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Should your law review article have an abstract and table of contents?: An empirical analysis

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PEER REVIEW ARTICLE†

SHOULD YOUR LAW REVIEW ARTICLE
HAVE AN ABSTRACT AND TABLE OF
CONTENTS?: AN EMPIRICAL ANALYSIS

*Lee Petherbridge & Christopher A. Cotropia**

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† For more information on the *Mississippi Law Journal's* peer review process, see Jack Wade Nowlin & Brian Clark Stuart, *Foreword: The Mississippi Law Journal Peer Review Process*, 84 MISS. L.J. i (2015).

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INTRODUCTION

An abstract is a brief summary of a research article that ordinarily appears at the beginning of a manuscript. In most academic disciplines, professional research publications include an abstract. A notable exception is legal studies. In surprising contrast to the ubiquity of abstracts in other professional research publications, only a fraction, and a relatively modest fraction at that, of law review articles include an abstract.¹

The fact that relatively few law review articles include an abstract is perhaps all the more surprising when one realizes that the apparent purpose of an abstract is to optimize the scholarly influence of the underlying research. To begin with, abstracts are tools for assisting the research task of finding information efficiently: a well constructed abstract should more effectively target research to those interested in reading, using, and citing it.² Abstracts additionally give prospective readers an idea of the topics addressed in a document and thus help busy readers decide if they should read a full article. Abstracts further offer a pre-reading outline of an article, which can make for an easier and more efficient read of the text.³ Abstracts may also be an important means by which readers, after reading an article, recall an article's key findings and organize their own research and writing.⁴ Abstracts, finally, can be important for helping colleagues tasked with decisions concerning tenure and promotions more effectively review a body of technical work.

The limited inclusion of abstracts in law review articles also stands in contrast to advice on the matter offered by pundits, which universally appear to promote the use of abstracts in law

¹ This paper makes the first report we can find of the extent to which law review articles include an abstract. In a large sample of articles published in top 100 law reviews, we observe that only 21.56% of articles include an abstract.

² Lorna Berrett, *Optimizing Your Article for Search Engines*, WILEY BLACKWELL AUTHOR SERVICES, <http://authorservices.wiley.com/bauthor/seo.asp> [perma.cc/ST7Q-T52N].

³ Donna LeCourt et. al, *Purposes for Abstracts*, COLO. ST. U. WRITING@CSU, <http://writing.colostate.edu/guides/page.cfm?pageid=1251&guideid=59> [perma.cc/AA42-GU66].

⁴ *Id.*

review articles.⁵ Several resources, in fact, even go so far as to offer advice about how to write an effective abstract for a law review article.⁶

In view of the foregoing, one might wonder why so many law review articles do not include an abstract. The answer to that question is not altogether clear. But if one postulates that legal scholars are no different than scholars in other fields when it comes to having a desire that others benefit from the research they have performed, one can rule out that legal scholars are seeking to hide their research outputs from those who might be interested. Assuming that, the most reasonable remaining answer choices seem to be that legal scholars: (1) wish to have abstracts included with their articles but are prevented from doing so for some reason; (2) are unaware that there may be a relationship between abstracts and scholarly influence; or (3) might be aware of a supposed relationship between abstracts and scholarly influence but simply do not believe in the relationship.

If one continues with the postulate that legal scholars desire to perform research that influences other researchers and expands it slightly to include the idea that law reviews desire to publish research that influences subsequent research, all three possible answers also share what one might call a conditional importance. That is, they are all bound to one of two alternative expectations about the real world. Abstracts are not nearly as valuable as indicated by their supposed purposes, use in other disciplines, and promotion by commentators, or abstracts are missing from law

⁵ *Writing for & Publishing in Law Reviews: Submitting Manuscripts*, U. OF WASH. GALLAGHER L. LIBR., <https://lib.law.washington.edu/content/guides/lawrevssub#section-3> (last updated Oct. 29, 2014) [perma.cc/8BX6-8763]; Eugene Volokh, *Writing an Abstract for a Law Review Article*, THE VOLOKH CONSPIRACY (Feb. 8, 2010, 6:21 PM), <http://www.volokh.com/2010/02/08/writing-an-abstract-for-a-law-review-article> [perma.cc/9H4C-2QS9].

⁶ John Mirowsky, *Writing an Informative Abstract*, AM. SOCIOLOGICAL ASS'N, <http://www.asanet.org/journals/abstract.cfm> [perma.cc/4JVE-4T4M]; Kevin Maillard, *How to Write a Good Abstract for a Law Review Article*, THE FACULTY LOUNGE (Jan. 23, 2012, 8:59 AM), <http://www.thefacultylounge.org/2012/01/how-to-write-a-good-abstract-for-a-law-review-article.html> [perma.cc/ZE5Q-823M]; Volokh, *supra* note 5; cf. Mary L. Dudziak, *How (Not to) Write an Abstract*, LEGAL HIST. BLOG (Oct. 23, 2007, 4:56 PM), <http://legalhistoryblog.blogspot.com/2007/10/how-not-to-write-abstract.html> [perma.cc/F3GW-FLJ5] (offering advice on how *not* to write an abstract for a law review article).

review articles due to ignorance on the part of law reviews and on the part of legal scholars about the benefits they offer. To put it differently, the practical importance of any and all of the possible answers can depend quite a bit on the extent to which the scholarly influence of an article is impacted by the presence or absence of an abstract.

For example, if it could be shown that including an abstract suppresses the influence of an article, then law reviews should stop wanting to publish them and legal scholars should insist that their articles not have one. If the opposite were true, if it could be shown that including an abstract enhances the influence of an article, then law reviews and legal scholars alike should insist that all articles have one. If it could be shown that including an abstract neither suppresses nor enhances the influence of an article, then perhaps law reviews might prefer not to publish abstracts for cost reasons, viz. editorial resources and cost of production. Law professors too might prefer not to have them if only because abstract writing time might be devoted to other more valuable tasks.

A similar story can be told about tables of contents. A table of contents is a list of the parts of a document arranged in the order in which they appear. The contents of the list are usually descriptions of part headers, and can vary in depth and detail depending on the nature of the work and publisher conventions. A table of contents also typically identifies the page number where each part of a document starts.

Tables of contents, like abstracts, appear designed to encourage the scholarly influence of the research reported in documents using them. Both document elements, for example, should serve the purpose of giving a reader an idea of the topics a document covers, and a table of contents, perhaps more so than an abstract, offers a quick way to find fairly specific information in a document. As this Article reports, tables of contents also share with abstracts the characteristic of not being employed by the majority of top 100 law review articles published during 2000-2010. This is a curious⁷ observation in view of the apparent

⁷ This observation is not as astonishing perhaps as the observation that abstracts are so rarely used. Certainly it is the case that tables of contents are not ubiquitous in professional articles in other academic disciplines. But given the “general agreement”

purposes of this element, and one that might also be explained by uncertainty about its impact on the scholarly influence of law review articles.

The extent to which the presence or absence of an abstract and/or table of contents impacts the scholarly influence of an article is thus an important one. It is also the one to which this Paper turns.

Our approach to the examination of the relationship between abstracts, tables of contents, and scholarly impact is empirical and primarily descriptive. It also relies on an important theoretical foundation that must be made clear: the scholarly influence (or impact) of research can generally be measured by the intensity with which publications reporting the research are cited. While this foundation may be controversial for some, it has an evidence-based pedigree. A number of studies report correlation between citation counts and research quality.⁸ There is also substantial real world acceptance of the significance of the relationship between the scholarly influence of research and the intensity with which it is cited. Citation counts are, for example, commonly considered in the contexts of hiring, professional advancement, and funding of research.⁹ They are also regularly used in research

that “[law review] articles lack originality, are boring, too long, too numerous, and have too many footnotes, which also are boring and too long,” the limited use of tables of contents is still notable because the element might help reduce the expense of dealing with such problems. Elyce H. Zenoff, *I Have Seen the Enemy and They Are Us*, 36 J. LEGAL EDUC. 21 (1986) (footnotes omitted).

⁸ See, e.g., Jonathan Cole & Stephen Cole, *Measuring the Quality of Sociological Research: Problems in the Use of the Science Citation Index*, 6 THE AM. SOCIOLOGIST 23, 28 (1971) (“The data available indicate that straight citation counts are highly correlated with virtually every refined measure of quality.”); Stephen M. Lawani & Alan E. Bayer, *Validity of Citation Criteria for Assessing the Influence of Scientific Publications: New Evidence with Peer Assessment*, 34 J. AM. SOC’Y FOR INFO. SCI. 59, 65-66 (1983) (reporting that peer assessments of paper quality and scholarly contribution correlate highly with citation rates); Dag W. Aksnes & Randi Elisabeth Taxt, *Peer Reviews and Bibliometric Indicators: A Comparative Study at a Norwegian University*, 13 RES. EVALUATION 33, 36-37 (2004) (same); Dag W. Aksnes, *Citation Rates and Perceptions of Scientific Contribution*, 57 J. AM. SOC’Y FOR INFO. SCI. & TECH. 169, 173 (2006) (finding that a scientist/author’s perception of the scientific contribution of his own article and the number of citations the article receives are correlated).

⁹ See, e.g., Kathryn B. Ward et al., *Visibility and Dissemination of Women’s and Men’s Sociological Scholarship*, 39 SOC. PROBS. 291 (1992); S. Nazim Ali et al.,

studies for the purpose of measuring the quality and professional recognition of academic research.¹⁰

The notion that the scholarly impact of research can be measured by intensity of citation enjoys a measure of conceptual support as well. While there is no doubt that a citation might be made to criticize an article or to set it out as being wrong in some way, “the majority of citations serve to fit the new piece of research into an existing infrastructure of scientific literature.”¹¹ An implication of this observation is that when a researcher publishes results that are never cited, it can in many cases be said that the researcher has failed to make a significant contribution to a field of study. In fact, it seems quite plausible that no citation contrasts unfavorably to even critical citation, because in the case of critical citation, one can still understand a researcher as contributing to the shaping of a body of knowledge.

A review of the relevant literature turned up no studies examining the influence of abstracts on citation to law review articles.¹² Nor were studies found examining the influence of tables of contents. To chart this territory, we explore whether abstracts and tables of contents impact the scholarly influence of academic work in the field of legal studies by using a large sample of law review articles published in top 100 law reviews. Part I describes our methodology while Part II reports the results. Part III summarizes the results and discusses them in view of the title question: should your law review article have an abstract and table of contents?

Determining the Quality of Publications and Research for Tenure or Promotion Decisions: A Preliminary Checklist to Assist, 45 LIBR. REV. 39, 41 (1996).

¹⁰ See, e.g., Deborah Jones Merritt, *Scholarly Influence in a Diverse Legal Academy: Race, Sex, and Citation Counts*, 29 J. LEGAL STUD. 345, 346 (2000); Theodore Eisenberg & Martin T. Wells, *Inbreeding in Law School Hiring: Assessing the Performance of Faculty Hired from Within*, 29 J. LEGAL STUD. 369, 370-72 (2000); Fred R. Shapiro, *The Most-Cited Legal Scholars*, 29 J. LEGAL STUD. 409, 412 (2000); Stefan Wuchty et al., *The Increasing Dominance of Teams in Production of Knowledge*, 316 SCIENCE 1036, 1037 (2007).

¹¹ Carolyn A. Copenheaver et al., *Lack of Gender Bias in Citation Rates of Publications by Dendrochronologists: What Is Unique About this Discipline?*, 66 TREE-RING RES. 127, 128 (2010).

¹² Searches calculated to find studies from other disciplines were also unrevealing. Perhaps this is due to the fact that abstracts are ubiquitous in most fields of academic research.

I. DATA & METHODS

The data was collected by and reported in Cotropia & Petherbridge (2014).¹³ Briefly, the database comprises law review articles—student notes and commentaries were excluded¹⁴—published by a randomly selected one half of top 100 law reviews.¹⁵ The base dataset includes 19,259 articles spanning the publication years 1990-2010.

Article identification information and citation information were collected from the HeinOnline Law Journal Library¹⁶ on the same date—November 25, 2012. The following information was collected via custom written computer script—publishing law review, publication year, collaboration status, and the number of citations of the article in other HeinOnline Law Library law reviews.

To gather information about abstracts and tables of contents, we took a sample of 6,981 articles spanning the publication years 2000-2010. These articles were human coded for the presence of an abstract, table of contents, number of footnotes, author employment status, and ranking of author's home institution.

Statistical analyses were performed using Stata.

II. RESULTS

A. Overall Use of Abstracts and Tables of Contents

Less than a quarter (21.56%) of the articles in our sample include an abstract. More articles, although still less than half (43.25%), include a table of contents (Table 1).

¹³ Christopher A. Cotropia & Lee Petherbridge, *Gender Disparity in Law Review Citation Rates*, (submitted July 22, 2014) (unpublished manuscript) (on file with SSRN), <http://ssrn.com/abstract=2469628> [perma.cc/438Y-CP6G].

¹⁴ HeinOnline Law Library's search options were used to filter out student-authored articles.

¹⁵ Washington and Lee School of Law's Law Library's law journal rankings were used to determine the top 100 law reviews. See *Law Journals: Submissions & Ranking, 2007-2014*, WASH. & LEE U. SCH. L.: L. LIBR., <http://lawlib.wlu.edu/LJ/> [perma.cc/X8PD-JQTD].

¹⁶ See Fred R. Shapiro & Michelle Pearse, *The Most-Cited Law Review Articles of All Time*, 110 MICH. L. REV. 1483, 1486 (2012) (noting that HeinOnline's Law Journal Library "includes the vast majority of the entire United States law review literature from the nineteenth and twentieth centuries").

	+	-	total
abstract	1505 (21.56%)	5476 (78.44%)	6981
toc	3019 (43.25%)	3962 (56.75%)	6981

Table 1: The rate of use of abstracts and tables of contents in top 100 law reviews 2000-2010.

The frequency of use of abstracts and tables of contents varies across publication years (Fig. 1). The range for abstract use is bounded by a low of 11.610% of articles in 2002, and a high of 41.944% of articles in 2010. Tables of contents were used at their lowest rate (31.114% of articles) in 2002. The highest rate of use of tables of contents was 2008, when 54.625% of top 100 law review articles included one. The use of both document elements has trended upward across publication year (abstracts: $r=0.913$, $p<0.001$; toc: $r=0.953$, $p<0.001$).

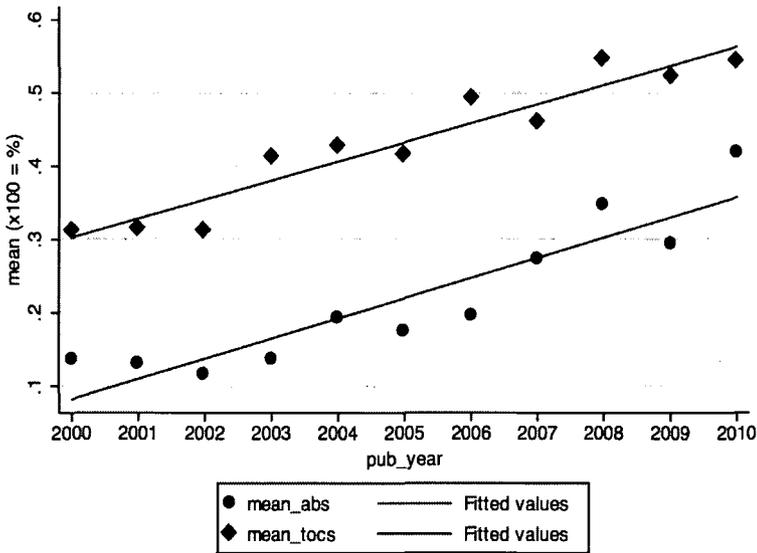


Fig. 1. Mean number of articles having abstracts and tables of contents (2000-2010).

Regressing mean use of abstracts on publication year and mean use of tables of contents on publication year produces similarly positive rates of increase (slope) in the use of each

document element. While the slope for abstracts is slightly steeper than that for tables of contents, the confidence intervals associated with each slope overlap suggest the interpretation that the use of both document elements increased at approximately the same rate across 2000-2010. This conclusion is consistent with an observed strong and significant positive correlation between the yearly mean use of abstracts and yearly mean use of tables of contents ($r=0.870$, $p<0.001$).

B. Impact of Abstracts and Tables of Contents on Scholarly Influence

Articles that include an abstract, a table of contents, or both have more influence than other articles (Table 2.). The average number of citations for articles that include an abstract is 23.324, while the average number of citations for articles not including one is 15.704. A difference ($p<0.001$, ranksum) of 7.620 citations, or 48.522%. The average number of citations for articles that include a table of contents is 20.562, while the average number of citations for articles not including one is 14.894. This represents a difference ($p<0.001$, ranksum) of 5.668 citations, or 38.056%.

		mean	sd	p50	min	max
has an abstract						
	no	15.704	20.865	9	0	314
	yes	23.324***	30.288	14	0	342
has a toc						
	no	14.894	20.554	9	0	314
	yes	20.562***	26.399	12	0	342
has neither/both						
	neither	14.218	19.647	8	0	314
	both	24.316***	31.572	15	0	342
abstract if no toc						
	no abstract	14.218	19.647	8	0	314
	abstract	20.700***	26.453	12	0	182
toc if no abstract						
	no toc	14.218	19.647	8	0	314
	toc	18.443***	22.694	11	0	251

Table 2: Number of citations depending on abstract, table of contents, or both 2000-2010, ***= $p \leq 0.001$).

Because many of the articles in the data that include abstracts and tables of contents have both elements, we analyze, throughout the remainder of this Part, four categories of document element status: An abstract and no table of contents ($n=413$); a table of contents and no abstract ($n=1927$); both an abstract and table of contents ($n=1092$); or, neither an abstract nor a table of contents ($n=3549$). This approach allows us to assess the impact of each element individually and in combination with scholarly influence.

Articles that lack an abstract and a table of contents average 14.218 citations. Articles that include an abstract but not a table of contents average 20.700 citations, a difference ($p \leq 0.001$, ranksum) of 6.482 citations, or 45.590%, over articles that include neither element. Articles that include a table of contents but have no abstract average 18.443 citations, a difference ($p \leq 0.001$, ranksum) of 4.225 citations, or 29.716%. Articles that include both

document elements exhibit the highest average citation (24.316), a difference ($p \leq 0.001$, ranksum) of 10.098 citations, or 71.023%.

The distribution of the number of citations received by articles in our data set is over-dispersed.¹⁷ In such circumstances, the median may be a better indicator of central measure than the mean. Table 2 shows the median number of citations for each of the categories. The pattern is consistent with an interpretation that articles using an abstract, a table of contents, or both, have more influence than other articles. Articles that include an abstract but not a table of contents average more citations than articles with neither element (12 vs. 8, or 50.000%). Articles that include a table of contents but not an abstract show a similar pattern (11 vs. 8, or 37.500%). Articles that include both an abstract and a table of contents average more citations than other categories and show the greatest increase over articles that lack both elements (15 vs. 8, or 87.500%).

The analysis to this point has analyzed the data and cross-section. Citations, however, are counted from publication year through 2012 and, as expected, our data shows that more recently published articles have fewer citations.

We standardize the effect of an article's opportunity to be cited by calculating a ratio for each year's published articles.¹⁸ The ratio is calculated by dividing the median number of citations received by articles that include a particular element (e.g., an abstract) over the median number of citations received by articles do not include either element. The ratio thus reflects the relative impact¹⁹ of the document element. Accordingly, when a relative impact measure equals 1, the rate of citation to law review articles that include the element (e.g., an abstract) and those that do not include either element is the same. When articles that include abstracts are more highly cited than articles without either element the relative abstract impact (RAI) is greater than 1. When articles without an abstract or table of contents are more

¹⁷ The variance is greater than the mean.

¹⁸ Wuchty et al., *supra* note 10, at 1037 (using this standardization to explore the impact of teams on citation).

¹⁹ *But cf. id.* (reporting relative impact measures for the effect of teams on citation in a variety of disciplines).

highly cited than articles that include an abstract, RAI is less than 1.

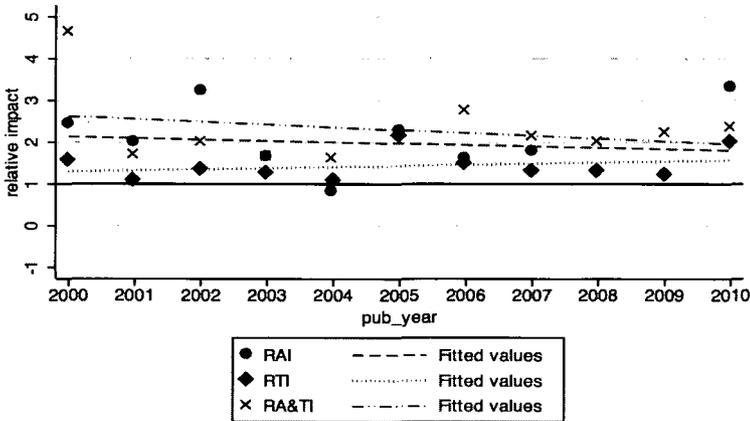


Fig. 2. Relative impact of abstract (RAI), table of contents (RTI), and both (RA&TI) (2000-2010). In each case impact measures were calculated by comparing papers with a characteristic to those lacking that characteristic or others. For example, RAI compares papers with abstracts to those having no abstracts and no table of contents. Reference line at $y=1.0$.

Not accounting for time, the relative impact of abstracts and tables of contents, individually or together, exceeds 1 (Table 2.). Accounting for time, we observe that articles with an abstract, but not a table of contents, are relatively much more impactful than articles that lack both elements (Fig. 2.). The average RAI is 1.967. In all but a single publication year (2004) RAI exceeds 1, and in some publication years (2002, 2010) it exceeds 3. The relative table of contents impact (RTI) averages 1.431 and exceeds 1 in every publication year, indicating that articles with a table of contents but no abstract also exhibit greater scholarly influence than those that lack such document elements. The average relative impact of having both an abstract and a table of contents (RA&TI) included in a law review article is 2.289, and in no publication year does the relative impact fall below 1.

Taken together, the relative impacts of abstracts and tables of contents, individually or in combination are consistent across publication year and very impressive. The bottom line is that the average top 100 law review article enjoys a very substantial increase in scholarly influence when it includes an abstract or a table of contents, or better yet includes both.

Table 2 suggests that having an abstract is superior to having a table of contents. A visual inspection of Fig. 2 also

indicates that articles with abstracts appear to enjoy relatively more influence. To examine this more directly, we create a relative impact measure by dividing the median number of citations received by articles that include only an abstract over the median number of citations received by articles that include only a table of contents (Fig. 3).

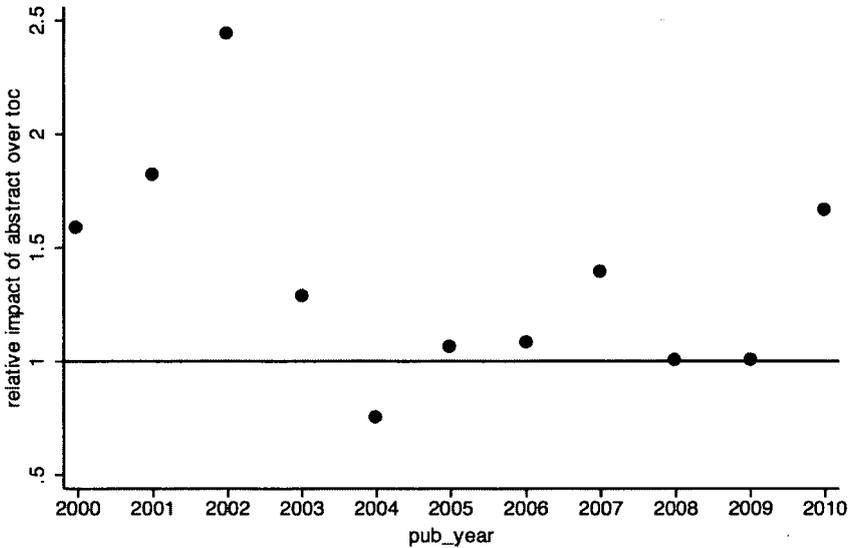


Fig. 3. Relative impact of abstracts over tables of contents (2000-2010). Papers Included had either an abstract or a table of contents. Reference line at $y=1.0$

In nearly all publication years, the relative impact score is greater than 1, indicating abstracts do indeed correspond with a relatively larger positive effect on scholarly impact.

Another topic of interest is whether the positive relationship between abstracts, tables of contents, and citation is uniform across the citation distribution, or whether it might be more pronounced in higher or lower impact articles. We examine this in two ways, both of which offer distinct windows on the rate of document element use at different levels of citation. First, we extend the relative impact analysis across the citation distribution to compare different combinations of document elements at the 10th, 25th, 50th, 75th, 90th, 95th, and 99th percentiles of citation (Fig. 4).

The relative impact on scholarly influence exceeds 1 at all citation percentiles. Thus, the beneficial—to scholarly influence—association of these document elements persists across the citation distribution. The pattern of impact is also consistent with the idea that the largest impact on scholarly influence associates with articles that include both abstracts and tables of contents. The next largest impact appears to come from having an abstract (to the exclusion of a table of contents), and the lowest, but still clearly positive impact from having a table of contents (to the exclusion of an abstract).

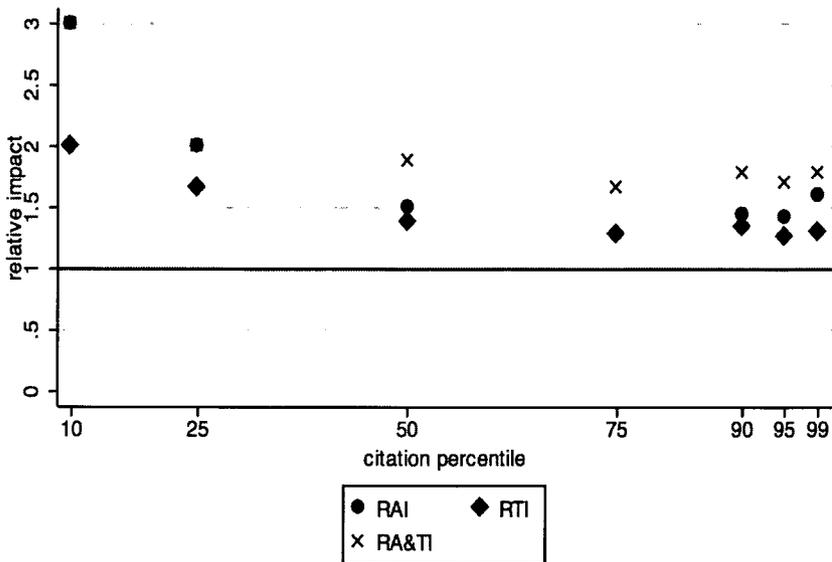


Fig. 4. Relative document device impact across citation percentiles measured as the quotient of the number of citations garnered by articles having and not having the device of interest (e.g., abstract) at the relevant percentile. The relative impact of document device use is clearly positive across the citation distribution. Reference line at $y=1.0$.

The second way we explore the rate of document element use across different levels of citation involves looking at the average rate of use of document elements in articles in the bottom 25th percentile of citation, and in the top 75th percentile of citation. As before, we isolate articles that include either a single element (e.g., abstract but not table of contents) or that evince both elements.

In each case, abstract only (abs), table of contents only (toc), and both abstract and table of contents (at), the patterns of observations—if not the absolute rates—are similar. Articles in the bottom 25th percentile of citation exhibit a lower level of document element use than articles in the top 75th percentile (Figs. 5-7.).

Excluding articles that include a table of contents, the mean rate of use of abstracts for articles in the bottom 25th percentile of citation (abs_bottom) is 6.219%, while articles in the top 75th percentile (abs_top) use abstracts more than twice as often (14.368%) ($p \leq 0.001$). Excluding articles that include an abstract, the mean rate of use of tables of contents for articles in the bottom 25th percentile of citation (toc_bottom) is 27.238%, while articles in the top 75th percentile (toc_top) use tables of contents significantly more often (42.780%) ($p \leq 0.001$). The mean rate of use of combined elements for articles in the bottom 25th percentile of citation (at_bottom) is 15.174%, while articles in the top 75th percentile (at_top) use them together more than twice as often 35.665% ($p \leq 0.001$).

The appearance of abstracts and tables of contents has also been more rapid in the most influential articles.²⁰ The rate of increase (slope)²¹ in abstract-only articles within the top 75th percentile of citation is 0.028, more than three times the rate of increase observed for articles in the bottom 25th percentile (0.009).²² Similarly, the increase in table of contents only articles in the top 75th percentile of citation is 0.032, more than twice the

²⁰ To create the charts in Figs. 5-7, we calculated mean numbers of abstracts, tables of contents, and combined uses of elements for each publication year, which forced us to give up a lot of data. This limits our ability to make statistical arguments concerning differences in rates of use of document elements over time. Reported rates were calculated by regressing the mean use of a document element (excluding the alternative) or of both elements together (excluding uses of just one element) at the stated percentiles of citation on publication year.

²¹ The slopes of the fit lines for the use of a document element across publication years is statistically significant at all levels of citation and for all document elements, including the combination of abstracts and tables of contents.

²² The 95% confidence interval for the rate of increase in 75th percentile articles does not encompass the rate calculated for the abs_bottom category. However, the high end of the bottom 25th percentile confidence interval overlaps somewhat with the low end of the 75th percentile confidence interval leaving open the possibility that the observed differences in rate of increase in abstract use might be due to chance.

rate of increase observed for articles in the bottom 25th percentile (0.014).²³ The appearance of articles using both elements together has also increased more rapidly in the most influential articles (cf. 0.069, 0.025).²⁴

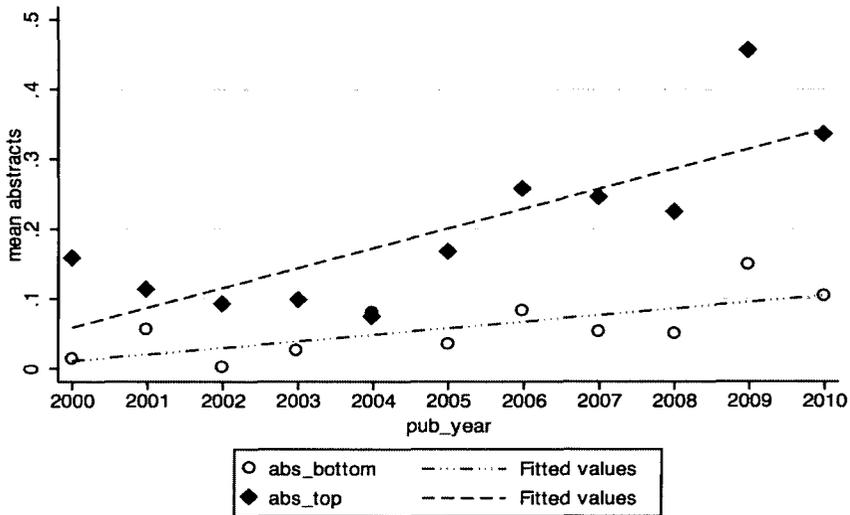


Fig. 5. Mean use of abstracts for articles in the bottom 25th percentile of citation (abs_bottom) and articles in the top 75th percentile (abs_top) (2000-2010). Papers having tables of contents excluded.

²³ Again, however, when one examines the coefficients in view of the confidence intervals, it appears that the observed rates are statistically indistinguishable. Here, in fact, the confidence interval for the rate of increase in the use of tables of contents in articles in the top 75th percentile of citation captures within it the coefficients for the other two groups.

²⁴ The confidence intervals associated with each coefficient do not overlap, indicating that the observed higher rate of use of combined document elements in more highly cited articles is unlikely to be due to chance.

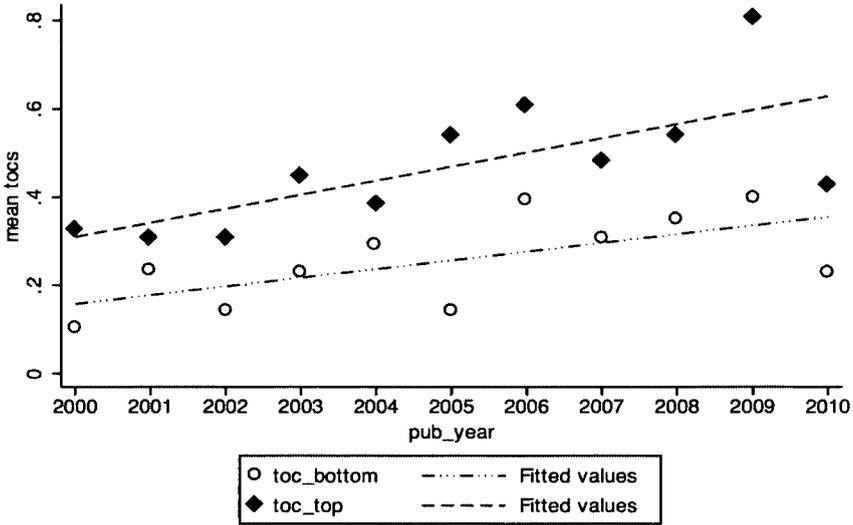


Fig. 6. Mean use of tocs for articles in the bottom 25th percentile of citation (toc_bottom) and articles in the top 75th percentile (toc_top) (2000-2010). Papers having abstracts excluded.

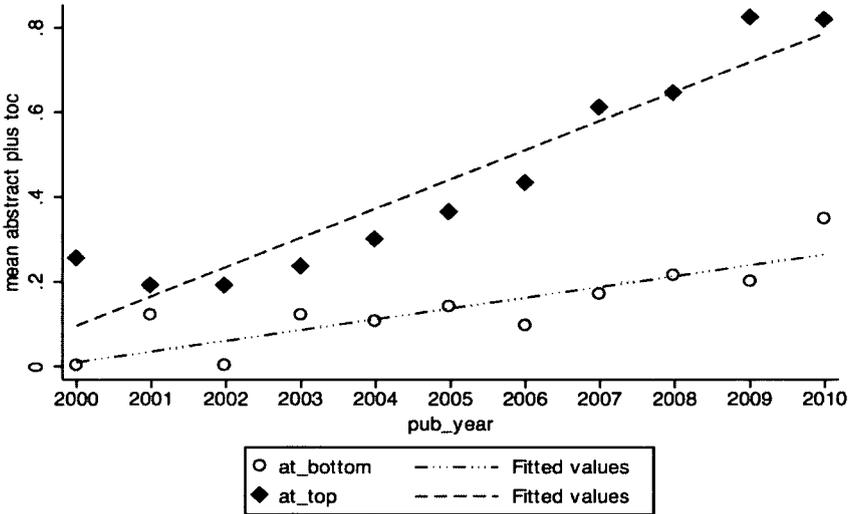


Fig. 7. Mean use of abstracts plus tocs for papers in the bottom 25th percentile of citation (at_bottom) and papers in the top 75th percentile (at_top) (2000-2010).

To further develop our understanding of the impact of abstracts and tables of contents on the scholarly influence of research in the field of legal studies, we turn to multiple regression. This methodology may help us better understand the influence of document elements because it offers the possibility of some additional insight into the relationship between them and other independent variables that might impact the scholarly influence of research publications. What we observe, ultimately, is that document element associated increases in scholarly influence persist after we take into account variation in scholarly influence attributable to a number of other explanations.

The main variable of interest in the regression analyses is document element status. This variable is a categorical variable comprising the same four categories that have been the subject of most of the analysis to this point: abstract only (*abstract_only*), table of contents only (*toc_only*), both an abstract and table of contents (*abstract_&_toc*), and neither an abstract nor a table of contents. In each model the reference category is the last category. To address the over-dispersion of the number of citations (*no_cites*) variable, the general model employed is a negative binomial regression (Table 3.).

The coefficients are presented as incident rate ratios (IRR). Accordingly, taking model 1 of Table 3—which examines the effect of including an abstract (nonexclusively) in an article—the expected rate of number of citations (*no_cites*) is 1.485 times greater for articles with abstracts than for articles without when other variables in the model are held constant.²⁵

The first three models are the most general and together confirm what the statistical approaches used in earlier parts have shown: that abstracts and tables of contents have a significant and impressive impact on scholarly influence. Model (3) emphasizes that the impact of an abstract is superior to that of a table of contents (compare 1.456 with 1.297, $p \leq 0.043$), and using both elements together is superior to using only an abstract (1.710, $p \leq 0.008$).

²⁵ In this particular example there are not additional explanatory variables to hold constant, but there are in other models.

VARIABLES	(1) no cites	(2) no cites	(3) no cites	(4) no cites	(5) no cites	(6) no cites	(7) no cites	(8) no cites	(9) no cites
has_abstract	1.485 (.046)***								
has_toc		1.381 (0.036)***							
abstract only			1.456 (0.080)***	1.617 (0.084)***	1.279 (0.069)***	1.184 (0.060)***	1.161 (0.058)**	1.158 (0.057)**	1.302 (0.061)***
toc_only			1.297 (0.039)***	1.406 (0.040)***	1.495 (0.049)***	1.098 (0.036)**	1.110 (0.035)***	1.092 (0.035)**	1.067 (0.029)*
abstract & toc			1.710 (0.062)***	2.111 (0.075)***	1.768 (0.075)***	1.258 (0.052)***	1.253 (0.051)***	1.233 (0.050)***	1.333 (0.045)***
no_footnotes						1.003 (0.000)***	1.003 (0.000)***	1.003 (0.000)***	1.003 (0.000)***
law_prof							1.474 (0.037)***	1.534 (0.039)***	1.556 (0.042)***
law_prof_t_15							1.263 (0.031)***	1.248 (0.031)***	1.601 (0.041)***
solo author								0.786 (0.022)***	0.740 (0.223)***
i_pub_year				X	X	X	X	X	X
i_l_rev					X	X	X	X	
cons	15.704 (.227)***	14.894 (0.253)***	14.218 (0.254)***	20.210 (0.906)***	13.327 (1.053)***	8.573 (0.654)***	6.850 (0.517)***	8.358 (0.659)***	9.862 (0.514)***
n	6981	6981	6981	6981	6981	6981	6981	6981	6981
Pseudo-R ²	0.003	0.003	0.005	0.022	0.055	0.071	0.077	0.079	0.055
Log-likelihood	-26993.262	-27001.651	-26951.862	-26476.663	-25587.843	-25161.511	-24983.330	-24946.514	-25594.936
p	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000

Table 3. Negative binomial models of the influence of abstracts and tables of contents on scholarly influence of law review articles. Dependent variable is the count of number of citations (no_cites): (1) nonexclusive presence of an abstract; (2) nonexclusive presence of a toc; (3) at_status (in reference to articles not using either element); (4) opportunity to be cited; (5) opportunity plus; (6) adds number of footnotes; (7) adds law professor status (law_professor 1,0; law professor at a top 15 institution 1,0); (8) adds authorship status (solo, 1 or team,0); (9) Excludes law review of publication. Incident rate ratios reported. Standard errors are reported in parentheses. *= $p < 0.05$, **= $p < 0.01$, ***= $p < 0.001$.

Model (4) statistically controls for the opportunity to be cited with indicator variables for publication year. It reports that the impact of an abstract and of a table of contents actually improves

somewhat when opportunity to be cited is taken into account, and the larger effect of having just an abstract remains significant over the effect of having just a table of contents ($p=0.010$). Similarly, the larger effect of combining the elements remains significant over the effect of having either of the elements alone ($p\leq 0.001$).

Thus, consistent with observations reported in some of the earlier figures, the effect of abstracts and tables of contents is not likely a factor of one or a few publication years. Nor does the effect appear to be particularly driven by how long an article has been published, although it is affected to some extent. How this happens isn't entirely clear, but, given the higher expected rate of citation for articles employing document elements, one possible explanation is that the influence of elements is greater for articles with older publication years. Beyond the regressions, there is hint of this explanation in Table 4,²⁶ *infra*. If true, it suggests the possibility that the influence advantage conferred by abstracts and tables of contents might have a compounding effect.

Both scholarly influence and proportional use of abstracts and tables of contents vary across top 100 law reviews. In particular, law review rank²⁷ correlates with articles receiving more citations and with greater use of abstracts. The correlation between law review rank and the use of tables of contents while positive is much lower. To explore whether document element differences in scholarly influence persist when we control for law review of publication, we specify model (5), which statistically controls not only for publication year but also for law review of publication.

We consider model (5) as "opportunity plus," although a perhaps more accurate description would be opportunity qualified.

²⁶ The hint is in the observation that the impact of document elements in the law reviews observed generally seems greater for older publication dates. There is also a hint in Fig. 2., at least for abstracts and the combined use of abstracts and tables of contents, in the slightly downward (moving from 2000-2010) sloping fit line.

²⁷ Rank was assessed by averaging for each law review the combined score from the Washington & Lee Law Journals Submission and Ranking page for the years 2003-2011. See *Law Journals: Submissions & Ranking, 2007-2014*, WASH. & LEE U. SCH. L.: L. LIBR., <http://lawlib.wlu.edu/LJ/> (last updated March, 2015, for the 2007-2014 survey period) [perma.cc/XSPD-JQTD]. The correlation between law review rank and annual mean use of abstracts is $r=0.441$, $p\leq 0.01$; for annual mean use of tables of contents the correlation is $r=0.125$, and not significant.

The qualification is due primarily to the fact that statistically controlling for law review of publication produces a model that is difficult to interpret due to uncertainty about the relationship between an article's scholarly merit and its law review of publication.

Law review of publication seems, on the one hand, clearly to relate to opportunity to be cited. Law reviews have varying degrees of circulation²⁸ and it is easy to imagine articles published in a more widely circulated law review receiving more citation for that reason alone. In addition, given a choice of sources some scholars may have a preference for citing articles that come from certain law reviews in the hopes that it will lend more weight to their own writings. Such law review-related reasons for citation would seem to have nothing to do with scholarly merit, and everything to do with opportunity.

On the other hand, law review of publication might plausibly associate with research quality. Some law reviews could have processes that more effectively identify articles reporting important research. In addition, some law reviews might experience more of a buyer's market than others,²⁹ and so might better ensure that they regularly publish higher quality articles.³⁰ At bottom, it seems that publication in a particular law review might be a way to get a better article more citations, and might be a way to get a subpar article more citations. In the former case, our opportunity-plus model might underestimate the role of abstracts and tables of contents because it might punish document

²⁸ See Ian Ayres & Fredrick E. Vars, *Determinants of Citations to Articles in Elite Law Reviews*, 29 J. LEGAL STUD. 427, 432-34, 438 (2000) (noting this).

²⁹ To appreciate this idea one need look no farther than the semiannually (or more often) played game of expediting articles to higher ranked law reviews after receiving an offer.

³⁰ Although, perhaps not. It has been claimed, for instance, that law reviews select articles based on "letterhead bias," that is, they bias article selection by author institutional affiliation. See Jonathan Gingerich, *A Call For Blind Review: Student Edited Law Reviews and Bias*, 59 J. LEGAL EDUC. 269, 274-75 (2009) (discussing the effect of prestige bias on student edited law reviews). Letterhead bias has not to our knowledge yet been quantified and its impact on an article's scholarly influence is made all the more confusing by the fact that it might not be a great proxy for quality. Accord Eisenberg & Wells, *supra* note 10, at 378-79 (observing that inbred law school faculty members do not perform as well as non-inbred faculty members, and that top law schools are the most inbred).

element-including articles for being in a law review that associates with higher levels of citation.³¹

With that caveat in mind, model (5) indicates that the effect of document elements on scholarly influence persist once we take into account the variation in influence that is linked to law review of publication and the fact that abstract use is not uniform across all top 100 law reviews. The expected rate of citation is a strongly significant 1.279 times greater for articles that include only an abstract. The rate is lower ($p=0.006$) than the expected rate for articles having only a table of contents (1.495), which is to be expected given the closer association between “better” law reviews and the use of abstracts. Finally, model (5) continues a pattern in which articles using both abstracts and tables of contents significantly ($p\leq 0.001$) outperform (1.768) those using neither, or either element on its own (cf. 1.279, 1.495; ($p\leq 0.001$) for both).

Model (5) suggests, ultimately, that a reason articles using abstracts are more influential than articles using tables of contents (or those using neither document element) is that abstracts are more commonly employed in articles published in more influential law reviews. Model (5) also indicates, however, that abstracts and tables of contents can independently confer scholarly influence on an article.

The latter point highlights the question regarding the nature of the effect that abstracts and tables of contents have on an article. Do articles that include an abstract and/or table of contents enjoy an increase in scholarly influence merely because they include an abstract and/or a table of contents? Or is it the case that these document elements are simply attached to articles already deserving relatively greater scholarly influence? Model (5) suggests that both explanations may be valid.

To explore this further, we specify models that allow us to control for additional variables that indicate article quality. Models (6), (7), and (8) include variables known to predict scholarly influence. These are: the number of footnotes an article has (*no_footnotes*),³² whether an article is authored by a law professor (*law_prof*),³³ whether an article is authored by a law

³¹ *But cf.*, Ayres & Vars, *supra* note 28, at 432-34 (discussing this issue).

³² Cotropia & Petherbridge, *supra* note 13, at 14.

³³ *Id.* at 15.

professor at a top 15 law institution (`law_prof_t_15`),³⁴ and whether an article was authored by an individual or a team (`solo_author`).³⁵

These are rough measures to be sure.³⁶ But our purpose is to offer some information useful for comprehending the nature of the effect of abstracts and tables of contents on scholarly influence. With these variables we are able explore whether document element differences in scholarly influence persist when we statistically account for other reasons—beyond publication year and law review of publication—an article might enjoy a heightened scholarly influence.

Adding controls for authorship status (`law_prof`; `law_prof` at a top 15 law school; `collaboration`) and number of footnotes suppresses the effect of document elements. This indicates that part of an explanation for why articles using abstracts and/or tables of contents enjoy greater influence than other articles is—in addition to being in a better law review—that they are authored

³⁴ *Id.*

³⁵ See generally Christopher A. Cotropia & Lee Petherbridge, *The Dominance of Teams in the Production of Legal Knowledge*, 124 YALE L.J. FORUM 18, 20-21 (2014), <http://www.yalelawjournal.org/forum/the-dominance-of-teams-in-the-production-of-legal-knowledge> [perma.cc/566A-4NMR]. *But cf.* Ayres & Vars, *supra* note 28, at 438-39 (reporting on the effects of co-authorship in three elite law reviews).

³⁶ In addition to empirics, there is a conceptual relationship between these variables and the quality of the underlying research. It can be sketched as follows:

For number of footnotes: One might expect that, on average at least, articles with more footnotes are better researched articles. If one assumes that better researched articles are more likely to make a valuable scholarly contribution, then the number of footnotes should positively predict scholarly influence.

For law professor status: It is plausible that due to environmental forces that offer benefits and costs for the quality of research outputs, law professors might be more likely than individuals who are not law professors to produce research that makes a valuable scholarly contribution. If so, one should expect a positive relationship between articles authored by law professors and scholarly influence. A similar line of thinking leads to the plausible expectation that law professors ensconced in top 15 law schools might be expected to produce research that is generally more influential than that produced by law professors at other law schools. *Accord* Eisenberg & Wells, *supra* note 10.

For collaboration over solo research, see Cotropia & Petherbridge, *supra* note 35, at 22.

by law professors, are the products of collaborative research, and may be somewhat better researched.

Document element status remains, however, strongly significant. This observation indicates that document elements have a role in explaining the scholarly influence of academic work in the field of legal studies independent of explanations offered by the other variables.

Nor is the effect size trivial. The expected rate of citation is 1.158 times greater for articles with abstracts over those without, and articles having both abstracts and tables of contents have an incident rate of 1.233 times.

Finally, the pattern of observations in models (5)-(8) mirrors that generally observed. Articles that include one or both document elements are significantly more influential than articles lacking both elements (abstract, $p=0.003$; toc, $p=0.006$; abs & toc, $p<0.001$). The influence of articles that include just a table of contents is lower than that for articles that include just an abstract, although the differences between the two elements are no longer statistically noticeable (e.g., model (8) $p=0.268$). The influence of articles including both elements is significantly higher than that of articles using just a table of contents (e.g., model (8) $p=0.001$), and higher than that of articles using just an abstract (although no longer significantly so (e.g., model (8) $p=0.253$)).

Models (5)-(8) use statistical controls for law review of publication. As noted earlier, the law review controls might be challenging to the identification. To address this concern, we do two things. First, model (9) removes the law review controls, but retains all of the other controls. As might be expected, doing this enhances the impact of document elements. Compared to articles without the document elements, the expected rate of citation for articles with just an abstract is 1.302, which is significantly higher than the rate for articles with just a table of contents (1.067; $p<0.001$), and statistically indistinguishable from articles using both elements (1.333; $p=0.647$).

Second, we also examine the effect of abstracts and tables of contents at the nearly individual law review level.

In an ideal experiment pairs of identical articles might be published at the same time in the same journal and we might randomly assign abstracts. This is beyond our powers, of course,

but the data does present an imperfect natural experiment. It allows us to explore the impact of abstracts and tables of contents in law review articles published in the same year and in law reviews that might have similarly effective processes for identifying important research, similar market power for securing the right to publish such work, and similar reputation among the reading (and citing) public.

The imperfect natural experiment is observed by grouping observations from the top³⁷ four law reviews³⁸ in the data and examining the impact of abstracts only, tables of contents only, both abstracts and tables of contents, or the presence of at least one of the elements (Table 4.). When this is done we find that the rate of citation is greater for articles with abstracts and/or tables of contents than for articles without the elements for each publication year. Moreover, while not all calculated rate ratios are statistically noticeable, the impact of document element status on rate of citation is strongly positive³⁹ and statistically noticeable for most years.⁴⁰

A positive association between document element status and scholarly influence thus exists across a set of law review articles that may be substantially similar in quality and in opportunity to be cited. This is an observation that, in view of the imperfectness of the experiment, might be described as consonant with the notion that abstracts and tables of contents can, by themselves, confer scholarly influence.

³⁷ Based on the average of combined impact factor scores reported by Washington and Lee for all of the journals in the dataset from 2003-2011. See *Law Journals: Submissions and Ranking Explained*, WASH. & LEE U. SCH. L.: L. LIBR., <http://lawlib.wlu.edu/lj/method.asp#impactfactor> (last visited Aug. 14, 2016) [perma.cc/C9V3-8BQT].

³⁸ We selected the top four law reviews to collect enough data points for the modeling. The law reviews included are *Stanford Law Review*, *Columbia Law Review*, *Texas Law Review*, and *Georgetown Law Journal*.

³⁹ *But see* Table 4 abstracts, 2009 (0.818); tables of contents, 2006 (0.923), 2008 (0.868).

⁴⁰ The “experiment” necessarily relies on small numbers of articles; had we been able to include more, it is possible—in view of the size of the observed rate ratios—that even more of the observations would be significant.

pub_year	abs	toc	both	atl_one	n
2000	1.277	2.194*	2.410***	1.873*	69
2001	1.087	1.486	1.827*	1.491^	73
2002	2.827***	3.013***	2.894***	2.913***	77
2003	1.864*	1.810***	2.721***	2.032***	89
2004	2.301^	2.083***	2.338***	2.193***	78
2005	1.308	1.632*	1.798*	1.622*	84
2006	1.207	0.923	1.944**	1.251	92
2007	1.901^	1.072	1.297	1.274	91
2008	1.823	0.868	1.308	1.166	99
2009	0.818	1.545^	2.159***	1.885**	82
2010	2.953**	2.303**	2.808***	2.656***	62

Table 4. Incident rate ratios from negative binomial models of the influence of abstracts and tables of contents. Dependent variable is the count of number of citations (no_cites). IRRs in the (atl_one) column are from models categorizing articles as using at least one of either an abstract or a table of contents. Models are yearly, and include articles published in the top four law reviews in the data. ^= $p < 0.1$, *= $p \leq 0.05$, **= $p \leq 0.01$, ***= $p \leq 0.001$.

III. DISCUSSION

This Article makes several observations about the relationship between a law review article's scholarly influence and its use of an abstract and/or a table of contents. To summarize:

(1) The rate of citation for articles with only an abstract is roughly 1.62 times the rate of those without either element⁴¹; empirically, the difference for an average article is 4 (median) to 6.5 (mean) additional citations; the difference for an average

⁴¹ The actual numbers are in reference to model (4). It is the most general model that also addresses the time articles have been available for citation.

article ten years⁴² after publication is 27 (median) to 31.6 (mean) additional citations.

(2) The rate of citation for articles with only a table of contents is roughly 1.41 times the rate of those without either element: empirically, the difference for an average article is 3 (median) to 4.2 (mean) additional citations; the difference for an average article ten years after publication is 4 (median) to 9.9 (mean) additional citations.

(3) The rate of citation for articles with both abstracts and tables of contents is roughly 2.11 times the rate of those without either element: empirically, the difference for an average article is 7 (median) to 10.1 (mean) additional citations; the difference for an average article ten years after publication is 12 (median) to 26.9 (mean) additional citations.

(4) The direction of effect for both abstracts and/or tables of contents is positive and consistent across publication years, and across the citation distribution.

(5) Abstracts and tables of contents appear more often in highly cited articles than in lowly cited articles, and the rate of document element adoption has been faster in highly cited articles.

(6) Document element differences in scholarly influence persist when we account for differences in scholarly influence explained by other factors, suggesting that document elements provide an independent explanation for an article's scholarly influence.

(7) Document element effects are observed across a set of law review articles that may be substantially similar in quality and in opportunity to be cited. Such a finding is expected if document elements by themselves are adequate to enhance the scholarly influence of an article.

A. Should Your Law Review Article Have an Abstract and Table of Contents?

In describing the impact of document elements on the scholarly influence of research in the field of legal studies, we have only just opened the field study. There is now good evidence

⁴² Using the 2002 publication year.

of nonrandom association between abstracts, tables of contents, and scholarly influence. Correlation does not, however, prove causation and a question made immediately salient by this work is the question asked by the title of this article: should your law review article have an abstract and table of contents?

Although there are many ways to answer this question, our discussion will focus primarily on the case made by the data; although we will, afterward, give attention to other relevant considerations. To help keep the discussion properly focused on the data we can rephrase the question, “should your law review article have an abstract and table of contents?” to, “if one could publish law review articles identical in every respect (e.g., time and journal of publication, author gender, collaboration status, subject matter, etc.) except for the inclusion of a competent abstract, would those articles differ in scholarly influence?”

It would be too heroic to claim that we have proved that the answer to this question is “absolutely yes.”⁴³ No single piece of evidence we have gathered and reported ensures that answer. Even so, we think the answer is likely enough to be “yes” that legal scholars and law reviews—at least if they desire to perform and publish research that helps to shape the infrastructure of legal knowledge—should generally include abstracts and/or tables of contents in⁴⁴ law review articles.

In drawing this conclusion we emphasize three pieces of evidence. First, the multiple regression analyses and Table 4’s limited natural experiment suggest the interpretation that abstracts and tables of contents explain aspects of scholarly influence not explained by other variables known to explain it. Given the use of a pseudo R-squared, it is difficult to assess how much variance is explained by these models, but one can get an idea by specifying ordinary least squares models.⁴⁵ When this is

⁴³ Even ignoring the fact that we observed past events and cannot know the future.

⁴⁴ By “in” we mean within the four corners of the published article. Abstracts can be associated with an article even when the published article does not include an abstract. Examples of this might include SSRN or web of science. We did not investigate that phenomenon. Our analysis relies exclusively on document elements included in the body of the published paper.

⁴⁵ This evaluation is not extreme. In the past, and for many today, it would be acceptable to use this specification.

done⁴⁶ (to model (8)) the R-squared is 0.431, which indicates that the model explains a good amount of variance.⁴⁷

Second, to this evidence we would add the observation that document elements have a seemingly massive effect. The rate of citation is 50-percent (or more) higher when document elements are used over when they are not, in many cases. The effects might also compound. A decade or so after publication an average top 100 law article including, for example, an abstract, might fairly conservatively be expected to enjoy ten to fifteen additional citations, although as noted above the benefit might be even greater.

Finally, the relative impact of tables of contents and/or abstracts is consistent both across publication year,⁴⁸ and across the citation distribution.⁴⁹ If one has to bet on past performance, it is encouraging to observe such a regular pattern.

By contrast, there is a noticeable lack of evidence that we would interpret as indicating that abstracts and tables of contents have a negative impact on the scholarly influence of an article. This observation encourages us to the conclusion that there is unlikely to be any harm to scholarly impact when one includes an abstract and table of contents. Moreover, balancing this no-harm-for-including-document-elements interpretation with the evidence emphasized above leads us to the conclusion that a legal scholar or law review should want to include at least an abstract, and better yet a table of contents to boot, in every law review article.

That concludes the case from the data and we think it enough to recommend the use of abstracts and tables of contents in the field of legal studies.

B. A Document Element Hypothesis

The results raise the question of just how abstracts and tables of contents might influence the scholarly impact of research. In attempting to answer that question, we have fashioned a hypothesis that is consistent with logical expectations

⁴⁶ The independent variable is transformed by the square root function to address over-dispersion.

⁴⁷ The coefficients also retain their direction of effect and significance.

⁴⁸ See Fig. 2.

⁴⁹ See Fig. 4.

for the function of the document elements and that corresponds to our observations. What we ultimately hypothesize is that abstracts and tables of contents interact with human biological mechanisms to reduce the cognitive burdens researchers face in learning about and applying the research of others. We sketch the ideas below.

To begin with, it is reasonable to postulate that human researchers are limited in their capacity to read and interpret research articles and that the limitation is a function of how their human biological endowment interacts with symbols appearing on paper or electronically in research articles. It is likewise reasonable to postulate that human researchers must commit resources to individual goals other than reading and interpreting research articles, such as energy acquisition and reproduction (not to mention actually performing and writing about research!). Taken together, it is reasonable to conclude that it is costly for humans to devote time to reading and interpreting research articles and that there are other fitness-related behaviors that will compete for a researcher's resources.

Both abstracts and tables of contents may serve the purposes of giving a reader an idea of the topics an article covers and providing a pre-reading outline of an article. If abstracts and tables of contents serve these purposes, then it seems apparent that both abstracts and tables of contents may help researchers read and interpret information that is costly to acquire. The probable alternative—when an article lacks such document elements—is that a researcher will need to read and interpret many more symbols in order to unearth (comprehend and perhaps apply to an already abstract body of ideas) the contribution of research reported in an article.

If that is correct, a fairly comfortable prediction is that articles having abstracts and tables of contents will, everything else being even, be more likely to be used by researchers, more likely to be cited, and in the framework used in this Article, be of greater scholarly influence. This is precisely what we observe.

Abstracts could be expected to go well beyond tables of contents when it comes to reducing the cognitive burdens associated with the research task. Abstracts might not only help researchers read and interpret an article, they could also help

researchers (1) find the article, (2) remember the article, and (3) arrange its contribution within a broader landscape of knowledge. As tables of contents are less likely to serve these purposes as well, a reasonable prediction is that, everything else being even,⁵⁰ abstracts will have a greater impact on scholarly influence than tables of contents. This, too, is what we observe.

For the reasons just set out, we think the hypothesis that abstracts and tables of contents interact with human biological mechanisms to reduce the cognitive burdens researchers face when performing research tasks does a fair job of explaining why the use of both document elements should positively impact the scholarly influence of an article, and why, as we observe, abstracts might work a greater impact than tables of contents.

A final point—in the prior part we focused on analyzing the question: should your law review article have an abstract and table of contents? from the perspective of the empirical observations, and noted that afterward we would give attention to other relevant considerations. The other relevant considerations we had in mind are presented in the ideas underlying our hypothesis. While we realize it is a bit circular, because our hypothesis is shaped by our ideas and our observations, we nevertheless suggest that if you find convincing the ideas underlying our hypothesis, then there is further reason to answer the question: should your law review have an abstract and table of contents? with a “yes.”

⁵⁰ We have twice just caveated “everything else being even,” and when doing so had in mind the idea that citation would not be impacted by things like the field of study, or by the gender of the author, etc. Another thing we had in mind was that the underlying research was equally well presented and of equal importance in contribution. But the act of creating, particularly an abstract, but also perhaps a table of contents, may correlate with presentation and research quality. It is plausible, more specifically, that having to include an abstract and a table of contents in a research article—particularly one of law review length—actually encourages the research and writing of an article that is both less costly to read and interpret and makes a more important contribution. This might occur because the exercise of creating these document elements could feed back on both the underlying research and its presentation. One predicts that this self-disciplining effect should be greater for abstracts, which require a distillation of research, than for tables of contents, which might be more mechanically generated. Such a prediction would be consistent with our observations.

CONCLUSION

Law review articles are notably different from professional academic publications in other disciplines in that most law review articles lack an abstract. Although the departure from norms is not as dramatic in the case of tables of contents, it is nonetheless true that they are used inconsistently in law review articles. These patterns are curious at least for the reason that these document elements could play a role in enhancing the scholarly influence of legal studies research.

This Paper explores the impact of these documents elements on scholarly influence to find that abstracts and tables of contents associate with large increases in the scholarly influence of law review articles. The effect of including just an abstract is noticeably more than that of including just a table of contents, but the effect of including both document elements corresponds to the largest increases—for an average article a more than 70% increase in number of citations.

This Paper also discusses and answers in the affirmative the question posed in its title. Assuming that legal studies authors and publishers wish for others to benefit from research, law review articles should generally include at least an abstract and better yet both an abstract and table of contents.

Finally, consilience between our observations and our ideas about how cognitive burdens associated with the research task might be affected by abstracts and tables of contents raise the hypothesis that both of these document elements work by reducing cognitive burdens researchers experience when performing research tasks, although sometimes in different ways.