty. This was to account for the fact that some journals, perhaps those published only recently, might not be counted fairly against older journals. The survey was pre-tested on Penn State Political Science graduate students before a final survey was distributed.

Surveys were sent to all the faculty members listed on the Political Science web sites of Penn State, Ohio State, and the University of Michigan. These schools were chosen based on their program descriptions included in their respective web sites. Their web sites indicated that they were large research-oriented programs that offered Doctorates in Political Science. The school's respective web sites also indicated each program employed a large number of professors with a wide variety of research interests. Large research-oriented schools are more likely to include professors from all the Political Science specialties. The specialties were established based on the nearly identical program concentrations listed for each school on their web pages and are identical to those identified by Nisonger[22]. The specialties are American Politics, International Relations, Comparative Politics, and Political Theory. With this information, it was possible to conduct additional tests for correlation within each

specialty. Surveys were also distributed to the faculty members of the Political Science department at Kent State with the hopes of a higher than average return rate. The total number of surveys sent was 122.

The SPSS statistics and Microsoft Excel packages were used for data analysis. Each journal was placed in one of four general categories. The categories were the top one through five, top six through ten, top eleven through fifteen, and top sixteen to twenty. In addition, each professor was asked to specify which of the top five journals is the most important journal, the second most important journal, and so on until each of the top five journals was assigned to a specific rank. This effectively created a total of eight categories; one for each position in the top five and then the remaining three groupings. The results were aggregated for all professors as well as aggregated for specific subsets of professors based on their indicated specializations.

Pearson's *r* correlation coefficient was run for the total citations received by each journal and the number of times each journal was placed in the top one to five category. This statistic was appropriate because both total citations and the number of times each journal is placed in a top five position are interval level data.

In addition, the average ordinal ranking for each journal was determined. Each journal had a number associated with it ranging from one to eight based on the eight categories. Journals placed in the top five were coded as one through five respectively, the next six through ten were coded as six, eleven through fifteen as seven, and sixteen through twenty as eight. As an example, the average ordinal ranking of a journal will be 1.2 if forty of a total of fifty professors assign a journal a number one rank and the other ten professors assign it a number two rank.[(40*1) + (10*2) / 50 = 1.2] A numerically small average ranking such as this one would indicate a very high degree of perceived quality and a larger number, for instance a number very close to eight, would indicate a very low degree of perceived quality. In addition, the standard deviation for each journal

was also calculated to indicate the level of agreement among the professors regarding a journal's rank. A standard deviation will also be calculated for rankings within the four areas of specialization.

Furthermore, a Spearman's ρ (*rho*) correlation value was calculated using the ordinal rankings from one through twenty from the citation-based list and the average rank values from the journals derived from the survey data. This was repeated for each specialization as well. This statistic measures association for ordinal data. Each set of information was placed in a table along with the journal names. This stage of the analysis describes the results of the survey and establishes the rankings or relative importance of each of the journals in the set produced by the citation analysis.

When analyzing the data, if the Pearson's r coefficient and the Spearman's ρ value are large and positive, this will indicate substantial agreement between the survey and citation methods. In other words, journals cited more frequently are, in fact, considered more important by researchers in the field. This result would support the validity of citation analysis as a tool for acquisition decisions.

By comparing simple correlation and rank order correlation coefficients across each area of specialization it will be possible to determine whether or not citation analysis produces accurate ranked lists of journals for specific areas of the discipline. For example, if the r and ρ values for the specialization of Political Theory are substantially lower than the correlation measures for the other specializations, citation analysis would be a poor indicator of journal quality and a less useful tool for acquisition decisions in institutions which serve departments composed mainly of Political Theorists.

Finally, the journals added by the professors in the survey and the number of times each new journal name is mentioned were identified. These data supported under what conditions citation analysis is unlikely to reflect the importance of journals in the

field. For example, if a particular journal, one that is new or highly specialized, is added to the list by a number of professors, this may indicate that citation analysis produced an incomplete set of core journals. Again, this would demonstrate the limits of citation analysis in estimating the importance of journals under specific circumstances.

CHAPTER IV.

ANALYSIS OF DATA

A list of the twenty most highly cited journals from the Political Science category was derived from five years of SSCI JCR citation data and ranked according to the total number of citations. (Appendix A) This list of twenty journals was then arranged alphabetically to reduce bias and placed in a survey. (Appendix B) The survey was distributed to a total of 122 Political Science professors from Penn State University, Ohio State University, the University of Michigan, and Kent State University. Two weeks after the first mailing, a reminder post-card was sent to all the professors who had not yet responded. A second mailing of the survey was deemed unnecessary when the total number returned exceed forty, the minimum amount required. In all, a total of fifty-three surveys were returned making the average return rate about 43%. One survey could not be used due to the fact that none of the twenty journals had been ranked.

Of the fifty-two remaining surveys, forty-eight professors chose only one area of specialization, one professor chose two, two professors did not indicate a specialization at all, and one professor wrote in an answer. In all, twenty-one professors indicated their specialization to be American Politics, thirteen indicated International Relations, nine indicated Comparative Politics, and six indicated their specialization to be Political Theory. The data from the surveys of the two professors who did not indicate a specialty and the one professor who wrote in an answer were included in the overall statistics but were not added to the statistics for the specific specialties. The data from the survey of the professor who chose two areas of specialization was included in the sets of statistics for the two specialties but only counted once in the general data. The fact that some specializations are represented more heavily than others may bias the general results to some degree.

In addition, not all surveys were completed correctly. This made it necessary to make certain assumptions when coding the data. First, despite instructions to the contrary, some respondents included the rankings of their write-in answers from the second page of the survey among the rankings from the first page. This resulted in instances where fewer than five journals were ranked in the top-five. To correct for this, it was necessary to collapse the rankings from these surveys. For instance, if a respondent included only three journals in the top-five and ranked them one, three, and five respectively, the journals were coded as one, two, and three. This is appropriate because the rankings are ordinal and the three journals are still the first, second, and third highest ranked journals among the twenty most cited journals.

Also, some respondents did not rank all twenty journals. Therefore, it was assumed that unranked journals were also the journals that were least important to the respondents. Accordingly, journals that were not ranked were included in the lowest available category, the sixteen through twenty category. This is appropriate because excluding the unranked journals would have effectively created a ninth category. Given that the respondents who did rank all twenty journals appropriately were not offered this option, it would not be appropriate to assume that they would not have excluded journals as well.

All data were coded based on these assumptions which resulted in a disproportionate number of lowly ranked journals. However this is really not much of a concern. If a journal's subjective ranking does not correlate well with its citation ranking this would simply indicate a failure of citation analysis to predict accurately an expert's subjective judgement of a journal's quality.

Table 1. Measures of Association Between Citation Statistics and Expert Opinion Measures of Journal Evaluation

Faculty Specialties	Pearson's $r^{\dagger}$	Spearman's $\rho^{\ddagger}$ (*rho*)
All Faculty	.73*	.11
American Politics	.69*	.12
Comparative Politics	.52*	.01
International Relations	.77*	.16
Political Theory	.52*	.11

Note: N=20 for all reported analyses.

*p<.05 (two-tailed test)

†Pearson correlation coefficients reflect the association between the total number of citations received by the twenty most-cited Political Science journals and the number of top five rankings the journals were assigned by survey respondents.

‡Spearman correlation coefficients reflect the association between citation rankings of the twenty most-cited Political Science journals and the average ranks assigned to the journals by the survey respondents.

With all data entered, the first stage of analysis was to calculate a Pearson's *r* coefficient. The Pearson's *r* coefficient is a "measure of how strongly the *x* and *y* values" in a sample are related and is especially useful for interval level data.[23] In this case the *x* value is the total number of citations each journal received and the *y* value is the total number of times each journal was ranked in the top-five by the survey respondents. This tests the assumption that if a journal is highly cited it is also likely to be ranked heavily in the top-five and if the journal is cited less often it will not be ranked as highly. In Table 1, the large and positive coefficients indicate a high degree of correlation between the two measures. The degree of correlation varies somewhat within specializations but remains large and positive in all cases.

These results would seem to support the idea that a high number of citations may in fact be an accurate predictor of a journal's subjective ranking. As a means to verify these results, ordinal data was also collected for each journal. A Spearman's rank correlation coefficient also called Spearman's ρ (*rho*), tests for association between ordinal data. A Spearman's ρ was calculated between the ordinal ranking based on total number of citations received and the average ranking assigned to each journal by the survey respondents. One would expect another large and positive result from this

measure. However, as indicated by Table 1, this relationship, though positive, is in fact very small and is not statistically significant. ($p \geq .05$) Give the disparity between the two measures, it is appropriate to reexamine the Pearson's *r* results.

The problem with Pearson's correlation coefficient is that the value of *r* " can be greatly affected by the presence of even one or two outlying (x,y) pairs."[24] The Spearman's correlation coefficient is a measure, "that is not as sensitive as *r* to outlying points."[25] So the question is, is the disparity between the two measurements a result of one or two journals exerting undue influence on the remaining journals?

A scatter-plot graph (Figure 1) shows the twenty journals plotted by their citation counts (x) and the number of top-five rankings received by each (y). The three journals that received the highest number of top-five rankings, the *American Political Science Review* (APSR), the *American Journal of Political Science* (AJPS), and the *Journal of Politics* (JOP) have been labeled to provide points of reference. The line on the graph is called the "line of best fit" or simply the best-fit line. It is drawn to minimize the squared distance from any of the points and the line. If the relationship between the two variables *x* and *y* were perfect, each point would fall directly on the line. The line acts to visually illustrate the degree of correlation between the two variables.

Judging from Figure 1, it certainly seems possible that the APSR and even perhaps the AJPS could in fact be exerting undue influence on the value of *r*. To assess the impact of "a point whose *x* value differs greatly from others," it is appropriate to "delete it from the data set and then recompute the best-fit line and various other quantities."[26] Figure 2 and Figure 3 are included to show the results of this process.

Figure 1. **Citation Count and Top Five Rankings, N=20**

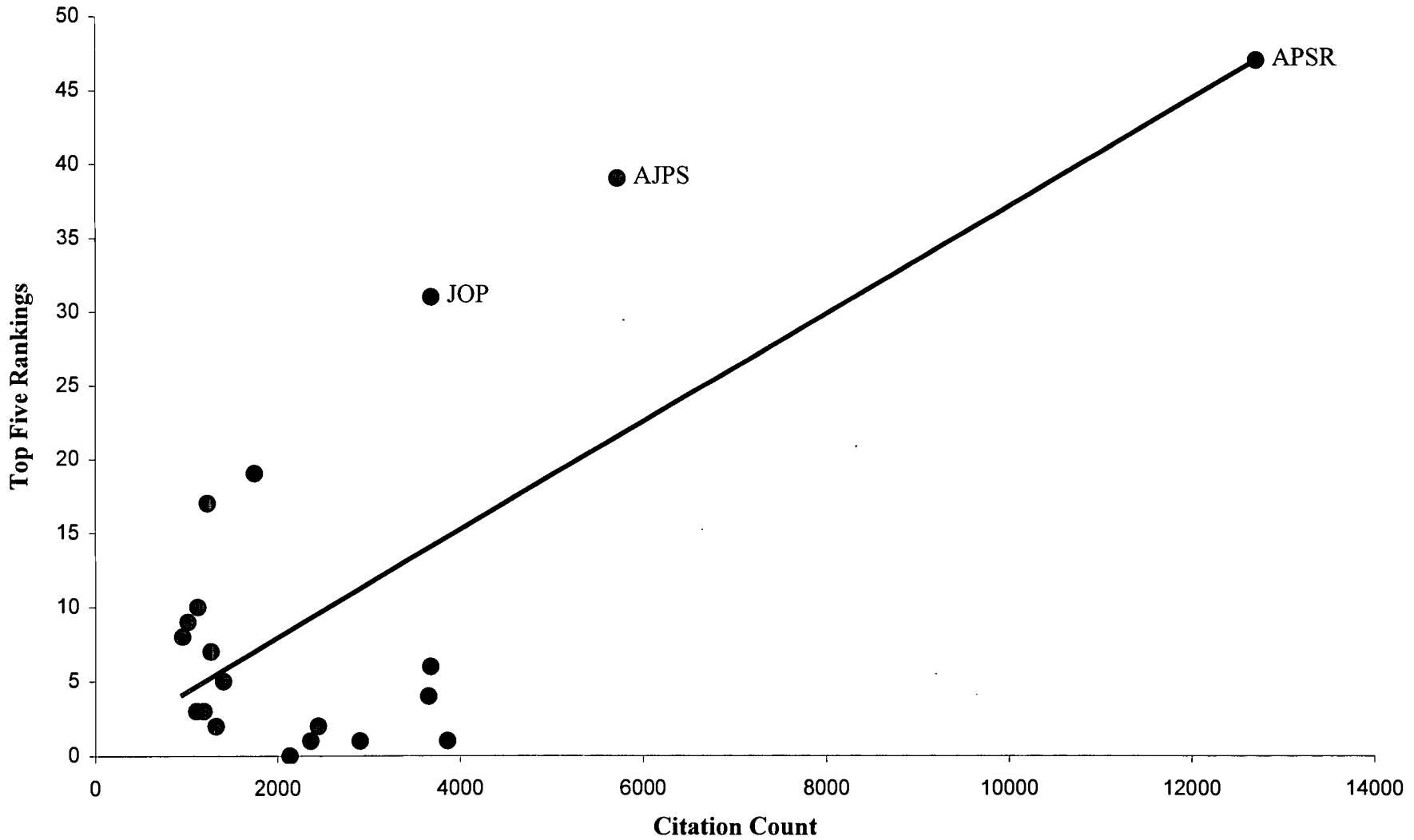

Figure 2. **Citation Count and Top Five Rankings, N=19**

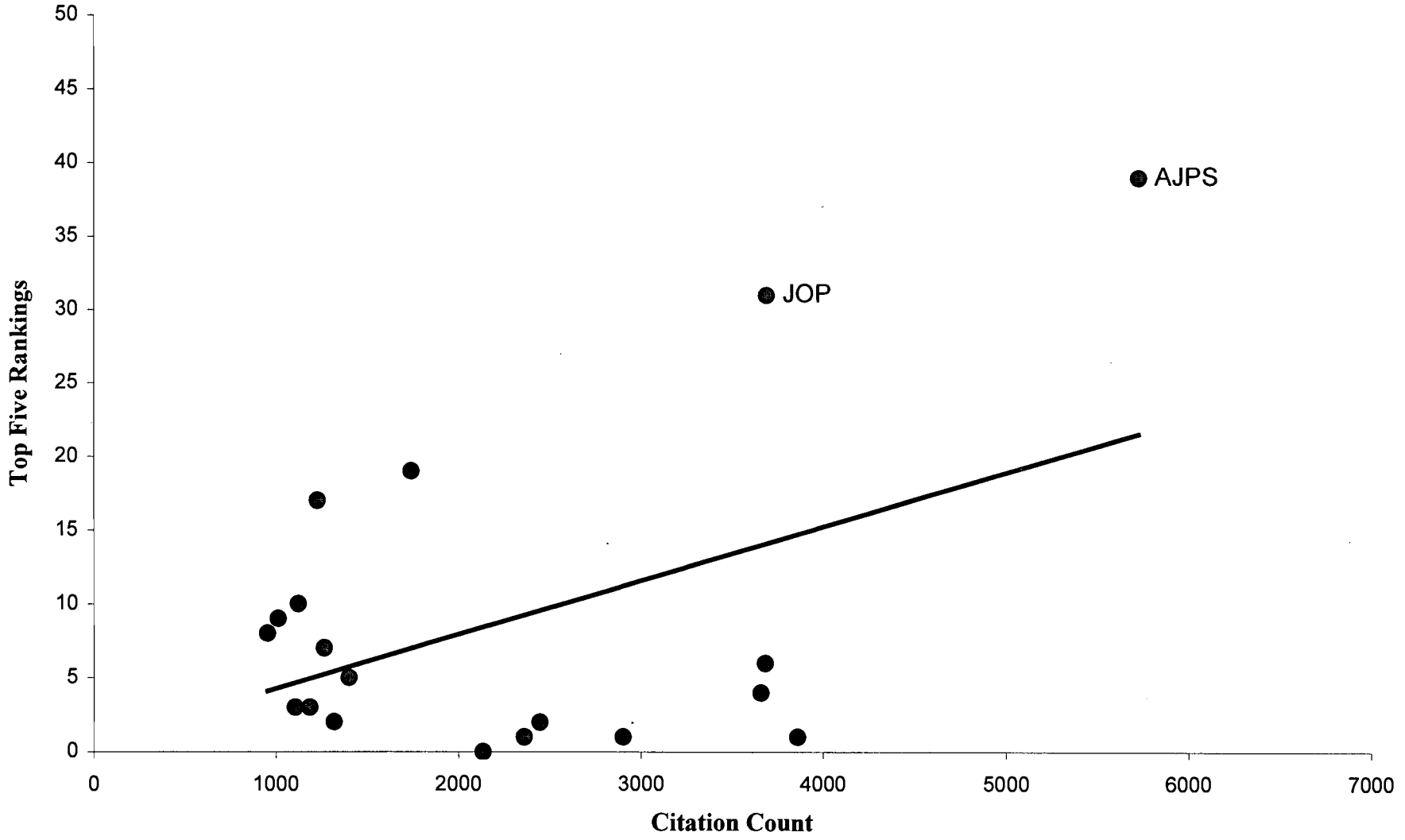

Figure 3. **Citation Count and Top Five Rankings, N=18**

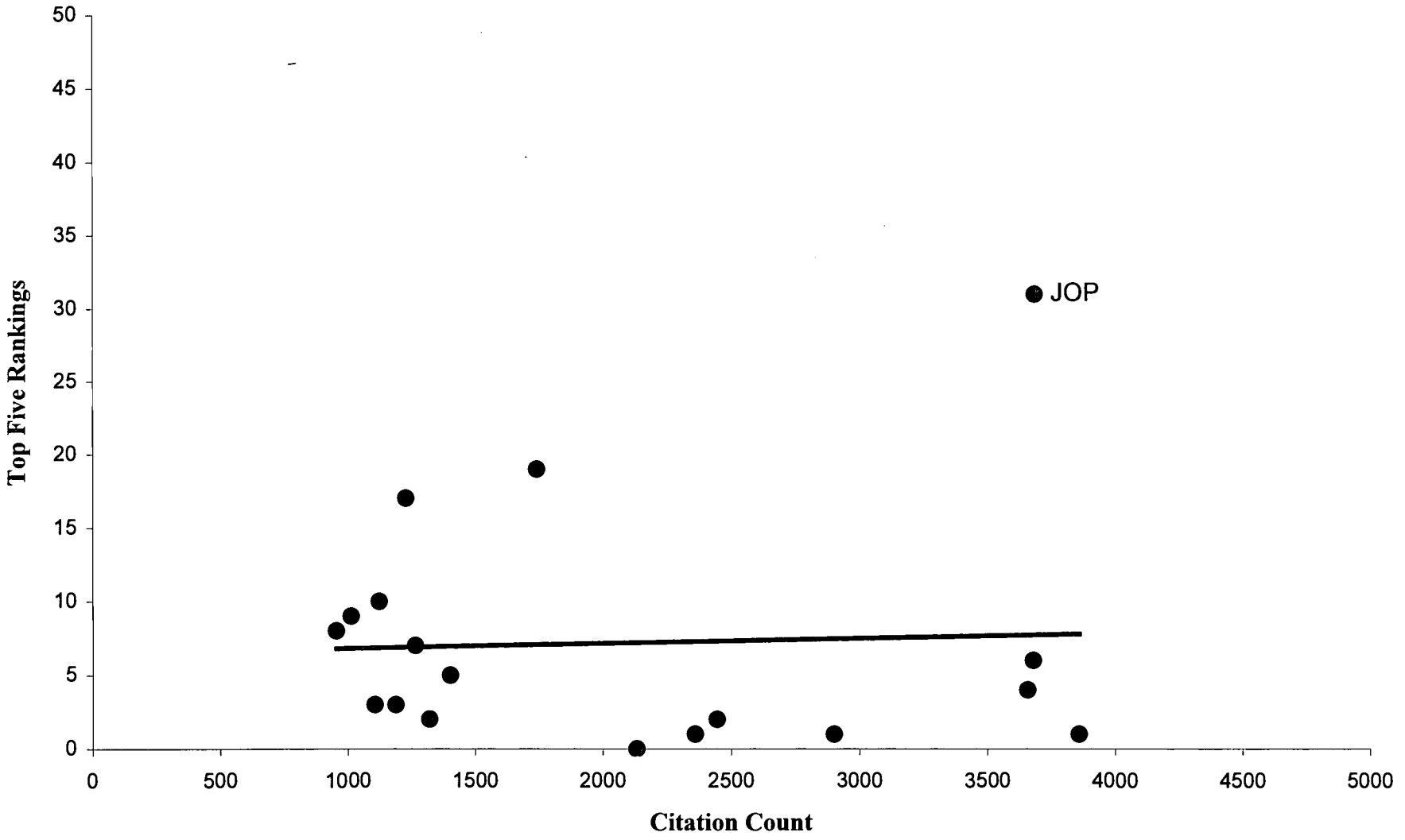

Figure 2 is the same graph with the APSR excluded and the best-fit line recomputed. It clearly shows a weaker positive relationship between x and y than seen in Figure 1. Figure 3 excludes both the APSR and the AJPS. The recomputed best-fit line shows a **very** weak positive relationship between x and y. It would seem that these two journals are in indeed exerting undue influence on the value of r.

These figures are not intended to dispute the fact that these two journals are both highly cited and highly ranked. It is simply that these two journals received so many more citations than average and so many more top-five rankings that they created an impression that a relationship existed where in fact it may not. The average number of citations for the twenty most cited journals is 2774 and the median number of citations is only 1936. The APSR and AJPS received 12,706 and 5720 citations respectively. The average number of top-five rankings is 10.75 and the median number of top-five rankings is 5.5. The APSR and AJPS received 47 and 39 top-five rankings respectively. By eliminating these influential observations, it helps to illustrate the real relationship between the number of citations received and the number of top-five rankings.

Table 2. Pearson Correlation† Coefficients for Citation Counts and Number of Top Five Rankings Excluding Influential Observations

Faculty Specialties	All Journals (N=20)	Excluding One Journal‡ (N=19)	Excluding Two Journals†† (N=18)
All Faculty	.73*	.46*	.05
American Politics	.69*	.42	.07
Comparative Politics	.52*	.24	-.09
International Relations	.77*	.60*	.27
Political Theory	.52*	.20	-.15

*p<.05 (two-tailed test)

†Pearson's correlation coefficients reflect the association between the total number of citations received by the twenty most-cited Political Science journals and the number of top five rankings the journals were assigned by survey respondents.

‡ Excludes a single influential observation, *American Political Science Review.*

†† Excludes two influential observations, *American Political Science Review* and *American Journal of Political Science.*

Table 2 shows that when r is recomputed after excluding the two journals in question, there is no statistically significant relationship between the number of citations and the number of top-five rankings. This result tends to support the results of the prior Spearman's rank correlation. It is still possible however, at least in the case of the APSR and the AJPS, that citation analysis did in fact correctly identify the two "best" Political Science journals. Considering the intent of this study is to determine whether or not the **very** best Political Science journals can be accurately identified, a resulting set of two journals is not necessarily inappropriate. The APSR received by far the most citations and number of top-five rankings than any other journal and the AJPS received a number of citations and top-five rankings second only to the AJPS. Could it therefore be reasonably assumed that these two journals are in fact number-one and number-two respectively in terms of quality?

Table 3. Average Rank Assigned by Survey Respondents Including the Standard Deviation for the Five Most-Cited Political Science Journals

	Faculty Specialties				
	All Faculty	American Politics	Comparative Politics	International Relations	Political Theory
American Political Science Review	1.98 (1.86)	1.71 (1.38)	2.67 (2.60)	2.08 (2.25)	1.33 (0.52)
American Journal of Political Science	2.90 (1.79)	1.80 (0.62)	4.22 (2.39)	3.14 (1.79)	3.83 (1.83)
Economic and Political Weekly	7.86 (0.41)	7.95 (0.22)	7.75 (0.46)	7.77 (0.60)	7.83 (0.41)
Journal of Politics	4.28 (1.41)	3.43 (1.03)	5.57 (1.13)	4.85 (1.34)	3.83 (1.33)
Journal of Conflict Resolution	6.18 (1.56)	6.75 (0.72)	7.11 (0.78)	4.62 (2.06)	6.50 (0.55)
	N=52	N=21	N=9	N=13	N=6

Note: Table entries are mean rankings assigned to journals by survey respondents. Standard deviation of rankings is in parentheses.

If such an assumption were valid, the level of agreement among the survey respondents regarding the two journal's average ranking should be very high. However, the large standard deviation figure for both journals illustrated in Table 3 indicates that while most professors do indeed agree that both the APSR and the AJPS belong among the top-five journals, they do not agree as to which positions in the top-five the two journals actually belong. Therefore we can **not** reasonably assume that the APSR and AJPS are the first and second best Political Science journals respectively.

There are two other interesting observations to be made from Table 3. First, the journal with the lowest standard deviation, *Economic and Political Weekly*, is also the journal with the lowest[27] average ranking among the five most cited journals. In fact, despite receiving the third highest number of citations overall, *Economic and Political Weekly* was ranked as the least important among the twenty most cited journals. (Appendix C) Like *Economic and Political Weekly*, the three other journals with the lowest average ranking also have a relatively high number of citations. So why are these journals ranked so poorly despite a high number of citations?

Some of the survey respondents offer a possible answer. Notes written on three separate surveys each indicate that *Economic and Political Weekly*, the *Nation*, the *New Left Review*, and the *New Republic* are in fact magazines, not journals. What distinguishes a magazine from a journal is not immediately clear and is not an issue explored in this paper but as one survey respondent notes, none of the four periodicals are peer-reviewed. Unfortunately, there is insufficient information to explain this apparent failure of citation analysis. This matter certainly warrants future investigation.

The second point of interest illustrated in Table 3 and which is even more apparent in Appendix C is the fact that the standard deviation for each journal almost always tends to be lower within the specializations than among the faculty in general. This may indicate that a survey respondent's area of specialization significantly

influences the rank they assign each journal. Is it possible that the apparent lack of correlation between a high citation count and high subjective ranking for Political Science journals is due to a high level of disagreement among the four specializations? Conversely, can it be assumed that a high level of agreement will always exist within homogeneous specializations? Or is it possible that citation counts alone are insufficient to distinguish the twenty most important Political Science journals?

If the twenty journals were accurate and the lack of correlation was due simply to a high level of disagreement among the specializations, one would expect relatively few write-in answers from the survey. As indicated by Appendix D, the very large number of write-in answers would seem to indicate that this is not the case. In addition, the fact that only about half of the respondents chose to write in a journal name does not necessarily indicate the respondents who chose not to write in an answer were in complete agreement with the list of journals. Because the survey did not allow the respondents to exclude any journals from the top twenty, it is not clear if the respondents who failed to rank certain journals did so because they felt the journals did not belong among the top twenty.

Table 4. Most Frequently Mentioned Write-In Journals

	Number of Mentions[†]	Number of Top-Five Rankings[‡]
World Politics	19	14
International Studies Quarterly	14	6
International Organization	12	7
Public Opinion Quarterly	9	2
Polity	7	2
International Security	4	1
Political Analysis	4	2

[†]Respondents were asked to write in any journals that they felt should have been included among the top twenty political science journals. Number of mentions is the total number of times the journal was added by survey respondents.

[‡]Respondents were also asked to rank their write-in journals. Number of top-five rankings is the total number of times respondents ranked a write-in journal among the top five political science journals.

It seems clear from Table 4 that a number of journals may have been inappropriately excluded from the list of top twenty Political Science journals. So why were these journals and the other journals listed in Appendix D excluded? The simple answer for some is that they just did not receive as many citations as the other journals. For instance *Polity*, listed above, received only 522 total citations from 1992-1996. The fact that a number of respondents wrote in *Polity* may indicate some respondents use the journal more often than average.

This author does not know whether the articles from *Polity* typically focus on a specific specialization within the Political Science discipline. If this is indeed the case, this may explain its exclusion from the top-twenty most cited journals but its inclusion by some survey respondents. It is interesting to note in fact that four of the seven survey respondents who wrote in *Polity* identified themselves as political theorists. Given that within this entire study, there were only six respondents who identified themselves as political theorists, this indicates two-thirds of them agreed that it should have been included.

There is also a potentially more serious problem suggested by Table 4. The journals *World Politics, International Studies Quarterly*, *International Organization*, *International Security*, and *Public Opinion Quarterly* were not included in the SSCI Political Science category and were therefore precluded from this study. *Public Opinion Quarterly* is listed in the SSCI within the Communications category and the other four are all included in the International Relations category. It is not clear why the SSCI did not cross-list these journals in both the Political Science category and the Communications and International Relations categories respectively. Some journals such as the Journal of Conflict Resolution are indeed listed in both the Political Science and International Relations categories

The problem is that the solution is not as easy as simply including all the journals listed as Communications or International Relations within a future survey. At first glance it would seem obvious to include the International Relations journals with the Political Science journals given that a major Political Science specialization is International Relations. The issue is that though the two may share the same name, the SSCI International Relations category does not necessarily denote the same area of study as the Political Science area of specialization.

The SSCI category is in fact very multi-disciplinary. Judging from the titles listed, there seem to be a large number of legal, business, and economics journals included in addition to a number of Political Science journals. It may be that these journals are indeed of interest to political scientists but including the citation counts from these journals could potentially skew a citation ranking. It is simply not possible to determine who cited a particular journal or why. The same can be said of course of Political Science journals but at least in their case the topic tends to remain a legitimate Political Science topic from article to article.

The solution to this dilemma is not clear. If future work is to be done in this area it will be necessary to come up with a more inclusive list of Political Science journals. This is especially true given that journal titles such as *World Politics* and *Public Opinion Quarterly* are very heavily cited and would certainly have been included within a list of the twenty most cited Political Science journals. The exclusion of these two journals as well as many of the others is really a failure of the citation analysis method used in this study and does not necessarily indicate a failure of citation analysis in general. However, the one journal that has not been discussed from Table 4, *Political Analysis*, may very well have been excluded because of an inherent weakness in citation analysis.

Political Analysis is a very new journal and is not even listed in the 1996 edition of the SSCI JCR. In addition, according to one of the survey respondents, *Political*

Analysis is currently published on an annual basis only, a fact that is apparently soon to change. The respondent is so convinced of the journal's quality that he/she writes that it will become "a top five guaranteed." This is an excellent example of a limitation of citation analysis. Clearly in some cases, fewer citations is not necessarily an indication of lesser quality. Future studies must account for this problem or risk producing results that are not accurate.

CHAPTER V.

CONCLUSION

Based on the results of this study, it seems that in the case of Political Science journals, citation counts alone are not sufficient to correctly identify the "best" journals. The initially large and positive Pearson's correlation coefficient was refuted when it became apparent that the *American Political Science Review* and the *American Journal of Political Science* were acting as influential observations. The results of the Spearman's rank order correlation would seem to support these findings. Given that a rank order correlation coefficient is less influenced by a few atypical results very far from the mean, this conclusion seems appropriate.

In addition, given the high degree of standard deviation for the APSR and the AJPS it seems the survey even failed to confirm the possibility that those two journals are in fact the best two Political Science journals. Though the results support both journal's ranking among the top-five most important Political Science journals, no further conclusions are possible. In fact the standard deviation figures suggest that the highest level of agreement occurs for journals that perhaps should have been excluded from the survey altogether. In most other cases, the standard deviation is only relatively low within the four major Political Science specializations and in some cases not even then.

It also seems given the very large number of journal names added by survey respondents, that the citation analysis method used for this study may have failed to even correctly identify the twenty best Political Science journals let alone rank them accurately. Some journals such as *World Politics* and *Public Opinion Quarterly* are mentioned with such frequency and are assigned such a high ranking, that no other reasonable conclusion can be reached.

However, given that this study relied on the rather narrow definition of a Political Science journal offered in the *Social Science Citation Index Journal Citation Reports*, the citation analysis method used for this study may be inherently flawed. With this fact in mind, it can not be argued conclusively that citation counts can **not** identify at least some aspect of a journal's quality. It appears likely however that citation counts alone are simply not a sufficient measure to rank accurately a journal's quality.

The need for an accurate process to identify the "best" journals still exists. As patrons demand greater access to information this need will become increasingly more acute. Future studies devoted to this problem will also have to contend with the problem of specializations with a field of study.

It seems reasonable to assume that even within a given discipline, professors with different specializations within that discipline may have legitimately different views of which journals are the most important. Beyond a select few journals that may include work on all the major specialties of a discipline, the APSR and the AJPS for example, other journals deemed more important by specific professors are likely to fall within their respective areas of specialization.

Unless a citation analysis method is devised that accounts for this issue of specialization, citation analysis may prove to of little practical value when trying to identify only the most important journals in a field of study. It may be the case that citation analysis simply can not provide better than an educated guess as to a journal's quality.

This study fails to identify an adequate method of identifying and ranking a journal's quality. Given the diverse interests of professors, it may only be practical to identify the specific needs of faculty on a school to school basis. Attempting to accurately identify the "best" journals on a large scale may prove difficult at best. With additional issues beyond those discussed in this study such as cost, quality of access, and

the type of educational institution, the decisions facing many librarians are unenviable. There clearly remains a need for better tools to aid the selection process especially when it comes to choosing electronic journals. More extensive and timely research is needed on this matter.

END NOTES

[1]Eugene Garfield, *Social Sciences Citation Index: Journal Citation Reports*, Institute for Scientific Information 1995, p.5.

[2] In a 1934 article, S. C. Bradford reported that by collecting the papers on a specific topic and creating a list of the journals publishing these papers, there would be a few journals that produced many papers, a large portion with a moderate number, and many others with only a few. This distribution is commonly referred to as Bradford's Law of Scattering or simply Bradford's Law and has been observed and verified by others in later studies. Accepting Bradford's theory as fact, some librarians have sought to ensure that their library's collection contains this top group or "core" of journals with the intention of collecting the majority of articles on a given subject. Other studies have also discovered a similar distribution based on citation counts. However, no conclusive evidence has been offered to this point to suggest that these two distributions produce the same list of journals.

[3] Maurice B. Line, "Rank Lists Based on Citations and Library Uses as Indicators of Journal Usage in Individual Libraries," *Collection Management* 2, no.4 (1978) : p.314.

[4] I. H. Sher and E. Garfield, "New Tools for Improving and Evaluating the Effectiveness of Research." In M. C. Yovits, D. M. Gilford, R. H. Wilcox, E. Stavely, and H. D. L. Lemer, (eds.) *Research Program Effectiveness*, Gordon and Breach, New York, (1966) : 135-146.

[5] E. Garfield, "The 250 Most-Cited Primary Authors, 1961-1975. Part II. The Correlation Between Citedness, Nobel Prizes, and Academy Memberships," *Current Contents*, 50 (December 12, 1977) : 5-16.

[6] K. E. Clark, "The APA Study of Psychologists," *American Psychologist* 9 (1954) : 117-120.

[7] A. E. Bayer and J. Folger, "Some Correlates of a Citation Measure of Productivity in Science," *Sociology of Education* 39 (1966) : 383-390.

[8] J. A. Virgo, "A Statistical Procedure for Evaluating the Importance of Scientific Papers," Library Quarterly 47 (1977) : 415-430.

[9] Robert Goehlert, "Periodical Use in an Academic Library," *Special Libraries* 69, no. 2 (February 1978) : 51-60.

[10] June L. Stewart, "The Literature of Politics: A Citation Analysis" *International Library Review* 2 (1970) : 334-335.

[11] Elizabeth Pan, "Journal Citation as a Predictor of Journal Usage in Libraries," *Collection Management* 2, no. 1 (Spring 1978) : 29-38.

[12] Thomas E. Nisonger, "A Test of Two Citation Checking Techniques for Evaluating Political Science Collections in University Libraries," *Library Resources & Technical Services* 27 (April/June 1983) : 163-176.

[13] Mary T. Kim, "Ranking of Journals in Library and Information Science: A Comparison of Perceptual and Citation-based Measures," College and Research Libraries (January 1991) : 24-37.

[14] Thomas E. Nisonger, "A Ranking of Political Science Journals Based on Citation Data," *Serials Review* 19 (Winter 1993) : 7-14.

[15] Michael D. Gordon, "Citation Ranking versus Subjective Evaluation in the Determination of Journal Hierarchies in the Social Sciences," *Journal of the American Society for Information Science* (January 1982) : 55-57.

[16] Eugene Garfield, *Citation Indexing: Its Theory and Application in Science, Technology, and Humanities*, John Wiley & Sons, New York 1979 : 149.

[17] Thomas E Nisonger, "A Methodological Issue Concerning the Use of Social Sciences Citation Index Journal Citation Reports: Impact Factor Data for Journal Ranking," *Library Acquisitions: Practice and Theory* 18 (1994) : 449.

[18] Louis C. Buffardi and Julia Nichols, "Citation Impact, Acceptance Rate, and APA Journals," American Psychologist 36 (November 1981) : 1456-

[19] Pan : 31.

[20] Gordon : 56.

[21] Nelson C. Dometrius, "Subjective and Objective Measures of Journal Stature," *Social Sciences Quarterly* 70 (March 1989) : 195-203.

[22] Nisonger, "A Test of Two Citation Checking Techniques," : 166.

[23] Jay Devore and Roxy Peck, *Statistics: The Exploration and Analysis of Data*, Wadsworth Inc., Belmont California, 1993 : p.123.

[24] Ibid. : p.132.

[25] Ibid.

[26] Ibid. : p.167.

[27] As mentioned in Chapter III, a numerically large average ranking, one that is very close to eight, is in fact an indication of a very low degree of perceived quality by the survey respondents.

Appendix A

Twenty Most Frequently Cited Political Science Journals

	Citation Count[†]	Citation Rank	Total Top-Five Rankings[‡]	Average Rank[††]	Standard Deviation[‡‡]
American Political Science Review	12706	1	47	1.98	1.86
American Journal of Political Science	5720	2	39	2.90	1.79
Economic and Political Weekly	3858	3	1	7.86	0.41
Journal of Politics	3683	4	31	4.28	1.41
Journal of Conflict Resolution	3678	5	6	6.18	1.56
Public Choice	3656	6	4	6.94	1.16
New Republic	2902	7	1	7.80	0.41
Annals of the American Academy of Political and Social Sciences	2446	8	2	7.27	0.78
New Left Review	2360	9	1	7.63	1.08
Nation	2132	10	0	7.67	0.59
British Journal of Political Science	1740	11	19	5.64	1.52
Legislative Studies Quarterly	1402	12	5	6.66	1.17
European Journal of Political Science	1320	13	2	7.12	1.01
Political Science Quarterly	1265	14	7	6.38	1.03
Comparative Politics	1227	15	17	5.53	1.94
Political Studies London	1187	16	3	7.28	0.97
Comparative Political Studies	1122	17	10	6.02	1.68
Political Geography	1106	18	3	7.38	1.03
American Politics Quarterly	1013	19	9	6.44	1.11
Political Theory	954	20	8	6.29	1.88

Note: N=52 for all analyses.

[†]Citation count, derived from Social Science Citation Index Journal Citation Reports, reflects total number of citations to journal from 1992 through 1996.

[‡]Total number of top-five rankings indicates the total number of times the survey respondents ranked a journal in the top-five.

[††]Mean rank assigned to the journal by the survey respondents.

[‡‡]Standard deviation of the ranks assigned to the journal by the survey respondents.

School of Library and Information Science
(330) 672-2782
Fax (330) 672-7965
http://www.slis.kent.edu

Kent STATE UNIVERSITY
P. O. Box 5190, Kent, Ohio 44242-0001

Re: Testing for Correlation Between Two Journal Ranking Methods: A Comparison of Citation Rankings and Expert Opinion Rankings.

March 8, 1999

Dear Professor «last»:

I am a graduate student in the School of Library and Information Science at Kent State University. As part of the requirements for my Master's degree I am conducting a study about the accuracy of periodical rankings based on citation counts. Some librarians, seeking guidance for collection development decisions, have turned to citation analysis methods to assist them.

The citation analysis method focuses on citations from journal articles and other sources. The method works by discovering patterns within these citations. It has been supported in earlier studies that the number of times a specific journal is cited over a given period of time can indicate the overall "quality," "importance," or perhaps "relevance" of that journal. I am testing the degree of correlation between citation based rankings and the subjective rankings of experts. If the correlation is very high, this could indicate that libraries might be able to rely on citation data to help with acquisition decisions such as which journals would be best to offer electronically. As an expert in Political Science, you are being asked to participate in this study.

Confidentiality is guaranteed, as you do not need to sign your name to individual questionnaires; only I, as the investigator, have access to the survey data. There is no penalty of any kind if you choose not to participate in this survey. While your cooperation is essential to the success of this study, it is, of course, voluntary. A copy of the results of the study will be available upon request.

If you have any further questions, please contact me at (814) 237-2278 or contact Dr. Richard Rubin, my research advisor, at (216) 672-2782. If you have any further questions regarding research at Kent State University you may contact Dr. M. Thomas Jones, at (216) 672-2851. Thank you very much for your cooperation; it is much appreciated. You may return the questionnaire in the enclosed self-addressed, stamped envelope to me at the following address:

Robert Russell (department mailbox # 255)
c/o School of Library and Information Science
P.O. Box 5190
314 University Library
Kent State University
Kent OH, 44242-0001

Sincerely,

Robert Russell

Citation Rank Verification Survey

Please complete both pages of this survey. Your responses to this survey are confidential.

Please indicate the area of political science in which you conduct the **majority** of your research and/or teaching. Feel free to choose as many as apply.

American Politics	____	Comparative Politics	____
International Relations	____	Political Theory	____

Please rank all twenty journals below based on your perception of their quality. For the journals you feel belong among the top five best journals, please rank them according to their quality starting with the number **1**, indicating the best journal, and continuing to rank the second, third, fourth and fifth best journals with the numbers **2**, **3**, **4**, and **5** respectively. Please indicate with **only** a **check mark**, if you feel the remaining fifteen journals belong among the top 6-10 journals, the top 11-15 journals, or the top 16-20 journals. ***Please include only five journals in each category***. You may add journals on the next page that you feel should have been included among the top twenty.

Journal Name	Rank the **Top 1-5**	Check the **Next 6-10**	Check the **Next 11-15**	Check the **Next 16-20**
American Journal of Political Science	____	____	____	____
American Political Quarterly	____	____	____	____
American Political Science Review	____	____	____	____
Annals of the American Academy of Political and Social Sciences	____	____	____	____
British Journal of Political Science	____	____	____	____
Comparative Political Studies	____	____	____	____
Comparative Politics	____	____	____	____
Economic and Political Weekly	____	____	____	____
European Journal of Political Research	____	____	____	____
Journal of Conflict Resolution	____	____	____	____
Journal of Politics	____	____	____	____
Legislative Studies Quarterly	____	____	____	____
Nation	____	____	____	____
New Left Review	____	____	____	____
New Republic	____	____	____	____
Political Geography	____	____	____	____
Political Science Quarterly	____	____	____	____
Political Studies - London	____	____	____	____
Political Theory	____	____	____	____
Public Choice	____	____	____	____

Survey Continues on Next Page...

Please write in and rank as above any journal(s) you feel should have been included on this survey. Please ***do not*** alter the rankings from the prior section to reflect the additions made below. Feel free to include as many journal names as you feel are appropriate and use more space if necessary.

Journal Name	Rank the Top 1-5	Check the Next 6-10	Next 11-15	Next 16-20
	___	___	___	
	___	___	___	
	___	___	___	
	___	___	___	
	___	___	___	

Thank you for completing this questionnaire. Your time and effort are greatly appreciated. Mailing instructions are included in the cover letter mailed with this survey. If you would like to receive a summary of the results of this survey, please check the box below:

__ Yes, I would like to receive a summary of this report upon its completion.

Appendix C

Average Rank Assigned by Survey Respondents Including the Standard Deviation

		Faculty Specialties			
	All Faculty	American Politics	Comparative Politics	International Relations	Political Theory
American Political Science Review	1.98 (1.86)	1.71 (1.38)	2.67 (2.60)	2.08 (2.25)	1.33 (0.52)
American Journal of Political Science	2.90 (1.79)	1.8 (0.62)	4.22 (2.39)	3.14 (1.79)	3.83 (1.83)
Economic and Political Weekly	7.86 (0.41)	7.95 (0.22)	7.75 (0.46)	7.77 (0.60)	7.83 (0.41)
Journal of Politics	4.28 (1.41)	3.43 (1.03)	5.57 (1.13)	4.85 (1.34)	3.83 (1.33)
Journal of Conflict Resolution	6.18 (1.56)	6.75 (0.72)	7.11 (0.78)	4.62 (2.06)	6.50 (0.55)
Public Choice	6.94 (1.16)	6.75 (1.07)	7.22 (0.83)	7.38 (0.77)	6.83 (0.75)
New Republic	7.80 (0.41)	7.85 (0.37)	7.78 (0.44)	7.92 (0.28)	7.33 (0.52)
Annals of the American Academy of Political and Social Sciences	7.27 (0.78)	6.90 (0.83)	7.63 (0.52)	7.62 (0.51)	7.17 (0.98)
New Left Review	7.63 (1.08)	7.90 (0.30)	7.67 (0.71)	7.38 (1.94)	7.00 (0.63)
Nation	7.67 (0.59)	7.81 (0.51)	7.44 (0.88)	7.77 (0.44)	7.33 (0.52)
British Journal of Political Science	5.64 (1.52)	5.39 (1.37)	5.22 (1.39)	6.38 (1.94)	5.50 (1.22)
	N=52	N=21	N=9	N=13	N=6

Note: Table entries are mean rankings assigned to journals by survey respondents. Standard deviation of rankings is in parentheses.

(continued)

Average Rank Assigned by Survey Respondents Including the Standard Deviation (*continued*

		Faculty Specialties			
	All Faculty	American Politics	Comparative Politics	International Relations	Political Theory
Legislative Studies Quarterly	6.66 (1.17)	5.7 (0.86)	7.22 (0.97)	7.62 (0.77)	7.00 (0.89)
European Journal of Political Science	7.12 (1.01)	7.29 (0.78)	6.67 (1.12)	7.00 (1.35)	7.67 (0.52)
Political Science Quarterly	6.38 (1.03)	6.24 (0.89)	6.89 (1.05)	6.85 (0.90)	5.50 (0.55)
Comparative Politics	5.53 (1.94)	6.10 (1.84)	3.88 (2.23)	6.00 (1.35)	5.83 (0.98)
Political Studies London	7.28 (0.97)	7.29 (0.85)	7.33 (0.87)	7.77 (0.44)	6.20 (1.79)
Comparative Political Studies	6.02 (1.68)	6.57 (1.21)	4.11 (1.90)	5.92 (1.61)	7.17 (0.98)
Political Geography	7.38 (1.03)	7.57 (0.60)	7.67 (0.71)	6.79 (1.63)	7.83 (0.41)
American Politics Quarterly	6.44 (1.11)	5.67 (0.86)	7.22 (0.97)	7.08 (0.76)	6.50 (1.22)
Political Theory	6.29 (1.88)	6.86 (1.01)	6.89 (0.93)	7.08 (0.95)	2.17 (1.17)
	N=52	N=21	N=9	N=13	N=6

Note: Table entries are mean rankings assigned to journals by survey respondents. Standard deviation of rankings is in parentheses.

Appendix D

Write-In Journals

	Number of Mentions[†]	Number of Top-Five Rankings[‡]
Asian Survey	2	1
Australian Journal of Political Science	1	1
Behavioral Science	1	0
Daedelus	1	1
Diacritics	1	1
Differences	1	0
Dissent	1	1
Economics and Politics	2	0
Economics and Society	1	1
Economist	1	1
Electoral Studies	1	0
Environment and Planning	1	0
European Journal of International Relations	1	1
Feminist Studies	1	1
Foreign Affairs	3	2
Foreign Policy	3	1
Government and Opposition	1	1
Hypatia: Journal of Feminist Philosophy	2	1
International Interactions	3	0
International Journal of Public Opinion Research	1	1
International Organization	12	7
International Political Science Review	1	0
International Security	4	1
International Studies Quarterly	14	6
Journal of Commonwealth and Corporate Studies	1	1
Journal of Conflict Management and Peace Science	2	0
Journal of Economic Perspectives	1	0
Journal of Peace Research	2	0
Journal of Policy Analysis and Management	1	2
Journal of Political Economy	1	0
Journal of Theoretical Politics	3	0
Latin American Research Review	1	0
National Journal	1	1
New German Critique	2	1
Pacific Affairs	1	1
Policy Studies Journal	3	1
Political Analysis	4	2
Political Behavior	3	1
Political Psychology	2	0

(continued)

Write-In Journals *(continued)*

	Number of Mentions[†]	Number of Top-Five Rankings[‡]
Political Research Quarterly	3	1
Politics and Society	1	0
Polity	7	2
Presidential Studies Quarterly	1	0
Public Administration and Development	1	1
Public Administration Review	3	2
Public Culture	1	0
Public Opinion Quarterly	9	2
Publius: The Journal of Federalism	2	1
Review of International Political Economy	1	0
Review of Politics	1	0
Security Studies	1	0
Signs	2	1
Social Science Quarterly	1	1
Theory and Event	2	1
Theory and Society	1	0
West European Politics	1	1
Western Political Quarterly	1	0
World Politics	19	14

[†]Respondents were asked to write in any journals that they felt should have been included among the top twenty Political Science journals. Number of mentions is the total number of times the journal was added by survey respondents.

[‡]Respondents were also asked to rank their write-in journals. Number of top-five rankings is the total number of times respondents ranked a write-in journal among the top five Political Science journals.

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ABSTRACT:

This study tests for correlation between two journal ranking methods, citation rankings and expert opinion surveys. Political Science professors from four major universities were asked to rank a list of the twenty most highly cited Political Science journals. Citation data were taken from the *Social Science Citation Index Journal Citation Reports* from 1992-1996. In addition, each professor was asked to identify his or her area of specialization. A Pearson's correlation coefficient and a Spearman's rank order correlation coefficient were calculated from the survey data. In addition the standard deviation for the average ranking of each journal was calculated to show the level of agreement among survey respondents. Each calculation was repeated within each area of specialization.

The resulting data did not indicate a statistically significant degree of correlation between citation counts and expert opinion surveys. However, there was some indication that a significant level of agreement did exist within each area of specialization. The results suggest that further research is necessary to determine how much effect specializations have on subjective journal rankings.

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