

The Production, Consumption and Content of Legal Scholarship: A Longitudinal Analysis

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INTRODUCTION

Our goal is to construct a large-scale relational database of legal scholarship from 1928 to the present that will allow examination of the production, consumption, content and evolution of legal scholarship generally and interdisciplinary legal scholarship in particular. The database will be built in five stages, corresponding to five types of data. In Stage 1, we create the core dataset using data from the Index of Legal Periodicals. This information includes basic bibliographic information for virtually every piece of legal commentary published since 1928, including a detailed breakdown by subject matter. Stage 2 adds detailed biographical information on authors, such as educational background, institutional affiliations, academic honors, work experience, gender, ethnicity, and age. Stage 3 assembles data on relative law school prestige (and, by extension, journal prestige) based on law school rankings, including various assessments that pre-date the publication of the *U.S. News & World Report* rankings. Stage 4 involves adding detailed citation counts for law review articles, broken down by type (judicial, academic, specialty journal, general journal, student-edited journal, peer reviewed journal, etc.), thus providing measures of how consumption patterns of legal scholarship have changed over time. Stage Five catalogues a wide variety of exogenous events (e.g. scandals, social tumult, legislation, landmark legal opinions, advent of electronic databases, etc.) that could affect the production and content of legal commentary.

This relational database will facilitate a large number of projects for law and social science researchers. This project summary will explore three initial lines of inquiry: (1) How has the volume, content, and diversity of legal scholarship changed over time, and are there patterns that might signal an institutional shift away from professional training of lawyers and toward academic scholarship? (2) How have these changing patterns of production and content of legal scholarship affected the relative balance of consumption, measured by citation counts, between

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courts and academics, and to what extent is consumption a function of academic prestige of the publishing journal? (3) What is the relationship between author characteristics and the volume, content, and placement of legal scholarship?

I. LEGAL SCHOLARSHIP AS A SUBJECT OF INQUIRY

Over the last century, the current constellation of 190 American Bar Association (ABA) approved law schools, the primary sources of legal scholarship, emerged from a patchwork of proprietary professional schools with minimal admissions standards and virtually no scholarly ambitions.¹ Collectively, these schools (and a few outside publishers) now publish over more than 680 scholarly legal journals (182 general interest student-edited law reviews, 315 specialty, student-edited law reviews, and 185 non-student edited peer review and trade journals),² most with multiple issues per year, and including both general and specialized journals. Each publication in one of these journals reflects choices by authors, editors, and law schools, providing data on trends in legal education and the production and consumption of legal scholarship. Examination of this data requires the compilation of a large relational database that will allow us to track, quantify, and evaluate the development of legal scholarship over the past 78 years.

Legal scholarship is unique in ways that are both interesting and problematic. For example, the subject matter content of law journals in many respects is amorphous, with virtually no bounds on subject matter, particularly compared with social science disciplines such as political science or economics. Legal academics can and do write on any topic that interests them, and an ever-expanding raft of student-edited journals ensures that most manuscripts will eventually find their way into print.³ Further, because law has no core discipline or methodology that yields definitive results,⁴ legal scholarship often supports its claims by making instrumental use of social science evidence, combining empiricism and polemics within a single article. This scholarship is generally published with little peer review process or any guarantee that either the author or the student editors have relevant training in the social science discipline the article purports to apply.⁵ Despite these flaws, this system serves as the basis for substantial professional rewards. A junior faculty member's tenure prospects at many schools are measurably enhanced if she is lucky enough to convince the student-editors at *Harvard Law Review* or *Yale Law Journal* that she has something noteworthy to say.

¹ See ROBERT B. STEVENS, *LAW SCHOOL: LEGAL EDUCATION IN AMERICA FROM THE 1850S TO THE 1980S* (1983).

² <http://www.lexisnexis.com/lawschool/prodev/lawreview/>.

³ Paul Brest, *Plus Ça Change*, 91 MICH. L. REV. 1945 (1993); Erik M. Jensen, *The Law Review Manuscript Glut: The Need for Guidelines*, 39 J. LEG. EDUC. 383 (1989); Jordan H. Leibman & James P. White, *How the Student-Edited Law Journals Make Their Publication Decisions*, 39 J. LEG. EDUC. 387 (1989).

⁴ See Richard A. Posner, *The Decline of Law as an Autonomous Discipline: 1962-1987*, 100 HARV. L. REV. 741 (1987); Brian Leiter, *Measuring the Academic Distinction of Law Faculties*, 29 J. LEG. STUD. 451 (2000).

⁵ Richard S. Markovits, *Second-Best Theory And The Standard Analysis Of Monopoly Rent Seeking: A Generalizable Critique, A "Sociological" Account, And Some Illustrative Stories*, 78 IOWA L. REV. 327, 364-366 (1993) (discussing some consequences of student editors' lack of scholarly experience in making publication decisions on a response to a previously published article).

The open nature of legal scholarship has virtues as well as flaws. Student editors' lack of disciplinary training means they lack a vested interest in established ideas or modes of analysis that could hamper acceptance of new approaches. The law review format enables authors, including those trained as both lawyers and social scientists, to present empirical findings and to explore the normative implications of those findings in the same article. In addition, the lag between submission and publication is comparatively short, permitting legal scholars to engage in timely discussions of current issues. Finally, many student editors of law journals ascend to positions of influence in government and business. As a result, legal scholarship, because of its proximity to the world of commerce and policy, is emerging as a primary academic field for robust and innovative interdisciplinary studies.⁶ As the number of legal academics with both JD and advanced degrees in other disciplines continues to grow, legal scholarship may prove able to integrate traditional doctrinal analysis with empirical and theoretical work and move toward a model of applied social science.

Another reason to examine legal scholarship is that its content has changed significantly over time. During the late nineteenth and early twentieth century, most jurists and legal commentators argued that judicial decision-making was a "scientific, deductive process by which preexisting legal materials subsume particular legal cases under their domain, thus allowing judges to infer the antecedently existing right answer to the case at bar."⁷ Legal scholarship was therefore seen as a coherent, self-contained discipline, the purpose of which was to guide the proper resolution of civil and criminal matters⁸ and it focused on explicating legal doctrine.

The early twentieth century saw the rise of a new "sociological jurisprudence." Harvard Law Professor Roscoe Pound described the new approach as seeking to conform legal principles and doctrines "to the human conditions they are to govern rather than to assumed first principles." Pound "implored his brethren in the legal profession to 'look to economics and sociology and philosophy and cease to assume that jurisprudence is self-sufficient.'"⁹ As sociological jurisprudence took hold in the nation's elite law schools, it focused on the content of the law school's curriculum and the academy's influence among current and future judges and lawmakers rather than on the content of scholarship. The number and placement of articles was not yet the primary measure of prestige. Rather, the nation's leading law professors viewed themselves primarily as social reformers.¹⁰ The distinctive feature of sociological jurisprudence was the belief that diligent recourse to social science materials could ultimately guide courts to more equitable and humane results. Thus, law students trained in this tradition could be expected to challenge the status quo with effective marshaling of empirical evidence, a technique

⁶ See, e.g., Tracey George, *An Empirical Study of Empirical Legal Scholarship: The Top Law Schools*, 82 INDIANA L. J. 141 (2005); Michael Heise, *The Past, Present, and Future of Empirical Legal Scholarship: Judicial Decision Making and The New Empiricism*, 2002 U. ILL. L. REV. 819 (2002).

⁷ RAYMOND A. BELLIOTTI, JUSTIFYING LAW 4 (1992).

⁸ Posner, *Decline of Law*, *supra* note 4.

⁹ G. Edward White, *From Sociological Jurisprudence to Realism: Jurisprudence and Social Change in Early Twentieth Century America*, 58 VA. L. REV. 999, 1004 (1972), quoting Roscoe Pound, *Laws in Books and Laws in Action*, 44 AM. L. REV. 12 (1910).

¹⁰ Harry First, *Competition in the Legal Education Industry*, 53 N.Y.U. L. REV. 311 (1978); Gerald Fetner, *The Law Teacher as Legal Reformer: 1900-1945*, 28 J. LEG. EDUC. 503 (1977).

that would later be dubbed the “Brandeis brief.”¹¹ Because of the long time span of our data, we hope to be able to examine the impact of sociological jurisprudence on legal scholarship and to compare that impact to more recent interdisciplinary approaches such as law and economics.

In the early 1930s, sociological jurisprudence was gradually supplanted by legal realism. Legal realists took the view that judicial decision-making was itself a product of social, psychological, political, and economic forces. In the first article to self-consciously advance a realist perspective, Karl Llewellyn acknowledged Roscoe Pound’s “pioneering” insights but criticized sociological jurisprudence for not being interdisciplinary enough, arguing that much of the new scholarship “remains bare of most that is significant in sociology.”¹² As was the case with advocates of sociological jurisprudence before them, legal realists focused on transforming the law school curriculum.¹³

Many of the leading realists entered public service and became the principal architects of several major legal reforms.¹⁴ Between 1938 and 1962, legal academicians were instrumental in drafting the Federal Rules of Civil Procedure, the Uniform Commercial Code, the Administrative Procedures Act, and numerous uniform state laws; they also attempted to rationalize the common law through the American Law Institute’s Restatements and used the Model Penal Code as a platform to rethink substantive criminal law. The intellectual accomplishments of this era enabled legal academicians to re-establish law as an autonomous discipline that focused on doctrinal analysis. The Harvard faculty of the late 1950s and early 1960s epitomized the “doctrinal” model of legal scholarship and largely set the standard by which other law schools were judged.¹⁵ Recounting his days as a law student, Judge Posner described the prevailing view among Harvard faculty that “the only essential preparation for a legal scholar was the knowledge of [‘authoritative legal texts—judicial and administrative opinions, statutes, and rules’] and the power of logical discrimination and argumentation that came from the close and critical study of them.”¹⁶

Over the last three decades, however, the prestige of traditional doctrinal analysis has waned in favor of more theoretical and interdisciplinary scholarship.¹⁷ But unlike the sociological

¹¹ John Hasnas, John, *Back to the Future: From Critical Legal Studies Forward to Legal Realism, or How Not to Miss the Point of the Indeterminacy Argument*, 45 DUKE L. J. 84, 91 (1995).

¹² White, *supra* note 9, at 1020, quoting Karl N. Llewellyn, *A Realistic Jurisprudence—The Next Step*, 30 COLUM. L. REV. 431 (1930).

¹³ E.g. Karl N. Llewellyn, *On What is Wrong with So-Called Legal Education*, 35 COLUM. L. REV. 651 (1935); Jerome Frank, *A Plea for Lawyer-Schools*, 56 YALE L. J. 1303 (1947); William O. Douglas, *GO EAST, YOUNG MAN: THE EARLY YEARS 159-60* (1974).

¹⁴ Hasnas *supra* note 11, at 91-93.

¹⁵ Daniel R. Ernst, *The Lost Professor*, 21 L. & SOC. INQ. 967, 975 (1996) (review of John Henry Schlegel, *American Realism and Empirical Social Science* (1995)).

¹⁶ Posner, *Decline of Law*, *supra* note 4, at 763-64.

¹⁷ E.g. Michael Heise, *Brown v. Board Of Education, Footnote 11, and Multidisciplinarity*, 90 CORNELL L. REV. 279, 316 (2005); Richard A. Posner, *Law, Knowledge, and The Academy: Legal Scholarship Today*, 115 Harv. L. Rev. 1314, 1320-21 (2002); Robert Post, *Legal Scholarship and the Practice of Law*, 63 UNIV. COL. L. REV. 615, 615 (1992); Roger C. Cramton, *Demystifying Legal Scholarship*, 75 GEORGETOWN L. J. 1, 9 (1986); HERBERT L. PARKER & THOMAS ERLICH, *NEW DIRECTIONS IN LEGAL EDUCATION* (1972).

jurisprudence and legal realism movements, which sought out other disciplines to influence the training of lawyers and the judicial decision-making process, the current direction of legal scholarship has caused many commentators and jurists to complain of a “growing disjunction” between the legal academy and the legal profession.¹⁸ One of the sharpest critics of recent trends in scholarship is Judge Harry Edwards of the U.S. Court of Appeals for the District of Columbia (and a former law professor at the University of Michigan). In a widely cited 1992 article in the *Michigan Law Review*, Judge Edwards lamented that critical legal studies and the “law and ...” movements had largely displaced traditional legal scholarship at the nation’s leading law schools. “As a consequence,” remarked Edwards, “judges, administrators, legislators, and practitioners have little use for much of the scholarship that is now produced by members of the academy.”¹⁹ Others have raised similar concerns.²⁰

In a subsequent symposium on Edwards’ critique, prominent law professors wrote vigorous defenses of contemporary legal scholarship,²¹ while Judge Edwards responded by drawing upon numerous laudatory letters from lawyers, judges, professors and deans.²² As law professors (and scholars in the “law and” tradition), we take Judge Edwards’ criticism seriously. Indeed, one of the driving forces behind our desire to create a longitudinal database of legal scholarship is to empirically assess Edwards’ claims.

Further, insofar as legal scholarship is becoming highly interdisciplinary and empirical, the student-edited model of legal scholarship may be becoming less successful due to the inability of student editors to evaluate such work. Not surprisingly, during the last two decades, there has been a steady proliferation in the number of peer-reviewed legal journals. The appearance of these journals raises questions about both the “impact” of peer-reviewed scholarship vis-à-vis scholarship in traditional law reviews and the impact on the type of articles published in traditional law reviews.

Finally, it is important to examine how the ascendancy of the *U.S. News & World Report* annual rankings, which began publishing its annual rankings of ABA-approved law schools in 1990,²³ has begun to influence the process and production of legal scholarship. For example, within the legal academy, there is widespread anecdotal evidence that the *U.S. News* rankings of

¹⁸ Harry T. Edwards, *The Growing Disjunction Between Legal Education and the Legal Profession*, 91 MICH. L. REV. 34, 34 (1992).

¹⁹ *Id.* at 35.

²⁰ Judith S. Kaye, *One Judge’s View of Academic Law Review Writing*, 39 J. LEG. EDUC. 313, 320 (1989); American Bar Association, *Legal Education and Professional Development—An Educational Continuum, Report of The Task Force on Law Schools and the Profession: Narrowing the Gap* (July 1992) at 5.

²¹ E.g., George L. Priest, *The Growth of Interdisciplinary Research and the Industrial Structure and Production of Legal Ideas: A Reply to Judge Edwards*, 91 MICH. L. REV. 1929 (1993); Brest, *supra* note 3; Barbara Bennett Woodhouse, *Mad Midwifery: Bringing Theory, Doctrine, and Practice to Life*, 91 MICH. L. REV. 1977 (1977); Sanford Levinson, *Judge Edwards’ Indictment of “Impractical” Scholars: The Need for a Bill of Particulars*, 91 MICH. L. REV. 2010 (1993).

²² Harry T. Edwards, *The Growing Disjunction Between Legal Education and the Legal Profession: A Postscript*, 91 MICH. L. REV. 2191 (1993).

²³ William Henderson & Andrew P. Morriss, *Student Quality as Measured by LSAT Scores: Migration Patterns in the U.S. News Rankings Era*, 81 IND. L. J. 163 (2005).

authors' affiliations play an important role in the publication decisions of student editors.²⁴ This project will permit an empirical assessment of the influence of *U.S. News* rankings on article placement

II. DATABASE AND RESEARCH QUESTIONS

The first step in this project is the creation of the relational database of legal scholarship. A relational database is a method of structuring data as a collection of tables (i.e., rows and columns of digital information) that are logically associated to each other by shared attributes. The core data for this project is basic bibliographic information (author, title, journal citation, publication date) and subject coding from the *Index to Legal Periodicals* (“*ILP*”). The *ILP*-derived data provides the foundation upon which all other data will rest.

As outlined below, our project is organized conceptually into stages that correspond to the creation of specific data tables.

- **Stage 1** focuses on the *ILP* dataset, which includes a record for virtually every law journal article published since 1928 (approximately 420,000 records).²⁵
- **Stage 2** constructs a detailed table of author biographical data. This information will be obtained from the American Association of Law Schools (AALS) directory and the Martindale-Hubbell directory of lawyers. Both of these sources have been published annually since the early 1920s. (This data will also be independently used to examine trends in the staffing of law schools.)
- **Stage 3:** constructs a table with longitudinal data on relative law school prestige, including measures of prestige gleaned from sources that substantially predate *U.S. News*.
- **Stage 4** constructs a table that records how often an article has been cited and by whom (e.g., other law journal articles; social science journals; courts, broken down by type; administrative agencies; court briefs). To the extent possible, this stage would also collect or calculate the number of court opinions and statutes cited by the article. Within limits, this information can variously be obtained from electronic legal reference sources such as Westlaw and LexisNexis, and non-legal reference sources such as the Social Science Citation Index (SSCI).
- **Stage 5** will construct an “events” table that catalogs a wide range of significant legal, cultural, and political events, such as the stock market crash of 1929, *Brown v. Board of Education*, the Civil Rights Act, the escalation of the Vietnam war, *Miranda v. Arizona*, the Watergate scandal, *Roe v. Wade*, *Bush v. Gore*, September 11th, the collapse of Enron, the advent of Westlaw and LexisNexis, etc., that could affect the production and content of

²⁴ One of the principal investigators experienced a particularly dramatic example of this in February 2005 when a representative of a journal set an email to ask if a previously rejected manuscript was still available, explaining that her journal had mistakenly classified the author's school as the wrong *U.S. News* rank and so rejected the piece without reading it. Having corrected the classification error, the journal now wanted to read the article. Other professors report examples of student editors writing the *U.S. News* rank of an author's home institution on the manuscript and a recent online discussion of the ExpressO electronic submission service produced speculation about whether ExpressO's format facilitates such practices. http://www.theconglomerate.org/2006/03/expresso_to_the.html.

²⁵ Other indices extend further and we hope to eventually add coverage from these other sources.

legal scholarship. In particular, we hope to examine whether those taking particular positions on such issues experience “better” placements than those taking opposing positions. (We recognize that this will prove the most difficult subject to operationalize consistently, which is one reason we postponed it to the final stages of the project.)

These five stages reflect a conceptual organization of the database-building process. Our initial inquiries will focus on the following three thematic groups: (1) production and content of legal scholarship, (2) consumption and influence of legal scholarship, including its relevance to the professional training of lawyers, and (3) the relevance of author characteristics.

i. Production and content of legal scholarship: *How have the number, content, and diversity of publications changed over time?*

The “production and content” research question is intended primarily to generate descriptive statistics showing change over time. We will examine the following:

- *Change in the number of journals.* We know that the number of publications in the *ILP* database has grown dramatically. Between 1946 and 1961, the number of periodicals listed in the *ILP* grew from 188 to 300.²⁶ Today, that same number stands at 851.²⁷ We will classify these periodicals (e.g., flagship, peer-reviewed, specialty journals, bar journal, etc.) and generate longitudinal variables. We anticipate testing the impact of the appearance of specialty journals on placement in general journals of articles in the various specialties.
- *Change in author productivity.* We expect to observe an increase in the per capita scholarly output of law faculty over time and will test this hypothesis.²⁸ We also plan to examine the influence of factors such as advanced social science degrees on productivity and to search for “Moneyball” predictors of productivity.²⁹
- *Change in subject matter.* Based on the perceived movement toward interdisciplinary and theoretical scholarship, we expect to observe significant changes in article subject matter as defined by the *ILP* subject headings. We will carefully analyze patterns in *ILP* subject headings to delineate categories more likely to be “doctrinal”, “theoretical”, and “interdisciplinary,” etc.
- *Change in placement patterns by subject matter.* If the stature of theoretical and interdisciplinary scholarship has risen over the last several decades,³⁰ we would expect to see this type of work increasingly populating more prestigious journals.

We expect that most of the longitudinal variables needed for this work will be generated in Stages 1 and 2. After developing this empirical context, research questions in the “consumption

²⁶ Jean Stefancic, *The Law Review Symposium Issue: Community of Meaning or Re-Inscription of Hierarchy?*, 63 Univ. Colo. L. Rev. 651, 655-56 (1992).

²⁷ The *ILP* actually lists 1,004 journals. After excluding name changes, the number drops to 851.

²⁸ Julius Getman, *The Internal Scholarly Jury*, 39 J. LEG. EDUC. 337, 340 (1989) claiming greater scholarly output by legal academy because “high scholarly demand” by senior faculty has successfully increased the output of younger scholars)

²⁹ MICHAEL LEWIS, *MONEYBALL: THE ART OF WINNING AN UNFAIR GAME* (2003); Paul L. Caron & Rafael Gely, *What Law Schools Can Learn from Billy Beane and the Oakland Athletics*, 82 Tex. L. Rev. 1483 (2004).

³⁰ Leiter, *supra* note 4, at 469.

and influence” category can begin to focus on broader issues regarding the relationship between legal scholarship and (a) the structure and efficacy of legal education, (b) practicing lawyers and judges, and (c) the broader societal context within which legal choices are debated and decided.

ii. Consumption and Influence of Legal Scholarship: *How have changing patterns of production and content affected the relative balance of consumption and influence of legal scholarship on courts versus other academics? What is the relevance of this change for legal education?*

Citation information, which will be added during Stage 3, will enable this project to explore issues regarding the organization, structure, and purpose of modern legal education. For example, during the last several decades, scholarly output has gradually supplanted p Yet, unlike other academic disciplines, legal scholarship is subject to minimal “supply-side” constraints. Law journals serve institutional purposes beyond the advancement of legal scholarship. Most are staffed by student editors who work without pay in exchange for the experience and credential that journal membership supplies. Further, even if a law journal operates at a deficit, a sponsoring law school may be willing to subsidize its operation as part of its educational mission and/or provide the faculty with a vehicle for symposia that could bring attention to the law school.³¹ Therefore, from the perspective of the law schools, the influence of publications in student-edited journals on outside (i.e., “demand-side”) constituencies, such as practitioners, lawyers, or other scholars, may not be a significant consideration.

But does this “supply-side” system for legal scholarship produce a valuable public good? The current research yields complex, inconclusive results. In a study that compared judicial citations of law reviews articles by all state and federal courts for the years 1975-76, 1985-86, and 1995-96, McClintock documented a 47.5% decline in the total number of citations, with the vast majority of the drop-off occurring between 1985 and 1996.³² On the one hand, McClintock’s results are surprising because they largely coincide with the advent of electronic databases, which presumably reduced search costs for relevant commentary. On the other hand, McClintock’s results were based on citations of articles in “leading journals” based on previous citation counts. As the content of leadings journals has become less practice-oriented, one possible explanation is that courts are placing greater reliance on articles published in less prestigious journals.

Existing literature provides some limited support for this theory. For example, Judge Posner claims that the production of “doctrinal scholarship,” which presumably would be of the most interest to courts, “has shifted toward scholars at law schools of the second and third tiers.”³³

³¹ Michael L. Closen & Robert J. Dzielak, *The History and Influence of the Law Review Institution*, 30 AKRON L. REV. 15, 43 (1996) (noting that law reviews are typically subsidized by law schools that “provide financial support, office space, and professors as advisors.”); George L. Priest, *Triumphs or Failings of Modern Legal Scholarship and the Conditions of its Production*, 63 U. COLO. L. REV. 725, 726 (1992) (noting that all law reviews are subsidized in some way, most by the law schools at which they are published).

³² Michael D. McClintock, *The Declining Use of Empirical Scholarship By Courts: An Empirical Study*, 51 OKLA. L. REV. 659 (1998)

³³ Richard A. Posner, *The Deprofessionalization of Legal Teaching and Scholarship*, 91 MICH. L. REV. 1921, 1923 (1993).

This assertion is partially corroborated by a small scale study by Merritt and Putnam,³⁴ which found a relatively small overlap between the articles most-cited by scholars³⁵ and the articles most-cited by courts. Moreover, Merritt and Putnam, whose sample was limited to articles written between 1989 and 1991, found that several of the articles most-cited by courts were (a) written by practicing lawyers, other judges, and students (i.e., “notes” or “comments,” which tend to be doctrinal), and (b) were much more likely, compared to most-cited articles by legal scholars, to be in journals “published by a wide array of law schools—including such regional schools as Louisiana State, Nebraska, South Carolina, and St. Mary’s.”³⁶ However, Merritt and Putman observed that both courts and scholars tended to cite prestigious journals; the difference was primarily a matter of degree.

The Merritt and Putnam results are largely consistent with a small-scale longitudinal study by Saks, Larsen, & Hodne,³⁷ which examined the subject matter and judicial citations of a sample of articles published in 1960 and 1985. Saks et al. observed a tendency by the courts to cite more prestigious journals, even though a subject-matter analysis documented that these journals tended to publish the type of “impractical” scholarship decried by Judge Edwards. The Saks et al. study wryly concluded, “Like the blind men and the elephant, Judge Edwards ... seems to describe the full body of legal scholarship on the strength of the one leg or tail they have grabbed hold of.”³⁸

The citation patterns of courts and scholars in favor of prestigious journals suggest the possibility of an anomalous equilibrium in which reliance on legal scholarship by the courts would decline at the same time that the output of law professors is reaching new heights. Specifically, judges and their law clerks may have elitist preferences that make them reluctant to cite low-prestige journals, but high-prestige journals are accepting and publishing fewer articles useful to courts’ work. This dynamic, in turn, affects the incentives of young scholars to produce doctrinal scholarship, because citations, even with the courts, are partially a function of placement. In other words, the intellectual nexus between the courts and the academy may be difficult to sustain over time unless there are substantial rewards for practical or doctrinal scholarship at the top of the law school hierarchy.

We will draw on Prof. Thomas Smith’s studies, which have focused on aggregate citation count data.³⁹ Using summary statistics of all state and federal cases in the Lexis database (4

³⁴ Deborah J. Merritt & Melanie Putnam, *Judges and Scholars: Do Courts and Scholarly Journals Cite the Same Law Review Articles?*, 71 Chi.-Kent L. Rev. 871 (1996).

³⁵ Fred R. Shapiro, *The Most Cited Law Review Articles Revisited*, 71 Chi.-Kent L. Rev. 751 (1996).

³⁶ Merritt & Putnam, *supra* note 34, at 889.

³⁷ Michael J. Saks, Howard Larsen, & Carol J. Hodne, *Is There a Growing Gap Among Law, Law Practice, and Legal Scholarship?: A Systematic Comparison of Law Review Articles One Generation Apart*, 28 SUFFOLK UNIV. L. REV. 1163 (1994).

³⁸ *Id.* at 1185.

³⁹ Despite superficial similarities with our project, Professor Smith’s work focuses on the application of network theory to legal materials (e.g., demonstrating that the “network” of American case law mirrors the network structure of the Internet). His findings are based on *summary statistics* generated by LexisNexis database technicians; Smith has *not* developed a database of any legal materials. We have had extensive conversations with Smith and his contacts at LexisNexis. Although our data request is much more extensive (and will require payment for programming time and a licensing fee), LexisNexis has indicated that is technologically feasible. Moreover, LexisNexis is intrigued by what we might find.

million legal precedents), Smith found that approximately 2.5 percent of cases are responsible for 80 percent of all citations.⁴⁰ In July 2005, Smith received similar summary data aggregating citations for 385,000 journal articles in the Lexis database. The preliminary results are astonishing: 43 percent of law journal articles, notes, and comments, etc., have *never* been cited by a single court or commentator.⁴¹ Further, less than 1 percent of all law review articles account for *96 percent* of all judicial and scholarly citations.⁴²

Smith's findings are suggestive, but to draw meaningful conclusions about legal scholarship, the citation data must be disaggregated and analyzed. This project will quantify the use of legal scholarship by courts and other commentators, including patterns in subject matter (from the *ILP* subject headings), and analyze how these patterns have changed over time. We anticipate that this data will allow us to formulate further hypotheses about the value of scholarship produced at different strata of the legal academy, although until we have the results we are uncertain as to what these hypotheses will be.

One possibility is to determine whether the current uniformity in legal education, stressing scholarship and teaching at all levels of the academy, is an appropriate investment. Over the last several decades, the cost of a legal education has risen much faster than inflation, and a significant component of that cost is the increased infrastructure and reduced teaching loads required to support faculty scholarship.⁴³ However, if nearly half of all legal scholarship is never cited by a court or another scholar, and this percentage has substantially increased over time, this raises questions about the value of this investment in scholarship.

iii. Author Characteristics: *What is the relationship between author characteristics and (a) the volume of legal scholarship, (b) the content of legal scholarship, and (c) the placement of articles?*

Author characteristics will provide important data to disaggregate and analyze patterns in legal scholarship. Similar to the previous discussion on the consumption and influence of legal scholarship, the important questions here are often centered on issues of hierarchy and the degree to which merit, as opposed to a wide variety of extraneous factors, orders the relative placement of law review articles. This project will examine how the influence of these factors has changed over time. Our preliminary hypotheses include:

- *Impact of "Outsider" Voices.* During the last three decades, the number of women and minorities in the legal academy has more than tripled, and their influence, in terms of citation counts, has been significant.⁴⁴ We hope to quantify the extent to which changes in the proportion and diversity of legal subject matter corresponds to the increased diversity

⁴⁰ Thomas A.C. Smith, *The Web of Law*, San Diego Legal Studies Research Paper No. 06-11 (2005), draft available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=642863.

⁴¹ Thomas A.C. Smith, *A Voice, Crying in the Wilderness, and Then Just Crying*, The Right Coast, July 13, 2005, <http://therightcoast.blogspot.com/2005/07/voice-crying-in-wilderness-and-then.html> (weblog).

⁴² Id.

⁴³ Richard Allen Matasar, *The Rise and Fall of American Legal Education*, 49 N.Y.L.SCH. L. REV. 465, 482-84 (2005).

⁴⁴ Deborah J. Merritt, *Scholarly Influence in a Diverse Legal Academy: Race, Sex, and Citation Counts*, 29 J. LEG. STUD. 343 (2000).

within the legal academy. We also plan to address whether these voices are concentrated in particular subject areas as a parallel to studies examining the distribution of teaching responsibilities.⁴⁵ For example, we plan to examine whether female authors are disproportionately represented in areas of the law such as family law relative to “mainstream” topics such as constitutional law, to compliment Merritt and Reskin’s examination of teaching assignments between stereotypically “female” and “male” subjects.

- *Letterhead Bias.* In an empirical study of how student-edited law review articles select articles, which included detailed questionnaires and interviews, Leibman and White found that students were often influenced by the fame or institutional affiliation of the author.⁴⁶ Two recent trends may be exacerbating this tendency. First, the number of law professors (and, we suspect, their productivity) has grown dramatically, increasing both the number of submissions and the value of selection heuristics. Second, *U.S. News & World Report* supplies a readily available, if extremely noisy, metric for assessing author prestige. Has the advent of the *U.S. News* rankings served to reinforce an existing hierarchy? Because article placement affects salary, promotion and career mobility within the legal academy, it is important to assess the credibility of the student-run selection process.
- *Credentials Bias.* The production and placement of scholarship is “the currency of the profession”.⁴⁷ Each year, hiring committees attempt to locate new talent that will write articles that will bring prestige to their institutions. To cut through hundreds of candidates at the AALS faculty recruitment conference, several rules of thumb are often used that are presumed to correlate with the production and influence of future scholarship: law school attended, law school performance, law review membership, prestige of clerkships, length and prestige of work experience, other graduate degrees, prior publications, etc. One small-scale study with a small number of variables, which did not utilize multivariate regression, found that only prior publications, including a student note, had any statistically significant positive correlation with the quantity and quality of future productivity.⁴⁸ Because we will have an extensive database of law faculty, their credentials, and their law review publications, we will be able to test whether these rules of thumb are correct. (We recognize that our database does not include significant scholarship published outside law reviews and are wrestling with how to factor that into our work.)

III. WORK PLAN

Given the nature of the data, we have designed the database using an object-relational design methodology. The object-oriented aspect of the design allows the database to be developed in logical steps. Using traditional database development methodologies, each step, starting with building the *ILP* component of the database, provides for the evolution of the database through

⁴⁵ See, e.g., Deborah Jones Merritt & Barbara F. Reskin, *Sex, Race, and Credentials: The Truth About Affirmative Action in Law Faculty Hiring*, 97 COLUM. L. REV. 199, 216-219, 258-273 (1997) (analyzing impact of race and gender on teaching assignments of new faculty).

⁴⁶ Jordan H. Liebman & James P. White, *How the Student-Edited Law Journals Make Their Publication Decisions*, 39 J. LEG. EDUC. 387 (1989).

⁴⁷ Patrick J. Schiltz, *Legal Ethics in Decline: The Elite Law Firm, the Elite Law School, and the Moral Formation of the Novice Attorney*, 82 MINN. L. REV. 705, 749 (1998).

⁴⁸ Caron & Gely, *supra* note 29.

building in new objects (such as author attributes, impact attributes, etc.). The incremental and iterative nature of this database development plan will allow us to identify and mitigate the myriad technical risks and issues that arise from merging sets of data.

The work plan for this project is divided into five stages, which are largely defined by the data sets. Structuring the research in this manner allows us to begin the analysis before the entire database is constructed. The staged design also allows us to build up experience with the operationalization of variables. Because much of this data is either pre-coded based on its database of origin (e.g., *ILP*, LexisNexis, AALS directories, *U.S. News & World Report*) or a count (e.g., number of times an article has been cited by a particular court), the primary data collection issue will be identifying and correcting irregularities and idiosyncrasies in the data (e.g., whether author “John Smith” is the same person as “John J. Smith”).

Stage 1: *Creation of the Core Dataset*

The core data for the project is the basic bibliographic information and subject coding from the *ILP*. The *ILP* bibliographic data provides the skeleton upon which all other data will rest. Stage 1 will take approximately six months.

Data sources. The publisher of the *ILP* has supplied us with machine readable data that identifies each discrete publication (author, title, citation information) and, crucially, subject matter classification for every law journal article published since 1928 (approximately 420,000 articles). In addition, we are independently gathering information on the publication history of each of the more than 800 scholarly law journals (date publication began, number of issues, etc.) and journal characteristics (student edited, peer reviewed, specialty subject, etc.).

Conceptual Issues. Implementation issues for this data are technical rather than conceptual. We are transferring and reformatting pre-existing coding from the *ILP* dataset into ours and matching journal characteristics based on a widely-used coding library system, the ISSN number, and by our research into journals’ publication histories.

Technical Issues. Journals are born, change names, and vanish. We will identify unique journals and assign a unique identifier to each. We will use the *ILP* subject codes to convert the data into a series of dummy and categorical variables for use in statistical analyses. Although legal terminology shifts across time (e.g., “economic jurisprudence” has become law and economics), the *ILP* publisher, HW Wilson has developed a conversion utility that cross-references subject classifications across time.

Stage 2: *Addition of Author Characteristics.*

Augmenting the data set with data on authors is critical to allowing in-depth study of legal scholarship. In this stage we will add a series of author characteristics, such as educational background, academic honors, institutional affiliation, professional work, gender and ethnicity.

Data Sources. Detailed biographical data on members of the legal teaching profession have been published annually since 1922. This data includes information on birth date, undergraduate, law and other graduate degrees, pre-teaching work experience, dates of promotion, visiting appointments, teaching fields, and journal editorial experience. For non-faculty authors who are lawyers, the Martindale-Hubbell directories, which have been published annually since 1931, provides age and educational information. For authors who are not lawyers or law professors,

we will use standard professional directories from other disciplines. The starting point for this investigation will be any biographical information that appears in the journal article.

The most recent AALS and Martindale-Hubbell directories can be obtained in digital format. It should be noted that an author's most recent (or last) entry provides all relevant information going back in time. This will significantly ease the data collection process. For example, the only relevant law professors in the 2004 AALS directory are those that exited the academy before the publication of the 2005 directory. Hence, the amount of information required from each AALS directory, going back into time, will become progressively smaller.

Conceptual issues. Stage 2 focuses on objectively verifiable characteristics of authors. Therefore, we do not anticipate conceptual questions concerning coding. Ranking-related conceptual issues will have been resolved during Stage 3.

Technical issues. The primary technical issue is the process of matching the data from the AALS directories and Martindale-Hubbell directories to the author data in the *ILP*-derived dataset (e.g., author names may vary, more than one person may have a particular name, etc.). We anticipate solving these issues by creating a master list of authors derived from the *ILP* data. We will then use research assistants to clean the list, matching name variants to a single code through examination of articles and directories. Although the magnitude of the task should not be underestimated, we do not anticipate difficulties in implementation.

Stage 3. Addition of Journal Ranking Data.

Data Sources. From a separate project by two of us, we have a complete set of the publicly available *U.S. News* rankings of law schools from their inception in 1990. In addition, we have survey data on law schools conducted by the Midwest Association of Pre-Law Advisors ("MAPLA") during the 1980s, before the *U.S. News* era. Finally, we have located (and will continue to search for) sources from the 1960s and 1970s that provide a breakdown of law school median LSAT scores, which provides a rough proxy for law school hierarchy.

Conceptual issues. Rankings pose a series of conceptual questions because of the scholarly debate over the validity of the *U.S. News* ranking methodology, which has changed dramatically since its inception.

- *Ranking completeness.* The *U.S. News* rankings vary significantly from year to year in their completeness. From an initial ordinal ranking of 20 law schools, the rankings have gradually expanded to an ordinal ranking of 100, with the remaining schools sorted into "tiers." Further, *U.S. News* reports only a subset of ranking data for most schools for most years. This will limit our ability to analyze some ranking submeasures. Fortunately, from 1992 to the present, the most relevant input variables (academic reputation, lawyer-judge reputation, test-based measures of student quality) are available for all ABA-approved law schools. Since most law journals are student edited, exploring student "quality" measures is particularly relevant to this project.
- *Ranking coherence.* *U.S. News* rankings, and in fact all such academic rankings, have been subject to intense criticism for failing to capture relevant dimensions of schools. Since we are interested in the effect of the rankings, rather than their correctness, this poses less of a problem for our study. We plan to address the coherence problem by using multiple measures of quality (LSAT-based, undergraduate GPA-based, reputation scores,

overall rankings) to ensure that our results are not statistical artifacts of particular rankings methodologies.

- *Ranking duration.* The *U.S. News* rankings began annual publication in 1990. Fortunately we have available the MAPLA data to provide baseline data for the pre-*U.S. News* era. In addition, for earlier periods we will use other characteristics of schools to distinguish elite from non-elite schools, such as membership in the American Association of Law Schools, existence of a night program, and, where available, the law schools attended by a school's faculty (available from AALS directories).

Technical issues. Ranks must be assigned by year and legal journals' actual publication dates are notoriously out of synch with their nominal dates. We will assign rankings based on cover dates, believing that the cover dates reflect the date of acceptance of the manuscript. We will match articles and journal issues to an April Year_t to March Year_(t+1) schedule for the years in which *U.S. News* ranked journals. This reflects the publication of *U.S. News*' law school rankings issue in March/April of each year.

Stage 3. Addition of Citation Data

Data Sources. We are negotiating with LexisNexis under which the company's technical personnel will generate citation counts using digital files of standard law review citations, which can be produced from the core *ILP* data set. LexisNexis's database of full-text judicial decision includes virtually all twentieth century state and federal reported court cases, and its combined law review and bar journal database began in 1982. Further, its Shepard's database tracks citations for at least some law journals beginning in the 1970s. We are also negotiating with Thomson Group to obtain citation data from their Social Science Citation Index (SSCI), which tracks citations from 1956 to the present within the social science literature, including approximately 90 law reviews.

Conceptual issues. The data added at this stage will be objective data (citation counts). Citation data raises some important issues:

- *Types of citations.* We plan to code separately for the type of source citing each article: various levels of courts (state, federal, trial, appellate, court of last resort) and other scholarship (e.g., general law reviews, specialty journals, interdisciplinary journals, bar journal, etc.).
- *Distinguishing quality and patterns of citations.* Citation counts alone can be problematic.⁴⁹ Lexis provides bibliographic information for the citations, making it possible to categorize the citing authority based on our other data (e.g., rank of publishing law school, specialty or flagship journal, author, etc.).

Technical issues. The addition of court citations presents additional technical challenges. We will build a separate database of opinions citing to legal scholarship, thus allowing us to ensure consistent treatment of the coding of citing opinions.

Publications Generated from Project

⁴⁹ Leiter, *supra* note 4; James Lindgren & Daniel Seltzer, *The Most Prolific Law Professors and Faculties*, 71 CHI.-KENT L. REV. 481 (1996).

This project will generate multiple articles for publication. Because of the large scope of the relational database, some of the initial work will focus on descriptive statistics and trends in the data. The following are five broad areas in which we plan to complete articles during the initial phase of the project. (These working titles are our current best estimates of the output from each stage; additional work and changes to the predicted output will depend on the actual data. The actual articles will have more tightly focused hypotheses, which we will refine as we become more familiar with the extent and limitations of our data):

- (1) *Trends in the Subject Matter of Scholarly Legal Writing* will examine changes in subject matter across the entire dataset, including whether the appearance of new specialty journals (both student-edited and peer-reviewed) have affected the topics covered in the general journals. Only Stage 1 data is necessary to conduct this research. However, we hope to use the initial results to create baseline analyses that we can rely on in subsequent work. It will also familiarize researchers with the scope of our project and initiate a dialogue that will bring to light potential improvements in later stages.
- (2) *Law School Rankings and Law Review Subject Matter* will identify (a) whether there is a significant link between legal scholarship subject matter and placement in a prestigious law journal, and (b) whether this relationship has changed over time. This article, which can be written at the end of Stage 2, can empirically examine the perception that top law journals have become more reluctant over time to publish articles on tax or private law topics.⁵⁰
- (3) *A Longitudinal Analysis of Legal Scholarship in Judicial Opinions* will examine changes in citation practice by courts. It will explore any shifts in citations as measured by subject matter, including any patterns that suggest greater reliance on interdisciplinary or empirical scholarships. It will also test for any changes in judicial citation patterns that are potentially related to the rise of law school rankings. It can be written at the end of Stage 4.
- (4) *A Longitudinal Analysis of Faculty Productivity and Mobility* will analyze the relationship between faculty scholarship and lateral movement within the academy and how it has changed overtime. This article, which can be written at the end of Stage 4, will explicitly test our hypothesis that the market structure of legal academy has become a positional tournament based on academic scholarship rather than the quality professional education provided by the law schools.
- (5) *Author Characteristics, Article Placements, and Citation Patterns* will examine the interrelationship between law school hierarchy and legal scholarship. Korobkin has argued that law school rankings, which roughly correspond to faculty reputation, serve a coordination function that facilitates a matching between the most qualified law students and the most desirable legal employers.⁵¹ A hierarchy of elite employers has been evident

⁵⁰ E.g., William J. Turner, *Tax (and Lots of Other) Scholars Need Not Apply: The Changing Venue for Scholarship*, 50 J. LEG. EDUC. 189 (2000).

⁵¹ Russell B. Korobkin, *In Praise of Law School Rankings: Solutions to Coordination and Collective Action Problems*, 77 TEX. L. REV. 403 (1998).

in the legal profession throughout the twentieth century,⁵² which suggests the need for a corresponding law school hierarchy that predates the *U.S. News & World Report*. The purpose of this article, therefore, will be test whether the advent of explicit law school rankings has perpetuated a pre-existing hierarchy.

⁵² MARC GALANTER & THOMAS PALAY, *TOURNAMENT OF LAWYERS: THE TRANSFORMATION OF THE BIG LAW FIRM* (1991).