

The Relative Value of American Law Reviews: *A Critical Appraisal of Ranking Methods*

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ABSTRACT

Ranking law reviews is not a novel initiative. Data regarding the relative value of legal periodicals was first published in 1930, in an article primarily concerned with the overall contribution of legal periodicals to the development of positive law. Since then many attempts have been made to rank American law reviews by various criteria.

This Article, however, focuses not on actual rankings but on ranking theory and methodology. It offers an introductory discussion of the goals of law review rating, and the essential attributes of reliable and beneficial ranking methods, followed by a systematic and comprehensive analysis of the advantages and shortcomings of the various methods that can be used to assess the relative value of American law reviews.

The Article rejects direct evaluation of quality, either by an expert committee or a general survey, and indirect evaluation of quality by authors' national prominence, article rejection rates, editors' academic aptitudes, and library or database usage. It then explains that if properly adjusted and carefully administered, citation-based methods might afford quantitative measures of various aspects of academic quality. Finally, the Article discusses the weaknesses of complex ranking methods in which several indicia of quality are taken into account.

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I. INTRODUCTION

¶1 The American law review is an awe-inspiring scholastic phenomenon.¹ Its roots may be traced back to the nineteenth century. The *University of Pennsylvania Law Review*, established in 1852 as the *American Law Register*, is the oldest continuously published legal periodical in America.² However, it began as a practitioners' journal and became affiliated with an academic institution only in 1896.³ The gradual proliferation of

1. Various aspects of this phenomenon have been explored in academic literature. See, e.g., William O. Douglas, *Law Reviews and Full Disclosure*, 40 WASH. L. REV. 227 (1965) (discussing the need for authors to reveal their personal interest in the subject matter of their articles); Stanley H. Fuld, *A Judge Looks at the Law Review*, 28 N.Y.U. L. REV. 915 (1953) (discussing the importance of law reviews for practicing lawyers, judges, and legislators); Harold C. Havighurst, *Law Reviews and Legal Education*, 51 NW. U. L. REV. 22 (1956) (discussing the importance of law reviews for the legal training of students); Fred Rodell, *Goodbye to Law Reviews*, 23 VA. L. REV. 38 (1936) (criticizing the style and content of law review articles).

2. Michael L. Closten & Robert J. Dzielak, *The History and Influence of the Law Review Institution*, 30 AKRON L. REV. 15, 31–32, 35–36 (1996); Douglas, *supra* note 1, at 228; Lowell J. Noteboom & Timothy B. Walker, *The Law Review – Is It Meeting the Needs of the Legal Community*, 44 DENV. L.J. 426, 426 (1967); Michael I. Swygert & Jon W. Bruce, *The Historical Origins, Founding, and Early Development of Student-Edited Law Reviews*, 36 HASTINGS L.J. 739, 755–57, 780–81 (1985).

3. Swygert & Bruce, *supra* note 2, at 755–56, 781.

academic law journals probably started in 1887 with the establishment of the *Harvard Law Review*, the first student-edited legal periodical.⁴ At present, there are nearly two-hundred ABA-approved law schools in the United States.⁵ Each publishes or sponsors at least one general-interest student-edited legal periodical.⁶ Very often this is accompanied by specialized law reviews, such as an international and comparative law review, or a journal of law and public policy. Currently there are over seven-hundred active law reviews in the United States, of which nearly two-hundred are general-interest reviews and the remainder are specialized.⁷

¶2 Ranking law reviews is not a novel initiative. Data regarding the relative value of legal periodicals was first published in 1930, in an article primarily concerned with the overall contribution of legal periodicals to the development of positive law.⁸ Since then, many attempts have been made to rank American law reviews by various criteria.⁹ In the last decade, initial rankings of academic law reviews were also published in other countries, such as Australia¹⁰ and Israel.¹¹ This Article, however, focuses not on actual rankings but on ranking theory and methodology. It offers an introductory discussion of the goals of law review rating, and the essential attributes of reliable and beneficial ranking methods, followed by a systematic and comprehensive analysis of the advantages and shortcomings of the various methods that can be used to assess the relative value of American law reviews.¹²

¶3 Part II explains the purposes of law review rating and puts forward general guidelines for the appraisal of specific ranking methods in light of the underlying purposes. Parts III–V critically analyze the most promising ranking methods, some of which have already been used to assess the relative value of legal periodicals, and some of which are, arguably, decent candidates. Part III criticizes ranking methods that are based on direct evaluation of the quality of law reviews, by a committee of experts or through a general quality survey. Part IV criticizes ranking methods that use external indicators of quality, such as authors' prominence, rejection rates of articles, editors' academic aptitudes, library and database usage, and citation rates. Finally, Part V discusses the shortcomings of complex ranking methods.

4. *Id.* at 769–87.

5. See Am. Bar Ass'n, ABA-Approved Law Schools, <http://www.abanet.org/legaled/approvedlawschools/approved.html> (last visited Sept. 2, 2005).

6. The Northeastern University School of Law seems to be the only exception.

7. John Doyle, Most-Cited Legal Periodicals, <http://law.wlu.edu/library/mostcited/index.asp> (last visited Sept. 2, 2005).

8. Douglas B. Maggs, *Concerning the Extent to Which the Law Review Contributes to the Development of the Law*, 3 S. CAL. L. REV. 181 (1930).

9. See *infra* notes 33, 38, 55, 632–66, 85, 90 and accompanying text.

10. Ian Ramsay & G.P. Stapledon, *A Citation Analysis of Australian Law Journals*, 21 MELB. U. L. REV. 676 (1997); Dennis Warren, *Australian Law Journals: An Analysis of Citation Patterns*, 27 AUSTRAL. ACAD. & RES. LIBR. 261 (1996).

11. Ronen Perry, *Ranking Hebrew Law Reviews: Theoretical Foundations and a Preliminary Empirical Study*, 1 HAIFA L. REV. 401 (2004).

12. So far, only one attempt has been made to discuss the theoretical and methodological aspects of law review quality rating. See Russell Korobkin, *Ranking Journals: Some Thoughts on Theory and Methodology*, 26 FLA. ST. U. L. REV. 851, 857–58 (1999). Although some valuable insights emerged, this venture was preliminary and incomplete.

II. GENERAL OBSERVATIONS

A. The Benefits of Ranking

¶4 Ranking law reviews, if done properly, may yield significant benefits to interested parties and to the legal field. First and foremost, continuous ranking facilitates competition among law reviews. If the ranking methodology is overt, law reviews may adjust their strategies to improve their consecutive positions. If the ranking is also based on a quality-sensitive method, this competition will eventually improve the quality of legal writing to the benefit of legal research and scholarship.¹³

¶5 Second, scholars who wish to publish a paper in an American law review probably ask themselves what the best possible forum for their masterpiece will be. Sure enough, the choice is very frequently limited. The author may submit his or her paper to dozens of law reviews, and receive offers to publish from only a few. Yet even within this limited range, the author must determine his or her preferences. Usually, authors would rather publish in the most prestigious periodical from among those that extended offers of publication. The more prestigious the forum, the higher the benefit accruing to the author from publishing in it in terms of reputation, direct material gains (such as job offers, promotion, and tenure), and impact on legal thought and practice.¹⁴ Consequently, a reliable ranking of law reviews may assist authors in planning their submission strategies and in making their publication decisions. True, the rankings are not the sole factor taken into account by writers. Other relevant factors include the publisher's reputation, the publishing schedule, the ability to reach a certain audience through a specific medium, etc. Nonetheless, a dependable ranking is clearly necessary to enable an author to make a fully informed choice, and, in my opinion, serves as one of the strongest determinants of most, if not all, publishing decisions.¹⁵

¶6 Third, a reliable ranking may assist law reviews in various ways. To begin with, a well-designed ranking may serve as a quality-control mechanism. It gives law reviews an external evaluation of their relative success, and indicates possible failures or weaknesses. Moreover, a higher ranking may result in a larger number of article submissions. This, in turn, will enable the editorial board to select better articles for publication.¹⁶ While the number of submissions cannot in itself guarantee continuous high ranking, it gives the board a wider degree of discretion. Wise editors may utilize this advantage to maintain or even improve the quality of their product. In a way, however, this benefit comes with a corresponding disadvantage: if higher ranking indeed means

13. *Id.* at 852.

14. Gregory Scott Crespi, *Ranking the Environmental Law, Natural Resources Law, and Land Use Planning Journals: A Survey of Expert Opinion*, 23 WM. & MARY ENVTL. L. & POL'Y REV. 273, 274, 290 (1998) [hereinafter Crespi, *Environmental Law Journals*]; Tracey E. George & Chris Guthrie, *In Defense of Author Prominence: A Reply to Crespi and Korobkin*, 26 FLA. ST. U. L. REV. 877, 896 (1999) [hereinafter George & Guthrie, *In Defense*]; Robert M. Jarvis & Phyllis G. Coleman, *Ranking Law Reviews: An Empirical Analysis Based on Author Prominence*, 39 ARIZ. L. REV. 15, 15 n.1 (1997); Korobkin, *supra* note 12, at 857–58.

15. This last statement is obviously inapplicable to publishing the proceedings of legal symposia.

16. Korobkin, *supra* note 12, at 856.

more discretion, then it may be quite hard for lower-end or newly established journals to take off. Most authors will probably prefer to publish in established higher-end journals. I admit that an initial ranking may inhibit rapid revolutionary changes, but it does not rule out fluctuations. Adjustments in staff selection policy and practice, the article selection process, the editing process, etc., may exert a significant effect on the quality of the ultimate product and its consequent ranking. In any case, allowing competitors to benefit from their previous efforts and accomplishments is an integral part of any healthy competition.

¶7 Fourth, law review ranking may be of utmost importance to the members of editorial boards. Membership on a board may yield various economic and non-economic benefits for a law student. It indicates the student's superior academic record and motivation.¹⁷ It enhances and refines her legal abilities, and sometimes even gives her the opportunity to graduate from law school with one of her pieces already published in an academic journal.¹⁸ Participation on a law review is often a prerequisite for interviewing by potential employers, or at least a strong determinant in employment decisions.¹⁹ Moreover, it enables the student to enjoy the law review alumni network.²⁰ Obviously, the more prestigious the law review, the more valuable the membership.²¹

¶8 Fifth, law review ranking may be of interest to law schools. A prestigious law review may enhance the respective school's reputation. Higher law school reputation translates to a higher market value of its degrees and professorships, attracting better students and teachers.²²

¶9 Sixth, a quality-sensitive ranking may assist the consumers of legal writing (judges, lawyers, law professors) in picking articles worth reading out of a staggering multitude of available papers.²³ These consumers may also gain from the improvement of legal writing through law review competition.

17. Cf. Jonathan Mermin, *Remaking Law Reviews*, 56 RUTGERS L. REV. 603, 604 (2004) (“[B]eing an editor of the law review is the highest honor a law student can achieve.”).

18. See, e.g., Rutgers Law Journal, Potential Members, <http://www-camlaw.rutgers.edu/publications/lawjournal/potential2.html> (last visited Sept. 2, 2005).

19. *Id.* See also Korobkin, *supra* note 12, at 854 (“For many law students, journal service might be the key to securing desirable employment following graduation.”); Richard A. Posner, *The Future of the Student-Edited Law Review*, 47 STAN. L. REV. 1131, 1131–32 (1995) [hereinafter Posner, *The Future*] (stating that law reviews perform “a screening function for employers”); Max Stier et al., *Law Review Usage and Suggestions for Improvement: A Survey of Attorneys, Professors and Judges*, 44 STAN. L. REV. 1467, 1473 (1992) (“Law reviews that limit their membership based on grades or a writing competition are . . . widely perceived as giving their members an edge in the job market, as well as in the race for judicial clerkships and academic positions following law school.”); Dexter Samida, Comment, *The Value of Law Review Membership*, 71 U. CHI. L. REV. 1721, 1721–24 (2004) (enumerating various studies in which it was found that law review membership “boosts an applicant’s job prospects”).

20. See Rutgers Law Journal, *supra* note 18.

21. Korobkin, *supra* note 12, at 854–55.

22. Cf. Jordan H. Leibman & James P. White, *How the Student-Edited Law Journals Make Their Publication Decisions*, 39 J. LEGAL EDUC. 387, 404 (1988) (suggesting that the enhancement of a journal’s reputation may “redound[] to that of the law school . . . rais[ing] the value of its degrees, both future and past”).

23. George & Guthrie, *In Defense*, *supra* note 14, at 896; Nancy P. Johnson, *Legal Periodical Usage Survey: Method and Application*, 71 LAW LIBR. J. 177, 177 (1978); Korobkin, *supra* note 12, at 858.

¶ 10 Seventh, law review ranking may be used by library managers in determining acquisition policies. Due to budgetary constraints and limits on physical space, it is necessary to decide how many copies of each journal should be acquired, if any.²⁴ It is true that these concerns have diminished significantly by the development of electronic legal databases (such as HeinOnline, LexisNexis, and Westlaw). Nonetheless, it seems they have not been eliminated altogether.²⁵

¶ 11 Eighth, as one author has observed, “Americans love rankings—of practically anything.”²⁶ In a culture that exalts competition, the non-professional general public may be interested in law review ranking just as it is interested in other rankings, even if it derives no direct gain from it apart from the pleasure of knowledge.

B. General Guidelines for the Appraisal of Ranking Methods

¶ 12 Ranking always serves certain purposes, and since the ranking method necessarily determines the eventual ranking, it should be designed so as to produce meaningful and reliable conclusions in light of these underlying purposes. To achieve this goal, a law review ranking method must satisfy at least six fundamental requirements.

¶ 13 First, it ought to be based on a quality-sensitive criterion or criteria. This requirement poses two interrelated questions: what is quality, and how can relative quality be measured? Quality is an attribute of content. It refers to various factors, not all of them measurable, such as creativity, innovation, profundity, style, usefulness, and influence on legal thought and practice. Theoretically, it is possible to rank law reviews by any of these factors, or a combination of them. The ranking method must either evaluate these factors directly (where possible) or through defensible proxies. Each of the theoretically valid methods conveys a different type of information, whose significance depends on its users’ subjective perceptions and needs.

¶ 14 Law reviews assemble independent manuscripts with differing qualities. This means that at least in certain cases it is possible to evaluate the quality of the whole by either averaging or aggregating the values of its various components. For example, we may rank a legal periodical by its aggregate influence on legal thought or by the average influence of a single article. The difference between the two methods may be apparent if law reviews differ significantly in their annual volume.

¶ 15 Second, the ranking method must be responsive to quality changes. The absolute

24. Margaret A. Goldblatt, *Current Legal Periodicals: A Use Study*, 78 LAW LIBR. J. 55, 55–56 (1986); Johnson, *supra* note 23, at 177; Ramsay & Stapledon, *supra* note 10, at 676.

25. Electronic databases do not currently include all journals, and they do not always cover all issues of included journals. Moreover, “there is no guarantee that material available today [on electronic databases] will be there tomorrow.” Kincaid C. Brown, *How Many Copies are Enough? Using Citation Studies to Limit Journal Holdings*, 94 LAW LIBR. J. 301, 306 (2002). Finally, the cost of database subscription might become too high for certain libraries.

26. Korobkin, *supra* note 12, at 851. See also Arthur Austin, *The Top Ten Politically Correct Law Reviews*, 1994 UTAH L. REV. 1319, 1320 (referring to ranking as “an American custom as traditional as price-fixing”).

and relative qualities of law reviews are not constant. As indicated above, quality may be affected by various factors, such as alterations in staff selection policy and practice, the article selection process, the editing process, etc. A ranking method that is not responsive to quality fluctuations impedes competition, since it does not reward improvement nor does it penalize stagnation or regression. Moreover, those interested in the rankings will be obliged to rely on distorted statistics. This will not deprive all interested parties of the benefits of the ranking. For example, authors and law review staff members may still use the ranking to advance their personal careers. Nonetheless, the use of distorted rankings may yield an *unjust* distribution of the benefits.

¶ 16 Third, the ranking must be based on objective criteria—that is, on observable facts undistorted by emotion, personal interpretation, or bias. Using methods that incorporate subjective evaluations may lead to unwarranted biases and manipulations (whether intentional or unintentional).

¶ 17 Fourth, the ranking method must be practical. Most important, sufficient data for its application should be reasonably accessible or producible. A theoretically ideal method that cannot be utilized in practice will not fulfill the goals of the ranking. Obviously, if no actual ranking is produced, then the benefits outlined in Section A are lost.

¶ 18 Fifth, the data on which the ranking is based should be readily verifiable. Sufficient data is not enough if its sources are suspect. In particular, the ranking should not be based on data that can be obtained solely from law reviews or other interested parties. If the accuracy of the data collected is questionable, the resulting ranking is unreliable.

¶ 19 Sixth, the data on which the ranking is based should not be prone to manipulation by interested parties. This requirement is closely related to the previous one. Both assure the reliability of the data collected. However, the sixth guideline focuses not on possible misrepresentation of actual data but on conscious attempts to change it in an undesirable way.

¶ 20 To conclude, in order to produce meaningful and reliable conclusions the ranking scheme must be carefully designed. If the ranking method is not defensible, then the resultant ranking will not fulfill its goals.²⁷ We now turn to a systematic and comprehensive analysis of law review ranking methods through the theoretical prism.

III. DIRECT QUALITY EVALUATION

A. Expert Evaluation

¶ 21 The most intuitively appealing ranking method is based on a direct quality

27. Cf. Stephen P. Klein & Laura Hamilton, *The Validity of the U.S. News and World Report Ranking of ABA Law Schools* (1998), <http://www.aals.org/reports/validity.html>. The authors criticize the method used by the *U.S. News & World Report* in its annual law school ranking. They contend, *inter alia*, that the method ignores relevant indicators of law school quality; that the accuracy of the raw data is doubtful; and that the ranking is affected by chance, multiple interpretations, and systematic biases, and is susceptible to manipulations. See also *infra* note 136.

evaluation by a commission of unbiased experts who are required to peruse each and every article published during the relevant period. Yet all versions of this scheme seem highly problematic.

¶ 22 Assume that we wish to rank all general-interest law reviews. If each member of the committee were required to read *all* articles, at least two problems would ensue. First, each member would have to read thousands of articles. It is unlikely that venerable experts would agree to spend their time on such a Sisyphean task.²⁸ Second, in the modern world, fields of expertise are rather narrow. There may be specialists in a particular branch of law—e.g. constitutional law, criminal law, or tort law—but no one is an expert in all branches of law. Consequently, members of the committee would be unable to properly evaluate numerous papers that lay outside their specific fields of expertise.²⁹

¶ 23 If, on the other hand, the ranking commission were comprised of sub-committees for the various branches of law, other problems would arise. First, members would have to evaluate papers written by themselves, by their colleagues, and by their sworn adversaries. This would make the entire system intrinsically biased.

¶ 24 Second, it is quite probable that none of the sub-committees would be able to rank all journals. One reason is that very few journals, if any, publish articles that cover all branches of law in a given period. For example, volume 114 of the *Yale Law Journal* does not include even a single article, essay, note, or comment on tort law. How, then, could the tort law sub-committee evaluate its relative quality?

¶ 25 Another reason is that a specialized sub-committee would be required not only to rank the relevant articles that were published in its field of expertise, but also to ascertain the exact differences in quality between them, and to determine for each journal the weighted value of the articles that it published in the relevant period. Otherwise, the sub-committee would be unable to compare different journals. Grading articles and weighting the grades of various articles that have been published in each journal seem extremely difficult and susceptible to purely subjective judgments. Suppose, for example, that one journal has published two articles on constitutional law; one is outstanding, the other mediocre. Suppose further that another journal has published two good articles on the same subject. Which would be ranked higher? In real life any specialized sub-committee would face a large number of more complex dilemmas. The grading and weighting problems would not arise only if each journal published a single article in every field—a precondition which is unrealistic.

¶ 26 Third, even if every sub-committee could provide a reliable ranking of all journals, we would face another weighting problem. Assuming that all sub-committees used the same scale, we would have to determine the exact weight of any sub-ordering in the ultimate ranking. Determining the relative weight of each branch of the law is clearly a political matter.

28. Korobkin, *supra* note 12, at 872.

29. *Id.* at 872–73.

¶ 27 It is arguable that while expert evaluation is an inappropriate way to assess the relative value of general-interest law reviews, it may be used to rank journals that specialize in a specific field. The number of journals that need to be ranked is relatively small, making a meticulous reading of their content more realistic.³⁰ Moreover, it is possible to select evaluators who are expert in the full range of articles that have been published by each of the surveyed journals.³¹

¶ 28 However, in certain areas, such as comparative and international law, the number of specialized journals is fairly large, making a thorough evaluation unfeasible.³² More important, the number of journals that specialize in a certain field may increase. A valid ranking method cannot assume that it will not. Furthermore, every field has sub-specialties, and an expert in a given field might not be an expert in each of the sub-specialties.

¶ 29 Finally, expert evaluation of specialized journals is similar in many respects to the evaluation of general-interest law reviews by a specialized sub-committee. Members of the evaluation committee would still have to appraise articles written by themselves, by their closest peers, and by their adversaries. Additionally, the committee would still need to ascertain the exact differences in the quality of the articles they read and determine for each journal the weighted value of the articles that it published during the relevant time period.

B. General Quality Survey

¶ 30 A second ranking method that has been used in various disciplines is based on general quality surveys.³³ Implementation of this method requires answers to two

30. Korobkin gives law and public policy journals as an example, observing that “[t]here are only twelve [of them], most of which do not publish more than two issues per year.” *Id.* at 873.

31. *Id.* at 873.

32. *Id.* at 874. In fact, the number of American law and policy journals (to which Korobkin refers) also seems much more than twelve (Doyle, *supra* note 7, enumerates seventy-five American journals that specialize in public policy, politics, and law), and many of them (such as the *Harvard Journal of Law & Public Policy* and the *Cornell Journal of Law & Public Policy*) publish more than two times per year.

33. See, e.g., Crespi, *Environmental Law Journals*, *supra* note 14 (an opinion survey of senior scholars who research and teach in certain areas of law on the relative academic reputations of relevant specialty journals); Gregory Scott Crespi, *Ranking International and Comparative Law Journals: A Survey of Expert Opinion*, 31 INT’L LAW. 869 (1997) [hereinafter Crespi, *International Law Journals*] (same); Noteboom & Walker, *supra* note 2, at 428–29 (1967) (a survey of professors, judges, and attorneys with regard to law reviews’ relative usefulness). For similar rankings in other disciplines see, for example, Robert G. Hawkins, Lawrence S. Ritter & Ingo Walter, *What Economics Think of Their Journals*, 81 J. POLIT. ECON. 1017 (1973); David Koulack & H.J. Keselman, *Ratings of Psychology Journals by Members of the American Psychological Association*, 30 AM. PSYCHOLOGIST 1049 (1975); Kenneth C. Mace & Harold D. Warner, *Ratings of Psychology Journals*, 28 AM. PSYCHOLOGIST 184 (1973); Pippa Norris & Ivor Crewe, *The Reputation of Political Science Journals: Pluralist and Consensus Views*, 41 POL. STUD. 5 (1993). Cf. Gerhard O.W. Mueller & Jerome H. Skolnick, *Bar Reactions to Legal Periodicals: The West Virginia Survey*, 11 J. LEGAL EDUC. 197 (1958) (using a survey to determine what practitioners think about the allocation of pages to various topics in the *West Virginia Law Review*); Stier et al., *supra* note 19 (using a survey to find out how consumers use law reviews, how successful they think law reviews are at accomplishing a variety of missions, and how they think law reviews should change).

fundamental questions: who will participate in the survey? What will they be asked? Although the two questions are interrelated, isolating them may help identifying the flaws in the survey method.

¶ 31 The simplest question that respondents to a law review quality survey may be asked is, “Which, in your opinion, is the best law review?” To allow some discretion, we may slightly modify this to, “Which, in your opinion, are the top five law reviews?”³⁴ These types of questions raise at least four problems. First, respondents may grasp abstract concepts like “best,” “top,” “leading,” or “principal,” in different ways. Due to the variance in subjective interpretation, the results of the survey may have no significant meaning.

¶ 32 Second, asking people to identify the “best” law reviews may thwart any sensible ranking of dozens of journals that are not included in the “elite” group. For example, it is highly unlikely that law reviews ranked 41–190 by an ideal ranking method will be identified as “best” by any of the respondents. Consequently, at least 150 journals would be impossible to rank. I suspect that the data collected in such a survey would not suffice even for a reliable ranking of the top forty law reviews. If we ask the respondents to list the top five law reviews we may, in addition, have difficulty identifying the best journal, assuming that two or more journals will be named by every participant.

¶ 33 Third, it is obvious that potential respondents cannot systematically and thoroughly read every article in every legal periodical. Even if they could, they would not remember everything they read. How, then, can we rely on them to evaluate the relative quality of different law reviews?

¶ 34 Fourth, it appears that the responses to quality surveys might be severely biased. They may be influenced by rumor, journal availability (determined primarily by circulation and publication frequency), personal sentiments or loyalty to specific law reviews or to the respective law schools based on former or current affiliation, recollections of old encounters (giving long-standing periodicals an unfair head-start), impressions from specific articles written at different times rather than complete volumes published in a certain period, and so forth. As a result, the data that may be collected would not permit an objective evaluation of relative quality in a given period.

¶ 35 The first problem may be easily solved. We may replace general adjectives like “best” or “top” with discrete and well-defined features of legal writing. For example, we may ask the respondents to evaluate journals based on creativity, inspiration, usefulness, or impact.³⁵

¶ 36 The second problem may be solved by asking the respondents to *grade* all journals,

34. Cf. Koulack & Keselman, *supra* note 33, at 1049 (asking participants to name the top ten psychology journals).

35. Cf. Norris & Crewe, *supra* note 33, at 10 (asking participants to evaluate journals on four levels—originality, value for teaching, type of readership, and general quality—and compiling four separate rankings).

rather than *select* a few.³⁶ However, assuming that the reasonable respondent would be unable to grade all journals (for lack of knowledge), we would obtain only partial data on most of them, making any comparison statistically invalid. Arguably, we may attempt to impute values for the missing data. But as there is no credible way to do this, the ranking would not be based on objective verifiable data. It would entail a subjective choice of a “filling-up” technique that might have a tremendous effect on the ultimate ranking.

¶ 37 To solve the third and fourth problems, a list of all articles published in a given period may be compiled, and the respondents may be asked to single out the most creative, profound, useful, or influential of those they have *actually read*. The ranking may be based on the overall count of selections of articles published in each journal, or the average count per article published in each journal. This might overcome the information problem and mitigate some of the biases mentioned above.³⁷ However, it seems clear that this proposed method is impractical. Assume that we wish to rank two-hundred general-interest law reviews, each appearing four times a year with five articles per issue. Ranking of relative quality in a period of, say, five years, would oblige every respondent to go over a list of 20,000 articles. Few, if any, would agree to take this task upon themselves. Consequently, no data will be gathered, and no ranking will ensue.

¶ 38 We now turn to the second question, namely, how to delineate the class of respondents. The first option is to forward the questionnaire to all law school faculty members. The main problem with this approach is that faculty members are an inherently biased class. Every respondent might give his or her home journal a higher grade than it actually deserves, and rank its closest competitors lower than they deserve. This may happen even if respondents act in good faith. Faculty size may therefore exert a significant effect on the ranking.

¶ 39 A second option is to use a sample of American judges and lawyers. One may argue that it would be unwise to allow legal practitioners to rank academic law reviews. Arguably, judges and lawyers may prefer well-organized summaries of existing law over creative, novel, and profound argumentation. But even if this assumption were true, it would not preclude legal practitioners as appropriate respondents for a law review quality survey. It would only mean that the survey should focus on usefulness, which is definitely a qualitative aspect of legal writing (although not necessarily the most important one).

¶ 40 Using a representative sample of legal practitioners may, however, raise several problems. First, one has to make sure that the sample is indeed a representative one, or else the conclusions will be statistically invalid. Second, a representative sample of the legal practitioners’ community may be very large, making the survey method relatively expensive, and hence impractical.

36. Cf. Mace & Warner, *supra* note 33, at 184 (asking participants to grade a large number of journals).

37. It might not prevent the availability bias or sentimental selections.

IV. INDIRECT QUALITY EVALUATION

A. Author Prominence

¶41 One of the most interesting methods that have been used to rank academic periodicals is based on the prominence of the authors of their lead articles. This method was first applied to legal periodicals by Jarvis and Coleman in 1997,³⁸ although it was used in other disciplines much earlier.³⁹ The 1997 study was restricted to general-interest law reviews. A couple of years later, the same method was used by others to rank specialized law journals.⁴⁰

¶42 Jarvis and Coleman created a 1,000 point contributor-scale. They classified authors into forty different categories (with 25-point intervals) according to their national prominence. For example, the U.S. President received 1,000 points, a leader of a foreign nation 975 points, a U.S. Supreme Court justice 950 points, a law professor at a first tier school 625 points, a law professor at a foreign law school 225 points, a J.D. student 75 points, etc. They applied their scale to the five most recent volumes of each law review, and calculated the average contributor score for each periodical. The *Columbia Law Review* came first, with a 553.74 point average. It was followed by the *Harvard Law Review* (546.57), the *NYU Law Review* (530.68), the *Virginia Law Review* (530.07), and the *UCLA Law Review* (527.92).⁴¹

¶43 Despite its intuitive appeal, this method is severely flawed. To begin with, creating a contributor-scale requires two types of purely subjective evaluations. First, the various categories of authors must be ranked. Second, the gaps between the various types of authors must be determined. On both levels, personal preferences, sentiment, bias, and constraints constitute a significant part of the valuation. Jarvis and Coleman's attempt to rank various authors may demonstrate the subjectivity of the proposed method.

¶44 For example, why is a law professor at an American fourth-tier law school (with 275 points in the proposed scale) deemed more prominent than a law professor at any foreign school, including Oxford, Cambridge, and Toronto (225 points)? Why is the CEO of a Fortune 500 company (with 600 points) deemed more prominent than the Chief Justice of the Supreme Court of Canada or the British House of Lords (550 points)?⁴²

¶45 Similarly, why is the gap between the U.S. President and a U.S. Supreme Court Justice (50 points) significantly *smaller* than the gap between the leader of a foreign country and a Supreme Court justice in the same country (250–425 points, depending on that country's political power)? Why is the gap between the U.S. President and the leader of a major foreign nation *equal* to the gap between the latter and a U.S. Supreme Court

38. Jarvis & Coleman, *supra* note 14.

39. See, e.g., William J. Moore, *The Relative Quality of Economics Journals: A Suggested Rating System*, 10 W. ECON. J. 156 (1972).

40. Tracey E. George & Chris Guthrie, *An Empirical Evaluation of Specialized Law Reviews*, 26 FLA. ST. U. L. REV. 813, 826 (1999) [hereinafter George & Guthrie, *Empirical Evaluation*].

41. Jarvis & Coleman, *supra* note 14, at 16.

42. See *id.* for an explanation of the point scale used by Jarvis and Coleman.

Justice (25 points)? And why is the difference between two consecutive categories always the same?

¶46 It may seem that these questions address only a particular implementation of the proposed method (i.e., Jarvis and Coleman's scale), and cannot be used to criticize the methodological approach as a whole. However, they show that this method is either impractical or extremely subjective, and therefore inadequate.

¶47 One may argue that the contributor-scale could be based on an objective measure, namely institutional ranks. For example, a full professor is more prominent than an assistant professor, and both are more prominent than an adjunct professor. A Supreme Court justice is more prominent than an appellate court judge, and both are more prominent than a trial court judge. However, the use of institutional ranks cannot solve the problems of impracticability and subjectivity. First, prominence is ultimately a personal quality. Rough categorization can never yield a reliable valuation of individual prominence. Thus, an appellate court judge may sometimes be more prominent than a Supreme Court Justice. An excellent example would be the legendary Lord Denning, who preferred a position in the English Court of Appeal to an appointment to the House of Lords.⁴³

¶48 Second, even if institutional ranks were a reliable measure of relative prominence within a given institution, they could not fairly distinguish persons affiliated with different institutions with similar ranking-schemes. For example, an assistant professor at the Harvard Law School might be more prominent than a full professor at a fourth tier school. Clearly, the prominence of the person depends not only on his or her institutional rank, but also on the relative reputation of the institution. Any judgment on matters of this type is subjective.

¶49 Third, even if we could overcome the variance between diverse institutions with similar ranking schemes, we would face the problem of merging different ranking schemes into a single scale. We would have to place—on a unified scale—law professors, judges, private sector lawyers, public sector lawyers, law students, and non-lawyers. For example, we may need to determine whether a U.S. Circuit Court judge is more prominent than a law professor at Yale. Any merger of different ranking schemes entails subjective value judgments.

¶50 Fourth, even if we could create a unified ranking of author categories, we would still need to assign a numerical value to each category in order to ascertain the relative worth of each journal. These values can never be determined objectively.

¶51 Furthermore, regardless of the problems of impracticability and subjectivity, author prominence is not a reliable indicator of the quality of legal periodicals. It does not necessarily correlate with creativity, innovation, profundity, style, usefulness, or impact on legal thought or practice. For example, an article written by a law student may undeniably be more creative, more profound, better written, and more influential than an

43. See Brady Coleman, *Lord Denning & Justice Cardozo: The Judge as Poet-Philosopher*, 32 RUTGERS L.J. 485, 486, 518 n.3 (2001).

article written by a senior lecturer at a reputable school.

¶ 52 Given that this method is not truly quality-sensitive, its continuous use may create disastrous incentives. Law review editors may be induced to publish mediocre papers written by very prominent authors, and reject excellent papers written by unknown scholars. In the long run, the quality of legal scholarship and research would deteriorate.⁴⁴

B. Rejection Rate

¶ 53 Academic periodicals may be ranked by their rejection rate for submissions. A journal's rejection rate equals the ratio between the number of articles not accepted for publication and the number of articles submitted. Using rejection rate as a means to rank academic periodicals is based on the assumption that the more selective the journal, the higher its quality. This method has been employed in other disciplines,⁴⁵ but has never been used to rank law reviews. It seems to be unreliable for several reasons.

¶ 54 First, implementing this method requires the full cooperation of editorial boards on at least two levels: (1) collecting the relevant data, and (2) handing it over to the ranking administrator. It seems doubtful that all editors can be persuaded to keep a systematic, accurate, and continuous registration of all submissions and the respective editorial decisions. Moreover, even if data is collected it is uncertain that it will be submitted to the ranking administrator. Perhaps law reviews with extremely high rejection rates will cooperate with an initial study. However, we cannot expect similar cooperation from journals with medium or low rejection rates. Likewise, we may not be able to expect continuous cooperation (which is necessary for a continuous ranking) from journals whose rejection rates have decreased, or from journals whose rejection rates have not increased like those of their competitors. Therefore, ranking by rejection rates is impractical.

¶ 55 Second, differences in rejection/acceptance policies may distort the ranking. Suppose, for example, that three journals, X, Y, and Z are identical in everything but their rejection/acceptance policies. When the editors of X encounter an article that puts forward an interesting idea but does not adequately develop it, they extend an offer conditional on significant revisions, which is registered as an acceptance. When the editors of Y and Z review a similar article they send the author a "revise and resubmit" letter,⁴⁶ which is registered as a rejection. If the article is satisfactorily revised, the editors of X publish it without changing their records, while the editors of Y and Z register an

44. Korobkin, *supra* note 12, at 862.

45. See, e.g., Louis C. Buffardi & Julia A. Nichols, *Citation Impact, Acceptance Rate, and APA Journals*, 36 AM. PSYCHOLOGIST 1453 (1981) (discussing the correlation between rejection rate and impact factor); James Rotton & Mary Levitt, *Citation Impacts, Rejection-rates, and Journal Value*, 48 AM. PSYCHOLOGIST 911 (1993) (same). Cf. Frank L. DuBois & David Reeb, *Ranking the International Business Journals*, 31 J. INT'L BUS. STUD. 689, 703 (2000) (observing that rejection rates are used by rank and tenure committees in management schools to evaluate scholarly achievements).

46. "Revise and resubmit" letters encourage authors to revise their work so that the work's publication in the same journal may be reconsidered.

acceptance. If the article is not satisfactorily revised, the editors of X *replace* the initial registration with a rejection, the editors of Y do not change the initial registration, and the editors of Z register *another* rejection. In case of a satisfactory revision, the article will be counted once in journal X (accepted), twice in journals Y and Z (rejected, accepted). In case of an unsatisfactory revision, the article will be counted once in journals X and Y (rejected) and twice in journal Z (rejected, rejected). In the long run, journal X will have the lowest rejection rate, and Z will have the highest, although the quality of all three journals is identical. This simple example does not take into account the complications that might arise if articles are withdrawn during the review process. In conclusion, raw data about submissions and rejections is insufficient for a reliable ranking. Obtaining supplementary details requires further cooperation of editorial boards.

¶ 56 Third, even if the ranking administrator received the relevant data from all journals, this data would not be verifiable. Generally, law review ranking should not be based on figures that are self-reported by interested parties and cannot be corroborated.⁴⁷ Theoretically, we could establish an external registration agency for article submissions and editorial decisions. However, this proposal is unfeasible not only due to its high costs, but more particularly because it requires the journals' consent to external supervision of their internal affairs.

¶ 57 Fourth, both parameters that affect the rejection rate may be artificially altered. An editorial board may decrease the number of publication offers it extends in a given period to enhance a journal's reputation. For example, if a certain journal receives one-hundred submissions per year and extends thirty publication offers, it may increase its rejection rate from 70% to 80% by lowering the number of publication offers from thirty to twenty. This would probably require a corresponding reduction in the number of articles actually published. Hence competition for high ranking might result in an overall decrease in the volume of published articles, to the detriment of legal scholarship. Similarly, the editorial board may encourage, rather than discourage, submissions of articles that have no real chance of being accepted.

¶ 58 Fifth, rejection rate reflects only editorial selectivity, and ignores authors' self-selection. If multiple-submission were not allowed, a rational author would probably submit his or her manuscript to journals where he or she believed that it might be viewed favorably, or with which he or she had publication success in the past.⁴⁸ Assuming that authors' intuition with regard to the quality of their work (and the consequent probability of acceptance) is roughly correct, more prestigious journals would, on average, receive better manuscripts. Consequently, rejection rate is not a reliable measure of quality.

¶ 59 The self-selection bias is less acute where multiple-submission is allowed,⁴⁹ but it is still present. As long as submissions cost money, budgetary constraints may dictate a more realistic and less pretentious submission strategy. More important, self-selection

47. DuBois & Reeb, *supra* note 45, at 703.

48. *Id.*

49. Generally, American law reviews do not maintain single submission policies. *See, e.g.*, Stephen R. Heifetz, *Efficient Matching: Reforming the Market for Law Review Articles*, 5 GEO. MASON L. REV. 629, 634 (1997) (discussing the shortcomings of multiple-submissions).

may be required *after* the initial submission. Suppose an author submits a paper to dozens of journals where he or she does not deem the publication prospects high. If that author receives an offer for publication from a less prestigious journal with a strict deadline, he or she may decide to accept it and withdraw the article from more prestigious journals. The author will refrain from doing so only if he or she truly believes in the quality of the manuscript, or if the more prestigious journals undertake to honor requests for an expedited review. From my own experience, most journals, especially the most prestigious ones, cannot complete the review process in due time. So an author who is uncertain about the prospects of better placement would accept the offer and withdraw the manuscript from all other journals.⁵⁰ A withdrawal is not a rejection. Assuming once again that authors' intuition regarding the quality of their work is generally correct, articles that would have been rejected are not registered as such. Thus, self-selection still affects rejection rates.

¶ 60 Sixth, if publication decisions are affected by systematic preferences and prejudices that are unrelated to the quality of specific submissions (such as authors' prominence, affiliation, or nationality), then rejection rates cannot serve as indicia of relative quality. Suppose, for example, that the most prestigious legal periodicals are the *Northern Law Review* (published by the students at the Northern law school) and the *Southern Law Review* (published by the students at the Southern law school). Every year, the *Northern Law Review* publishes twenty-five articles, while the *Southern Law Review* publishes twenty. Suppose further that the editors of each journal would always prefer an article written by a law professor affiliated with their school.⁵¹ Northern faculty members produce forty excellent articles per year, whereas Southern faculty members produce seventeen good articles per year. Finally, assume that multiple-submission is *not* allowed, and that the aforementioned information is well known to all interested parties. Under these suppositions the *Northern Law Review* would probably select the best twenty-five articles of those written by Northern faculty. It would reject fifteen due to space limits. Its rejection rate would be $15/40=37.5\%$. The authors of the rejected articles would then submit their papers to the *Southern Law Review*. The latter would first publish all articles written by Southern faculty, and then add three articles written by Northern faculty.⁵² Its rejection rate would be $12/(15+17)=37.5\%$. The *Northern Law Review* would publish the top twenty-five articles from a cluster of forty excellent manuscripts. The *Southern Law Review* would publish the next three articles from the same cluster plus seventeen "good" (but not excellent) articles. Nonetheless, both journals would have a similar rejection rate.

¶ 61 Seventh, soliciting articles decreases the rejection rate without any relation to the

50. A journal that is unable to give an expedited review by the date requested may automatically withdraw the article from consideration. *See, e.g.,* New Mexico Law Review: Article Submission, <http://lawschool.unm.edu/nmlr/article-submission.php> (last visited Sept. 2, 2005).

51. This assumption is consistent with empirical evidence. *See* Ira Mark Ellman, *A Comparison of Law Faculty Production in Leading Law Reviews*, 33 J. LEGAL EDUC. 681, 684, 685 tbl.2, 692 (1983) (showing that major law reviews publish a disproportionate number of articles by their own faculty); Leibman & White, *supra* note 22, at 405–06 (when authors are resident faculty members, students are more reluctant to turn them down).

52. The remaining twelve papers written by Northern faculty would be placed elsewhere.

quality of the papers.⁵³ If a certain journal does not publish unsolicited manuscripts at all, it will have a zero rejection rate even if all articles that it publishes are excellent.

C. Editors' Academic Aptitude

¶ 62 Academic legal periodicals may be ranked according to the relative academic aptitude of their editors. This method is based on the assumption that better editors generally produce better journals. Yet despite its intuitive appeal, this method seems to have at least two critical flaws.

¶ 63 First, editors' academic aptitude is not the sole or leading determinant (and therefore a questionable indicator) of journal quality. The value of academic periodicals in general, and of law reviews in particular, is determined by various factors, including staff selection policy and practice, the number of editors on the board, submission quantity, article selection procedure, evaluative standards, editorial biases (e.g., in favor of reputable writers, in-house authors, or familiar topics), authors' preferences, the editing process, and so forth.⁵⁴

¶ 64 Second, no objective and reliable way to evaluate the relative academic aptitude of editorial boards seems to exist. Theoretically, we could rank editorial boards by the quality of the journals that they produced. However, this would create a vicious circle in the current context: law reviews would be ranked by the relative aptitude of their editorial boards, which in turn would be determined by the relative quality of law reviews.

¶ 65 Given that most American law reviews are student-edited, one may argue that they can be ranked by the entry credentials of the students who edit them, namely *Law School Admission Test* (LSAT) scores and undergraduate grade point averages (UGPAs). Indeed, in one of the first articles that discuss the value of American law reviews, the authors hypothesized that schools whose incoming students' median LSAT scores were higher would produce law reviews of a higher quality due to the caliber of the students serving on the editorial boards.⁵⁵

¶ 66 However, the assumption that LSAT scores and UGPAs actually foretell academic aptitudes is definitely open to question.⁵⁶ A recent study conducted at the Marquette University Law School found that LSAT score was a very weak predictor of law school grades;⁵⁷ the UGPA was a somewhat better, but still inconclusive, predictor of law school

53. See Leibman & White, *supra* note 22, at 395 (noting that "soliciting an article is a tacit commitment to the author; if submitted on time, the manuscript will be published").

54. For an interesting though not updated discussion of some of these factors, see *id.* at 398–416. The authors discuss, *inter alia*, staff selection policy and practice, article selection procedure, evaluative standards, and editorial biases.

55. Noteboom & Walker, *supra* note 2, at 432.

56. See, e.g., Grutter v. Bollinger, 137 F. Supp. 2d 821, 870–71 (E.D. Mich. 2001) (noting that "the LSAT predicts law school grades rather poorly . . . and does not predict success in the legal profession at all," and that even the combination of LSAT score and UGPA is an inadequate predictor of law school performance).

57. Jeffrey S. Kinsler, *The LSAT Myth*, 20 ST. LOUIS U. PUB. L. REV. 393, 393–94, 398, 416 (2001).

performance.⁵⁸ A combination of the two was a better predictor than each alone, but still relatively weak.⁵⁹ An analogous study conducted at the Brigham Young University Law School similarly concluded that entering law students need not feel deterministically destined for either success or failure in law school because of the rank of their entry credentials.⁶⁰

¶67 Moreover, even if LSAT scores and UGPAs (or any other entry credentials) predicted law school performance, they would not be able to predict the quality of law review editing. It is said that even students with excellent credentials are not always qualified—after one or two years of law school—to edit an academic periodical.⁶¹ Entry credentials signify at best the *potential* to learn and practice law—not an actual background in every field of legal and interdisciplinary scholarship, which is arguably required to evaluate scholarly manuscripts on various unrelated topics, to select those of best academic quality, and to refine them.

D. Usage Studies

1. Library Usage

¶68 Another method for ranking legal periodicals is based on their library usage. In the past, this method was used primarily to aid library managers in determining their acquisition policies.⁶² Johnson was the first to provide statistical data on actual use of various legal periodicals by students and faculty in a law school library.⁶³ Her research was conducted during one semester at the University of Illinois law library. Ninety-percent of the data was collected from in-house use. Library shelvees picked up legal periodicals from study tables (where they were left by their users) and recorded the title and year of each volume before reshelving. Signs reading, “Usage Survey in Progress—Do Not Reshelve Periodicals,” were attached to the book stacks in the periodicals section, and it seems that all users fully complied with that request.⁶⁴ A comparable study was conducted by Goldblatt over a twelve month period at the Washington University law library.⁶⁵ This study was confined to the current periodicals area, where any person who

58. *Id.* at 402, 416.

59. The combination accounted for only 16.4% of the variance witnessed in law school performance. *Id.* at 404.

60. David A. Thomas, *Predicting Law School Academic Performance from LSAT Scores and Undergraduate Grade Point Averages: A Comprehensive Study*, 35 ARIZ. ST. L.J. 1007, 1011, 1020–21 (2003). Thomas did not use a linear correlation coefficient but a simplified “correlation score” instead. This must be taken into account in reading and interpreting his figures.

61. See Bernard J. Hibbitts, *Yesterday Once More: Skeptics, Scribes and the Demise of Law Reviews*, 30 AKRON L. REV. 267, 291–92 (1996); Leibman & White, *supra* note 22, at 389; James Lindgren, *An Author’s Manifesto*, 61 U. CHI. L. REV. 527, 527 (1994); Mermin, *supra* note 17, at 606–07; Richard A. Posner, *Against the Law Reviews*, LEGAL AFF., Nov.–Dec. 2004, at 57–58; Posner, *The Future*, *supra* note 19, at 1132–34. Since student-editors spend two years at most as law review editors, they do not gain sufficient experience in editing.

62. See *supra* note 24.

63. Johnson, *supra* note 23.

64. *Id.* at 178.

65. Goldblatt, *supra* note 24.

wished to consult or check out a certain issue had to request it from the librarian. Each *request* was recorded, even if the item was not available when requested.⁶⁶

¶ 69 These methods are flawed for several reasons. First, law school library users are not a representative sample of the patrons of legal scholarship. Practically all practicing lawyers and judges are left out.

¶ 70 Second, interested parties may sometimes have the power to manipulate the results. For example, a law professor who is keen to improve the ranking of a specific journal in which he or she has published extensively, or has served as editor, may oblige or encourage students to read an article or articles that were published in that same journal. Given the relatively small number of uses, strategic inducement to consult specific journals might produce a considerable change in the ultimate rankings. For instance, Goldblatt reported that only ten journals were used more than fifty times in twelve months. Consequently, if the participants in a single seminar were asked to read a new article, the ranking of the journal in which it was published would change dramatically. Conducting the study in several libraries simultaneously would not eliminate this problem, although it might alleviate it to a limited extent.

¶ 71 Third, if faculty members in a certain law school tend to publish a relatively large portion of their scholarly work in their home journals,⁶⁷ and if they truly believe that their work is a primary pedagogical tool, there will be a clear bias in favor of these journals in their home library. Teachers will refer their students to these journals to achieve legitimate educational goals, but incidentally distort the ranking. Once again, conducting the study concurrently in several libraries would not fully eradicate this problem. Usage-based ranking might unfairly promote journals published by law schools with a relatively large number of students and demanding course syllabi.

¶ 72 Fourth, it is likely that usage patterns are influenced by regional needs and preferences.⁶⁸ For example, Johnson observed that some journals were heavily used at the University of Illinois law library, although they did not rank high in other studies; she pointed out that these journals were published in Illinois or in adjacent states.⁶⁹ The *University of Illinois Law Forum* (now the *University of Illinois Law Review*) was ranked second, much higher than its position in any national ranking.⁷⁰ Consequently, a usage study must be conducted in a nationwide variety of law libraries. Still, it would be hard to determine the exact weight of any local study given that law schools differ in their academic curricula, research intensity, and overall number of students and faculty.

¶ 73 Fifth, physical counting methods are no longer reliable due to the massive use of electronic databases. One must remember that Johnson and Goldblatt conducted their studies in 1977 and 1982 respectively. Access to legal periodicals has improved

66. *Id.* at 56.

67. *See supra* note 51 and accompanying text.

68. *Cf.* Roger J. Traynor, *To the Right Honorable Law Reviews*, 10 UCLA L. REV. 3, 3 (1962) (“In the main [law reviews] have a regional rather than a worldly imprint.”).

69. Johnson, *supra* note 23, at 185.

70. *Id.* at 179.

considerably since. Nowadays, legal periodicals are usually consulted through electronic databases. Therefore, the number of times a certain periodical was taken off the shelf or requested from the librarian is no longer a trustworthy indicator of the frequency of its use.

¶ 74 Sixth and foremost, the number of actual uses is not a reliable measure of quality. The fact that a certain volume was taken off the shelf does not mean that the user found what he or she looked for, or that the user thought highly of the contents. The number of “uses” is not equivalent to the number of times that something creative, novel, profound, useful, or influential was noticed. Therefore, library usage is not a justifiable criterion for law review rating.⁷¹

2. Database Usage

¶ 75 Theoretically, some of the shortcomings of the library-usage method may be overcome through a modern implementation of the same idea. Instead of counting physical library uses, it is possible to count the number of views or downloads from electronic databases. This method is more in line with current usage patterns. Moreover, assuming that leading electronic databases are nationally used by all types of legal professionals (lawyers, judges, professors, and students), the data collected would not be too sensitive to local and regional preferences, and the class of users would be representative of the customers of legal scholarship. However, many of the old problems would still remain, and new problems may arise.

¶ 76 First, assuming—as is the case in America—that access to electronic legal databases is provided by several competing companies, it would be hard to obtain reliable data on the overall number of views and downloads. The competitors might be reluctant to reveal this kind of information. Even if they were inclined to provide the data, it might be impossible to verify it.

¶ 77 Second, interested parties would still be able to manipulate the results. In many situations, access to legal databases does not require personal login or identification. Frequently, an institutional login is required, and sometimes even this is unnecessary. Consequently, it may be impossible to identify and cancel out multiple views or downloads by a single—interested—person, such as the author of a specific article, or the current or former editor of a certain journal. Even if a personal login were required, it would be impossible to identify and handle views or downloads that were induced by interested parties. For example, a professor who wishes to improve the ranking of a specific journal may still oblige or encourage students to read an article or articles that were published therein.

¶ 78 Third, the frequency at which a certain article is viewed in or downloaded from leading legal databases is not an accurate measure of the actual frequency of its use (even if library uses are added). The same article may be downloaded from less comprehensive non-commercial websites that do not count downloads. Moreover, a reader who thinks

71. See Korobkin, *supra* note 12, at 870–71; James Leonard, *Seen' the Cites: A Guided Tour of Citation Patterns in Recent American Law Review Articles*, 34 ST. LOUIS U. L.J. 181, 189 (1990).

that an article he or she downloaded from a commercial database would interest colleagues may send them the file, and they may distribute it further. These “uses” would not be documented.⁷²

¶ 79 Finally, downloading or viewing an electronic version of an article, just like consulting its printed version, does not imply quality. The fact that certain articles were viewed or downloaded does not mean that individual readers found what they were looking for, or that the readers thought highly of the contents.

E. Citation Analysis

1. Citation Frequency as a Measure of Impact

a. The Basic Methodology

¶ 80 Some of the most frequently used ranking methods for academic journals in general, and for law reviews in particular, are based on citation analysis. Citation studies may be conducted for various purposes. For example, an empirical study of the citation practice of a specific court may be used to characterize that court and its members, and identify significant trends in judicial reasoning.⁷³ Similarly, citation analysis may reveal noteworthy trends in the academic discourse.⁷⁴

¶ 81 Here, however, we are solely concerned with the possible use of citation analysis in journal-ranking projects. The assumption that underlies such use is quite simple: any citation of an academic article in a subsequent text implies that the article was regarded as authoritative. Put differently, a citation usually indicates that someone read the article and decided that it merited an explicit reference, even if that person did not fully agree with everything articulated by the article’s author.⁷⁵ Whenever a person thinks that a

72. Indeed, it is possible to photocopy and distribute printed versions as well (subject to copyright limitations). However, distributing computer files is much easier, and therefore more common.

73. See, e.g., Joseph A. Custer, *Citation Practices of the Kansas Supreme Court and Kansas Court of Appeals*, 7 KAN. J. L. & PUB. POL’Y 120 (1998); James Leonard, *An Analysis of Citations to Authority in Ohio Appellate Decisions Published in 1990*, 86 LAW LIBR. J. 129 (1994); Richard A. Mann, *The North Carolina Supreme Court 1977: A Statistical Analysis*, 15 WAKE FOREST L. REV. 39 (1979); William H. Manz, *The Citation Practices of the New York Court of Appeals, 1850–1993*, 43 BUFF. L. REV. 121 (1995); John Henry Merryman, *Toward a Theory of Citations: An Empirical Study of the Citation Practice of the California Supreme Court in 1950, 1960, and 1970*, 50 S. CAL. L. REV. 381 (1977); John Henry Merryman, *The Authority of Authority: What the California Supreme Court Cited in 1950*, 6 STAN. L. REV. 613 (1954); Fritz Snyder, *The Citation Practices of the Montana Supreme Court*, 57 MONT. L. REV. 453 (1996). Cf. Paul Von Nessen, *The Use of American Precedents by the High Court of Australia, 1901–1987*, 14 ADEL. L. REV. 181 (1992); Yoram Shachar, Ron Harris & Meron Gross, *The Citation Practices of the Supreme Court of Israel*, 27 HEBREW U. L. REV. 119 (1996) (in Hebrew).

74. See, e.g., William Landes & Richard Posner, *The Influence of Economics on Law: A Quantitative Study*, 36 J. L. & ECON. 385 (1993) (examining the impact of the law and economics movement on legal scholarship); Fred Shapiro, *The Most-Cited Law Review Articles Revisited*, 71 CHI.-KENT L. REV. 751, 757–59 (1996) (observing changes in the composition and perspective of legal scholars).

75. See Leonard, *supra* note 71, at 189; Olavi Maru, *Measuring the Impact of Legal Periodicals*, 1 AM. BAR FOUND. RES. J. 230 (1976).

certain article “merits an explicit reference,” it may be said that the article inspired or influenced further writing, and therefore had some impact on the professional discourse within a specific circle. The more heavily an article is cited, the greater its impact on the professional discourse.⁷⁶ So the interim conclusion is that citation frequency may be used to appraise the actual impact of distinct manuscripts.⁷⁷

¶82 The overall impact of a given journal is equivalent to the aggregate impact of all articles that were published in it during the relevant time period. Consequently, the citation frequency of all articles published in a certain journal in a given set of subsequent texts constitutes a rough measure of that journal’s impact on the professional discourse within a specific circle,⁷⁸ although—as will be shown below—it needs to be adjusted to serve as an approximate measure of the academic value of this journal.⁷⁹ That is why the frequency at which citations of articles from each journal appear in subsequent *articles* has been recurrently used—as is or with certain adjustments—to rank journals in various disciplines,⁸⁰ such as business administration,⁸¹ economics,⁸² finance,⁸³ psychology,⁸⁴ and, of course, law.⁸⁵

76. Provided that the problem of self-citation can be resolved. *See infra* notes 95–97 and accompanying text.

77. *See, e.g.*, William M. Landes & Richard A. Posner, *Heavily Cited Articles in Law*, 71 CHI.-KENT L. REV. 825 (1996); Fred R. Shapiro, *The Most-Cited Articles from the Yale Law Journal*, 100 YALE L.J. 1449 (1991); Fred R. Shapiro, *The Most-Cited Law Review Articles*, 73 CAL. L. REV. 1540 (1985). *But cf.* Johnson v. Univ. of Pittsburgh, 435 F. Supp. 1328, 1366 (W.D. Pa. 1977) (“The court also makes no finding as to the citation method of appraising the value of a scientist’s work . . .”).

78. Similarly, the citation frequency of all articles published by a specific author constitutes a rough measure of that author’s impact on the professional discourse. *See, e.g.*, Ellen G. Cohn & David P. Farrington, *Who are the Most-Cited Scholars in Major American Criminology and Criminal Justice Journals?*, 22 J. CRIM. JUST. 517 (1994); Richard A. Wright, *The Most-Cited Scholars in Criminology: A Comparison of Textbooks and Journals*, 23 J. CRIM. JUST. 303 (1995).

79. The possible adjustments and their merits are discussed in Subsection IV.E.2.

80. For a collection of citation-based journal rankings in various fields, including agriculture, botany, chemistry and biochemistry, engineering, geology and geophysics, and medicine, *see* EUGENE GARFIELD, CITATION INDEXING – ITS THEORY AND APPLICATION IN SCIENCE, TECHNOLOGY, AND HUMANITIES 163–208 (1979).

81. *See, e.g.*, DuBois & Reeb, *supra* note 45, at 694 (citation frequency).

82. *See, e.g.*, S.J. Leibowitz & J.P. Palmer, *Assessing the Relative Impacts of Economics Journals*, 22 J. ECON. LITERATURE 77, 80–81 (1984) (citation frequency).

83. *See, e.g.*, John Alexander & Rodney Mabry, *Relative Significance of Journals, Authors and Articles Cited in Financial Research*, 49 J. FIN. 697, 701 (1994) (citation frequency; citations per article; citations per 10,000 words).

84. *See, e.g.*, Murray J. White & K. Geoffrey White, *Citation Analysis of Psychology Journals*, 32 AM. PSYCHOLOGIST 301 (1977) (citations per article).

85. *See, e.g.*, Colleen M. Cullen & S. Randall Kalberg, *Chicago-Kent Law Review Faculty Scholarship Survey*, 70 CHI.-KENT L. REV. 1445 (1995) (citation frequency in journals and by the courts); The Executive Board, *Chicago-Kent Law Review Faculty Scholarship Survey*, 65 CHI.-KENT L. REV. 195 (1989) (citation frequency); Janet M. Gumm, *Chicago-Kent Law Review Faculty Scholarship Survey*, 66 CHI.-KENT L. REV. 509 (1990) (citation frequency); Leonard, *supra* note 71 (citation frequency; citations per 1000 pages); James Lindgren & Daniel Seltzer, *The Most Prolific Law Professors and Faculties*, 71 CHI.-KENT L. REV. 781 (1996) (citation frequency in journals and by the courts); Richard A. Mann, *The Use of Legal Periodicals by Courts and Journals*, 26 JURIMETRICS J. 400 (1986) (citation frequency in journals and by the courts; citations per 1000 pages); Maru, *supra* note 75, at 227 (citation frequency; citations per page); Fred R. Shapiro, *The Most-Cited Law Reviews*, 29 J. LEGAL STUD. 389 (2000) (citation

¶ 83 The frequency of citation in subsequent *articles* affords a quantitative measure of the relative impact of various law reviews on the *academic* discourse, as manifested in legal research. This, in turn, provides some evidence on each journal's relative academic quality, namely its commitment to creativity, innovation, profundity, etc.⁸⁶ However, citation analysis does not have to end there. The frequency at which articles published in each journal appear in subsequent texts other than scholarly articles may provide a quantitative measure of their relative impact in non-academic circles, and this might be indicative of other qualitative features.

¶ 84 For example, it is possible to rank legal periodicals by the frequency at which they are cited by the courts. This method can be applied solely to legal periodicals: although courts occasionally cite non-legal journals, a few sporadic citations are insufficient for a reliable ranking.⁸⁷ There are at least two paradigmatic versions of this method. Under the first version, the ranking is based on the frequency of citation by appellate courts, most notably the United States Supreme Court.⁸⁸ Citation frequency in appellate court decisions reflects each journal's influence on the understanding and development of judge-made law. Once again, impact measured by citations may provide some evidence on each journal's relative quality. In this case, however, it signifies different aspects of quality. Appellate courts probably prefer articles that help in solving practical legal problems, and cannot make much use of theoretical papers, especially those that use non-legal or interdisciplinary terminology. In contrast, the academic discourse is independent of practical constraints. So while the frequency of citation in academic publications may indicate academic quality, the frequency of citation in judicial decisions denotes practical quality.⁸⁹

frequency; citations per article). *See also* Perry, *supra* note 11 (citation frequency in journals and by the courts); Ramsay & Stapledon, *supra* note 10 (citations per 1000 pages).

86. *See infra* note 102 and accompanying text.

87. *Cf.* Wes Daniels, "Far Beyond the Law Reports": *Secondary Source Citations in United States Supreme Court Opinions, October Terms 1900, 1940, and 1978*, 76 LAW LIBR. J. 1, 18, app. at 39–40 (1983) (observing that the Supreme Court cited only twenty-six non-legal periodicals in 1978, and that these journals represent *eleven* different disciplines).

88. *See, e.g.*, Neil N. Bernstein, *The Supreme Court and Secondary Source Material: 1965 Term*, 57 GEO. L.J. 55, 66 (1968); Daniels, *supra* note 87, at 14–16, 30–32 (1983); Chester A. Newland, *Legal Periodicals and the United States Supreme Court*, 7 U. KAN. L. REV. 477, 481–82 (1959); Louis J. Sirico, Jr., *The Citing of Law Reviews by the Supreme Court: 1971–1999*, 75 IND. L.J. 1009 (2000); Louis J. Sirico, Jr. & Jeffrey B. Margulies, *The Citing of Law Reviews by the Supreme Court: An Empirical Study*, 34 UCLA L. REV. 131 (1986). Some of the abovementioned studies (such as Bernstein's and Daniels') were not ranking projects. They aimed at characterizing the Supreme Court, and provided law review rankings only incidentally. *Cf.* Louis J. Sirico, Jr. & Beth A. Drew, *The Citing of Law Reviews by the United States Courts of Appeals: An Empirical Analysis*, 45 U. MIAMI L. REV. 45 1051 (1991) (discussing the citation practice of Federal Courts of Appeals).

89. This may explain the gradual decline in the frequency of citation of law reviews by the courts in recent decades. While the frequency of citation by the Supreme Court increased from 1900 to 1978, *see* Daniels, *supra* note 87, at 4–6, a significant decrease occurred in the 1980s, *see* Sirico & Margulies, *supra* note 88, at 134, and it exacerbated during the 1990s, *see* Sirico, *supra* note 88, at 1011–12. This constant decline was probably a result of the change in emphasis of academic law reviews. Instead of the traditional legal analysis which addresses legal practitioners, law reviews publish more interdisciplinary, theoretical and critical papers that courts do not find very useful. *See* Gregory Scott Crespi, *Judicial and Law Review Citation Frequencies for Articles Published in Different "Tiers" of Law Journals: An Empirical Analysis*,

¶ 85 Under the second version, the ranking is based on the frequency of citation by trial courts.⁹⁰ Given the substantial difference between appellate courts and trial courts in the nature of their work, the conclusions that may be derived from the frequency of citation by trial courts clearly differ from those that can be derived from the frequency of citation by appellate courts. In both cases citations indicate some practical value. However, trial courts may tend to be more interested in a convenient and orderly analysis of existing law, while appellate courts might be more interested in legal creativity and innovation. Accordingly, citation by trial courts would generally signify usefulness, whereas citation by appellate courts would be a better sign of creativity and innovation. Similarly, it is possible to rank legal periodicals by the frequency with which they appear on law students' reading lists.⁹¹ This ranking would reflect the relative pedagogical impact (and value) of each journal. However, the data required for such a ranking does not seem to be readily accessible.

b. Challenging the Significance of Citation

¶ 86 Critics of citation-based rating methods often attack the fundamental assumption that underlies them, namely that a person who cites an article has actually read it, and thought that it was significant enough to warrant a reference. They contend that in reality citation often stems from methodically problematic (i.e., quality-insensitive) motives. This line of criticism is not persuasive. To understand why, we must explore the various motives for citation that may be deemed “methodically problematic.”

¶ 87 First, an article may be cited frequently but unfavorably (*negative citation*). It may be argued that since a bad article can be cited quite often by its critics, the frequency of citations cannot be indicative of its quality.⁹² The answer seems quite simple: a low-quality article—one that is not original, profound, or useful—will not be cited in subsequent writings. Scholars and judges will not bother criticizing an insignificant paper. They will simply ignore it.⁹³ If an article is cited frequently but unfavorably, it probably puts forward a controversial but well-articulated thesis that advances the professional discourse. In that case, citation frequency signifies its true academic value.⁹⁴

¶ 88 Second, it may be argued that authors will tend to over-cite their previously-published works, regardless of their quality (*self-citation*).⁹⁵ It seems that the possibility

44 SANTA CLARA L. REV. 897, 900 (2004) [hereinafter Crespi, *Empirical Analysis*]; Sirico & Margulies, *supra* note 88, at 135; Sirico, *supra* note 88, at 1011–12.

90. Cf. Maggs, *supra* note 8, at 182, 191–96. Maggs counted citations in each of the West case reporters, namely in various Federal and State court decisions. The main purpose of his research was to assess the overall contribution of legal periodicals to the development of positive law. The first law review ranking was one of the by-products of his research. *Id.* at 195.

91. See Jack W. Skeels & Ryland A. Taylor, *The Relative Quality of Economics Journals: An Alternative Rating System*, 10 W. ECON. J. 470 (1972).

92. Korobkin, *supra* note 12, at 866; Leonard, *supra* note 71, at 190–91.

93. Eugene Garfield, *Is Citation Analysis a Legitimate Evaluation Tool?*, 1 SCIENTOMETRICS 359, 361 (1979); Richard A. Posner, *An Economic Analysis of the Use of Citations in the Law*, 2 AM. L. & ECON. REV. 381, 387 (2000) [hereinafter Posner, *Economic Analysis*].

94. Garfield, *supra* note 93, at 361–62; Posner, *Economic Analysis*, *supra* note 93, at 387.

95. Leonard, *supra* note 71, at 190.

of excessive self-citation must be dealt with in any attempt to rank the impact of articles or authors.⁹⁶ On the one hand, professional discourse is based not only on exchange of ideas, but also on personal development of ideas, which is reflected in self-citation. On the other hand, a consistent ranking of authors or articles by the frequency of their citation may encourage excessive self-citation.⁹⁷ Still, we are here dealing with the ranking of law reviews, not articles or authors. In that case, the likelihood of a deliberate attempt to distort the ranking by excessive self-citation is negligible unless (1) the author identifies with a specific journal,⁹⁸ and (2) most of the author's articles have been published in that journal. If the first precondition is not met, the author has no incentive to manipulate the ranking; if the second is not met, then excessive self-citation (as opposed to *selective citation*, to be discussed below) will not substantially strengthen a specific journal, since the excessive citations are distributed just like the articles to which they refer. Even when these two preconditions are met, excessive self-citation will rarely ensue because unjustified reference may harm the author's academic prestige.⁹⁹ Moreover, it is quite probable that superfluous citations will be omitted by editors during the publication process.

¶ 89 To conclude, excessive self-citations would probably constitute a relatively small fraction of the total number of citations,¹⁰⁰ and would be distributed among numerous journals. Consequently, they would not significantly affect the ranking. Nonetheless, the possibility of excessive self-citation must be borne in mind, and if a suspicious citation pattern is detected in the writings of a certain author, an appropriate caveat must be added to the results.

¶ 90 Third, it may be argued that authors might over-cite the works of their closest colleagues, irrespective of their quality (*collegial citation*).¹⁰¹ However, it seems unlikely that serious scholars will regularly cite articles that do not lend the best support to their arguments merely because of their personal relations with other authors. Such a practice would pose a significant risk to one's academic repute. Moreover, as mentioned above, superfluous citations would probably be deleted during the editing process. Finally, most scholars publish in various journals, so collegial citations will not normally strengthen a specific journal. In sum, relatively few quality-insensitive collegial citations would exist, and they would be distributed among numerous journals.

¶ 91 Fourth, a consistent ranking by citation frequency may induce an author who identifies with a certain journal to cite more frequently articles that were published in that journal, regardless of the author, and to cite fewer articles published in competing journals (*selective citation*). Selective-citation patterns, however, are easily detected. If a

96. That is, unless one attempts to rank authors by the frequency of self-citation.

97. Posner, *Economic Analysis*, *supra* note 93, at 384.

98. For example, a scholar may identify with his or her school's home journals, the journal that he or she once edited, or the journal in which he or she has repeatedly published.

99. *Cf.* Garfield, *supra* note 93, at 362 ("[I]t is quite difficult to use self-citation to inflate a citation count without being rather obvious about it.")

100. Leonard, *supra* note 71, at 191, found that self-citations constituted only 5.6% of all citations, and it seems quite clear that not all of them were "excessive."

101. Korobkin, *supra* note 12, at 866; Leonard, *supra* note 71, at 190.

certain author is linked to a particular journal, and the ratio between the citations of that journal and the total number of citations in that author's writings is considerably higher than the average ratio, one may suspect that an attempt to distort the ranking has been made. It seems, therefore, that selective-citation would not be common. In most cases, the benefit that a scholar might obtain from selective-citation is small, indirect, and largely speculative. At the same time, unjustified citation can impair the quality of an author's work and thereby endanger his or her reputation. Its detection might even portray the author as a charlatan.

¶92 Another possible criticism of citation-based rankings is that even if the typical citation reflects genuine impact (and is not methodologically problematic), any given citation may reflect a different level of impact. For example, a certain article may be analyzed and therefore cited in a scholarly critique; it may be cited when its main thesis is being implemented as-is, or when that thesis is being used as a stepping stone for the development of a new thesis; it may be cited when one of its arguments is being applied or developed; it may be cited as a source of information; or it may be cited merely because it is mentioned in another source that is referenced. One may argue that citation frequency cannot signify relative impact because we do not know the exact distribution of citations by the level of impact that they reflect. However, this is not crucial if the distribution of citations is similar for all journals, and there is no convincing reason to assume otherwise.

2. Impact and Academic Quality: Essential Adjustments

a. Outline

¶93 As mentioned above, the frequency at which articles from each journal appear in subsequent articles and court decisions has recurrently been used to rank law reviews. This method provides an objective, quantitative measure of the relative impact of various law reviews on academic and practical legal discourse, or at least on written legal discourse. As long as genuine impact on discourse is considered a relevant indicator of quality, citation frequency constitutes a legitimate ranking method.¹⁰² In the following subsections, some powerful criticisms are discussed that focus on the possible lack of correlation between citation-frequency and quality. These concerns are systematically identified, and necessary adjustments are proposed.

b. Atypical Articles

¶94 One possible criticism of citation-based rankings is that they are overly sensitive to the presence of one or two remarkable articles. Presumably, an extraordinary article

102. Alexander & Mabry, *supra* note 83, at 700 (“[T]he correlation between journal quality and the number of citations exceeds the correlation between journal quality and all other possible proxies.”); Korobkin, *supra* note 12, at 865 (“[C]itation frequency . . . provides an objective measure of quality.”); Posner, *Economic Analysis*, *supra* note 93, at 394 (“Citation analysis can . . . be used to evaluate the scholarly impact (presumably correlated with quality) of scholarly journals.”). Indeed, a correlation has been found between high citation rates and peer judgments of scientific excellence and the importance of contributions. See Garfield, *supra* note 93, at 377.

would be cited very frequently. Consequently, a mediocre journal that had been able to publish one extraordinary article would get numerous citations. Its ranking would be relatively high, despite the fact that it usually published inferior papers, and that would be unwarranted.¹⁰³ If we accepted this line of argument we could simply count out citations of unusual articles (for example, those whose citation rate is more than two standard deviations away from the mean).¹⁰⁴

¶95 This criticism seems unconvincing for two reasons. First, if a certain journal publishes an outstanding article, there is no reason to deprive it of the benefit of doing so. Publishing an outstanding article improves the quality of the journal as a whole, and should be reflected in the ultimate ranking.

¶96 Second, a single extraordinary article cannot in itself sustain a high ranking. Suppose, for example, that the *Northern Law Review* published one remarkable article that was cited two-hundred times, alongside fourteen mediocre articles that were not cited at all, and that each of its competitors published fifteen good articles that were each cited twenty times on average. In this scenario, the *Northern Law Review* would rank lowest.

c. Journal Self-Citation

¶97 One of the more acute problems that citation-based ranking may produce is that of excessive journal self-citation (as opposed to author self-citation, discussed above). If law reviews are continuously ranked by citation frequency, the editors of each journal might be induced to encourage or even oblige authors to cite articles that were published in the same journal regardless of their quality. Presumably, reasonable editors would not risk their reputation by asking authors to cite irrelevant or low-quality material, but they may be tempted to ask for citation of articles that the author did not originally intend to cite, thereby weakening the linkage between citation frequency and quality. The simplest solution to this problem would be to exclude self-citations from the citation count.¹⁰⁵ While this solution appears to raise a few quandaries, none of them is critical.

¶98 First, specialty journals typically have a higher percentage of self-citations than general-interest law reviews in comprehensive citation-frequency studies.¹⁰⁶ One possible explanation is that a specialized journal usually provides updates on developments in a relatively narrow field. Since any update refers to the preceding state of the law, and discussions of previous law were probably published in the same journal, self-citation would be frequent.¹⁰⁷ Another possible explanation is that journals that specialize in a certain field encompass a significant part of the academic discourse in that field (compared to general-interest law reviews), so most of the relevant references can be

103. See Jarvis & Coleman, *supra* note 14, at 15.

104. For the purposes of symmetry, this rule would have to be applied to extraordinarily weak articles as well. If article citation rates are normally distributed, two standard deviations from the mean account for more than 95% of all articles.

105. See, e.g., Executive Board, *supra* note 85, at 203; Gumm, *supra* note 85, at 516.

106. Maru, *supra* note 75, at 246 (finding the ratio of self-citation to be 7.3% in general-interest law reviews, and 15.6% in specialized journals).

107. *Id.* at 246.

found in them anyway.¹⁰⁸ It could be argued that, given the high percentage of self-citation in specialized journals, exclusion of self-citations would put those journals at a distinct disadvantage.¹⁰⁹ It seems, however, that this problem is more apparent than real. As will be suggested below, there is a strong case for separating general-interest law reviews from specialized journals for ranking purposes, and if this is done, exclusion of self-citations will do no injustice to the latter.

¶ 99 Second, to the extent that editors are not biased in favor of their own journals, exclusion of self-citations may actually distort the ranking. We may assume that in the absence of editorial bias, the distribution of citations in a specific journal would be fairly similar to the distribution of all citations in the surveyed periodicals. Consequently, if we choose to exclude self-citations, more influential journals with relatively larger numbers of references might unjustifiably be ranked lower than less influential journals containing smaller numbers of references. For example, suppose that 16% of all citations refer to the *Northern Law Review*, and 15% refer to the *Southern Law Review*, and that there are no superfluous self-citations. The *Northern Law Review* is obviously more influential. Suppose, however, that the total number of citations in all surveyed periodicals is 10,000, of which 1,300 appear in the *Northern Law Review* and 700 in the *Southern Law Review*. In such a case the former would be cited $10,000 \times 16\% = 1,600$ times, of which $1,300 \times 16\% = 208$ would be self-citations, and the latter would be cited $10,000 \times 15\% = 1,500$ times, of which $700 \times 15\% = 105$ would be self-citations. Exclusion of self-citations would leave the *Northern Law Review* with fewer citations ($1,600 - 208 = 1,392$) than the *Southern Law Review* ($1,500 - 105 = 1,395$), although the former is more influential. It is hard to determine whether such distortions would be frequent or significant. At the same time, it is clear that counting self-citations might induce manipulation.

¶ 100 A possible solution would be to introduce two rankings, one based on *overall* citation and the other on *net* citation (excluding self-citations). A methodologically superior alternative would be to exclude actual self-citations and add the “expected number of self-citations” instead. The expected number of self-citations in a certain journal under the assumption of no editorial bias would be equal to $N \times C1/C2$ where N is the net number of citations in the surveyed issues of *that* journal (exclusive of self-citations), C1 is the ratio of its citation in *all other* journals, and C2 is the difference between 100% and C1. In the example discussed above, wherein no attempt to manipulate the ranking was made, this formula would restore the original frequencies of citations: $[1,300 - 208] \times 16\% / 84\% = 208$ and $[700 - 105] \times 15\% / 85\% = 105$.

¶ 101 One aspect of the self-citation problem warrants further discussion: apparently, journals that annually dedicate one issue or more to symposia will have an advantage over journals that publish only unsolicited articles; and journals that publish in an all-symposium format will have an advantage over all others.¹¹⁰ That is so because symposia

108. *Id.* (“[A] specialty journal functions as a ‘closed system’ in the sense that those who write for it are the ones for whom it is written, and their professional writing and reading are confined to that periodical”).

109. Cullen & Kalberg, *supra* note 85, at 1447; Lindgren & Seltzer, *supra* note 85, at 792.

110. See, e.g., Executive Board, *supra* note 85, at 203.

issues may include a substantial amount of cross-citations.¹¹¹ Suppose, for example, that a certain journal organized a symposium with six speakers. The symposium issue would include six papers. Each author would probably feel obliged to refer to all the others. This would generate at least thirty self-citations. Should they be excluded?

¶ 102 On the one hand, these citations do not truly represent the journal's impact on the academic discourse. They simply mirror the exchange of ideas that took place at the conference. In other words, the impact that these self-citations signify is attributable to the conference, not to the ensuing publication. The impact of the symposium issue may be examined only in subsequent publications. More important, non-exclusion of symposium cross-citations may encourage journals to organize as many conferences as possible without a meticulous paper-selection process. The incentive would be fairly strong given the expected benefit. The value of symposium issues in a citation-frequency ranking may be demonstrated by the chronicles of the *Chicago-Kent Law Review*. In 1987 this journal transitioned from a traditional law review format to an "all-symposium" format.¹¹² In a citation-frequency study that examined the impact of the 1980–84 issues (pre-transition era),¹¹³ it was not ranked among the top fifty journals.¹¹⁴ In a subsequent study that examined the impact of the 1987–90 issues (post-transition era), and in which self-citations were *not* excluded,¹¹⁵ it was ranked twentieth.¹¹⁶ This dramatic rise can be explained, at least in part, by the inclusion of symposium cross-citations. It shows that if journals are ranked by citation frequency without excluding self-citations, editors can greatly benefit from publishing as many symposium issues as possible.

¶ 103 On the other hand, it is hard to justify a complete discounting of cross-citation in symposium issues. That is because publishing conference proceedings has some additional value: it forces the participants to rethink their arguments in light of the other papers. Cross-citation thus is not only a matter of courtesy. It also represents the exchange of ideas and the academic dialogue that began at the conference and continued from its conclusion to the submission of the final drafts for publication. Moreover, whenever a journal organizes a symposium, it advances the academic discourse. It may be argued that cross-citations in symposium issues reflect a journal's contribution to the unwritten academic discourse.

¶ 104 To conclude, it is unclear whether or not cross-citations in symposium issues ought to be excluded. In any event, this dilemma arises only where there is an overlap between the publication period of the issues whose citations are counted, and the publication period of the issues in which citations are sought. If there is no overlap, then symposium cross-citations will not be counted anyway, even if self-citations are generally included.

111. *Id.*

112. Cullen & Kalberg, *supra* note 85, at 1445; Executive Board, *supra* note 85, at 195.

113. Gumm, *supra* note 85, at 515. Self-citations were excluded in order to eliminate "the bias created by the numerous citations found in symposium issues." *Id.* at 516.

114. *Id.* at 518.

115. Cullen & Kalberg, *supra* note 85, at 1447; Lindgren & Seltzer, *supra* note 85, at 792.

116. Cullen & Kalberg, *supra* note 85, at 1452; Lindgren & Seltzer, *supra* note 85, at 787.

d. The Time Factor

¶ 105 The basic citation-frequency ranking method ignores at least two aspects of the time factor. First, it is inherently biased in favor of older journals. An older periodical has greater amounts of citable material, and therefore a higher likelihood of being cited. The total number of citations of a relatively new periodical might be lower than that of a relatively old one, regardless of quality.¹¹⁷ The fact that older articles are hardly ever cited mitigates, but does not eliminate, this bias.¹¹⁸ Second, the basic citation-frequency ranking method is insensitive to quality fluctuations. Even if all journals were of the same age, a journal that was much better than the others during the early years may subsequently rest on its laurels. For example, suppose that the first ten volumes of the *Northern Law Review* were cited one-hundred times, and that the first ten volumes of the *Southern Law Review* were cited only twenty times. Suppose further that the next ten volumes of the *Northern Law Review* were cited twenty times, while the next ten volumes of the *Southern Law Review* were cited eighty times. Although the *Southern Law Review* surpassed its competitor, it would still rank lower.

¶ 106 The solution to both problems seems rather simple. The ranking must be based on citation frequency of issues published in recent years only, and not since the establishment of each journal.¹¹⁹ This gives most journals a similar starting point, and prevents perpetuation of previous success or failure. One may argue that older periodicals might still have a better chance of being cited, as they had more years to establish their reputation and thereby attract citation. But this argument is unpersuasive. A bad journal will not have a good reputation even if it was established long ago, and an excellent journal will be highly regarded even if it is relatively new. This intuition has strong empirical support.¹²⁰

¶ 107 Next, one must determine the publishing time span whose impact should be examined. Conflicting concerns arise in this context. On the one hand, the shorter the time span, the fewer the data collected. Insufficient data would give rise to inconclusive and sometimes even meaningless results. Moreover, the shorter the time span, the higher the risk that the ranking of each journal will be skewed by an atypical volume, issue, or article. Put differently, ranking by citation frequency of articles published during a short time period is too sensitive to the fortuitous success or failure of specific volumes. On the other hand, as the examined period gets longer, the ranking method becomes less sensitive to genuine turning points. In addition, the longer the period whose impact is examined, the larger the number of journals that will have begun their initial publication within that period. These newer journals are put at a disadvantage.

117. See Maru, *supra* note 75, at 240 n.25; Ramsay & Stapledon, *supra* note 10, at 683–84.

118. See Leonard, *supra* note 71, at 204–06 (explaining that the decline of citation with age follows a negative exponential curve); Maru, *supra* note 75, at 241 n.25 (observing that about 75% of all citations are to materials not over 10 years old); Sirico, *supra* note 88, at 1015.

119. See, e.g., Executive Board, *supra* note 85, at 202 (counting citations of “three volume years”); Ramsay & Stapledon, *supra* note 10, at 684–85 (counting citations of articles published in four consecutive years).

120. For example, Ramsay & Stapledon, *supra* note 10, at 688, who counted citations of Australian legal periodicals in articles published during 1994 and 1995 observed that two of the most influential journals commenced publication in 1990 and 1991.

¶ 108 Therefore, the time span whose impact is examined should not be shorter than four years, and not longer than ten years.¹²¹ True, a few newly-published journals might still be ranked lower than they deserve, but this injustice can be partly remedied. It is possible to approximate the frequency at which journals founded within the examined period would have been cited if they had been established before the beginning of that period. This would be done under the assumption that the distribution of their citations by year of publication would have been similar to that of other journals of the same type.¹²² Suppose, for example, that we examine the impact of issues published between 2000 and 2003. Suppose further that the *Northern Law Review* started publishing in 2003, and was cited 100 times. Finally, suppose that the distribution of citations of other law reviews was as follows: 20% of all citations referred to articles published in 2000, 30% to articles published in 2001, 35% to articles published in 2002, and 15% to articles published in 2003. The approximate citation frequency of the *Northern Law Review* would have been $100/15\% \approx 667$ if it had existed in 2000. The approximation may be used instead of the actual number of citations for the purposes of the ranking, with an appropriate caution about its speculative nature.

e. Subject Matter Distribution

¶ 109 It may be contended that the basic citation-frequency ranking method is biased in favor of journals that publish many articles on popular topics (such as the Equal Protection Clause of the Constitution, and other constitutional issues), and against journals that publish many articles on esoteric subjects (such as Roman law).¹²³ Excellent articles on unpopular topics may rarely be cited, while run of the mill articles on popular subjects may frequently be cited. Since citation frequency is not necessarily quality-sensitive, using it to rank legal periodicals may yield meaningless results. Moreover, the continuous use of such a method may induce editors to publish (and authors to submit) mediocre articles on popular subjects rather than creative, innovative, profound, and well-written manuscripts on less popular subjects.¹²⁴

¶ 110 There are a few possible answers to this argument. First, two periodicals that publish equally creative, innovative, profound, and well-written articles on different topics are not equal. The one that publishes more articles on popular subjects makes a stronger impact on the legal discourse. This difference is clearly meaningful and worth noting, even if it does not signify differences in creativity, innovation, profundity, or style. In the end, impact is one of the factors that determine journals' "quality" in the broad sense.

¶ 111 Second, it seems that if the publishing time span whose impact is being examined is long enough, subject matter distribution in most general-interest law reviews will be

121. Cf. Shapiro, *supra* note 85, at 391 (explaining that a ten year span is long enough to ensure that a "single supercited article or a blockbuster symposium" will not distort the rankings).

122. See Perry, *supra* note 11, at 436–37, 440–41.

123. See Korobkin, *supra* note 12, at 869.

124. *Id.*

relatively similar.¹²⁵ If my intuition is correct, the ranking of these journals will not be seriously affected by differences in subject matter distribution, and will reflect relative academic quality. Theoretically, editorial boards may change their publication policies to improve their journals' rankings in future studies. However, for reasons discussed below, law reviews would probably not alter their subject matter preferences only to distort the ranking.

¶ 112 Clearly, subject matter distribution in specialized journals is different from that in general-interest law reviews. A specialty journal's position in a general citation-based ranking reflects its relative (and limited) impact on the legal discourse, but is not necessarily an indication of either its importance in the eyes of interested specialists, nor its academic quality. This is not the sole difference between specialized and general-interest journals. As mentioned above, the former usually have a higher percentage of self-citations than the latter,¹²⁶ and specialized journals are usually published less frequently. Accordingly, many good reasons exist to separate them from general-interest law reviews for the purposes of ranking.¹²⁷ Moreover, since subject matter distribution differs in journals that specialize in different fields, it would be sensible to produce a separate ranking for each group of specialized journals.¹²⁸ This separation can restore the rough correlation between relative impact and relative academic quality.

¶ 113 Third, although an excellent article on a popular topic has a better chance of being cited than an excellent article on an unpopular topic, this does not necessarily encourage editors to publish "mediocre articles on popular subjects." Editors know which topics are currently popular, but they cannot always predict which topics will be popular during the publishing period of future issues that will be scanned for citations. A publication policy that emphasizes *currently* popular topics is therefore speculative and imprudent. As discussed earlier in this Article, if there is no overlap between the publication period of the issues whose citations are counted and the publication period of the issues in which citations are sought, the symposium cross-citation dilemma will not arise. Creating an interval between these two periods might also reduce the probability of popularity-oriented quality-insensitive publication decisions. Furthermore, a reasonable editor cannot expect a mediocre article to be cited, even if it concerns a popular topic, given that better articles on the same topic will probably be available.

¶ 114 Finally, dramatic changes in subject matter distribution are readily detectable. As long as the administrators of the continuous ranking project closely monitor changes in subject matter distribution, editors will not be tempted to distort the ranking by changing their publication policies. Thus, the fear of mediocrity seems exaggerated.

125. Cf. Noteboom & Walker, *supra* note 2, at 435–36 (observing the "amazing similarity" among the various classes of law reviews in the distribution of subject matter).

126. *Supra* subsection IV.E.2.c.

127. Cf. George & Guthrie, *Empirical Evaluation*, *supra* note 40 (ranking all specialized law reviews).

128. Garfield, *supra* note 93, at 367 (evaluation studies using citation data must be very sensitive to all divisions between areas of research). See, e.g., Crespi, *Environmental Law Journals*, *supra* note 14 (ranking journals that specialize in specific fields); Crespi, *International Law Journals*, *supra* note 33 (same).

f. Publication Volume

¶ 115 One of the most critical challenges to the assumption of impact-quality correlation is the difference in publication volume. Citation-frequency rating is biased in favor of journals with high paginations. Other things being equal, a journal with more citable material may be expected to be cited more often than one with less citable material.¹²⁹ However, it is possible to adjust the ranking for volume disparity. For example, we may replace the basic citation-frequency ranking with a standardized citations-per-article ranking (also known as the “impact factor”).¹³⁰ However, this method does not take into account possible differences in average article length. Journals that publish longer items might still have a head start. For this reason a citations-per-page ranking is preferable.¹³¹ Yet even this is not the ideal solution given that page size and density vary among different journals. The most accurate standardized measure of impact is that of citations per x words.¹³²

¶ 116 The paramount question in this Article is this: which of the two measures—journal citation frequency or citations-per-word—better captures the relative value of each journal? On the one hand, total citations are the best measure of the overall influence of each journal.¹³³ Two journals that publish different quantities of equally creative, innovative, profound, and well-written scholarly text are unequal. The journal that publishes more text is more valuable in the sense that it contributes more to the advancement of legal discourse. Its impact on the world is more significant, and this makes it somewhat better. Impact is undoubtedly a product of both academic quality and publication quantity. So as long as impact *per se* is a valid measure of quality in its broad sense, citation frequency is a legitimate ranking criterion.

¶ 117 On the other hand, a continuous ranking according to citation frequency may encourage editors to publish more articles (or more extensive articles) of lesser value, and this in turn, may reduce the average academic quality of each item. True, citation frequency is partly responsive to this possibility. Presumably, a legal periodical that publishes numerous articles of low quality will be infrequently cited, if cited at all, whereas a legal periodical that publishes a few excellent articles will be cited quite often. Hence, an uncontrolled increase of publication volume cannot be expected to result in a significant increase in citation frequency. Still, enlarging the publication volume increases a journal’s chances of being cited as long as the additional text is not wholly inferior. Mediocre journals with high paginations may rank higher than excellent journals with low paginations. Editors will be led to publish more, and the academic quality of law reviews might eventually drop.

129. Maru, *supra* note 75, at 240–41.

130. See, e.g., Shapiro, *supra* note 85, at 392. Cf. Buffardi & Nichols, *supra* note 45 (using citations per article to evaluate psychology journals); Rotton & Levitt, *supra* note 45 (same); White & White, *supra* note 84 (same). See also DuBois & Reeb, *supra* note 45, at 693 (using citations per article to evaluate international business journals). For a general discussion of the “impact factor,” see GARFIELD, *supra* note 80, at 149; Garfield, *supra* note 93, at 480–84; Posner, *Economic Analysis*, *supra* note 93, at 394.

131. See, e.g., Leonard, *supra* note 71, at 193–94; Mann, *supra* note 85, at 406–10; Maru, *supra* note 75, at 240–41; Ramsay & Stapledon, *supra* note 10, at 685.

132. See, e.g., Alexander & Mabry, *supra* note 83, at 698, 701–02.

133. Shapiro, *supra* note 85, at 394.

¶ 118 Using standardized citation-rate criteria (such as citations per x words) has two important advantages. First, it better reflects relative academic quality. Subject to the previously proposed adjustments, journals of equal quality can be expected to have a similar number of citations per x words. A journal that publishes fewer articles of higher quality can be expected to attract a higher number of citations per x words and vice versa.¹³⁴ Second, the proposed adjustment eliminates the incentive to publish more articles of lesser value, and thereby averts a decline in the quality of legal periodicals.

¶ 119 Nonetheless, a continuous ranking by standardized citation-rates might give editors a strong incentive in the opposite direction: they may be encouraged to be more selective and to publish less in order to ensure that their standardized citation rate is maximal. In the long run this might constrain and inhibit legal discourse. Therefore, ranking law reviews by a standardized citation rate should always be accompanied by the basic citation frequency ranking.

3. A Methodological Caveat

¶ 120 Interestingly, the rankings of general-interest law reviews according to citation frequency or standardized citation rate are roughly correlative to the reputation of the law schools with which they are affiliated.¹³⁵ Due to budgetary constraints I will substantiate this argument using existing rankings, keeping in mind that none of them is methodologically ideal. Law school rankings were taken from the 2006 edition of the *U.S. News & World Report* ranking, which is based on data collected in 2004.¹³⁶ Law review rankings are based on the 2004 statistics in John Doyle's online database.¹³⁷

¶ 121 Figure 1 demonstrates the rough correlation between the ranking of law schools (within the top 100) and the ranking of their general-interest law reviews based on citation frequency.¹³⁸ The linear correlation coefficient is 0.8035. The average difference

134. *Id.* at 392–94.

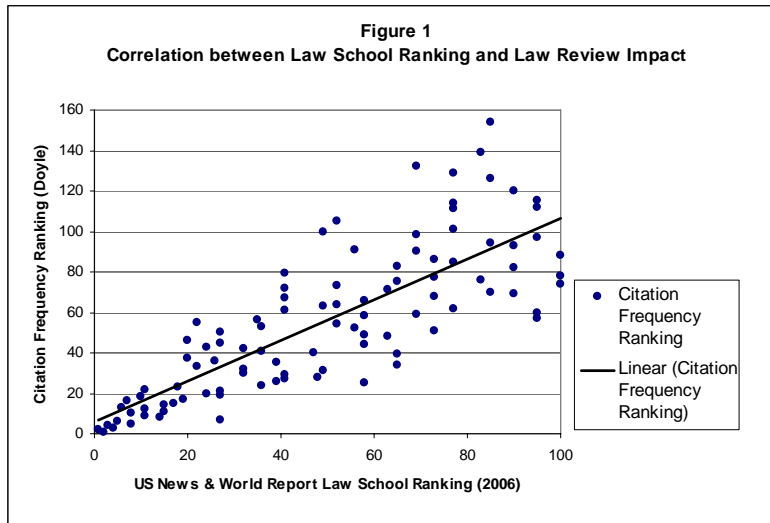
135. I assume that correlation between law school ranking and law reviews ranking would exist even if other journal ranking methods (such as rejection rate or national usage) were used. I cannot, however, obtain empirical data to substantiate this argument. In any event, such proof is not crucial given that all of these methods are indefensible for other reasons.

136. For a critical appraisal of the *U.S. News & World Report* ranking method, see, for example, Michael Ariens, *Law School Branding and the Future of Legal Education*, 34 ST. MARY'S L.J. 301, 318–23 (2003); Joanna L. Grossman, *Feminist Law Journals and the Rankings Conundrum*, 12 COLUM. J. GENDER & L. 522, 523–25 (2003); Nancy B. Rapoport, *Ratings, Not Rankings: Why U.S. News & World Report Shouldn't Want to Be Compared to Time and Newsweek – or the New Yorker*, 60 OHIO ST. L.J. 1097, 1098 (1999) (“The current popularity of the U.S. News rankings causes law schools and potential law school applicants to overreact to them.”); Deborah L. Rhode, *Legal Education: Professional Interests and Public Values*, 34 IND. L. REV. 23, 25–26 (2000); David A. Thomas, *The Law School Rankings are Harmful Deceptions: A Response to Those Who Praise the Rankings and Suggestions for a Better Approach to Evaluating Law Schools*, 40 HOUS. L. REV. 419 (2003); David C. Yamada, *Same Old, Same Old: Law School Rankings and the Affirmation of Hierarchy*, 31 SUFFOLK U. L. REV. 249, 251–56 (1997) (discussing several flaws in the *U.S. News & World Report* methodology). See also *supra* note 27.

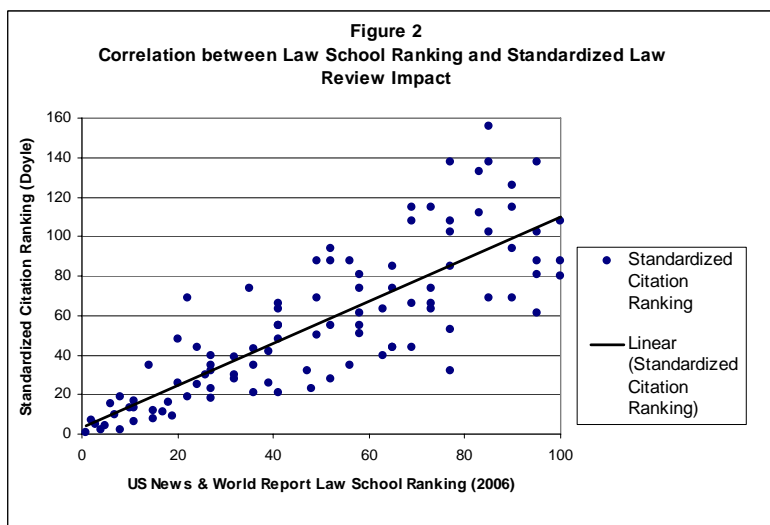
137. *Supra* note 7.

138. Although the William S. Boyd School of Law at the University of Nevada was ranked 90, I excluded the *Nevada Law Journal* since it was established only in the middle of the publication period of the issues whose citations were counted.

(in absolute terms) between the ranking of a top-100 law school and the ranking of its law review is 17.33, with a standard deviation of 16.27. More important, in the case of a top-20 law school, the average difference drops to 5.29, and in the case of a top-10 law school it falls even lower to 3.4.¹³⁹



¶ 122 Figure 2 demonstrates the rough correlation between the ranking of a certain law school and the ranking of its law review based on standardized citation rate (citations per article). The linear correlation coefficient is 0.8173.¹⁴⁰ The average difference in absolute terms between the ranking of a top-100 law school and the ranking of its law review is 17.50, with a standard deviation of 16.70. In the case of a top-20 law school the average difference is 6.57, and in the case of a top-10 law school it drops to 4.2.¹⁴¹



139. The standard deviations are 6.33 and 3.27 respectively.

140. I believe that using a citations per x words ranking would have produced a higher correlation coefficient.

141. The standard deviations are 6.73 and 3.55 respectively.

¶ 123 In addition to rough correlation between law school and law review rankings it appears that a very small number of law reviews—which are affiliated with very prestigious law schools—dominate legal scholarship. These journals account for an extremely large share of total citations. For example, a 1976 study of 285 legal periodicals found that one title (the *Harvard Law Review*) was responsible for 8.7% of all citations, and three titles (the *Harvard Law Review*, the *Yale Law Journal*, and the *Columbia Law Review*) were responsible for 18.27% of all citations.¹⁴² Similar results were obtained in subsequent citation studies.¹⁴³

¶ 124 How can these phenomena be explained? One possible hypothesis is that a more prestigious law school can be expected to publish a better general-interest law review. This is conceivable for at least three reasons. First, the school's reputation might have a considerable effect on the number of submissions to its legal journals, giving the editors a larger assortment of articles to choose from. Second, a higher law school reputation increases the probability that an author to whom a publication offer has been extended will actually accept it; thus the risk of losing high-quality articles is lower. Third, a more reputable school can be expected to enroll students whose LSAT scores and UGPAs are higher. If LSAT scores and UGPAs actually foretell legal aptitudes (and this, as we have already seen, is open to question),¹⁴⁴ we can expect a more skillful screening process from student-editors in more reputable schools.¹⁴⁵

¶ 125 But there is another possible explanation for the above-mentioned correlation. It may well be that citation practices (and hence citation-based rankings) are inherently biased in favor of home journals of highly reputable law schools. Put differently, all other things being equal, journals published by more reputable law schools might be cited more often than journals published by less reputable law schools. A reasonable author may be tempted to consult and cite an article published in a general-interest law review of a top law school even if he or she can find better papers on the same topic in other journals.

142. Maru, *supra* note 75, at 240.

143. For example, Crespi observed that articles published in the general-interest law reviews of the top three law schools (Yale, Stanford, and Harvard) were cited much more frequently both by courts and by scholars than were other articles. *See* Crespi, *Empirical Analysis*, *supra* note 89, at 901–02, 909–10. Note that Crespi surveyed only fifteen law reviews, representative of seven “tiers” of law schools. Leonard observed that the five most cited journals out of 314—namely the *Harvard Law Review*, the *Yale Law Journal*, the *Columbia Law Review*, the *Stanford Law Review*, and the *University of Pennsylvania Law Review*—accounted for 26% of all citations; the *Harvard Law Review* alone accounted for 9.3%. Leonard, *supra* note 71, at 191. Sirico & Margulies noted that of the 131 journals cited by the Supreme Court during the early 1970s, the *Harvard Law Review* was responsible for 17.55% of all citations, the *Yale Law Journal* for 7.06%, and the *Columbia Law Review* for 5.50%. Sirico & Margulies, *supra* note 88, at 138, 142. Of the 129 journals cited during the early 1980s, the *Harvard Law Review* was responsible for 14.99% of all citations, the *Columbia Law Review* for 6.78%, and the *Yale Law Journal* for 6.65%. *Id.* Of the 129 journals cited during the early 1990s, the *Harvard Law Review* was responsible for 11.79% of all citations, the *Columbia Law Review* for 7.80%, and the *Yale Law Journal* for 7.28%. Sirico, *supra* note 88, at 1016, 1019. Of the 97 journals cited during the late 1990s, the *Harvard Law Review* was responsible for 11.11% of all citations, the *Yale Law Journal* for 8.51%, and the *Columbia Law Review* for 6.67%. *Id.*

144. For further discussion of the correlation between entry credentials and academic performance, see *supra* notes 56–60 and accompanying text.

145. *Cf.* Noteboom & Walker, *supra* note 2, at 432 (hypothesizing that schools with high median LSAT scores would produce high quality law reviews due to the caliber of students serving on the staffs).

This may happen for various reasons.

¶ 126 First, given the plethora of legal periodicals, authors of legal texts cannot read all relevant material. Many of them may base their reading strategies on law schools' reputation rather than journals' actual achievements, assuming that journals of more prestigious schools will always publish better papers. This turns the dubious hypothesis that more prestigious schools produce better periodicals into a conclusive presupposition.¹⁴⁶

¶ 127 Second, by citing articles published in journals of highly reputable schools, authors may attempt to "exploit" that reputation to make their manuscripts seem more scholarly and impressive. If, for example, I can find support for my argument in the *Harvard Law Review*, my argument might appear more persuasive.

¶ 128 Third, although this argument is somewhat subversive, it seems that general-interest law reviews of very prestigious law schools tend to favor prominent authors.¹⁴⁷ This may sometimes be justified by the quality of these authors' work, but it is quite possible that this is not always the case.¹⁴⁸ Assuming that a typical author would rather cite prominent authors to substantiate his or her own argument,¹⁴⁹ journals that publish articles written by more prominent authors can be expected to attract a higher number of citations.

¶ 129 To conclude, law school and law review rankings are roughly correlative. Moreover, a few general-interest law reviews affiliated with the most prestigious schools are responsible for an extremely large portion of all citations. These facts raise some doubts about the correlation between citation rates and quality.

146. Cf. Richard A. Bales, *Electronically Submitting Manuscripts to Law Reviews*, 30 STETSON L. REV. 577, 580 n.7 (2000) (suggesting that many authors use the *U.S. News & World Report* law school ranking as a proxy for the quality of the law reviews at the listed schools).

147. Jarvis & Coleman, *supra* note 14, at 19, show that general-interest law reviews of very prestigious schools publish articles written by very prominent authors. Still, they do not try to explain this correlation.

148. Cf. Bales, *supra* note 146, at 582 ("[S]ubmissions are being evaluated less on their substantive merit and more on criteria that are used as proxies for substantive merit, such as the prestige of the school at which the author teaches or the author's prior publication record." (citation omitted)); Lindgren, *supra* note 61, at 530–31 (offering several authentic examples of unjustified preference for more prominent authors); Posner, *The Future*, *supra* note 19, at 1133–34 ("Few student editors . . . are competent to evaluate non doctrinal scholarship. So they . . . look for signals of quality or other merit. The reputation of the author . . . is one.").

149. Cf. GARFIELD, *supra* note 80, at 148 (noting that the author's reputation may affect the likelihood of citation); Crespi, *Empirical Analysis*, *supra* note 89, at 913–14 (discussing how an article written by a well-known and respected author will be cited more extensively than an article written by an obscure writer with little professional stature); Korobkin, *supra* note 12, at 866, 868 (noting that a well-known author may be cited by a person who hopes to achieve respect by association); Posner, *Economic Analysis*, *supra* note 93, at 385–86, 395–96 (noting that the prestige of the cited author may be one of the reasons for citing; better known authors will be cited more often).

V. COMPLEX EVALUATION METHODS

¶ 130 Law review ranking may be based on complex methods, in which several indicia of quality are taken into account. For example, Brown ranked more than one-hundred law reviews by averaging out various citation studies.¹⁵⁰ Alternatively, it is possible to combine direct quality evaluations with indirect quality evaluations.¹⁵¹ It seems that the only possible justification for using a complex ranking method is that it can produce a more comprehensive, and hence more reliable, ranking than a single criterion. Nonetheless, these methods raise at least two acute problems.

¶ 131 First, a complex ranking method is quality-sensitive, responsive to quality changes, objective, practical, and based on data that is verifiable and not prone to manipulation only if each of its components satisfies those requirements. It appears that most if not all of the known ranking criteria do not actually do that. So any complex method that incorporates some or all of these criteria is unacceptable.

¶ 132 One possible exception is standardized citation rate. But even if we accepted this as a valid proxy for quality, the array of complex ranking methods would be rather limited, and none of them would be truly complex, or truly comprehensive. This is because the only sensible combination would be that of different variants of the *same* criterion—for example, averaging out citations per *x* words in subsequent articles and citations per *x* words in judicial decisions.

¶ 133 Second, advocates of a complex ranking method need to determine how the different factors should be combined to generate the ultimate ranking. The weight that is assigned to each factor is crucial,¹⁵² and since this determination is purely subjective (and most likely controversial), a complex ranking method can never be objective.

VI. CONCLUSION

¶ 134 In this Article, I have endeavored to explain why it is highly important to ascertain the relative value of American law reviews, and, more important, why it is impossible to do so with scientific precision.

¶ 135 Ranking law reviews, if done properly, may yield significant benefits to interested parties and to society. It may facilitate competition among law reviews and thereby improve the quality of legal writing; help scholars in planning their submission strategies and in making their publication decisions; serve as a quality-control mechanism for law reviews, and as a promoter for the best of them; help student-editors bear out the value of their journal membership; serve law schools in establishing their reputation; assist the patrons of legal writing in picking out articles that are worth reading; aid library

150. Brown, *supra* note 25.

151. DuBois & Reeb, *supra* note 45, at 699–701 (ranking international business journals based on a simple average of five measures: raw and adjusted survey ranks, raw and adjusted impact factor, and number of total citations).

152. For a fascinating demonstration of this argument, see Jeffrey E. Stake, *The Law School Ranking Game*, <http://monoborg.law.indiana.edu/lawrank/> (last visited Sept. 2, 2005).

managers in determining acquisition policies; and intrigue the public at large.

¶ 136 To fulfill its goals, a law review ranking method must meet at least six fundamental requirements. It must be based on a quality-sensitive criterion, responsive to quality changes, objective, practical, and based on data that is verifiable and not prone to manipulation. The main part of this Article is dedicated to a systematic and comprehensive analysis of various ranking methods in light of these principles.

¶ 137 Ranking methods that are based on direct evaluation of quality, either by an expert committee or a general survey, seem to share several weaknesses. Initially, they entail subjective judgments, and are thus susceptible to biases and manipulations. Additionally, both seem highly impractical, usually because it is impossible to produce sufficient data for their application.

¶ 138 Ranking methods that use external indicators of quality also raise various problems. The most critical flaw in most of these “indicators” is that, despite their apparent allure, they cannot serve as reliable proxies for quality. In addition, ranking by authors’ national prominence or by editors’ academic aptitude involves a purely subjective rating of authors or editors; ranking by articles’ rejection rates is generally impractical, and based on unverifiable and manipulatable data; and ranking by library or database usage is also impractical and susceptible to manipulation.

¶ 139 Citation analysis seems to be the most promising method of assessing the relative quality of law reviews. The frequency at which citations of articles from a given journal appear in law reviews and court decisions constitutes a rough measure of that journal’s impact on academic and practical discourse respectively, although it cannot capture the relative quality of the journal (unless law reviews do not differ in any respect other than quality). Given that impact *per se* is an important attribute of any journal, citation frequency is a legitimate ranking criterion in itself. Nonetheless, if we are looking for a quality-sensitive method we need to take into account the possibility of excessive self-citation, and the variance in journal age and publication volume. Moreover, in a continuous ranking project we need closely to monitor changes in subject matter distribution. Despite all this, the reliability of citation-based methods may be challenged. It is arguable that citation practices, and hence citation-based rankings, are inherently biased in favor of home journals of highly reputable law schools.

¶ 140 Finally, a complex ranking method would suffer from all the flaws of each of its components, and would entail a subjective determination of the relative weight of each component.

¶ 141 In the end, it seems that no ranking method is wholly consistent with the fundamental requirements set out in Section II.B. An adjusted and standardized citation rate is perhaps the most promising ranking criterion, or at least the best of a bad lot. It is objective, practical, and based on verifiable data. In its best form it is fairly sensitive to quality and responsive to quality changes, and only marginally prone to manipulation. I believe that in the long run, adjusted and standardized citation rate, despite its weaknesses, may be the most sensible means of assessing the relative value of American

law reviews.