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Law Review Article Placement: Benefit or Beauty Prize?

Dennis J. Callahan and Neal Devins

No one, it seems, is happy with the norms governing the submission, selection, and placement of articles in law reviews. Authors decry the abuses perpetrated by incompetent student evaluators and the distasteful prospect of having to “shop” publication offers up the law review hierarchy to achieve the “right” placement.¹ Articles selection committees deplore the countless hours spent winnowing enormous stacks of manuscripts for the tiny percentage they can offer to publish, only to lose most of those pieces to law reviews viewed as more prestigious.²

This citation count study examines one of the assumptions fueling multiple submissions and epidemic article shopping—that placing one’s articles in the most prestigious journals will increase readership and influence. We explore the validity of this assumption in the era before on-line databases were widely used as research tools, and whether the substantive benefit of superior placement has eroded since the advent of electronic research.³ Our data also enabled us to explore empirically the widespread view shared by faculty and law review editors that the length of articles

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1. See, e.g., James Lindgren, *An Author’s Manifesto*, 61 U. Chi. L. Rev. 527 (1994); Richard A. Posner, *The Future of the Student-Edited Law Review*, 47 Stan. L. Rev. 1131, 1131-34 (1995).
2. See, e.g., William C. Whitford, *The Need for an Exclusive Submission Policy for Law Review Articles*, 1994 Wis. L. Rev. 231, 231; Lisa Anderson, *Law Journals Attack “Shopping” of Manuscripts*, N.Y. Times, July 12, 1995, at B4.
3. This study originated with a series of discussions between the co-authors, one a member of the articles selection committee of the William and Mary Law Review and one that journal’s faculty advisor. Having written a 50-page, 250-footnote student note using on-line databases almost exclusively, and noting that his colleagues had similarly relied on searches in Lexis and Westlaw, the student editor was perplexed by the fact that tenured professors routinely shopped publication offers up the law review hierarchy. The faculty advisor speculated that article and note writers might take an article’s placement into account when determining whether to cite that source.

has become excessive, which led many reviews to adopt policies favoring shorter articles.⁴

Our main findings are: (1) meritorious articles will be cited regardless of the prestige of the review in which they appear, and poor articles, even those published in high-tier reviews, will be ignored; and (2) citations to articles in “general” law reviews are down across-the-board, with citations to top journals slipping more than middle- and low-tier reviews, creating more meritocratic citation patterns. We also found that while the raw number of citations to articles in general interest law reviews has remained flat, article lengths have increased substantially across the two periods. In citation count terms, articles have become bloated, not better. Correspondingly, our findings suggest that law reviews that publish a greater number of somewhat shorter articles will be cited more frequently.

In short, while it may make sense for authors to prefer top reviews for status reasons, and to play the placement game to buy time to get into a better review, there is reason to question whether a *marginally* better placement will yield a noticeable increase in citation counts.⁵ Our study strongly supports that the reason that articles in top reviews garner more cites is tied to the quality of the article, *not* the status of the journal. Top reviews usually get the articles they want and, because they do, it is no surprise that these articles are more cite-worthy. The fact that cream rises to the top in this manner suggests another of our conclusions: meritorious articles in lesser reviews will get cited a lot while lesser articles in top reviews will not get that many citations.⁶ In other words, while we do not see this article as one

4. See Joint Statement Regarding Articles Length, available at <<http://www.harvardlawreview.org/manuscript.shtml>> (last visited Sept. 28, 2006). The joint statement was based on a survey of nearly 800 professors, almost 90 percent of whom agreed that articles are too long. To combat this perceived trend, the main law reviews of California, Columbia, Cornell, Duke, Georgetown, Harvard, Michigan, Stanford, Texas, University of Pennsylvania, Virginia, and Yale adopted the statement preferring articles of forty to seventy journal pages.
5. To be sure, authors jockey for placement in higher-ranked reviews for reasons unrelated to the perception that a high placement will increase the readership and influence of a piece. Other common factors in an author's unique mix of motivations include the belief that relative placement marks an article's quality, fortifies one's prestige, and improves prospects for career advancement (not only regarding tenure, but also entrance into the profession, attractiveness as lateral hires, and elevation to named professorships). Furthermore, some authors write on topics that are unlikely to garner a significant number of citations. For these authors, there is little reason to pay attention to whether there is a positive correlation between law review placement and citation counts. For additional discussion, see *infra* note 24 (discussing whether citation counts are a good proxy for article quality).
6. For example, because the marginal costs of submitting to more reviews is very low, most professors (even those who agree with our analysis) will submit a piece to at least fifteen reviews, and many will continue to submit to dozens, or even a hundred. See Eugene Volokh, Academic Legal Writing: Law Review Articles, Student Notes, and Seminar Papers 141 (New York, 2003) (recommending that an author send out his article in two waves: first to the top fifty law reviews, and then to the next fifty two weeks later); Carl Tobias, Manuscript Selection Anti-Manifesto, 80 Cornell L. Rev. 529, 533 (1995) (same).

that will result in significant changes in the current practice, it makes clear that placement in a top review is largely a beauty prize—not something that translates into making the article a significantly more visible one.

Study Methodology

Common sense and numerous citation count rankings show that there is a pecking order of law reviews and that high-tier reviews are cited more often than other reviews. The citation count studies we have seen are all moment-in-time snapshots. We are unaware of any previous studies that have attempted to measure changes in citation patterns over time.

Our hypothesis was that citation patterns have become more democratic since the advent of electronic database research. We posited that the ability to conduct full text searches in the Westlaw and Lexis databases has fostered a meritocracy in which specifically relevant and deserving articles are more likely to be found and cited today. In the “hard copy” research world of a generation ago, placement in an elite journal assured that one’s work would be found by subsequent researchers. Today, authors and judges can easily extend their research to a much larger set of law reviews. If electronic databases have indeed broadened the universe of law reviews available for reference, placing one’s article in an elite law review should be less important with respect to becoming visible. This change should narrow the disparity in the frequency with which articles in elite reviews are cited in subsequent scholarship relative to articles published in “lesser” reviews.⁷

To explore whether prestigious placement still results in increased citations,⁸ we compared citation counts in *Shepard’s Law Review Citations*⁹ between “old”

7. We do not mean to suggest that the rise in electronic research is the only factor that could produce more democratic citation patterns, and we discuss other changes in legal scholarship that could contribute to changes in citation patterns across the time periods we examined. For that discussion see *infra* notes 26-29 and accompanying text.

8. Our purpose is to explore the effect the placement of unsolicited articles has had on the frequency with which articles are subsequently cited. We limited the study to articles placed through the open manuscript submission process. Therefore, we did not count citations to published lectures or panel transcripts, which often promise law review publication as an enticement to the speakers. Likewise, we did not count citations to symposium pieces, dedications, remembrances, or other works which by definition are solicited by the law school or law review itself. Book reviews presented a close call. Some law reviews accept them as they would any other article; some do not. For the sake of consistency, we chose not to count citations to any book reviews. As a final check, we read every “star cite” of the articles we counted; whenever it indicated that the piece circumvented the usual submission and selection process, we eliminated that piece from the study. We did not, however, discount an author’s publication in the law review from their own school. Even though an author may be given preferred treatment by their home law review, we assumed that an articles committee would not extend an offer to a home author unless they thought the article meritorious. For a competing perspective, see James Lindgren and Daniel Seltzer, *The Most Prolific Law Professors and Faculties*, 71 Chi.-Kent L. Rev. 781, 793 tbl. 4 (1996) (discounting the publication of articles in home reviews).

9. Though the *Shepard’s* index has been incorporated into the Lexis database, we found the

(paper-based research era) and “new” (since the advent of on-line database research) samples of articles. In making this comparison, we selected four reviews in each of three tiers: “high,” “middle,” and “low.”¹⁰ We compared the citations per page of old articles in a given tier of reviews to the citations per page of new articles in those same reviews.¹¹ We then compared the results between tiers to determine whether certain tiers had gained or lost ground. For example, if over the two time periods high-tier reviews increased their lead over middle- and low-tier reviews, authors would have good reason to play the placement game more vigorously than ever.

Setting the Old and New Samples

The Lexis and Westlaw databases contain scant coverage of articles from law review volumes published in 1982 and earlier,¹² and we take this to indicate that 1982 marks the beginning of the electronic age in legal research. Accordingly, we set our “old” samples to the three volumes of reviews preceding 1982—those published in the 1978-79, 1979-80, and 1980-81 academic years. This time frame fit well with our source, as *Shepard's* last cumulative volume includes citations to law review articles through 1986. By counting citations (based on 1986 totals) to articles published in the 1978-79, 1979-80, and 1980-81 cycles, articles in our sample had been published between five (1980-81 volumes) and seven (1978-79 volumes) years before. Studies estimating the total number of citations an article will receive over its lifetime suggest that this is a sufficient period to measure an article's likely impact over its lifespan.¹³ Since 1986, *Shepard's* has been updated in three main supplements at roughly five year increments, the last covering the 1995-2001 academic years.¹⁴ This allows for ready comparisons between samples set fifteen years apart. By using *Shepard's* 1995-2001 supplement and again counting citations to articles

printed version to be more reliable and the counts easier to verify.

10. For a discussion of the criteria we employed in selecting law reviews, see *infra* notes 16-19 and accompanying text.
11. We controlled for article length because we consider longer articles that garner no more citations than shorter ones to be worse citation collectors. Longer articles squeeze out other articles which may have garnered citations.
12. See LexisNexis 2004 Directory of Online Services 239-44; Westlaw Database Directory 804-43 (2004 ed., St. Paul, Minn.).
13. See William M. Landes and Richard A. Posner, Heavily Cited Articles in Law, 71 Chi.-Kent L. Rev. 825, 830-31 (1996) (calculating articles' rate of depreciation and using regression analysis to predict “lifetime” citations to articles as little as three years old); Ian Ayres and Frederick E. Vars, Interpreting Legal Citations, 29 J. Legal Stud. 427, 436 (2000) (finding that citations per year peak at 4 years after publication, and that an article receives half of its lifetime citations after 4.6 years).
14. The successive supplements cover the academic years 1986-1990, 1990-1995, and 1995-2001, respectively.

published between five and seven years before, we set our "new" sample to be volumes covering the academic years 1993-94, 1994-95, and 1995-96.¹⁵

Choosing the Law Reviews

Comparing the citation counts within and among tiers of law reviews published fifteen years apart presents an obvious problem. Where particular reviews reside in the citation count hierarchy is not static. We took two steps to lessen the effect of law review movement within the hierarchy. First, we limited our study to the forty-two reviews whose coverage in the Westlaw and Lexis on-line databases dates to at least 1986, the year of the last cumulative *Shepard's* volume. We consider this to mark these reviews as having a threshold level of visibility throughout the periods we studied. This eliminated the possibility that we would include a review that was obscure at the time of our old sample, but that markedly improved its visibility in the new.

Second, we identified the reviews whose citations we would count and set the three tiers according to the citation count study by James Lindgren and Daniel Seltzer, which counted citations through the 1992-93 academic year.¹⁶ The Lindgren-Seltzer study ranks the forty most cited law reviews, thirty-two of which met our first criterion of having on-line coverage dating to at least 1986. All of our tiers are thus gradations within the top third of all general interest law reviews. We do not think that narrowing the universe of reviews in this way compromises our exploration of whether article placement is as important to an article's visibility and influence today as it was in the hard copy research era. For example, we can readily imagine an author shopping a publication offer from the Iowa Law Review (#40) to the Northwestern University Law Review (#21), which publication offer is in turn shopped to the Harvard Law Review (#1). Moreover, there are dramatic differences in citation-count totals between the top ten (more than 50 percent of all cites through 1993), second ten (roughly 15 percent) and all other law reviews (roughly 35 percent).¹⁷ Consequently, even if the advent of electronic

15. A few reviews had citations to their 1993-94 volumes in the 1990-95 supplements. Because the supplements are not cumulative, these citations would be "lost" had we not made an adjustment. There is no perfect remedy for this small timing problem, and for these reviews we decided that the lesser evil was to substitute the 1996-97 volume for the 1993-94 volume, and to likewise shorten the maturation in those reviews by substituting the 1981-82 volume for the 1978-79 volume in the old samples.

16. Lindgren and Seltzer, *The Most Prolific Law Professors*, *supra* note 8, at 786 tbl. 1. The fact that 1993 is near the midpoint of the 1978-2001 range we consider should lessen the effects of great gains and losses in citation counts made by reviews over the period of our study.

17. See *id.* at 782. We did not include reviews outside of the top forty in our main study because we do not think that reviews significantly below the top forty (say, reviews ranked sixty and higher) hold much proxy value in the articles shopping market with reviews in the top forty. Also, few of the non-top forty reviews have on-line coverage dating to 1986, our marker indicating that a review has maintained a threshold level of visibility throughout the period of our study. However, we separately analyzed four non-top forty reviews chosen nonrandomly based on their geographical diversity: Albany, Montana, Pepperdine, and Valparaiso. We briefly discuss the citation patterns to articles in these reviews in note 25.

research has significantly narrowed this gap, it is nonetheless true that there will inevitably be meaningful differences between reviews ranked 1, 20, and 40.

The law reviews of Harvard, Yale, Michigan, and Columbia rank 1 through 4 in the Lindgren-Seltzer study and comprise our high-tier reviews. The reviews of Northwestern, NYU, North Carolina, and Minnesota rank 21 through 24 in the Lindgren-Seltzer study and are our middle tier.¹⁸ Our low-tier reviews are Miami (#36), Georgia (#37), Pittsburgh (#39), and Iowa (#40-tie).¹⁹

Study Results

Cite Count

We counted cites and calculated the page lengths of 915 articles, which broke down as follows: old high-tier (164), new high-tier (223); old middle-tier (153), new middle-tier (151); old low-tier (105), new low-tier (119). Tables 1-3 show within each period and tier the aggregate citation counts, the average citations per page, and the average citations per article.

Table 1: High-Tier Reviews

Review	Old Sample	New Sample
Harvard	Vols. 93-95, 1,885 pp., 1164 cites	Vols. 108-110, 2,621 pp., 864 cites
Yale	Vols. 89-91, 1,989 pp., 944 cites	Vols. 104-106, 3,949 pp., 929 cites
Michigan	Vols. 78-80, 2,086 pp., 555 cites	Vols. 93-95, 3,476 pp., 523 cites
Columbia	Vols. 80-82, 2,325 pp., 607 cites	Vols. 95-97, 3,677 pp., 871 cites
Totals:	8,285 pp., 3,270 cites	13,723 pp., 3,187 cites
	.39 cites/page 19.9 cites/article	.23 cites/page 14.3 cites/article

18. These reviews represent the closest cluster of four reviews near the midpoint because the Chicago-Kent Law Review (#20) employs a symposium-only format. For law professors who use *U.S. News & World Report* rankings as a guide to law review rankings, our inclusion of New York University and Northwestern as middle-tier reviews may seem misplaced. Our concern, however, is to compare reviews from 1978-81 to reviews from 1993-96, with 1986 being the cutoff for the old sample and 2001 being the cutoff for the new sample. The Lindgren-Seltzer study counted citations at a moment in time (1993) that falls roughly in the middle of 1986 and 2001. More significant, our findings show that the gap between our low-tier and middle-tier reviews has narrowed over the past twenty years. See *infra* tbls. 2 and 3 and accompanying discussion. In other words, the improved standings of New York University and Northwestern did not result in a growing gap between those reviews and our low-tier reviews. For this reason, we do not think that discrepancies between the *U.S. News & World Report* and the Lindgren-Seltzer citation count rankings compromise our study.

19. The low-tier consists of the lowest reviews on the Lindgren-Seltzer ranking, which meet our first criterion of having on-line coverage dating to at least 1986. The reviews of California-Davis (#38) and Colorado (#40-tie) did not satisfy our first criterion.

Table 2: Middle-Tier Reviews

Review	Old Sample	New Sample
Northwestern	Vols. 73-75, 1,996 pp., 406 cites	Vols. 88-90, 3,167 pp., 395 cites
NYU	Vols. 54-56, 1,353 pp., 269 cites	Vols. 69-71, 1,566 pp., 288 cites
North Carolina	Vols. 58-60, 1,857 pp., 175 cites	Vols. 73-75, 4,028 pp., 247 cites
Minnesota	Vols. 64-66, 2,033 pp., 266 cites	Vols. 79-81, 2,162 pp., 164 cites
Totals:	7,239 pp., 1,116 cites	10,923 pp., 1,094 cites
	.15 cites/page 7.3 cites/article	.10 cites/page 7.2 cites/article

Table 3: Low-Tier Reviews

Review	Old Sample	New Sample
Miami	Vols. 33-35, 798 pp., 49 cites	Vols. 48-50, 951 pp., 48 cites
Georgia	Vols. 14-16, 1,272 pp., 104 cites	Vols. 29-31, 1,598 pp., 110 cites
Pittsburgh	Vols. 40-42, 997 pp., 72 cites	Vols. 55-57, 1,325 pp., 91 cites
Iowa	Vols. 64-66, 1,604 pp., 255 cites	Vols. 79-81, 2,638 pp., 245 cites
Totals:	4,671 pp., 480 cites	6,512 pp., 494 cites
	.10 cites/page 4.6 cites/article	.08 cites/page 4.2 cites/article

We first note that the number of citations of reviews within the tiers has remained quite stable across our samples. Citations to articles in the high-tier reviews have dropped about 3 percent (3,270 to 3,187) and in middle-tier reviews about 2 percent (1,116 to 1,094), while low-tier reviews have increased their citations slightly, about 3 percent (480 to 494). However, the high-tier reviews published fifty-nine more articles in the more recent period while low-tier reviews published only fourteen more and the middle-tier reviews published two fewer. While articles in high-tier reviews are still cited about twice as often on average as articles in middle-tier reviews (14.3 to 7.2) and about 3.5 times as often as articles in low-tier reviews (14.3 to 4.2), the gap has narrowed substantially from the old samples, where the differences were about 2.7 times

and 4.3 times, respectively. This is not a result of middle- and low-tier reviews gaining on high-tier reviews; rather, the high-tier reviews are losing ground faster and are thus coming back to the pack.

This consistency in the number of citations is also offset by the increase in the number of article pages published from the old sample to the new. In all tiers articles have become longer, but this has not translated into increased citations. Table 4 shows the comparison.

Table 4: Changes in Volume Sizes and Article Lengths

	Δ No. Articles (%)	Increase No. Pgs (%)	Avg. Article Pg. Length Old & New	Increase Avg. Art. Pg. Length (%)
High	+59 (36%)	5438 (66%)	51 & 62	11 (22%)
Middle	-2 (-1%)	3684 (51%)	47 & 72	25 (53%)
Low	+14 (13%)	1841 (40%)	44 & 55	11 (25%)

The increase in girth in high-tier and low-tier reviews is due to an increase in both the number of articles published and the average article length. Middle-tier review fattening was due entirely to the startling twenty-five page (53 percent) increase in the average article length. We note that in our old high-tier sample, 5 of 164 articles (3 percent) were 100 pages or more, and in the new sample 25 of 223 (11 percent) were at least that long. Articles of 100 pages or more went from 6 of 153 articles (4 percent) to 28 of 151 (19 percent) in the middle-tier samples, and from 4 of 105 (4 percent) to 6 of 119 (5 percent) in the low-tier samples.

The result of the number of cites to articles remaining stagnant across our samples while the number of article pages published substantially increased is that the average citations per page decreased across the samples in all three tiers. This slippage was most pronounced in the high-tier reviews, where the average citations per page decreased from 0.39 to 0.23. For example, whereas an average fifty page article in the old high-tier sample was cited approximately twenty times ($50 \times .39$) within the five to seven year period of our sample, an average article of similar length in the new high-tier sample would be cited only about twelve times ($50 \times .23$). On a per page basis, this means that articles in the old high-tier sample were cited 1.7 times more frequently on average than were articles in the new high-tier sample.

The middle- and low-tier samples experienced significant slippage also, but not quite as dramatic. An average fifty page article in the middle tier was cited 7.5 times in the old sample and 5 times in the new; on a per page basis, old middle-tier articles were cited 1.5 times more frequently than the newer articles. In the low-tier, an average fifty page article slipped from 5 to 4 citations, and on a per page basis the old low-tier articles were cited 1.3 times more frequently than the newer articles.

In all tiers, the citations-per-page slippage was greater than the citations-per-article slippage. In short, though articles got much longer in every tier, they do not appear to have gotten more cite-worthy. This finding suggests that authors do not need more than fifty to sixty pages to say what needs to be said,²⁰ and it lends strong support to the recent commitment of leading law reviews to moderate the length of articles they publish.²¹ Assuming volume lengths do not change, this policy should pay off in citation count terms as top reviews publish more shorter articles.

Comparing Tiers across Periods/Samples

To compare citation counts within and across tiers over the two time periods, we again decided to conduct our analysis on a per page basis. We believe that a long article cited no more frequently than a short one should be considered the lesser of the two for the purposes of citation-count studies. The publication of longer, less "efficient" articles will prevent a review from accepting other articles and so prevent a review from garnering citations to those displaced articles.

We plotted the citations per page to every article and noticed that the distribution in each tier skewed right. That is, some "blockbuster" articles had very high citation-per-page values, with the result that the mean citations per page exceeded the median.²² Because the mean is not an accurate measure of central tendency for skewed distributions, we used the median as our main measurement.

To get the most accurate picture of the correlation between article placement and influence, and whether that picture has changed over time, we determined the median citations per page in each tier and time period (six samples). We did the same for the first and third quartiles of each of the six samples. The first quartile (or 25th percentile) is the value such that 25 percent of the articles in

20. The better articles in each new tier were significantly shorter than the others. In the new high-tier sample, the most efficient citation-garnering articles, which we set at .35 citations per page, or about 1.5 times the .23 citations per page average, accounted for 66 of the 223 articles in the sample (30 percent) and averaged 53.8 pages. The 157 remaining articles averaged 64.8 pages, or 11 more pages. Compare Ayers and Vars, *Interpreting Legal Citations*, *supra* note 13, at 440 (noting that citations per page in high-tier reviews peak at fifty-three pages). The difference was most pronounced in the new middle-tier, where the 36 articles (24 percent) achieving .15 citations per page (1.5 times the .10 citations per page average) averaged 51.5 pages, while the remaining 115 articles averaged 78.8 pages, a 27.3 page difference. In the low-tier, 26 of the 119 articles (22 percent) garnered at least .12 citations per page (1.5 times the .08 citations per page average). These articles averaged 47.5 pages while the remaining 93 articles averaged 56.7 pages, a 9.2 page difference.

21. For the spring 2005 submissions period, the main law reviews of California, Columbia, Cornell, Duke, Georgetown, Harvard, Michigan, Stanford, Texas, University of Pennsylvania, Virginia, and Yale adopted a statement favoring articles running forty to seventy journal pages. See Joint Statement Regarding Articles Length, *supra* note 4.

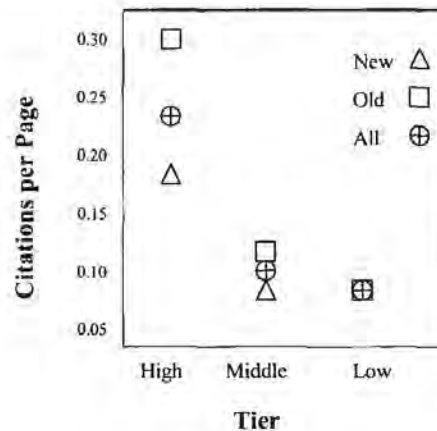
22. The mean is the average citations per page of all articles in a sample. The median is the middle value of all articles considered separately; within each sample, half of the articles will have citations per page values above the median and half will be below.

that sample will have garnered fewer citations per page and 75 percent will have greater citations-per-page values. The third quartile (or 75th percentile) is the value such that 75 percent of the citations per page observations in the sample are smaller and 25 percent are larger. Table 5 shows these results. Figure 1 is a median plot of all the data.

Table 5: Article Cites Per Page Quartiles and Medians

Tier	Quartile	Period		Δ	
		Old	New	Cites	%
High	Third	.550	.383	-.167	-30%
	Median	.301	.188	-.113	-38%
	First	.130	.076	-.054	-42%
Middle	Third	.250	.139	-.111	-44%
	Median	.105	.078	-.027	-26%
	First	.042	.044	.002	5%
Low	Third	.136	.111	-.025	-18%
	Median	.073	.067	-.006	-8%
	First	.032	.023	-.009	-28%

Fig. 1: Medians for Cites Per Page by Tier and Period



Focusing initially on the medians in Table 5 and Figure 1, it appears that the high-tier reviews have suffered the greatest erosion of their citations-per-page values. We tested the null hypothesis that there is no difference in the number of citations per page from old to new articles for reviews of different tiers.²³ The statistical analysis provides strong evidence against

23. Dr. Jeffrey Holt, Chair of the University of Virginia Statistics Faculty, and Dr. Matthew

the null hypothesis, meaning that we have statistically significant evidence to believe that the difference in the number of citations per page of old to new articles lessened between the tiers of reviews. In other words, we can be confident in stating that high-tier reviews indeed lost ground to middle- and low-tier reviews since the beginning of the on-line research era.

As with the comparison of average citations per page, we see a startling erosion of citations to general interest law reviews, particularly among the high- and middle-tier reviews. Among the high-tier reviews, what marks "good" (third quartile), "ordinary" (median), and "bad" (first quartile) articles has dropped precipitously from the old to the new period.²⁴ Good and ordinary articles in the middle tier now have a much lower floor as well, while the erosion of citations to articles in low-tier reviews has been significant but smaller.

Most important to our inquiry is the strong evidence of a meritocracy at work in these citation patterns. We observe in Table 5 that even in the old sample, a good article in a low-tier review (.136) was cited more frequently than a bad article in a high-tier review (.130). That situation manifested itself in the new sample as well, but was more pronounced (.111 to .076). In both periods, good articles in middle-tier reviews were cited about twice as frequently as bad articles in high-tier reviews (.250 to .130 in the old period and .139 to .076 in the new period).

In our new samples, ordinary articles in middle-tier reviews garnered slightly more citations per page than bad articles in the high-tier sample (.078 to .076). This is a change from our old samples, where first quartile elite articles attracted

Soukup designed and ran the test. Using all of the data reflected in Figure 1, Holt and Soukup measured the interaction effect of time period and tier using a regression model: Citations per page = $\beta_0 + \beta_1 \text{Period} + \beta_2 \text{Tier} + \beta_3 (\text{Period} \times \text{Tier})$. The null hypothesis is $H_0: \beta_3 = 0$. The p-value for the test was $p = .00001$, which is very strong evidence against the null hypothesis.

Moreover, although our discussion is based on the medians, the regression model used all the data, and thus captured all the variability within it. If the regression had used only the means, much of the variability would be lost, and the conclusions would be less robust. In short, because the actual statistical results are based upon the full data set, we can rely on Table 5 and Figure 1 in our interpretation.

24. We do not mean to suggest that "good" articles are better reasoned, better written, and more innovative than either "ordinary" or "bad" articles. See Ayres and Vars, *Interpreting Legal Citations*, *supra* note 13, at 429-30 (suggesting possible inverse correlations between citation count totals and article quality in the Harvard Law Review, Stanford Law Review, and Yale Law Journal); Brian Leiter, *Measuring the Academic Distinction of Law Faculties*, 29 J. Legal Stud. 451, 467 (2000) (discounting citation counts to certain categories of scholarship because scholars in those fields cite each other in ways that artificially inflate citation counts); Jack M. Balkin and Sanford Levinson, *How to Win Cites and Influence People*, 71 Chi.-Kent L. Rev. 843 (1996) (discussing "tricks of the trade" to boost citation count totals). For the purposes of this study, good, ordinary, and bad articles are measured simply by their efficiency in attracting citations. At the same time, it is certainly the case that an article's cite-worthiness is one of the factors that law reviews take into account when reviewing unsolicited manuscripts.

more citations per page than ordinary middle-tier articles (.130 to .105). Also, in the new samples, there is little difference in the citations per page between ordinary articles published in middle- and low-tier reviews (.067 to .078). Shopping one's article seems to offer little benefit unless an author is able to make a significant improvement in placement.²⁵

Analysis

While articles in high-tier reviews continue to be cited more frequently than those published in other tiers, the difference has eroded over the last twenty years. Moreover, meritorious articles in less prestigious reviews will be cited²⁶ and "lesser" articles in elite reviews will largely be ignored.²⁷ Publishing one's work in the middle- or low-tier law review is not a ticket to obscurity, and an elite placement does not guarantee that an article will register in legal scholarship or in case law. This holds in both the old and new samples, but is true to a greater degree in the new.

Comparing citation patterns to articles published in the period immediately before the advent of electronic research (1978-81) to those of the on-line era (1993-96), gives us reason to think that the availability of on-line databases is among the factors that has caused a shift in emphasis away from article placement and toward the article's merit as a contribution to the literature, and consequently to the declining influence of high-tier reviews. Though we cannot extract the precise causes for the changes we have observed, we believe that several are at play.

First, legal authors now enjoy greater access to alternative publishing outlets, such as books, specialty and peer reviewed journals, and electronic media, than they did twenty-five years ago. The increasing use of these other

25. The aggregate data of the non-top forty reviews (Albany, Montana, Pepperdine, and Valparaiso) showed a similar trend to that of the three tiers of our main study. The number of citations to the non-top forty reviews was flat (169 to 168) while the page lengths increased from about 2,700 pages to about 3,700. The third quartile citations per page values were .062 and .056 for the old and new samples, respectively; the medians were .029 (old) and .027 (new); and the first quartile values were .000 for both the old and new samples. Comparing these values to those of the high-tier reviews, we see a noticeable tightening of the gap between elite and non-top forty articles. In the old sample, a bad high-tier review article garnered twice as many citations per page as a good non-top 40 review (.130 to .062). That gap was much smaller in the new sample (.076 to .056). Also, we should note that our use of quartile values to explore the "cream rises" effect simply reflects our judgment of a fair cut-off point, and that the effect would be more pronounced if we compared, say, 90th percentile to 10th percentile values. For example, the top 10 percent of articles in the new non-top forty sample garnered .125 citations per page while the bottom 10 percent of articles in the new high-tier sample garnered only .022 citations per page, meaning that the "best" 10 percent of articles in non-top forty reviews were cited nearly 6 times as frequently as the "worst" 10 percent of articles in high-tier reviews.
26. In our middle- and low-tier samples, 93 of 528 (18 percent) of articles were cited at least ten times in the five- to seven-year maturation period.
27. In our high-tier sample, 53 of 387 (14 percent) articles published in elite reviews were cited two or fewer times in the period we studied. Publishing one's work in a high-tier review is no guarantee that it will be cited.

publishing forums has eroded the scholarship monopoly of general interest law reviews. This helps explain the decrease in citations to articles in such reviews in two related ways—authors may not attempt to place some of their best work in law reviews at all, and many of the citations they garner will be to these books and peer-reviewed articles.

Second, hiring committees at law schools—especially elite law schools—increasingly emphasize interdisciplinary and empirical scholarship. Not surprisingly, these new hires (as well as established scholars who value this kind of scholarship) see general interest law reviews as simply one of several publishing outlets for their work.²⁸ Third (and correspondingly), the rise in interdisciplinary and empirical scholarship over the past twenty years means that authors now cite more non-legal sources, such as social science and economic data, in their articles.

Broadening the outlets for and sources referred to by legal scholars results in fewer citations to articles published in general interest law reviews. We believe that part of the reason for the larger decrease in elite reviews is that authors at the top end of the legal scholarship market have shifted to alternative outlets more than authors who typically publish in the other tiers. Top scholars who formerly published almost exclusively in high-tier reviews are the authors most likely to get book deals, and might be more likely to submit their work to top peer-reviewed journals.

Fourth, changes in legal scholarship have made law review editors less competent at choosing good pieces. Compared to their ability to vet doctrinal articles, law review editors may be particularly ill-suited to choosing good interdisciplinary scholarship because they simply cannot understand the techniques employed. If articles editors are growing less competent, more “good” pieces will slip to lower journals and the advantage of the top journals will fall.

Fifth, the exponential growth of symposium and endowed lectures throughout the academy has resulted in top law reviews losing some of their best authors. In particular, with middle- and low-tier law schools seeking to strengthen their academic reputation (and the academic reputation of their law reviews) by recruiting top authors to publish with their reviews,²⁹ top authors have less time to write articles for high-tier law reviews. In this way, symposium pieces and lectures will garner citations that otherwise would have gone to articles by name authors in high-tier reviews. Equally significant, the quality of work of non-name authors clusters closer

28. See Landes and Posner, *Heavily Cited Articles in Law*, *supra* note 13, at 825-26; Fred R. Shapiro, *The Most-Cited Legal Books Published Since 1978*, 29 *J. Legal Stud.* 397, 397-98 (2000).

29. See James Lindgren, *Reforming the American Law Review*, 47 *Stan L. Rev.* 1123, 1127-28 (1995) (arguing that non-elite law reviews interested in garnering citations should switch to a symposium format). Here we are distinguishing high, middle, and low schools from high, middle, and low reviews. Our study is of the top forty-two reviews, whereas schools that seek out top authors are a much bigger group.

together, so the articles that backfill the elite reviews will not be that much better than those in other journals (where formerly the work in the elite reviews was head and shoulders above middle- and low-tier reviews). For these reasons, the scholars who backfill the high- and middle-tier void left by the top scholars will lack cite-attracting “star power” and, on balance, will have less variation in the frequency with which their work cited.

Sixth, the move to on-line database research facilitates a meritocracy in citation patterns. In part, knowing that their lectures, symposium pieces, and peer reviewed articles will turn up in these databases, top authors may see less need for publishing in high-tier reviews. More significant, as long as an article is published in one of the hundreds of journals covered by the commercial services (electronic databases know no prestige) a link to it will appear in search results. The ability to conduct text string searches allows authors to home in on more relevant scholarship and may lessen authors’ reliance on the prestige of a given review in identifying sources. Compared to the hard copy research world of twenty years ago, it is now easier to identify worthy, relevant scholarship in a broad universe of journals.

We have no illusions that the research presented here will trigger a widespread scaling back of multiple submissions, but it will give submitting authors a better sense of why they play the placement game. Moreover, revealing higher article placements to be as much beauty prize as benefit may help authors calibrate how vigorously they play.