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Recommended Citation

Carolyn Shapiro, *Coding Complexity: Bringing Law to the Empirical Analysis of the Supreme Court*, 60 *Hastings L.J.* 477 (2008).

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Articles

Coding Complexity: Bringing Law to the Empirical Analysis of the Supreme Court

CAROLYN SHAPIRO*

INTRODUCTION

The legal academy has recently experienced a surge of interest in quantitative empirical analysis. The past few years have seen the launching of the *Journal of Empirical Legal Studies*, the Society for Empirical Legal Studies, the Empirical Legal Studies Blog, and the extremely well-attended Conference on Empirical Legal Studies.¹ Quantitative work by political scientists—sometimes but not always

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1. See generally, e.g., Jennifer Arlen & Geoffrey P. Miller, Second Annual Conference on Empirical Legal Studies (CELS): Announcement and Call for Papers (Feb. 6, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=961620; CELS 2009: Announcement and Call for Papers, <http://law.usc.edu/cels/> (last visited Feb. 14, 2009); Cornell Law School: CELS 2008, <http://www.lawschool.cornell.edu/cels2008/index.cfm> (last visited Feb. 14, 2009); Empirical Legal Studies, www.elsblog.org (last visited Feb. 14, 2009); First Annual Conference on Empirical Legal Studies: Announcement and Call for Papers, http://www.utexas.edu/law/news/2005/112805_black.html (last visited Feb. 14, 2009); The Journal of Empirical Legal Studies—Journal Information, <http://www.wiley.com/bw/society.asp?ref=1740-1453&site=1> (last visited Feb. 14, 2009).

coauthored with legal scholars—increasingly appears in the law reviews,² and legal academics increasingly embrace quantitative empirical analysis,³ often relying on methods and resources developed by social scientists.

One such resource is the U.S. Supreme Court Database (the “Database,” “Original Database,” or the “Supreme Court Database”) and its companion databases (the “databases” or the “Spaeth databases”).⁴ Created by political scientist Harold Spaeth,⁵ the databases have long been standard resources for political scientists who use quantitative empirical methods to study the Supreme Court:

The Spaeth databases are so dominating in [political science] that it would certainly be unusual for a refereed journal to publish a manuscript whose data derived from an alternate source. Even in the law reviews, virtually no empirical study of the U.S. Supreme Court produced by political scientists fails to draw on them.⁶

2. See, e.g., James J. Brudney & Corey Ditslear, *Canons of Construction and the Elusive Quest for Neutral Reasoning*, 58 VAND. L. REV. 1, 1 (2005); Cornell W. Clayton & J. Mitchell Pickeril, *The Politics of Criminal Justice: How the New Right Regime Shaped the Rehnquist Court's Criminal Justice Jurisprudence*, 94 GEO. L.J. 1385, 1385 (2006); Frank B. Cross & Stefanie Lindquist, *The Decisional Significance of the Chief Justice*, 154 U. PA. L. REV. 1665, 1665 (2006); Lee Epstein et al., *The Political (Science) Context of Judging*, 47 ST. LOUIS U. L.J. 783, 783, 812 (2003); Lee Epstein et al., *The Role of Qualifications in the Confirmation of Nominees to the U.S. Supreme Court*, 32 FLA. ST. U. L. REV. 1145, 1145 (2005); Lee Epstein & Gary King, *The Rules of Inference*, 69 U. CHI. L. REV. 1, 1 (2002); Mark David Hall, *Jeffersonian Walls and Madisonian Lines: The Supreme Court's Use of History in the Religion Clause Cases*, 85 OR. L. REV. 563, 563 (2006); Thomas Hensley & Scott P. Johnson, *Unanimity on the Rehnquist Court*, 31 AKRON L. REV. 387, 387 (1998); Andrew D. Martin et al., *The Median Justice on the United States Supreme Court*, 83 N.C. L. REV. 1275, 1275, 1284 n.35 (2005); Theodore W. Ruger et al., *The Supreme Court Forecasting Project: Legal and Political Science Approaches to Predicting Supreme Court Decisionmaking*, 104 COLUM. L. REV. 1150, 1150 (2004); Jeffrey A. Segal & Chad Westerland, *The Supreme Court, Congress, and Judicial Review*, 83 N.C. L. REV. 1323, 1323 (2005); Keith E. Whittington, *Taking What They Give Us: Explaining the Court's Federalism Offensive*, 51 DUKE L.J. 477, 477 (2001).

3. For discussions chronicling this development, see Frank Cross et al., *Above the Rules: A Response to Epstein and King*, 69 U. CHI. L. REV. 135, 135 n.2 (2002) (citing Symposium, *Empirical and Experimental Methods in Law*, 2002 U. ILL. L. REV. 789 (2002)); Richard L. Revesz, *A Defense of Empirical Legal Scholarship*, 69 U. CHI. L. REV. 169, 170 (2002); Gregory C. Sisk & Michael Heise, *Judges and Ideology: Public and Academic Debates About Statistical Measures*, 99 NW. U. L. REV. 743, 744–45 (2005); and *infra* text accompanying notes 7–8.

4. The databases are described in detail below. See *infra* Part I.A. They are all multi-user databases that are publicly available. See Supreme Court Data, <http://www.cas.sc.edu/poli/juri/sctdata.htm> (last visited Feb. 14, 2009).

5. Harold Spaeth is an emeritus professor of political science at Michigan State University. In addition to having a Ph.D. in political science and a long and distinguished career in that field, he holds a J.D. from the University of Michigan. Harold J. Spaeth, Curriculum Vitae (Jan. 31, 2009) (on file with The Hastings Law Journal).

6. Epstein et al., *The Political (Science) Context of Judging*, *supra* note 2, at 812 (footnote omitted); see also Michael Heise, *The Past, Present, and Future of Empirical Legal Scholarship: Judicial Decision Making and the New Empiricism*, 2002 U. ILL. L. REV. 819, 848 (2002) (“There is little doubt that today [Spaeth’s] U.S. Supreme Court Judicial Data Base is the greatest single resource of data on the Court; there are virtually no social-scientific projects on the Court that fail to draw on it.” (quoting Lee Epstein, *Social Science, the Courts, and the Law*, 83 JUDICATURE 224, 225 (2000))).

The prominence of Spaeth's work is increasing in legal academia as well. A 2006 article reported that between 1993 and 2001 legal scholars cited Spaeth's three most seminal books, all coauthored with Jeffrey Segal, 144 times, but in the shorter time period of 2002 to 2006, there were 161 such references.⁷ A more recent Westlaw search for references to Spaeth in works published between January 2006 and June 2007 alone identified eighty-five separate articles that rely in some way on Spaeth's work,⁸ and articles relying on data from the Spaeth databases appear in numerous law reviews.⁹

This reliance on the Spaeth databases has its benefits for empirical legal studies. For example, the use of these publicly-available resources makes it relatively easy for scholars to replicate results and compare studies. But as the databases' use and influence expands in legal academia, a careful examination of their limitations for the study of law and legal doctrine is long overdue.

This Article engages in just such an examination of the most prominent of the databases—the Supreme Court Database.¹⁰ Through a critical analysis of the Database's coding protocols and a Recoding Project of a random sample of recent Supreme Court cases, this Article identifies and explores the Database's most significant limitations. Specifically, this Article demonstrates that information about law and legal doctrine is systematically omitted from the Supreme Court Database. For example, the Database does not even attempt to identify legal issues that arise in Supreme Court opinions and, as I will show, it also does not fully report legal provisions or doctrines relied upon or at issue.

7. Barry Friedman, *Taking Law Seriously*, 4 PERSP. ON POL. 261, 272 n.10 (2006).

8. The search was in the JLR database and was for "te(Spaeth) and da(aft 12/31/2005)." It was conducted on June 25, 2007. A subsequent search for "Spaeth and da(aft 12/31/2005)" was run to double-check for any articles that the first search might have missed. The searches resulted in 117 documents, only eighty-five of which referred to Harold Spaeth's work.

9. Examples of law review articles relying on data from the Spaeth databases include Brudney & Ditslear, *supra* note 2, at 20; Clayton & Pickeril, *supra* note 2, at 1411; Cross & Lindquist, *supra* note 2, at 1685; Frank B. Cross & Blake J. Nelson, *Strategic Institutional Effects on Supreme Court Decisionmaking*, 95 NW. U. L. REV. 1437, 1483 (2001); Michael Richard Dimino, *Counter-Majoritarian Power and Judges' Political Speech*, 58 FLA. L. REV. 53, 96 (2006); Epstein et al., *The Political (Science) Context of Judging*, *supra* note 2; Ward Farnsworth, *Signatures of Ideology: The Case of the Supreme Court's Criminal Docket*, 104 MICH. L. REV. 67, 67 (2005); Hensley & Johnson, *supra* note 2; Ruger et al., *supra* note 2, at 1153; Christopher E. Smith, *The Impact of New Justices: The U.S. Supreme Court and Criminal Justice Policy*, 30 AKRON L. REV. 55, 55 (1996); Michael E. Solimine & Rafeal Gely, *The Supreme Court and the DIG: An Empirical and Institutional Analysis*, 2005 WIS. L. REV. 1421, 1425 (2005); and Whittington, *supra* note 2, at 481.

10. Because the other databases are largely derivative of the Supreme Court Database, much of the critique of the Database applies to the others as well. In addition to the Supreme Court databases, the website also houses a widely-used Appeals Court Database that has some similar coding protocols. See Appeals Court Data, <http://www.cas.sc.edu/poli/juri/appctdata.htm> (last visited Feb. 14, 2009).

The case of *Schenck v. Pro-Choice Network of Western New York*¹¹ illustrates some of these limitations. In *Schenck*, a group of abortion protesters challenged an injunction forbidding them from standing near clinic entrances and limiting their ability to approach women entering and exiting clinics.¹² The protesters claimed that the injunction violated their First Amendment rights. The Supreme Court upheld portions of the injunction and struck down others.¹³

Most lawyers would describe *Schenck* as being about the First Amendment and the limits it places on judicial power. The *factual* context of the case involves abortion protesters, but the case's *legal* issues are about freedom of speech and courts' injunctive powers in light of that constitutionally-protected freedom. Yet the Supreme Court Database identifies the "issue" in *Schenck* as "abortion"¹⁴—because abortion is the "public policy context" of the case.

Schenck is not unique. Identifying the case's sole "issue" as abortion is no random miscoding. To the contrary, it is due to deliberate coding decisions and protocols. As a result of these decisions and protocols, the Database has serious, but often unrecognized, implications for empirical legal scholarship. Put bluntly, rather than illuminate the workings of the Supreme Court, some empirical findings may reflect the way the Database reports (or, in the language of empirical analysis, "codes") information—or whether it reports certain types of information at all. Some studies may understate or even fail to find relationships that would be observable with a more nuanced coding regime; other studies may overstate or entirely misidentify results. Moreover, because the Database is deeply embedded in existing empirical research on the Supreme Court, scholars may unwittingly replicate and magnify its limitations when they rely on earlier work.¹⁵ This Article will identify and discuss examples of

11. 519 U.S. 357 (1997).

12. *Id.* at 366–67, 371.

13. *Id.* at 379–85.

14. All of the database coding reported in this Article can be found in the Database. *See supra* note 4; *infra* note 28.

15. The Database's influence is extensive and surprising. For example, a popular website that archives Supreme Court oral arguments and opinion announcements (as well as the opinions), organizes the cases "by issue." *See* Oyez: U.S. Supreme Court Case Summaries, Oral Arguments, & Multimedia, www.oyez.org (last visited Feb. 14, 2009). In so doing, it uses Spaeth's issue coding, but without explanation. *See id.* Many scholars—including many non-empirical scholars—might take advantage of the website, and are likely to find its organization to be anything from mysterious to misleading.

Ironically, the Database's ubiquity is sometimes presented as an argument for its continued uncritical use. *See, e.g.,* Ruger et al., *supra* note 2, at 1175 (acknowledging that Spaeth's "issue area categories may seem awkward or even arbitrary from a legal perspective, as they do not neatly track traditional doctrinal categories," but defending their use in part because the "coding protocol is well-defined, and his issue area labels have been widely used by political scientists").

studies whose findings are unreliable¹⁶ because of the way they use the Database. One of the important goals of this Article is to ensure that the creators and consumers of empirical scholarship—lawyers, legal academics, political scientists, and policymakers alike—understand what the Database, and studies that rely on it, can and cannot tell us.

Understanding the Database and its limitations is important not only for undertaking and interpreting specific research projects, but also to further and enrich empirical legal scholarship in general. The Database's limitations are consistent with an influential body of scholarship in political science that deemphasizes law and legal analysis in favor of large-scale quantitative analysis with a focus on characterizing case outcomes (who wins and who loses) in terms of ideology.¹⁷ This body of scholarship, as some critics have noted, too often fails to pay "attention

16. A word about terminology may be helpful here. In statistics, reliability has a very precise meaning. A statistical measure of something is reliable if it produces the same results repeatedly. EDWARD G. CARMINES & RICHARD A. ZELLER, RELIABILITY AND VALIDITY ASSESSMENT 11 (1979). So a clock that is always precisely 9 minutes slow is reliable. Of course, this clock is inaccurate—it does not correctly measure what it purports to measure (the time). In the parlance of statistics, the clock's measurements of time therefore are not valid. *Id.* at 12. Although it would certainly be possible to discuss the Database and its limitations in these and other technical terms, that would, I believe, make this Article somewhat less accessible to the less-technically minded readers I hope to reach. Therefore, I use the term "reliable" in its colloquial, descriptive sense, not in its technical, statistical sense. Of course, the two uses of the terms sometimes overlap.

17. Spaeth is a leader in this field. *See generally, e.g.*, JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL (1993); JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED (2002) [hereinafter SEGAL & SPAETH, REVISITED]. There are, of course, political scientists who are critical of this approach. *See generally, e.g.*, Cornell W. Clayton, *The Supreme Court and Political Jurisprudence: New and Old Institutionalisms*, in SUPREME COURT DECISION-MAKING: NEW INSTITUTIONALIST APPROACHES 15, 15–41 (Cornell W. Clayton & Howard Gillman eds., 1999); Howard Gillman, *What's Law Got to Do with It? Judicial Behavioralists Test the 'Legal Model' of Judicial Decision Making*, 26 LAW & SOC. INQUIRY 465 (2001). Legal academics as well have been critical, particularly of the attitudinal model (described in more detail in Parts I.A and I.B.2.a.ii), which posits that the case outcomes and Justices' votes can be explained by reference to the Justices' policy preferences and ideology. *See, e.g.*, Ward Farnsworth, *The Use and Limits of Martin-Quinn Scores to Assess Supreme Court Justices, with Special Attention to the Problem of Ideological Drift*, 101 NW. U. L. REV. COLLOQUY 143, 145–48 (2007); John C.P. Goldberg, *What Nobody Knows*, 104 MICH. L. REV. 1461, 1482–84 (2006) (describing the reductionism of the attitudinal model's understanding of "attitudes"); Heise, *supra* note 6, at 836 (noting that empirical studies may overstate the role of ideology because they do not account for the particularly hard cases that the Supreme Court decides); Revesz, *supra* note 3, at 177–78 (criticizing positive scholars for over-reliance on case outcome and lack of understanding of the practical workings of the justice system); David Stras, *The Incentives Approach to Judicial Retirement*, 90 MINN. L. REV. 1417, 1422–25 (2006) (describing and echoing many critiques of the attitudinal model); *id.* at 1428–30 (describing and adding to critique of rational choice model); Emerson H. Tiller & Frank B. Cross, *What Is Legal Doctrine?*, 100 NW. U. L. REV. 517, 522–25 (2006) (criticizing attitudinal model for ignoring law and legal doctrine); Ernest A. Young, *Judicial Activism and Conservative Politics*, 73 U. COLO. L. REV. 1139, 1189 (2002). Nor have all examinations of political scientists' quantitative approaches resulted in criticism by legal scholars. *See, e.g.*, Sisk & Heise, *supra* note 3, at 788–90 (finding judicial common space scores a useful measure of ideological difference in religious freedom cases).

to the norms of law, i.e., how law and legal institutions operate. . . . Positive scholars who work at the nexus of law and politics need to do a better job of understanding law itself—its methodology, its substance, and its process.”¹⁸ The limitations of the Database are largely due to just such a failure to take account of law itself. This Article therefore aims to begin to address this failure.

To further both of these goals—understanding the limitations of the Database and exploring ways to incorporate law and legal doctrine into empirical legal scholarship—this Article presents the results of my Recoding Project. The Recoding Project explores the magnitude and nature of the Database’s limitations by recoding a random sample of cases from the last eleven years of the Rehnquist Court, the last Rehnquist “Natural Court.”¹⁹ The findings of the Recoding Project, combined with my critique of the Database’s coding protocols, will help scholars be smarter and more accurate in their use of the Database as it currently exists, better understand when it must be supplemented, and recognize when it is inappropriate to rely on it at all.²⁰ At the same time, the Recoding Project provides insight into how scholars might develop more sophisticated and nuanced resources that do indeed pay “attention to . . . law itself—its methodology, its substance, and its process,”²¹ whether those resources involve building on the Database itself or creating entirely new resources. The Article is, therefore, an attempt to advance the cause of empirical scholarship that truly takes account of law and doctrine.

In Part I of the Article, I describe the Spaeth databases and explain their significance in political science and empirical legal scholarship. Specifically, I explore some of the structural aspects and coding protocols of the Supreme Court Database that fail to adequately account for, and sometimes distort, law and legal doctrine.²² In Part II, to demonstrate

18. Friedman, *supra* note 7, at 262. Other political scientists indeed do explore the way that legal doctrine operates. See generally Herbert M. Kritzer & Mark J. Richards, *Jurisprudential Regimes and Supreme Court Decisionmaking: The Lemon Regime and Establishment Clause Cases*, 37 LAW & SOC’Y REV. 827 (2003); Stefanie A. Lindquist & David E. Klein, *The Influence of Jurisprudential Considerations on Supreme Court Decisionmaking: A Study of Conflict Cases*, 40 LAW & SOC’Y REV. 135 (2006); Mark J. Richards & Herbert M. Kritzer, *Jurisprudential Regimes in Supreme Court Decision Making*, 96 AM. POL. SCI. REV. 305 (2002).

19. A Natural Court is one during which there are no personnel changes. Saul Brenner, *The New Certiorari Game*, 41 J. POL. 649, 653 (1979). The last Rehnquist Natural Court lasted from 1994 to 2005. The Justices who served on it were Rehnquist, Stevens, O’Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, and Breyer.

20. This critique is not a condemnation of every use of the Database. To the contrary, the Database can serve—and has served—many useful purposes, if used properly. See *infra* notes 28–37 and accompanying text.

21. Friedman, *supra* note 7, at 262.

22. It should be emphasized that most of the limitations I identify are not latent. To the contrary, most of them reflect deliberate choices Spaeth made in constructing the Database and about which he

how these limitations can render unreliable the results of empirical scholarship, I focus on particular studies that rely on the Database.

In Part III, I address the magnitude of the limitations that I identify and explore the extent to which a different coding protocol might yield more nuanced and accurate information and therefore potentially different results. Specifically, I describe the Recoding Project: my recoding of a random sample of cases from the last Rehnquist Natural Court. Among other things, my findings from this Recoding Project indicate that the Database's coding masks legal complexity and nuance, obscuring the ways that different areas of law interact. More specifically, my findings suggest that the databases systematically underreport law and doctrine related to courts in particular, and to the structure and operations of government in general. Such issues include federalism, procedural matters, immunities, standing, and habeas corpus—issues that may be very salient to the Justices and lawyers in at least some cases.

Finally, Part IV of the Article explores some insights and implications for scholarship that relies on the Database, as well as for future efforts to account for law and legal analysis in quantitative empirical work. An understanding of the operational limitations of a resource already familiar to so many scholars, combined with the lessons of my Recoding Project, provides insights into ways to develop more accurate and nuanced resources.

I. THE SPAETH DATABASES

A. WHAT ARE THE SPAETH DATABASES AND HOW ARE THEY USED?

Supported by a series of National Science Foundation grants, Harold Spaeth began in the 1980s to create a series of multi-user, publicly-available databases of Supreme Court decision making.²³ There are currently six related databases.²⁴ The first and most extensively used is the Supreme Court Database. This Database incorporates information about every opinion issued from 1953 through the present.²⁵ The most recent additions to the collection are the Justice-Centered Databases—one each for the Rehnquist, Burger, and Warren courts.²⁶ These databases take the information provided in the Original Database,

is explicit. Nonetheless, some scholars appear to overlook, misunderstand, or insufficiently appreciate them. "That [the databases] are widely used does not necessarily mean they are widely understood." Sara C. Benesh, *Becoming an Intelligent User of the Spaeth Supreme Court Databases 1* (unpublished paper, prepared for the Southwestern Political Science Association, Mar. 2002), available at http://www.cas.sc.edu/poli/juri/benesh_handout.pdf.

23. Heise, *supra* note 6.

24. See The Judicial Research Initiative, <http://www.cas.sc.edu/poli/juri/> (last visited Feb. 14, 2009).

25. Supreme Court Data, *supra* note 4.

26. *Id.*

transform it, and in some cases add to it, so that it is easier to study voting behavior by Justice instead of by case. The two final databases are (1) the Vinson-Warren Court Database, which includes “all stages of decisionmaking (cert, merits, and final vote) for the Vinson and Warren Courts,” and (2) the Burger Court Database, which includes similar data for the Burger Court.²⁷ Because the Original Database is the most prominent and widely used, and because the other databases are derivative of it, the Original Database is the primary focus of this Article.

The Original Database codes every Supreme Court opinion for a large number of attributes, reporting a significant amount of information about each case.²⁸ Much of this coding is relatively straightforward and uncontroversial. For example, the Database codes the manner in which the Court takes jurisdiction (such as original, appellate, or certiorari jurisdiction); whether there was administrative action preceding the litigation; what reason, if any, the Court gave for granting certiorari; which lower court(s) previously considered the case; dates of oral argument and decision; and the Term of the Court in which the case was decided.²⁹ The Database also indicates which Justices wrote or joined which opinions.³⁰

That some of this coding is relatively straightforward does not in any way diminish the value of having a publicly available database that has already done this heavy lifting. Spaeth and those who work with him (including Sara Benesh and Kirk Randazzo) have done an important service by creating and making available these databases. They have eliminated the need for much tedious coding, and have thereby significantly reduced the cost of engaging in empirical analysis of the Supreme Court. Moreover, by providing a common database upon which any scholar can rely, they have helped to ensure that different studies and analyses will compare apples to apples, and that different findings cannot be attributed to different coding protocols.³¹

Relying on Spaeth’s coding, researchers have undertaken all kinds of projects. Many of these projects are not implicated by the limitations of the Database discussed in this Article. In a recent work, for example,

27. Benesh, *supra* note 22.

28. The coding and accompanying decision rules are set out in detail in a publicly-available codebook. Harold J. Spaeth, *The Original United States Supreme Court Judicial Database 1953–2007 Terms: Documentation* (2008) [hereinafter *Codebook 2008*], available at http://www.cas.sc.edu/poli/juri/allcourt_codebook.pdf. There are different codebooks for the different databases, all publicly available. See *Supreme Court Data*, *supra* note 4.

29. *Codebook 2008*, *supra* note 28, at 9–16, 28.

30. *Id.* at 66–73.

31. See Epstein et al., *The Political (Science) Context of Judging*, *supra* note 2, at 790 (explaining the usefulness of having a standard determination of when each Natural Court begins and ends). Of course, as previously discussed, this advantage becomes a disadvantage when the Database coding is problematic. See *supra* text accompanying note 15.

Lori Ringhand used the Supreme Court and Justice-Centered Databases to identify cases in which Justices voted to strike down laws as unconstitutional during the last eleven years of the Rehnquist Court.³² Her analysis established that conservative Justices were much more likely to vote to strike down federal statutes than were more liberal Justices, raising questions about the popular perception that conservative Justices are less activist than liberal Justices.³³ Other scholars have used the databases to identify and study, for example, cases in which particular Justices voted together³⁴ or cases in which the Court was unanimous,³⁵ or to calculate reversal rates for different circuits as part of a larger project to develop models of the behavior of intermediate court judges.³⁶ In addition, once they have downloaded one of Spaeth's databases, researchers can and do supplement with their own coding—identifying, for example, cases in which the Supreme Court defers to different government institutions.³⁷ Such research has provided, and will continue to provide, important insights into the workings of the Court.

Spaeth's own focus in coding and using the databases, particularly the Original Database, is primarily on the ideology of each case's outcome—that is, whether the outcome is “liberal” or “conservative.” Each case is given either a liberal or conservative code based on the nature of the prevailing party. So, for example, Spaeth codes cases involving criminal defendants as liberal if the defendant wins and conservative if the government wins; cases involving federal taxation, on the other hand, are coded as liberal if the government wins and conservative if the taxpayer prevails.³⁸ Spaeth is—quite deliberately—uninterested in the content of the opinions. As he famously explained, “I

32. Lori A. Ringhand, *Judicial Activism: An Empirical Examination of Voting Behavior on the Rehnquist Natural Court*, 24 CONST. COMMENT. 43, 46 (2007).

33. *Id.* at 43–63.

34. Ryan Black & Lee Epstein, *Recusals and the “Problem” of an Equally Divided Supreme Court*, 7 J. APP. PRAC. & PROCESS 75, 85 (2005).

35. Hensley & Johnson, *supra* note 2, at 388.

36. Kevin M. Scott, *Understanding Judicial Hierarchy: Reversals and the Behavior of Intermediate Appellate Judges*, 40 LAW & SOC'Y REV. 163, 174 (2006).

37. Cross & Nelson, *supra* note 9, at 1484.

38. Codebook 2008, *supra* note 28, at 53–55. The ideological coding in particular areas has recently been challenged. See Nancy Staudt et al., *The Ideological Component of Judging in the Taxation Context*, 84 WASH. U. L. REV. 1797, 1808 (2006) (noting that Spaeth's liberal/conservative coding does not have explanatory power in the context of economic cases, and proposing a different approach for coding the outcome of tax cases); see also Michael S. Greve & Jonathan Klick, *Preemption in the Rehnquist Court: A Preliminary Empirical Assessment*, 14 SUP. CT. ECON. REV. 43, 79–80 (2006) (noting difficulties in identifying liberal and conservative outcomes in preemption cases); Matthew J. Sag et al., *The Effect of Judicial Ideology in Intellectual Property Cases 8* (July 2, 2007) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=997963 (same with respect to intellectual property cases).

find the key to judicial behavior in what justices do, [others] in what they say. I focus upon their votes, [others] upon their opinions.”³⁹

Spaeth’s emphasis on case outcomes, to the exclusion of law or legal doctrine, is driven by “theoretical and methodological orientations toward judging” held by many political scientists.⁴⁰ They “believe that the ‘law’ boils down to outcomes, and that whatever rationales or justifications judges invoke are mere smokescreens designed to hide the fact that politics drives the result.”⁴¹ So where the Court votes in favor of plaintiffs’ standing in, say, an abortion case, Spaeth is likely to treat that vote as window dressing to get to an outcome about *abortion* that is consistent with the Justices’ policy preferences. Spaeth and his coauthors—most notably Jeffrey Segal—label this description of judging “the attitudinal model,” and they are among its most vigorous promoters.⁴²

Not surprisingly, the attitudinal model, with its liberal/conservative dichotomy, has been extensively criticized.⁴³ In the attitudinal model’s starkest form, with its emphasis solely on case outcomes, there is no difference, for example, between Justice Kennedy’s concurring opinion in the recent school desegregation case and the plurality opinion authored by Chief Justice Roberts.⁴⁴ Both Justices sided with the white plaintiffs in their equal protection challenges to integration plans of the Seattle and Louisville school districts.⁴⁵ But the contents of those

39. Harold Spaeth, *Jurimetrics and Professor Mendelson: A Troubled Relationship*, 27 J. POL. 875, 879 (1965).

40. Lee Epstein et al., *Judging Statutes: Thoughts on Statutory Interpretation and Notes for a Project on the Internal Revenue Code*, 13 WASH. U. J.L. & POL’Y 305, 320 (2003).

41. *Id.* This focus on outcome to the exclusion of law can reach extremes that, to a lawyer, are mind-boggling: describing the “apparently unidimensional nature of Supreme Court decisionmaking,” two political scientists (including Spaeth’s frequent coauthor Jeffrey Segal) assert in a 2005 article: “The vote on the merits in any given case is as straightforward as a majority rule process gets. Justices essentially make a binary, reverse or affirm decision.” Segal & Westerland, *supra* note 2, at 1351, 1324.

42. See, e.g., SEGAL & SPAETH, REVISITED, *supra* note 17, at 86. The attitudinal model and its related theory, the strategic model, see LEE EPSTEIN & JACK KNIGHT, *THE CHOICES JUSTICES MAKE* (1998), are not the only ways to think about the role of politics or political preferences in Supreme Court decision making. See, e.g., Farnsworth, *supra* note 9 at 74–88, 93 (discussing the relationship between judicial preferences or “priors” and case facts, outcomes and reasoning); McNollgast, *Politics and the Courts: A Positive Theory of Judicial Doctrine and the Rule of Law*, 68 S. CAL. L. REV. 1631, 1635 (1995) (arguing that electoral stability leads to doctrinal stability and that electoral and political changes are likely to lead to doctrinal changes).

43. See Cross & Lindquist, *supra* note 2, at 1688 (“The data on case outcomes may simply be too unrefined to identify an ideological effect. They show nothing about the content of the opinions . . .”); Frank B. Cross et al., *Warren Court Precedents in the Rehnquist Court*, 24 CONST. COMMENT. 3, 4 (2007) (“[T]he binary outcome coding cannot measure whether a particular opinion is moderately liberal (or conservative) or more extremely ideological.” (citations omitted)); Michael J. Gerhardt, *Attitudes About Attitudes*, 101 MICH. L. REV. 1733, 1733–34 (2003) (reviewing objections to the attitudinal model and Spaeth and Segal’s responses).

44. *Parents Involved in Cmty. Schs. v. Seattle Sch. Dist. No. 1*, 127 S. Ct. 2738 (2007).

45. *Id.* at 2768; *id.* at 2788 (Kennedy, J., concurring in part and concurring in the judgment).

opinions are significantly different. Justice Kennedy, who cast the deciding vote, explicitly rejected the plurality's "all-too-unyielding insistence that race cannot [ever] be a factor" in school district decisions.⁴⁶ Despite their agreement on "outcome"—in the narrow sense of agreeing that the Supreme Court would reverse the lower court decisions, giving a victory to the plaintiffs—the opinions are not uniformly "conservative." And the differences between Kennedy and Roberts are likely to be central to the real-world impact of the case. "The language of the opinion [that] at least purports to establish the rules to govern future cases,"⁴⁷ provides important information for which the attitudinal model—or any model that focuses primarily on outcome—fails to account.

There can, of course, be no question that policy preferences or ideology play a role in Supreme Court decision making. But the interesting and important contemporary questions—and the ones that cannot be answered using the Database—are whether and how much law matters as well,⁴⁸ how ideology and law interact with or affect each other, and how these interactions vary from case to case or from Justice to Justice.⁴⁹ The attitudinal model and the Database's coding also fail to take into account that a single Justice's policy preferences may conflict in particular cases.⁵⁰ As the authors of a recent article about preemption law explain, for example, in some cases, a Justice cannot cast a purely conservative or purely liberal vote:

Statutory preemption cases are often viewed as a species of "federalism." From that vantage, preemption cases present a conundrum, nicely captured by the *United States Supreme Court Data Base* [sic]. That widely used data set includes preemption cases under the general issue area of "federalism." Within that issue area, it codes a "pro-federal" or "anti-state" outcome or vote as "liberal." But whatever plausibility that coding may have in the context of straightforward federalism cases, it makes no sense in preemption cases, where a "liberal" vote for the federal government (and against the states) is also a vote for "big business" (and against pro-regulatory

46. *Id.* at 2791 (Kennedy, J., concurring in part and concurring in the judgment).

47. Tiller & Cross, *supra* note 17, at 523; see also CASS SUNSTEIN ET AL., ARE JUDGES POLITICAL? AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY 65 (2006) ("For the actual development of the law, the opinion matters a great deal."); Revesz, *supra* note 3, at 177 n.39.

48. See Barry Friedman, *The Politics of Judicial Review*, 84 TEX. L. REV. 257, 260 (2005).

49. Building resources and conducting scholarship that take account of law and doctrine does not necessarily mean, of course, that scholars will find that the Justices' votes and opinions can be explained or predicted in whole or in part on the basis of "law," and I make no such claim here. More legally nuanced coding and analysis might weaken the claims of those who believe that the Justices are in fact motivated largely by ideology. But it also might strengthen those claims by showing that the Justices treat similar legal issues differently in different "public policy contexts."

50. Joshua B. Fischman & David S. Law, *What Is Judicial Ideology, and How Do We Measure It?*, 29 WASH. U. J.L. POL'Y (forthcoming 2009) (manuscript at 19), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1121228).

constituencies that want states to regulate above the federal baseline)—an attitude that the *Judicial Database* in many other contexts codes as “conservative.” *In preemption cases, conservative attitudes (pro-state, pro-business) conflict, as do the corresponding liberal attitudes.*⁵¹

As this example illustrates, the attitudinal model, and the Database on which it relies, oversimplify the Court’s jurisprudence in ways that are particularly problematic for scholars interested in law and legal doctrine.

B. THE PROBLEM OF LAW

Although my critiques of the Database have some implications for the attitudinal model,⁵² the attitudinal model is not the main focus of this Article. My primary concern is different and more specific: what happens when scholars who, unlike Spaeth, *want* to take account of legal doctrine, use the Database? With interest in empirical legal scholarship at an all time high in the legal academy and given the prominence of the Database in political science, scholars may presume that the Database is the gold standard for empirical scholarship of the Supreme Court. Indeed, it is sometimes touted as such.⁵³

Moreover, at first glance, many legal scholars may presume that the Database provides a fair amount of substantive information about law. There are codes for what Spaeth calls “issue,” “issue area,” and “legal provision.”⁵⁴ Yet, as I will show, these codes cannot be relied on for complete or accurate information about how law and legal doctrine operate or even appear in Supreme Court cases.

I. Definitions of “Issue,” “Issue Area,” and “Legal Provision”

a. Issue

Lawyers may assume that by “issue,” the Database means *legal* issue. But the issue variable is designed instead to describe “the subject matter of the controversy *rather than its legal basis*. . . . The objective is to categorize the case from a *public policy standpoint*, a perspective that the legal basis for decision . . . commonly disregards.”⁵⁵ The issue in a case, as identified by the Database, therefore has to do with its social or political context as much—or more—than its legal or doctrinal content. This distinction between legal issue and public policy context explains why the Database identifies the issue in *Schenck*, the First Amendment case

51. Greve & Klick, *supra* note 38, at 79 (emphasis added) (footnotes omitted); *see also* Epstein et al., *supra* note 40, at 305–07; Tiller & Cross, *supra* note 17, at 523; Young, *supra* note 17.

52. *See infra* note 81 and accompanying text.

53. *See, e.g.*, Epstein et al., *The Political (Science) Context of Judging*, *supra* note 2, at 808 (praising the “richness” of the Database’s coding and encouraging legal scholars to rely on it); *see also supra* text accompanying notes 6–8.

54. I do not discuss here certain other codes, such as authority for decision or type of party, that also may be problematic. This Article’s discussion is thus more illustrative than comprehensive.

55. Codebook 2008, *supra* note 28, at 42 (emphasis added).

involving abortion protesters, as “abortion,” not as the First Amendment.⁵⁶

Every case in the Database is coded for at least one “issue,” and most cases in fact have only one issue coded, which, as I show below, is due to explicit coding protocols. The Database’s codebook (the Codebook) identifies more than 260 individual issue codes.⁵⁷ They range from, for example, abortion, to “confrontation (right to confront accuser, call and cross-examine witnesses),” to union arbitration, to “federal or state consumer protection.”⁵⁸

b. Issue Area

Each of the more than 260 issue codes is categorized into one, and only one, of thirteen issue areas: (1) criminal procedure, (2) civil rights, (3) First Amendment, (4) due process, (5) privacy, (6) attorneys, (7) unions, (8) economic activity, (9) judicial power, (10) federalism, (11) interstate relations, (12) federal taxation, and (13) miscellaneous.⁵⁹ The number and precision of issues assigned to each issue area varies widely. The issue area “miscellaneous” has two issues; “interstate relations” has three.⁶⁰ At the other extreme, “criminal procedure” has sixty individual issues, “judicial power” has fifty-one, and “civil rights” has forty-two.⁶¹

c. Legal Provision

In addition to coding each case for issue and issue area, the Database also identifies each case’s “legal provisions.” Spaeth defines legal provision as the constitutional provisions, statutes, or court rules considered in the case.⁶²

The difference between “legal provision” and “issue” invites some additional explanation. Lawyers, who are accustomed to thinking about *legal issues*, may find the Database’s distinction between the two variables to be counterintuitive. In any given case within the Database, the coded “legal provision” and “issue” might be related, and in some cases they overlap. The codes, however, purport to identify different

56. All of the cases discussed in this Part were in the random sample of ninety-five cases drawn for the Recoding Project, described in Part III. The cases discussed are *Rousey v. Jacoway*, 544 U.S. 320 (2005); *Almendarez-Torres v. United States*, 523 U.S. 224 (1998); *Clinton v. Jones*, 520 U.S. 681 (1997); *Schenck v. Pro-Choice Network of Western New York*, 519 U.S. 357 (1997); and *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

57. Codebook 2008, *supra* note 28, at 42–52.

58. Abortion is issue 533. *Id.* at 48. Confrontation is issue 110. *Id.* at 45. Union arbitration is issue 553. *Id.* at 48. Consumer protection is issue 656. *Id.* at 49.

59. *Id.* at 42–52.

60. *Id.* at 52.

61. *Id.* at 44–47, 50–51.

62. *Id.* at 31.

types of information. In *Schenck*, for example, while the “issue” (public policy context) is abortion, the legal provision is the First Amendment.⁶³

TABLE A: DEFINITIONS OF KEY VARIABLES IN THE DATABASE

VARIABLE	DEFINITION
ISSUE	Designed to identify the public policy context of each case
ISSUE AREA	Categorizes issues into one of thirteen issue areas, such as civil rights, criminal procedure, and economic activity
LEGAL PROVISION	Designed to identify the statutes, constitutional provisions, and court rules considered in each case

2. *The Limitations of the Database*

Each of three variables described in the last subsection has important limitations. For the most part, these limitations are not latent. To the contrary, they are largely based on decisions Spaeth made deliberately, and about which he is explicit. Nonetheless, the limitations themselves, and their implications for empirical research, are not well understood.

a. *Issue and Issue Area*

There are four primary—and largely unrecognized—limitations to the issue and issue area coding: (1) as already explained, by “issue” the Database does not refer to *legal issue* as lawyers and law professors understand it; (2) the Database operates with a rebuttable presumption of only one issue per case, and the exceptions are rare; (3) the list of issue codes itself omits entire areas of law and doctrine; and (4) the relationship between issue and issue area is sometimes nonsensical. Each of these limitations has implications for researchers who rely on the Database, as well as for those who wish to interpret or rely on the findings of work that uses the Database.

i. *Public Policy Context, Not Law*

Although Spaeth is explicit that he defines issue to mean “public policy standpoint” and not legal issue,⁶⁴ this aspect of the coding is easily and often misunderstood. Too often, scholars either appear to assume that by “issue” Spaeth means “legal issue,” or they fail to make a clear distinction between Spaeth’s definition of issue and what the word “issue” means to most lawyers and legal academics. Statements like the following, all made by scholars relying on the Database, are not uncommon:

63. See Supreme Court Data, *supra* note 4.

64. Codebook 2008, *supra* note 28, at 42.

- The judicial power issue area “includes cases *adjudicating issues* of standing, justiciability, jurisdiction, and the like.”⁶⁵
- “[O]nly 3.79 percent [of argued cases] contained more than one issue (e.g. a case that *raised questions about* federal taxation and federalism).”⁶⁶
- “Using Spaeth[’s Database], we counted the number of *legal issues* raised in the case”⁶⁷
- “Although [the] Judicial Database coded these two cases’ *legal issues* differently”⁶⁸
- “For the time period of interest, the Spaeth database identifies 506 disputes in which . . . First Amendment guarantees . . . *were at stake*”⁶⁹

Such language certainly sounds like the Database codes legal issues, and any lawyer or legal academic reviewing the literature that relies on the Database would likely so presume.

In addition, despite Spaeth’s own assertion that “issue” means public policy context,⁷⁰ his list of issues—in some areas—is very detailed and some of his issue codes appear, at least to a lawyer, to be referring to legal issues. For example, “[i]n the area of criminal procedure alone there are . . . [numerous] distinct issues, including ‘speedy trial,’ ‘right to counsel,’ and ‘cruel and unusual punishment.’”⁷¹ The judicial power issue area likewise includes codes for the Rules of Civil Procedure and for standing.⁷² A lawyer or legal scholar perusing the issue codes might easily presume that they in fact are designed to identify the legal issues in a case.

ii. *One Issue per Case*

Compounding this problem is the fact that the Database identifies only one issue per case, with a very small number of exceptions.⁷³ By my calculations, only about 8.6% of orally argued cases in the Database are

65. Dimino, *supra* note 9, at 97 (emphasis added).

66. Martin et al., *supra* note 2 (emphasis added).

67. Timothy R. Johnson et al., *Passing and Strategic Voting on the U.S. Supreme Court*, 39 LAW & SOC’Y REV. 349, 363 (2005) (emphasis added).

68. Youngsik Lim, *An Empirical Analysis of Supreme Court Justices’ Decision Making*, 29 J. LEGAL STUD. 721, 734 (2000) (emphasis added).

69. Lee Epstein & Jeffrey A. Segal, *Trumping the First Amendment?*, 21 WASH. U. J.L. & POL’Y 81, 93 (2006) (emphasis added).

70. Codebook 2008, *supra* note 28, at 42.

71. Epstein et al., *The Political (Science) Context of Judging*, *supra* note 2, at 808. The authors actually significantly overstate the number of codes in the criminal procedure area, saying that there are “well over hundreds of distinct issues.” *Id.* In fact, the criminal procedure area contains sixty distinct issues. Codebook 2008, *supra* note 28, at 44–45.

72. Codebook 2008, *supra* note 28, at 50.

73. *Id.* at 42 (“Of the many thousand records in the database, few have a legal basis for decision that applies to a second issue.”).

assigned more than one issue.⁷⁴ Although the coding protocol does not *require* only one issue per case, the Database's largely unidimensional coding arises from a deliberate decision. Explaining why requires a slight detour into the structure of the Database.

Each case in the Database is coded for the legal provisions at issue.⁷⁵ (Legal provisions are discussed in more detail in section B of this Part.) So *Schenck*, for example, receives a legal provision code of "First Amendment." The Database operates with a rebuttable presumption that each legal provision will be assigned only one issue code.⁷⁶ The Codebook explains that "[a] second issue should apply only when a preference for one rather than the other cannot readily be made."⁷⁷ This point, although explicit in the Codebook, is not well-understood, so I will reiterate: Spaeth *deliberately* codes only one issue per legal provision. And this turns out to mean—almost always—only one issue per case. (For the sake of simplicity, in this Article, I refer to a presumption in favor of only one issue per case.) So, returning again to *Schenck*, once the case was assigned the abortion code, no further issue codes were added.

This deliberately unidimensional coding can be deeply problematic for scholars who use the Database. Coding only one issue per case necessarily obfuscates the relationships between laws, doctrines, and public policy contexts—relationships that may in fact be crucially important to the way the Justices vote or write. Even scholars interested in the interaction between different "public policy contexts" may be unable to explore such questions because Spaeth provides no substantive guidance about how he decides which issue to identify.⁷⁸ He offers no criteria to explain why he codes *Schenck* as an abortion case rather than as a First Amendment case, or *only* as an abortion case rather than as both. Spaeth's issue coding therefore rests on unarticulated criteria and hidden decisions—decisions that, as I discuss in more detail below, may affect work done by those who rely on the Database.

74. To calculate this percentage, I first identified the total number of orally argued cases decided between October 1953 and December 2006 by relying on case citations (analu = 0) and decision types (1, 6, and 7), for a total of 6138 cases. I identified the total number of orally argued multi-issue cases (528) by identifying cases assigned more than one issue (analu = 2 and 5), keeping the relevant decision types (1, 6, and 7) constant, and deleting duplicate case citations.

75. *Id.* at 31.

76. *Id.* at 42 ("[E]ach legal provision should not generally have more than a single issue applied to it.").

77. *Id.*

78. See *id.* at 42 ("Although criteria for the identification of issues are hard to articulate, the focus here is on the subject matter of the controversy rather than its legal basis."); *id.* ("I have attempted to identify issues on the basis of the Court's own statements as to what the case is about."); *id.* ("The objective is to categorize the case from a public policy standpoint, a perspective that the legal basis for decision . . . commonly disregards.").

Both of these first two limitations—the focus on public policy context and the presumption of one issue per case—are related to Spaeth’s attitudinal model. In his model, each case must be coded as either liberal or conservative, but cannot be both.⁷⁹ The “public policy context” can help to position a particular case against the political issues of the day in ways that often makes it easier to decide whether to code the case outcome as liberal or conservative. Likewise, by coding only one issue, Spaeth avoids the problem of having issues that may point in different directions.⁸⁰ So, in *Schenck*, with its lone issue code of “abortion,” the Justices’ votes against the First Amendment rights of abortion protesters can be easily coded as liberal while the votes in favor of the protesters’ rights were labeled conservative. Replace “abortion protesters” with “civil rights marchers” and the liberal/conservative aspect of the case takes on a very different political cast—even if the *First Amendment* issues are identical.⁸¹

iii. Underinclusive Issue Codes

While the presumption in favor of one issue per case can lead to oversimplified and underinclusive identification of issues, the available codes themselves are also underinclusive. For example, there are no codes for such important and recurrent legal issues as immunities, separation of powers, sexual harassment, or many aspects of administrative or employment law.⁸² In particular, outside of the criminal procedure issue area, the Database’s codebook evidences a dearth of issues that relate to judge-made or judge-elaborated law and doctrine.

79. See *id.* at 53–54 (noting that although some exceptions exist, “each issue in each case will either indicate a liberal or conservative outcome”); see also *id.* at 53 (listing the exceptions, and noting that for a very small number of specific issues in the Interstate Relations and Miscellaneous issue, “[a]n ‘8’ has been entered in the DIR variable of these cases either because the issue does not lend itself to a pro or con description (e.g., a boundary dispute between two states), or because no convention exists as to which is the pro side and which is the con side”).

80. Artificial unidimensionality is not the only way to solve this problem. In fact, in those few cases that have more than one issue, Spaeth reportedly codes the political direction of the outcome with reference to the *first* issue coded—presumably the issue he concludes is dominant. Epstein & Segal, *supra* note 69, at 94 n.52.

81. Had Spaeth coded the case as involving a First Amendment issue, he might well have identified the votes in the opposite ideological direction, because vindications of First Amendment rights are generally coded as liberal. Codebook 2008, *supra* note 28, at 58. That Spaeth’s identification of issue is crucially related to his determination of the ideology of a case raises questions about the circularity of his coding and of the attitudinal model itself. See Paul H. Edelman & Jim Chen, *The Most Dangerous Justice Rides into the Sunset*, 24 CONST. COMMENT. 199, 207 (2007) (“[T]he choice to code *Rosenberger* as an establishment controversy,” as opposed to a free speech controversy, “almost certainly led to the coding of this decision as conservative.” (citing *Rosenberger v. Rectors & Visitors of the Univ. of Va.*, 515 U.S. 819 (1995))); Young, *supra* note 17, at 1190 (“[M]any cases can be classified as either ‘liberal’ or ‘conservative,’ depending on the salience of different factors to the classifier. Was *United States v. Lopez* a ‘liberal’ decision, because it was ‘pro-person accused or convicted of crime,’ or was it ‘conservative,’ because it was anti-federal power?” (footnote omitted)).

82. See Codebook 2008, *supra* note 28, at 44–52.

The lack of codes for sexual harassment, immunities, and the dormant commerce clause are examples of this tendency.⁸³ Spaeth himself might argue that because he makes no claims to be coding legal issues, he cannot be faulted for failing to identify them. But this aspect of the Database renders it at best difficult, and at worst misleading, for scholars who wish to study a host of important legal issues.

The issue codes listed in the Codebook also have a somewhat dated feel. To some degree, the Codebook reads as a catalog of issues that were particularly salient during the Warren and Burger Courts and, perhaps, during the first ten years of the Rehnquist Court. Since then, however, other legal issues have moved to the forefront, both politically and in terms of the Court's jurisprudence and doctrine. There are codes for different aspects of search and seizure law, for example, including a specific code for the search and seizure of vehicles, but only a single catch-all category for securities.⁸⁴

iv. Misassigned Issue Areas

In some cases, the issue code itself may be appropriate, but it locates the case in an issue *area* that is, upon examination, nonsensical. *Markman v. Westview Instruments, Inc.*, for example, addresses whether construing patent claims is a jury question or a question for the court.⁸⁵ The Supreme Court held that although patent infringement cases generally are subject to the Seventh Amendment jury right, the claim construction aspect of such cases is not.⁸⁶ The Database identifies the issue in this civil case as "190[:] jury trial (right to . . .)"—which is found in the *criminal procedure* issue area.⁸⁷ But *Markman* has nothing to do with criminal law.⁸⁸

83. There are no codes that can plausibly be understood to relate to immunities. There is one code for sex discrimination in employment (284). *Id.* at 44. There is another code (222) defined as: "employment discrimination: on basis of race, age, religion, national origin, or working conditions. Not alienage, which is 272, or gender, which is 284." *Id.* This definition could conceivably include sexual harassment as being "on the basis of" working conditions, but working conditions and harassment are not bases of discrimination. They are a manifestation of discriminatory intent, actionable only if motivated by *impermissible* discrimination. See *Oncale v. Sundowner*, 523 U.S. 75, 80 (1998) ("We have never held that workplace harassment, even harassment between men and women, is automatically discrimination because of sex merely because the words used have sexual content or connotations.").

84. Compare Codebook 2008, *supra* note 28, at 44 (search and seizure codes), with *id.* at 49 (securities code).

85. 517 U.S. 370, 372 (1996).

86. *Id.* at 384–91.

87. Codebook 2008, *supra* note 28, at 45.

88. In fact, criminal and civil jury rights involve entirely different constitutional amendments and legal doctrines. See U.S. CONST. amend. VI; U.S. CONST. amend. VII. Spaeth himself acknowledges that there are some such discrepancies. So, for example, Spaeth says that codes 111 through 119, which appear within the criminal procedure issue area and deal with "subconstitutional fair procedure . . . need not necessarily pertain to a criminal action." Codebook 2008, *supra* note 28, at 45.

In part, this problem arises from the underinclusive issue codes described above. But it also arises from a peculiarity of the coding protocols: Spaeth codes the issue first; the issue area is then automatically computer-generated.⁸⁹ So rather than assign *Markman* an issue area of judicial power or economic activity and then seek a jury-right issue code within those areas, Spaeth apparently assigns the jury-right code first—which then locates the case in the criminal procedure issue area.

Because researchers often rely on issue area coding to identify or analyze cases,⁹⁰ such discrepancies have the potential to skew research results. For example, a researcher looking at criminal cases, as identified in the Database, likely would unwittingly include *Markman* in her sample. And a researcher relying on the Database to identify all patent or intellectual property cases would not find *Markman*.⁹¹

Such discrepancies appear even in such high-profile cases as *Clinton v. Jones*, Paula Jones' lawsuit against Bill Clinton, in which Jones accused Clinton of sexually harassing her when he was Governor of Arkansas, and she was a state employee.⁹² The Court addressed whether the case against Clinton could proceed while he was a sitting President, or whether it should be stayed until he was done serving, providing him with a form of temporary immunity in part due to separation of powers concerns.⁹³ But the Codebook provides no issue codes for immunities, separation of powers, or sexual harassment. Instead, *Clinton v. Jones* has an issue code of "616: liability, governmental; tort or contract actions by or against government or government officials other than actions brought under a civil rights action," which is found in the issue area of "economic activity."⁹⁴ Leaving aside the fact that this case was not about

89. Codebook 2008, *supra* note 28, at 82.

90. See, e.g., Dimino, *supra* note 9, at 86 n.163 (relying on Spaeth's coding of First Amendment cases to discern the Justices' track records in upholding First Amendment challenges); *id.* at 96–98 & n.214 (same for "judicial power" cases); Smith, *supra* note 9, at 58–64 (relying on "criminal procedure" cases).

91. This problem may not matter for every research project. It is less likely to affect an analysis that, for example, lumps together a number of issue areas—civil rights, criminal procedure, due process, privacy, and First Amendment, for example, to study the Court's treatment of "civil liberties" cases in general. See, e.g., Lee Epstein et al., *The Supreme Court During Crisis: How War Affects Only Non-War Cases*, 80 N.Y.U. L. Rev. 1, 3–10 (2005). Efforts to study more specific areas of the law or interactions between particular areas of law are much more likely to be unreliable if they use the Database uncritically.

92. 520 U.S. 681, 684 (1997).

93. *Id.*

94. There is a decent argument that this case is miscoded even on Spaeth's own terms. Arguably, the case should have been coded as "391: liability, civil rights acts . . . tort actions involving liability that are based on a civil rights act," within the Civil Rights issue area. Codebook 2008, *supra* note 28, at 49. Paula Jones sued Bill Clinton and a former Arkansas state police officer, Danny Ferguson. *Clinton*, 520 U.S. at 684. She brought two counts against Clinton alone: one under § 1983 for depriving her of her constitutional rights, and one state common law count for intentional infliction of emotional

the *liability* of a government official, but rather was about the timing of a suit over actions taken before Clinton became President, defining the case as being one about economic activity unquestionably describes its least salient aspects.⁹⁵

b. Legal Provision

The “legal provision” variable focuses on textually-based legal provisions—“the constitutional provision(s), statute(s), or court rule(s) that the Court considered in the case.”⁹⁶ At first blush, this definition seems unremarkable. A First Amendment challenge to a statute, for example, should have two legal provisions coded: the First Amendment and the statute itself. Spaeth’s criteria for and practice of coding legal provisions, however, result in significant underreporting of law and legal doctrine. There are three primary reasons for this underinclusiveness: (1) how Spaeth defines legal provisions, (2) where he looks for them, and (3) how the criteria are actually applied.

i. Text-Based Doctrines Only

The Database’s definition of “legal provision” omits many significant legal doctrines that are not textually based, but are instead judge-made or elaborated doctrines.⁹⁷ Such doctrines are known by reference to particular case names. In administrative law, for example, *Chevron*⁹⁸ and *Skidmore*⁹⁹ are synonymous with a complex, evolving, and controversial set of doctrines relating to the level of deference courts owe to administrative interpretations of law. Identifying a case as involving *Chevron* is a quick way to convey an enormous amount of information about the content and legal context of the case. But the

distress. *Id.* at 684–86. She brought two counts against both defendants—one under § 1985 for conspiracy to deprive her of her constitutional rights and one state law cause of action for defamation. *Id.* So the case involved both civil rights and non-civil rights torts claims, and the case was widely characterized as a sexual harassment case. But the bottom line is that Paula Jones’ specific causes of actions are among the least important aspects of the case.

95. *Clinton* also raises questions about Spaeth’s liberal/conservative designations. He codes the outcome in *Clinton* as liberal, presumably because it is a decision in favor of a sexual harassment plaintiff against a powerful defendant, a civil rights plaintiff against a government official. Codebook 2008, *supra* note 28, at 53. But in the political atmosphere of its day, *Clinton* certainly was understood to advance the cause of conservative interests. In contrast, Spaeth codes *Bush v. Gore*, 531 U.S. 98 (2000), as a conservative decision. Most people would undoubtedly agree, but here Spaeth appears to be using the opposite criteria from *Clinton*. After all, the victor in *Bush v. Gore* was the plaintiff, who was advancing a broad and novel theory of equal protection—generally a liberal view. *Id.* at 111.

96. Codebook 2008, *supra* note 28, at 31.

97. There are a few exceptions. “5AMI” is the legal provision code for *Miranda* warnings. *Id.* at 35. In addition, the Codebook identifies the following doctrines as legal provisions: abstention, retroactivity of a constitutional right, exclusionary rule, harmless error, res judicata, estoppel, and writ improvidently granted. *Id.* at 38.

98. *Chevron U.S.A. v. Natural Res. Def. Council*, 467 U.S. 837 (1984).

99. *Skidmore v. Swift & Co.*, 323 U.S. 124 (1944).

Database does not do so.¹⁰⁰ Other elaborate and well-established doctrines—such as qualified immunity and sexual harassment—cannot be identified in the Database because they do not involve application of a “legal provision” as narrowly defined by the Codebook. In fact, there are a fair number of cases coded without any legal provision at all—apparently because they do not involve a statute, rule, or constitutional provision.¹⁰¹ Spaeth’s narrow definition of legal provision—especially when coupled with his underinclusive issue codes—oversimplifies the Supreme Court’s jurisprudence and obscures valuable information about numerous areas of law and legal doctrines.¹⁰²

ii. The Shortcomings of Not Relying on the Opinions Themselves

The second major limitation to Spaeth’s coding of legal provisions has to do with how and where he looks for them. Until recently, Spaeth explained that “[t]he basic criterion to determine the legal provision(s) that a case concerns is a reference to it in at least one of the numbered [sic] holdings in the . . . ‘Syllabus By Reporter Of Decisions.’”¹⁰³ Spaeth acknowledges that this criterion may miss some legal provisions, but he argues that it is “a reasonably objective and reliable indicator. . . . Although one may argue that my criterion is excessively

100. There is an issue code—in the judicial power issue area—for “judicial review of administrative agency’s or administrative officer’s actions and procedures” (721). Codebook 2008, *supra* note 28, at 50. This code is overinclusive, covering all kinds of judicial review of all kinds of administrative actions. Moreover, because of the presumption in favor of only one issue per case, this code may not be attached to many cases that in fact involve such review.

101. The Codebook explicitly acknowledges the possibility that some cases will not have a coded legal provision. *Id.* at 32.

102. These limitations do not necessarily lead to problems with every study. A scholar interested in *Chevron*, for example, could certainly generate her own list of cases in which the Court relied on or addressed that case or the doctrine that bears its name. But not all studies lend themselves to such independent data collection, and not all researchers understand when and why they should try to undertake it.

103. Harold J. Spaeth, *The Original United States Supreme Court Judicial Database 1953–2003 Terms: Documentation* 33 (2005) [hereinafter Codebook 2005] (on file with The Hastings Law Journal). In September 2008, Spaeth revised his Codebook. The current Codebook has a slightly different explanation. According to the September 2008 Codebook, “[t]he basic criterion to determine the legal provision(s) [within a case] is the ‘summary’ in the *Lawyers’ Edition* [a commercial reporting service provided by LexisNexis]. Supplementary is a reference to it in at least one of the numbered holdings in the . . . ‘Syllabus By Reporter Of Decisions.’” Codebook 2008, *supra* note 28, at 31. This change is unexplained in the Codebook, but Professor Spaeth tells me that he made the change after he read an earlier draft of this Article and realized that the Codebook inaccurately described his protocol for this variable. E-mail from Harold J. Spaeth, Research Professor of Law, Michigan State University College of Law, to author (Feb. 9, 2009, 07:52:00 CST) (on file with author). In this Article, my analysis of Spaeth’s coding protocols for legal provision primarily addresses his reliance on the syllabus, but all of my criticisms apply with equal, if not greater, force to reliance on a commercial reporter’s summary.

formalistic; that it is too gross; or conversely, too refined; no other feasible criterion matches it for objectivity and reliability.”¹⁰⁴

Spaeth takes this approach even though the syllabus of an opinion is not authoritative in any way.¹⁰⁵ It cannot be cited as authority by lawyers or courts.¹⁰⁶ The syllabi are not written by the Justices, nor are they written by their law clerks.¹⁰⁷ While the Justice who drafts a majority opinion reviews the syllabus (or has his or her law clerk review it) for accuracy, unlike the opinion itself, it does not circulate among all the Justices before publication.¹⁰⁸

What the syllabus does is provide a short summary of the opinion for a reader looking for information about the case, and it can provide a road map to the opinion for readers interested in particular sections or subjects. In fact, it is often one very useful place to look to identify legal provisions as well as other aspects of a case. It should not, however, be the only place. And the limitations of relying on the syllabus are exacerbated still further by the fact that Spaeth generally chooses to report only legal provisions found in the *numbered holdings* of the syllabus—meaning that a particular legal provision cited explicitly only in the general description of the case that precedes the holdings may well go unreported in the Database, even if it is central to the case.¹⁰⁹

*Almendarez-Torres v. United States*¹¹⁰ provides an example of how a syllabus may not refer to particular legal provisions that are in fact considered by the Court, leading to underreporting of legal provisions in the Database. In *Almendarez-Torres*, the petitioner was a noncitizen convicted of the crime of reentering the United States following deportation.¹¹¹ He argued that a factor—recidivism—relied on by the court to enhance his sentence was actually an element of the crime that

104. Codebook 2005, *supra* note 103, at 33; Codebook 2008, *supra* note 28, at 31.

105. Of course, the *Lawyers' Edition* summaries also have no authority whatsoever. Moreover, they do not appear in the slip opinions or official reporters, and, unlike the syllabi, are not even drafted by Court personnel.

106. The Supreme Court itself makes all these limitations explicit in a note that appears before every syllabus: “The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader.” *See, e.g., Crawford v. Metro. Gov't*, 129 S. Ct. 846, 847 (2009) (citing *United States v. Detroit Timber & Lumber Co.*, 200 U.S. 321, 337 (1906) (“In the first place, the headnote is not the work of the court, nor does it state its decision—though a different rule, it is true, is prescribed by statute in some States. It is simply the work of the reporter, gives his understanding of the decision, and is prepared for the convenience of the profession in the examination of the reports.”)).

107. The syllabi are written by the Reporter of Decisions, an office of career appointees who assist the Court in its work. ROBERT L. STERN ET AL., *SUPREME COURT PRACTICE* 30 (8th ed. 2002).

108. *Id.*

109. Codebook 2008, *supra* note 28, at 31. *But see id.* (“Where this summary lacks numbered holdings, it is treated as though it has but one number.”).

110. 523 U.S. 224 (1998).

111. *Id.* at 227.

should have been alleged in the indictment and proven beyond a reasonable doubt.¹¹² To resolve this question, the Court had to construe the statute under which he was convicted and sentenced, 8 U.S.C. § 1326.¹¹³ The statute, referenced in the syllabus, is appropriately coded as a legal provision in the case.

But the Court also addressed a constitutional challenge raised by the defendant.¹¹⁴ Almendarez-Torres claimed that treating recidivism as a sentencing factor but not as an element of the crime violated the Due Process Clause.¹¹⁵ The Court explicitly addressed and rejected this claim.¹¹⁶ The syllabus, however, does not mention the Due Process Clause, the Fifth Amendment, or the Fourteenth Amendment.¹¹⁷ It simply refers generically to constitutional requirements.¹¹⁸ As a result, pursuant to Spaeth's coding protocol, the Database identifies no legal provision other than the statute itself. This case, therefore, would not be identified by, for example, a researcher using the Database to locate due process challenges to criminal statutes.¹¹⁹

c. *Problems in Application*

In fact, the Database does not consistently report even those legal provisions that *are* referenced in the syllabus,¹²⁰ a problem I discuss in more detail in Part III. Spaeth provides no explanation for these omissions, and there are no relevant exceptions to the coding protocols. Spaeth claims that his method of coding legal provisions avoids the "scourge of analysts in this regard"—researchers' inability "to agree on just what legal provisions the Court addressed in a given case."¹²¹ But making such determinations is unavoidable, even when looking only to the syllabus. Just as the *Almendarez-Torres* syllabus omitted explicit reference to relevant legal provisions, many syllabi include references to legal provisions that are unimportant to the holding. Including all such legal provisions in the coding would render the Database overinclusive

¹¹² *Id.* at 228–39.

¹¹³ *Id.* at 229–35.

¹¹⁴ *Id.* at 239.

¹¹⁵ *Id.*

¹¹⁶ *Id.* at 239–47.

¹¹⁷ *Id.* at 224–25.

¹¹⁸ *Id.* at 225. Oddly (in light of the September 2008 revisions to the Codebook), although the *Lawyers' Edition* summary explicitly mentions the Fifth Amendment Due Process Clause, *Almendarez-Torres v. United States*, 140 L.E.2d 350, 350 (1998), Spaeth does not code it as a legal provision. See *infra* Parts I.B.2.b.iii and III.A.2.c. for more discussion of the Database's failure to code legal provisions even when they fall within its protocols.

¹¹⁹ The case would also not be picked up through its issue coding. Oddly, the issue coded is double jeopardy. Although double jeopardy is mentioned in the opinion, it is not in fact at issue. *Id.* at 247.

¹²⁰ The Database does not consistently report legal provisions referenced in the *Lawyers' Edition* summary either.

¹²¹ Codebook 2008, *supra* note 28, at 31.

and unwieldy. So Spaeth must, unavoidably, make the very determination he claims to avoid.

The case of *Rousey v. Jacoway*¹²² provides a good example of why it is necessary to actually read the opinions to make the determination about what legal provisions are really at issue. The issue in *Rousey* was: “Whether and to what extent Individual Retirement Accounts (IRAs) are exempt from a bankruptcy estate under” a provision of the Bankruptcy Code.¹²³ Not surprisingly, the syllabus cites the Bankruptcy Code,¹²⁴ which is the *only* legal provision Spaeth codes. But the syllabus also mentions 26 U.S.C. § 408(a), the provision of the Internal Revenue Code that governs IRAs—and that statute goes uncoded in the Database, presumably because the citation appears in the syllabus to be in passing.¹²⁵ In the syllabus, the cite to the Internal Revenue Code appears only once, and the discussion of IRAs in the syllabus focuses on what could be described as facts about how IRAs work.¹²⁶ On the other hand, the *opinion* itself makes clear that what is important about IRAs are the statutorily-created parameters of these retirement accounts, and how those parameters interact with bankruptcy law.¹²⁷ Reliance only on the syllabus obscures the significance of the Internal Revenue Code to the case. In general, reliance on the syllabus alone prevents the coder from accurately evaluating judgments about “just what legal provisions the Court addressed in a given case.”¹²⁸ Only by reading the opinions themselves can a coder make an accurate determination about what legal provisions were actually considered by the Court.

C. IN SUMMARY

Not all what I have said so far is new. In different forms, some of my points form the basis of some of the most trenchant criticisms of Spaeth’s attitudinal model, and much of the critique of the failure of positive scholars to take account of legal doctrine.¹²⁹ My critique differs, however, in its focus on the dangers of relying on the Database (or on research that itself relies on the Database) for scholars who purport or aspire to take account of legal doctrine.

I do not intend my efforts to be purely critical. To the contrary, one of the goals of this Article is to help scholars become more careful users

122. 544 U.S. 320 (2005).

123. Brief for Petitioners at i, *Rousey v. Jacoway*, 544 U.S. 320 (2005) (No. 03-1407), 2004 WL 1900505.

124. 544 U.S. at 320.

125. *Id.* at 320–21. The Internal Revenue Code is likewise mentioned but not described or analyzed in the *Lawyers’ Edition* summary. *Rousey v. Jacoway*, 161 L.Ed.2d 563, 563–64 (2005).

126. *Rousey*, 544 U.S. at 320–22.

127. *Id.* at 327–29, 328 n.3.

128. Codebook 2008, *supra* note 28, at 31.

129. See discussion *supra* Part I.B.

of the Database and more critical consumers of research based upon it. Notably, scholars simply cannot assume that a collection of cases with certain issue or issue area codes captures all relevant cases, that the number of issues coded per case is accurate, or that all cases with a certain issue code in fact involve the same legal issues; nor can scholars assume that all relevant legal provisions, issues, or doctrines are identified.

II. LIMITATIONS AND CHALLENGES FOR EMPIRICAL LEGAL SCHOLARSHIP

The limitations of the Database's coding have significant implications for some empirical legal scholarship that relies on the Database.¹³⁰ To explore those implications, I focus in particular on two problems that researchers encounter, often unknowingly: (1) the impossibility of knowing how many (and which) legal issues arise in a particular case and (2) the difficulty of using the Database to study the way different areas of law interact with or affect each other. Both of these problems arise primarily from Spaeth's deliberate practice of coding only one issue per case and from his decision not to code *legal* issues at all, but they implicate other aspects of the coding protocols as well. As I will show, researchers do not always appreciate these problems, and this failure raises questions about the reliability of their findings. As legal scholars increasingly embrace empirical scholarship, more and more studies that attempt to use the Database to study substantive questions about law are likely to appear in the literature. Understanding the limitations of the Database, therefore, is of growing importance.

A. THE SINGLE ISSUE ASSUMPTION

Among many quantitative empirical scholars, there has long been an assumption that the Supreme Court's cases are "unidimensional."¹³¹ These scholars assume that in deciding a case, the Justices need only consider their preferences about a single question and that the Justices' preferences "can be arrayed along a single ideological dimension."¹³² This

130. Not every one of the Database's limitations affects every study, of course. Some scholars do their own additional coding to compensate for the limitations, and some studies rely on aspects of the coding that are not implicated by my critiques. In addition, randomly distributed errors will probably not affect a study's findings, at least in large scale studies. Here, however, I explore a few examples of studies that, because of the way they rely on the Database, produce unreliable findings. This discussion, like the discussion in Part I, is more illustrative than comprehensive.

131. See, e.g., Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999*, 10 POL. ANALYSIS 134, 145 (2002) (noting that the assumption of unidimensionality is made in "nearly all statistical analyses of Supreme Court behavior").

132. Edelman & Chen, *supra* note 81, at 199. Edelman and Chen go on to criticize this assumption in detail. *Id.* at 203–09. They note, for example, that a Justice's response to a case involving a single

assumption is implicit in the Database's presumption of only one issue per case. Unfortunately, sometimes researchers forget that such a decision imposes an artificial constraint on the Database coding that may misrepresent the underlying cases.

I. *The Median Justice*

In a recent law review article, for example, prominent political scientists and empirical legal scholars Andrew Martin, Kevin Quinn, and Lee Epstein present a methodology (relying on methods previously developed by Martin and Quinn¹³³) for identifying the "median justice" for each Term.¹³⁴ For each Term, they identify the Justice who is most likely to be the swing vote, and they quantify that likelihood in what they call "median justice scores," which they make available for other scholars to use.¹³⁵

The authors' methodology—which is likely to be (at best) opaque to many legal academics¹³⁶—rests in part on a principle known as the Median Voter Theorem. The details of the Median Voter Theorem are largely unimportant here; what is significant is its requirement that the matters voted on be unidimensional.¹³⁷ In the absence of such a "single-dimension issue space,"¹³⁸ the Median Voter Theorem is significantly less powerful. As a result, if a substantial proportion of Supreme Court cases involve more than one issue, the authors' identification of median justices is less reliable.

The authors conclude, however, that they need not be concerned about this problem:

We too can identify particular cases that violate the condition of a single-dimension issue space but, as it turns out, the great majority of disputes before the Supreme Court do not. For example, of the 8,889 cases in which the Court heard oral arguments and decided between the 1953 and 2002 terms, only 3.79 percent (n=337) contained more than one issue (e.g., a case that raised questions about federal taxation and federalism).¹³⁹

issue, such as abortion, may include competing preferences that are sometimes explicitly incorporated into the law in the form of a balancing test. *Id.* at 205–06.

133. Martin et al., *supra* note 2, at 1279 & n.17.

134. *Id.* at 1279.

135. *Id.* at 1302–03.

136. Farnsworth, *supra* note 17, at 144.

137. Martin et al., *supra* note 2, at 1281.

138. *Id.*

139. *Id.* at 1284 n.35. My calculation of the proportion of multi-issue cases in the Database results in a somewhat higher, but still small, percentage (8.6%). See *supra* note 74 and accompanying text. Edelman and Chen criticize the authors' methodology on a number of grounds. See Edelman & Chen, *supra* note 81, at 203. Among other things, they point out that the authors' technical description of their own methodology does not make sense. *Id.* at 204. They also argue that the Database's issue coding is unlikely to accurately identify cases involving single-dimension issue space, and they consider whether the number of legal provisions coded in a case might help in identifying the number of issue

But because the Database operates with a presumption of only one issue per case, the authors should not rely on the paucity of multi-issue cases in the Database as evidence that most cases *in fact* involve only one issue.¹⁴⁰ Such reliance is bootstrapping and it calls the authors' underlying assumption of unidimensionality into question, likewise calling into question their findings—the median justice scores.¹⁴¹ And since other scholars are likely to rely on those scores in their own work, the limitations of the Database are likely to be magnified by repetition—a multiplier effect of sorts.¹⁴²

2. Case Complexity

It is likewise problematic to draw conclusions about case complexity from the Database without properly considering Spaeth's coding protocols. One study, for example, purports to measure case complexity by counting the number of legal provisions and (what the study calls) "legal issues" coded for each case in the Database, and it concludes that more complex cases lead to more separate opinions.¹⁴³ But given the

dimensions. *See id.* at 204–06. They conclude, however, that more than one legal provision might relate to the same issue, while, on the other hand, it is possible that the same legal provision—for example, equal protection—could be relevant to multiple dimensions. *Id.* at 207.

140. This criticism arguably holds even if the authors agree with Spaeth's decision to code public policy context rather than legal issue.

141. In fairness, the authors of *The Median Justice on the United States Supreme Court* do not rely solely on the Database for their claim that most Supreme Court cases are single issue cases. They also cite Bernard Grofman and Timothy J. Brazill, *Identifying the Median Justice on the Supreme Court Through Multidimensional Scaling: Analysis of "Natural Courts" 1953–1991*, 112 PUB. CHOICE 55 (2002). Grofman and Brazill find that, using a statistical technique called multidimensional scaling (MDS), a one-dimensional statistical model explains over 80% of the variation in the votes. *Id.* at 58. Even in their model, however, close to 20% of the variation in votes goes unexplained. *Id.* Moreover, their model operates on an assumption that each individual Justice operates along a single dimension, discounting the possibility that individual Justices evaluate cases and issues from more than one perspective. *Id.* As noted, this assumption may be unwarranted. *See supra* note 132. Even to the extent that Grofman and Brazill's conclusions about unidimensionality are warranted, that does not mean that the Spaeth Database accurately identifies that dimension with its issue coding.

142. For the most part, the authors' identification of each Term's median justice is unsurprising. But the mere identification of the median justice does not add a lot of new information to the study of the Supreme Court. Most observers of the Court know who the key swing voters are and how the Justices generally line up from left to right. *See* Farnsworth, *supra* note 17, at 1894 (noting "everyone already knows" that "each Justice predictably votes with certain colleagues and not others"). It is the *quantification* that is new—the effort to put a precise number on the likelihood of a Justice to be the median in any given case during each Term. And it is this quantification, with the apparent precision of numbers—numbers with lots of digits after the decimal point—that the researchers' use of the Database renders unreliable. *See* Edelman & Chen, *supra* note 81, at 218–19 (arguing that the median justice is not necessarily the most powerful Justice, and demonstrating an alternative methodology to identify Justices most likely to be in winning coalitions).

143. Scott P. Johnson, *The Influence of Case Complexity on the Opinion Writing of the Rehnquist Court*, 25 OHIO N.U. L. REV. 45, 47 (1999). Johnson is not the only one to erroneously equate case complexity wholly or in part with the number of issues coded in the Database. *See, e.g.,* Robert J. Hume, *The Use of Rhetorical Sources by the U.S. Supreme Court*, 40 LAW & SOC'Y REV. 817, 826 (2006); Johnson et al., *supra* note 67, at 361. Another example of reliance on the number of issues coded is Solimine and Gely, *supra* note 9.

Database's coding protocols, the author may have gotten the causation backwards. Spaeth codes more than one issue "only when a preference for one [issue] rather than the other cannot readily be made."¹⁴⁴ It is at least plausible that Spaeth is more likely to find this criterion met in cases that involve more opinions. The same may be true for legal provisions. If a Justice writes separately to emphasize a particular legal provision, it is probably more likely that the majority will choose to address the same provision, which in turn probably makes it more likely that the syllabus would mention additional legal provisions. Put another way, by failing to account for the relationship between the Database's coding protocols and the reported data, the author is confusing correlation—between issues and opinions, and between legal provisions and opinions—with causation. This author may be correct that case complexity leads the Justices to write more opinions, but there is no way to know based on the Database.

3. *Tracking Use of Precedent*

One recent study—one of several recent efforts to examine the use of precedent—used Shepard's as a first step to identifying precedents upon which subsequent cases rely.¹⁴⁵ The author noted, however, that Shepard's is overinclusive for the purpose of looking at the way precedent substantively affects later cases because it identifies *all* later opinions that cite an earlier case, regardless of the role that the earlier case plays in the later one.¹⁴⁶ In order to narrow the sample to precedents and later cases that are substantively related to each other, the author turned to the Database's issue and issue area.¹⁴⁷ If the Database coded an earlier case and a later case with identical issues, the earlier case was designated a "precedent" and the later case was identified as relying on that precedent. If the Database coded earlier and later cases with different issue *areas*, they were not considered related; the earlier case was not identified as precedent for the later one. Where the Database coded the earlier case and the later case with different issues *within* the same issue area, however, the author made a case-by-case determination about whether the cases were closely enough related for the first case to count as a precedent for the second. Cases coded for habeas and cruel and unusual punishment, for example, might be considered to involve "equal contexts" and, if so, were retained in the sample.¹⁴⁸

The author's willingness to look at the context beyond the issue codes is an important recognition that the coding may be best used as a

¹⁴⁴ Codebook 2008, *supra* note 28, at 42.

¹⁴⁵ Lim, *supra* note 68, at 733–34.

¹⁴⁶ *Id.* at 734.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

guide. But the study's reliance on issue and issue area codes nonetheless affects the reliability of its results. Automatic elimination of cases in different issue areas may have caused the author to eliminate cases from the study that in fact are related. For example, two cases involving the same procedural issue might be coded with completely different issue areas depending on their factual contexts. In *Reeves v. Sanderson Plumbing Products*, the Court described the proper approach for courts to take when evaluating a motion for a directed verdict.¹⁴⁹ Because the Court explained that the analysis for such motions is the same as for motions for summary judgment, it relied heavily on key summary judgment precedents, in particular *Anderson v. Liberty Lobby, Inc.*¹⁵⁰ Yet *Anderson*, which was a libel case, has a First Amendment issue area code, while *Reeves*, an employment discrimination case, is coded only as a civil rights case.¹⁵¹ As a result, *Anderson* would not be included as precedent for *Reeves* in the study, even though *Reeves* explicitly and extensively relied on the earlier case for its analysis of the procedural issue.¹⁵²

B. THE PROBLEM OF INTERACTION EFFECTS: THE FIRST AMENDMENT

Scholars are increasingly interested in the way that different legal issues or provisions interact, or whether they operate differently in different contexts—what I will call interaction effects. These interaction effects, however, are precisely what the Database's structure makes difficult or impossible to track.

In *Trumping the First Amendment*, for example, prominent political scientists Jeffrey Segal and Lee Epstein examine the extent to which the Justices are more likely to vote against First Amendment speech rights in what they describe as “value-conflict” cases—situations in which First Amendment values are in conflict with “other constitutional or political value[s],” such as equality, privacy, or due process—than in “pure cases,” where there are no such conflicts.¹⁵³ They conclude that a commitment to First Amendment values—a commitment historically associated with

149. 530 U.S. 133, 149 (2000).

150. *Id.* at 149–51 (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–50 (1986)).

151. See Supreme Court Data, *supra* note 4.

152. *Anderson* was one of three cases known as the summary judgment trilogy. Arthur R. Miller, *The Pretrial Rush to Judgment: Are the “Litigation Explosion,” “Liability Crisis,” and Efficiency Clichés Eroding Our Day in Court and Jury Trial Commitments?*, 78 N.Y.U. L. REV. 982, 984 (2003). The other cases are *Matsushita Electrical Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587–86 (1986), and *Celotex Corp. v. Catrett*, 477 U.S. 317, 322–23 (1986). The trilogy is often credited with signaling the lower courts that they should grant summary judgment more willingly, and the cases are frequently discussed as a group. See, e.g., Miller, *supra*, at 984–85 (blaming “an expansive reading of the trilogy” for lower courts’ undue willingness to grant summary judgment). Yet the three cases do not share any issue area codes. *Matsushita* is coded as an economic activity case, *Celotex* as a judicial power case, and *Anderson* as a First Amendment case. See Supreme Court Data, *supra* note 4.

153. Epstein & Segal, *supra* note 69.

more liberal Justices and more liberal eras of the Court—is significantly less pronounced, indeed may be absent, in value-conflict cases.¹⁵⁴ Put another way, liberal Justices, they conclude, while more likely than their conservative brethren to vote to uphold First Amendment rights in pure cases, are, if anything, *less* likely to do so in value-conflict cases. Epstein and Segal, however, fail to consider the possibility that what they observe is at least in part an artifact of the Database. To be clear: Epstein and Segal's conclusions are not necessarily wrong. But they are *unreliable* because of the way they use the Database.

The explanation that follows is not simple, but that is in part why it is so important. Epstein and Segal are leading scholars of the Supreme Court and their conclusions are likely to garner attention if not deference. Scholars reading Epstein and Segal's study, however, are very unlikely to discern the problems that I identify. Those problems become apparent only through an analysis of the relationship between their methods and assumptions and Spaeth's coding protocols. Specifically, I will explain (1) how Epstein and Segal identify cases that involve the First Amendment, (2) how they distinguish between pure and value-conflict cases, (3) how those decisions interact with the Database's coding protocols, and finally (4) why the coding protocols render their findings unreliable.

To identify cases that involve the First Amendment, Epstein and Segal look at the issue, issue area, and legal provision variables. Any case for which there is a "First Amendment" code for legal provision is included in their sample. Likewise, any case for which there is a First Amendment issue area and a First Amendment speech-related issue code (as opposed to the religion-related codes) is also included.¹⁵⁵ So far so good. Relying on both issue and legal provision codes to identify First Amendment cases avoids at least some of the underinclusiveness that can arise when a researcher relies only on issue coding to identify cases in a certain area. It is a partial correction for the problem of Spaeth's unidimensional issue coding—and one that he recommends himself.¹⁵⁶

Having identified this universe of First Amendment cases, the authors then divide them into their two categories: pure cases and value-conflict cases. Recall that they define a value-conflict case as one in which values other than free speech—values including (but not limited to) equality, privacy, or due process—come in conflict with First

154. *Id.* at 81.

155. The specific issue codes allow the authors to weed out First Amendment cases coded as involving religion. Spaeth also has identified separate legal provision codes for the First Amendment religion clauses and the speech clause. Codebook 2008, *supra* note 28, at 37.

156. *Id.* at 47. Because legal provisions are themselves underreported, it is likely that even Epstein and Segal inadvertently exclude some First Amendment cases from their sample. *See* discussion *infra* Part III.B.2. It is not obvious, however, that such underreporting likely has a systematic skew.

Amendment values, while a pure case involves only the First Amendment. To make the distinction between these types of cases within their universe of First Amendment cases, they rely on Spaeth's issue area code.¹⁵⁷ They define a pure case as one in which the issue code falls in the First Amendment issue area.¹⁵⁸ This criterion captures cases like *Texas v. Johnson*, the case in which the Court struck down a statute outlawing flag burning.¹⁵⁹ They identify value-conflict cases, on the other hand, as cases in which the issue code falls in a non-First Amendment issue area. *Schenck* is therefore identified as a value-conflict case. Its legal provision is coded as the First Amendment, but its issue code is abortion.¹⁶⁰

This approach is open to a variety of criticisms. For one thing, there is no particular reason to think that the cases they have identified as value-conflict cases *necessarily* involve conflicts. Sometimes, the different values might point in the same ideological direction. In *Rust v. Sullivan*, for example, the Supreme Court upheld regulations prohibiting family planning clinics from providing information about abortion if they received federal funds.¹⁶¹ Unlike *Schenck*, *Rust* did not pit liberal First Amendment values against the liberal position on abortion rights. To the contrary, both claims pointed in the same ideological direction. Nonetheless, due to its "privacy" issue area, Epstein and Segal classify *Rust* as a value-conflict case.¹⁶²

Second, many cases in the Database, and therefore in *Trumping the First Amendment*, are coded as involving a First Amendment issue even though they have nothing whatsoever to do with the First Amendment. Epstein and Segal's sample contains, for example, a set of cases from the Warren Court involving challenges to anti-Communist measures such as loyalty oaths or to decisions to hold someone in contempt of Congress

157. Epstein & Segal, *supra* note 69.

158. *Id.*

159. 491 U.S. 397, 419–20 (1989).

160. Epstein and Segal acknowledge that in some sense *every* case is a value-conflict case. Epstein & Segal, *supra* note 69, at 94 n.49. *Texas v. Johnson*, for example, could be seen as involving a conflict between freedom of expression values on the one hand with respect for the symbol of the flag and all it represents. Although Epstein and Segal do not say so explicitly, it appears that they are specifically interested in cases in which a (liberal) vote in favor of First Amendment rights would be a vote against some other ideologically liberal value or position. It is worth noting here that I am able to undertake this dissection of Epstein and Spaeth's work only because they (1) explicitly set forth most of their coding protocols in their article, and (2) make their data available. See Epstein's Dataverse, http://dvn.iq.harvard.edu/dvn/dv/lepstein/faces/study/StudyPage.jspx?_afPfm=900c9f506555e0310c140985dd33.dvnInstance1?studyId=735 (last visited Feb. 14, 2009). These are norms that legal academics would do well to adopt. See generally Epstein & King, *supra* note 2.

161. 500 U.S. 173, 201 (1991).

162. *Rust v. Sullivan* is not the only case where the different values do not in fact conflict ideologically. See e.g., *In re Sawyer*, 360 U.S. 622, 639–40 (1959) (reversing disciplinary action by state bar of lawyer representing defendants in anti-Communist activity trial; coded with First Amendment and Attorneys issue areas; identified as value conflict by Epstein and Segal).

for refusing to answer particular questions under oath.¹⁶³ Under Spaeth's coding protocols, these cases have First Amendment issue areas even when they in fact involved, for example, due process challenges, and even when they contain either no mention of or only a passing reference to the First Amendment. Relying on Spaeth's coding, Epstein and Segal nonetheless classify such cases as "pure" First Amendment cases. This practice increases the number of Warren Court cases counted as decided in favor of the First Amendment (or as cases in which the more liberal Justices so voted).¹⁶⁴ The study might therefore overstate the rate at which the Warren Court (or its liberal Justices) voted in favor of First Amendment values, thereby overstating the difference between the Warren Court (or its liberal Justices) and subsequent, less "liberal" Courts and Justices.¹⁶⁵

163. See, e.g., *Cramp v. Bd. of Pub. Instruction*, 368 U.S. 278, 288 (1961) (finding statutorily-required loyalty oath void for vagueness in violation of due process); *Cafeteria & Rest. Workers' Union, Local 473 v. McElroy*, 367 U.S. 886, 899 (1961) (upholding against due process challenge military officer's decision not to allow civilian worker on base); *Deutch v. United States*, 367 U.S. 456, 472 (1961) (reversing contempt of Congress conviction on due process grounds); *Konigsberg v. State Bar of Cal.*, 366 U.S. 36, 56 (1961) (upholding state bar decision to deny admission for applicant's refusal to answer question about Communist activities); *Nelson v. County of L.A.*, 362 U.S. 1, 9 (1960) (upholding dismissal of social workers for refusing to answer questions from a congressional committee); *Greene v. McElroy*, 360 U.S. 474, 508 (1959) (reversing administrative decision, unsupported by congressional or presidential authority, to deprive government contractor of his position); *Kent v. Dulles*, 357 U.S. 116, 130 (1958) (holding that the Secretary of State did not have authority to issue regulation denying passports to Communists); *Watkins v. United States*, 354 U.S. 178, 216 (1957) (striking down contempt of Congress conviction on due process grounds); *Slochower v. Bd. of Educ.*, 350 U.S. 551, 559 (1956) (reversing summary termination of professor who invoked his right against self-incrimination); *Peters v. Hobby*, 349 U.S. 331, 349 (1955) (striking down actions of Loyalty Board); *Barsky v. Bd. of Regents*, 347 U.S. 442, 456 (1954) (upholding suspension of physician's license following conviction for refusing to produce subpoenaed documents).

164. Epstein and Segal would likely respond to this critique by pointing out that what they purport to be measuring is the likelihood that the Court rules in favor of "First Amendment values," not necessarily in favor of First Amendment rights themselves. Most readers of their article, however, are unlikely to make such a subtle distinction. For one thing, the authors themselves describe the cases they are looking at as involving "First Amendment claims" and as cases in which "the First Amendment guarantees of press, speech, assembly, or association were at stake." Epstein & Segal, *supra* note 69, at 81, 92 (emphasis added). Lawyers reading such descriptions would certainly assume that the cases in fact involve the First Amendment, not simply related "values."

165. These Cold War cases suggest other interesting challenges for Epstein and Segal. The Warren Court decided this series of cases in part because there were such cases to decide during the Cold War. Theoretically, therefore, the Warren Court's apparent favoring of First Amendment values relative to subsequent Courts could reflect instead a contemporaneous *antipathy* towards First Amendment values by other government actors, leading to this series of cases. See Barbara Graham, *Explaining Supreme Court Policymaking in Civil Rights: The Influence of the Solicitor General, 1953–2002*, 31 *POL'Y STUD. J.* 253, 261–62 (2003) (explaining shift in Court's treatment in race discrimination cases in part due to a change in the nature of the cases the Court was handling—a change from identifying constitutional violations to remedying them); see also Jonathan P. Kastellec & Jeffrey R. Lax, *Can We Ignore Case Selection When We Study Judicial Politics?* (Oct. 22, 2007) (unpublished paper prepared for the Second Annual Conference on Empirical Legal Studies), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=951873 (arguing that the Supreme Court's case selection has substantial implications for empirical scholars trying to draw conclusions about the Court's decision making).

Most importantly, however, Epstein and Segal's approach leads them to any case as pure that involves values other than free expression *so long as* the issue code for the case is within the First Amendment area. To explain: in the Database, some cases have both a First Amendment legal provision and First Amendment issue code. Epstein and Segal code these cases as pure cases. Other cases have a First Amendment legal provision and a non-First Amendment issue code. These cases are identified as value-conflict cases. But what of a case that has a non-First Amendment legal provision but a First Amendment issue code? These cases (which I will call hybrid cases), under Epstein and Segal's protocols, are coded as pure cases—but this coding is likely to be wrong.¹⁶⁶ And that systematic misclassification presents a problem for Epstein and Segal's findings.

To understand why hybrid cases may well be misclassified as pure cases, it is important to remember two aspects of Spaeth's issue coding. First, Spaeth does not purport to code *legal* issues—so a case like *Schenck* in which all the legal analysis centered on the First Amendment is nonetheless coded as a privacy case because it involves abortion protesters. Second, Spaeth, by design, almost always codes only one issue per case. This aspect of the coding requires him to try to identify one—and only one—"public policy context" for each case.

Spaeth provides no guidance about how that determination is made. It stands to reason, however, that the decision rests in large part on what aspect of the case is emphasized by the Justices themselves. So, in *Schenck*, where the Court upholds part of the injunction against abortion protesters—where, in Epstein and Segal's terms, abortion rights trump the First Amendment—Spaeth gives the case an abortion issue.¹⁶⁷

On the other hand, in a case where the competing value does not trump the First Amendment, it seems more likely that Spaeth would code the case with a First Amendment issue. *Republican Party of Minnesota v. White*,¹⁶⁸ for example, is coded with a First Amendment issue and,¹⁶⁹ therefore, is identified as a pure case by Epstein and Segal. And indeed, the majority decided the case, striking down limitations on judicial candidates' speech, on First Amendment grounds.¹⁷⁰ The dissenters, however, emphasized their concerns about due process and

166. Similarly, and without explanation, Epstein and Segal identify cases with more than one issue as pure cases as long as any one of the issues is a First Amendment issue. See, for example, *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525 (2001), which is coded by Spaeth as having both a First Amendment and a federalism issue, but is coded by Epstein and Segal as a "pure" First Amendment case. See Epstein's Dataverse, *supra* note 160.

167. See Supreme Court Data, *supra* note 4.

168. 536 U.S. 765 (2002).

169. See Supreme Court Data, *supra* note 4.

170. *White*, 536 U.S. at 788.

judicial impartiality.¹⁷¹ The case is, therefore, more accurately described as a value-conflict case.

The combined effect of Spaeth's coding with Epstein and Segal's protocols is that value-conflict cases resolved in favor of First Amendment rights, like *Republican Party of Minnesota*, appear less likely to be identified as value-conflict cases than are value-conflict cases resolved against First Amendment values. This likely systematic bias renders Epstein and Segal's conclusions unreliable because their identification of pure versus value-conflict cases may not be independent of the case outcome. Put another way, their coding protocols mean that they may systematically undercount the number of value-conflict cases resolved in favor of First Amendment values and—particularly for cases during the Warren Court era—they may overcount the number of “pure” cases decided in favor of those values. As a result, their calculation of the proportions of value-conflict cases resolved for and against First Amendment values is in question.¹⁷² At worst, they are wrong that liberal Justices are significantly more likely to rule against First Amendment rights in value-conflict cases than in pure cases, because they have not accurately identified many value-conflict cases, particularly those in which the First Amendment rights are upheld. Or perhaps they are right but they overstate the results. Or perhaps ultimately, following recoding to account for my critique, there would be little or no change in their results.¹⁷³ We do not know. As it stands, however, what we know is that their conclusions are unreliable.

To emphasize—the problems here arise primarily from Spaeth's guideline that (almost) every case have only one issue code, combined

171. *Id.* at 797–803 (Stevens, J., dissenting); *id.* at 803–21 (Ginsburg, J., dissenting).

172. Additionally, in part due to Spaeth's failure to consistently code legal provisions, discussed in detail in Part III, their sample entirely omits cases that should be included. *See, e.g., Cal. Bankers Ass'n v. Schultz*, 416 U.S. 21, 56 (1974) (holding, *inter alia*, that First Amendment freedom of association claims of the ACLU were not yet justiciable).

173. Any of these outcomes are possible. Some cases wrongly coded as pure cases have a majority of conservative Justices who decide the case in favor of “First Amendment values” and a group of liberal Justices who dissent, emphasizing other values. *Republican Party of Minnesota* is just such a case. Were it correctly classified as a value-conflict case, it would therefore support Epstein and Segal's conclusions. And there are other such cases. *See, e.g., Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525, 571 (2001) (finding, by conservative majority, some tobacco advertising regulations unconstitutional and finding others preempted by federal law). On the other hand, there are some cases, likewise wrongly designated as pure, in which some or all of the liberal Justices reject the competing values and vote in favor of First Amendment values. *See, e.g., Hutchinson v. Proxmire*, 443 U.S. 111, 133 (1979) (holding that certain statements by U.S. Senator were not subject to immunity and that target of those statements was not a public figure for purposes of libel; Justice Brennan was the only dissenter). Such cases detract from Epstein and Segal's claims. These two types of cases have offsetting effects on Epstein and Segal's results, but, depending on how many of each there are, they may not completely offset each other. A wholesale recoding of Epstein and Segal's cases would also require identifying cases involving the First Amendment that are not included in their sample because they lack the necessary First Amendment issue and legal provision codes.

with his decision not to code *legal* issues at all. This is an artificial constraint that means that the Database does not necessarily report accurate information about the cases. Moreover, this coding constraint necessarily requires judgments about the most salient public policy context for each case.¹⁷⁴ Those judgments, however, are invisible and are based on unarticulated criteria, creating traps for scholars who, like Epstein and Segal, want to understand how different areas of the law interact, rendering their conclusions unreliable.

III. THE SCOPE OF THE PROBLEMS: THE RECODING PROJECT

In the previous Part, I described the how Database's coding protocols have the potential to affect the findings of empirical legal scholars who use the Database but fail to fully appreciate its limitations. The extent to which their findings would *actually* be different, of course, depends on how they use the Database, how widespread the problems are within the Database, and how and if those problems impose a bias or skew on the data that is relevant to each project. A more general version of this question is: to what extent would a coding protocol more sensitive to the nuances of legal doctrine yield significantly and systematically different coding and presumably, therefore, different research results in at least some studies? How accurate is the information recorded in the Database, how much information goes unrecorded, and does that information have any notable characteristics?

A. THE RECODING PROJECT

To get at the answers to these questions, I undertook a recoding project (the Recoding Project), focused on issue, issue area, and legal provision. I recoded a sample of ninety-five cases—a 10% random sample from the cases decided during the last Rehnquist Natural Court.¹⁷⁵ My goals in the Recoding Project were severalfold. First, I

174. See Anna Harvey, What Makes a Judgment 'Liberal'? Coding Bias in the United States Supreme Court Database (unpublished paper prepared for the Third Annual Conference on Empirical Legal Studies), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1120970 (arguing that the identity of the Justices in the majority and the dissent may influence selection of the ideology and issue codes).

175. The sample was generated by Stata 9. Stata is a commercial statistical software package used to analyze, manage, and present data. See generally ALAN C. ACOCK, A GENTLE INTRODUCTION TO STATA (2d ed. 2008); Stata: Data Analysis and Statistical Software, www.stata.com (last visited Feb. 14, 2009) (providing information about Stata). I define an individual case as an opinion with a unique case citation. I included only cases with published opinions of the Court. I selected the last Rehnquist Natural Court for purposes of manageability. The findings I report here must therefore be understood within that context. For a list of all the cases used in the Recoding Project, see *infra* Appendix 2. The Recoding Project Data and Codebook can be found online. See Carolyn Shapiro Dataverse, Replication Data for: Coding Complexity: Bringing Law to the Empirical Analysis of the Supreme Court, <http://dvn.iq.harvard.edu/dvn/dv/shapiro/faces/study/StudyPage.jsp?studyId=38080> (last visited Feb. 14, 2009).

wanted to test the scope of the limitations I had identified. For this reason, I wanted my coding to be fairly comparable to Spaeth's. Second, and in some tension with the first goal, I wanted to experiment with a coding protocol that would code information in the cases more accurately and comprehensively than Spaeth does. Finally, I wanted to develop insights into the challenges of coding in ways that meaningfully report law and legal doctrine, with the hope that the lessons learned in this project would be useful to myself and others in the future.

My protocols for coding the key variables were different from Spaeth's in a number of important respects. I summarize a few of the major differences here. More details about the recoding methodology are reported in Appendix A.

I. Issues and Issue Areas

(a) Rather than define issues and issue areas as the "public policy context in which the case arose," I defined them as legal issues.

(b) There was no limit to the number of legal issues that could be coded per case.

(c) Instead of making issue area derivative of issue, my protocol was to identify the issue area first. Similar issues therefore are more likely to appear in more than one issue area in my coding than in the Original Database.

(d) I created a number of issues and issue areas that did not previously exist. The new issue areas are:

- (1) Federal Government Operations and Structure
- (2) State/Local Government Operations and Structure
- (3) Intellectual Property
- (4) Environment
- (5) Immigration
- (6) Native Americans
- (7) Military

(e) In addition, I rearranged some of Spaeth's coding, moving issues to different areas when I felt it appropriate, and I renamed and expanded two issue areas. Spaeth's issue area "Attorneys" became "Lawyers and Legal Profession" and his issue area "Unions" became "Employment."

(f) I eliminated the Original Database's "Privacy" issue area. I placed issues related to abortion and other substantive due process concerns in the "Due Process" issue area, and I moved issues related to statutes like the Freedom of Information Act to "Federal Government Operations and Structure," a new issue area.

These and the other changes described in Appendix A obviously affect the types of comparisons that can be made between my coding and Spaeth's, and I take account of these changes in my discussion below.

2. Legal Provision

I define legal provision as a statute, constitutional provision, *legal doctrine*, treaty, or *seminal case*. The italicized words highlight the difference between my theory of coding legal provisions and Spaeth's—notably, that I included legal doctrines and seminal cases. And of course I did not identify legal provisions by reading the syllabi or summaries of the case, but rather by reading the opinions themselves. I also looked to the cases' Questions Presented for guidance in identifying both legal issues and legal provisions.¹⁷⁶

In general, I defined seminal cases as cases, like *Chevron*¹⁷⁷ or *Mathews v. Eldridge*,¹⁷⁸ whose names refer to established legal doctrines. Where the Court was elaborating on such a doctrine, the case/doctrine should be coded as a legal provision. On the other hand, where the Court considered whether or not to distinguish a particular case, such a case is not a legal provision. For example, in *Missouri v. Seibert*,¹⁷⁹ the Court considered the application of two precedents. The first was the famous case of *Miranda v. Arizona*,¹⁸⁰ which announced the requirement that a suspect in police custody be warned about his right to remain silent before being questioned. The second case was *Elstad v. Oregon*.¹⁸¹ In *Elstad*, the Court held that where a suspect responded to uncoercive questions without having been given his *Miranda* warnings, a subsequent statement, made after warnings were made, was admissible.¹⁸² In *Seibert*, the police deliberately withheld *Miranda* warnings from the suspect in the hopes that having made incriminating statements once, she would be more likely to do so again after the warnings were given.¹⁸³

Seibert, then, is about whether to extend *Elstad* to a slightly different factual situation or whether to distinguish it. Therefore, I did not identify *Elstad* as a legal provision. But as the case also involved *Miranda* warnings, arising from the paradigmatic seminal case of *Miranda v. Arizona*, that case (or the doctrine that arose from it) was identified as a legal provision.¹⁸⁴

176. See *infra* Appendix 1.

177. 467 U.S. 837 (1984).

178. 424 U.S. 319 (1976).

179. 542 U.S. 600 (2004).

180. 384 U.S. 436 (1966).

181. 470 U.S. 298 (1985).

182. *Id.* at 318.

183. 542 U.S. at 618. There were also other differences between the factual circumstances of the two cases, which the *Seibert* court noted. *Id.* at 615–16.

184. See *supra* note 97 (noting that Spaeth himself recognizes the *Miranda* doctrine as a legal provision).

3. *Database Architecture*

Each case had an unlimited number of records, determined by the number of legal provisions. Each record identified a single legal provision. At least one record for each case also identified as many issues and issue areas as needed to accurately describe the case. The most legal issues reported in any case in my sample was nine, and the most legal provisions coded was seven.¹⁸⁵

B. RESULTS

1. *Issue and Issue Area*

a. *How Many Issues per Case?*

One of my most substantial critiques of the Database's coding protocols is the presumption in favor of coding only one issue per case. So perhaps the most important comparison between the original coding and mine is this: out of the ninety-five cases in my sample, the Original Database coded *only one* as involving two issues (each of which appears in a different issue area). The Database codes all ninety-four other cases in my sample as having only one issue (and therefore one issue area). By contrast, in the Recoding Project, *eighty-nine* cases were identified as having more than one issue. Even at the more general level of issue area, I found that seventy-nine cases involved more than one issue area. Table B sets forth the distribution of issues and issue areas.

¹⁸⁵ *Hamdi v. Rumsfeld*, 542 U.S. 507 (2004), was assigned seven legal provisions; *Slack v. McDaniel*, 529 U.S. 473 (1999), was assigned nine legal issues.

TABLE B: DISTRIBUTION OF ISSUES AND ISSUE AREAS IN RECODED CASES

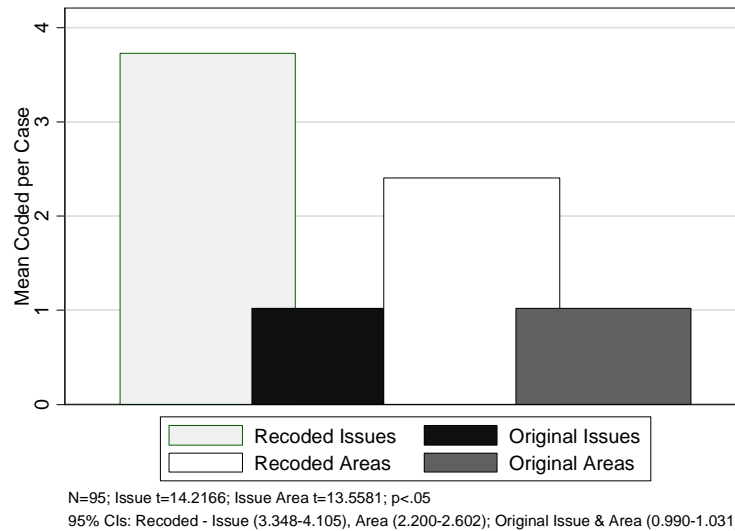
NUMBER OF ISSUES IDENTIFIED PER CASE	NUMBER OF CASES		NUMBER OF ISSUE AREAS IDENTIFIED PER CASE	NUMBER OF CASES
1	6		1	16
2	23		2	40
3	23		3	28
4	13		4	7
5	13		5	4
6	8		6	0
7	5		7	0
8	3		8	0
9	1		9	0
TOTAL	95		TOTAL	95

Another way to look at the data is to compare the mean number of issues and issue areas coded per case. I found a mean of 3.7 issues and 2.4 issue areas per case, in contrast to the Original Database's mean of 1.0 issue and issue area per case. Figure 1 illustrates these findings.

By recoding for legal issue (instead of "public policy context") and not artificially limiting the number of legal issues per case, the Recoding Project identified more than three and a half times as many issue codes and almost two and a half times as many issue area codes as the Original Database.¹⁸⁶ Figure I shows this difference graphically by comparing the mean number of issues and issue areas coded per case in the Recoding Project with the mean number of issues and issue areas coded per case in the Original Database. The additional codes identified through the Recoding Project represent information that is completely absent in the Database.

186. The 95% confidence intervals for these sample means do not overlap at all as between the Original Database coding and the Recoding Project. There is a 95% chance that the actual mean number of issues and issue areas for Spaeth's coding for the last Rehnquist Natural Court is between 0.990 and 1.031. There is a 95% chance that were the Recoding Project's protocol applied to all of the cases from the last Rehnquist Natural Court, the mean number of issues coded per case would be between 3.3476 and 4.105032. Likewise, there is a 95% chance that the mean number of issue areas coded per case would be between 2.197594 and 2.602406.

FIGURE 1: ISSUE AND ISSUE AREA: MEAN CODED PER CASE
RECODED (LIGHT) AND ORIGINAL (DARK)



Finally, we can compare the percentage of recoded cases that have more than one legal issue with the Database's issue coding for the entire last Rehnquist Natural Court. There are 958 cases in the Database for that Natural Court. Of those, only forty-nine (5.12%) are coded as having more than one issue.¹⁸⁷ In contrast, in the Recoding Project, eighty-nine of the ninety-five cases (93.68%) had more than one legal issue.

Collectively, these results suggest strongly that Spaeth's presumption of unidimensionality and his deliberately non-legal protocol for coding the cases' public policy issues together mask enormous amounts of information about legal issues addressed by the Supreme Court. Many of the works reported in Part II—the efforts to quantify median justice scores, to relate case complexity to number of opinions written, and to determine whether an earlier case can be considered a precedent for a later case by reference to the coded issues and issue areas—all rely in some way on assumptions that these findings demonstrate are unwarranted. As a result, those studies are themselves unreliable.

¹⁸⁷. To calculate this statistic, I compared the number of unique case citations (analu=0)—958—with the number of cases in which the Original Database reports multiple issues (analu = 2 and analu=5). It is not possible to easily calculate the *number* of issues reported per case, nor is it possible to determine the number of cases with multiple issue *areas*.

b. What Does the Database Tell Us?

The results just described do not, however, tell us anything about the nature of the information that the Database in fact reports. For example, are cases like *Schenck* and *Clinton v. Jones*—where the issue Spaeth identified has nothing to do with the *legal issues* in the case—the exception or the rule? Since Spaeth himself does not purport to code legal issues, it would not be surprising to find little overlap between his issue coding and the Recoding Project.

To evaluate this question, I compared my issue and issue area coding with Spaeth's to see how much of the coding overlapped. As long as *any one* of the issues I coded was the same as the Original Database's coding, I counted it as a match; likewise for the issue areas. (Because Spaeth coded one case in my sample as having two issues and issue areas, the total number of issues and issue areas compared here is ninety-six, not ninety-five.)

Out of the ninety-six issues coded by Spaeth, fifty-seven (59.4%) had an exact issue match with the Recoding Project. Put another way, just over 40% of the Database's issue codes did *not* precisely match the recoded legal issues. At the more general level of issue area, however, the results are more encouraging. Only eighteen (18.8%) issue areas coded by Spaeth did not match the recoded issue areas. That number shrinks to nine (9.4%) when I take into account the rearranged issues and issue codes, crediting a match where the recoded issue area is in some way derivative of Spaeth's original issue area coding.¹⁸⁸

These results suggest that, in general, the Database's issue area assignments reflect one (but only one) of the *legal* issue areas in the case. Put another way, *Clinton* and *Schenck* are unusual because the Database assigns them issue area codes that fail to identify *any* of the general areas of law at issue. No such conclusion can be made about the more fine-grained issue coding, however. This disparity could be due to a number of factors, including the difference between public policy context as coded in the Original Database and the legal issue coded in the Recoding Project, and the large number of detailed issue codes, which might lead different coders to identify related but not identical issue codes.¹⁸⁹

188. For this calculation, if I coded a newly created issue area, I checked to see if that new area was primarily based on one of Spaeth's issue areas. If so, and if Spaeth coded that original area, I counted it as a match. In addition, there was one case that Spaeth coded as a privacy case that I also counted as a match because the case involved abortion rights, newly relocated in the due process issue area. In this recalculation, there were a total of nine additional cases that I concluded should be counted as a match. Five of the cases even had identical issue codes in the Original Database and in mine. Of the remaining nine unmatched cases, Spaeth coded two as privacy cases, three as criminal cases, two as civil rights cases, and two as economic activity cases.

189. For a discussion of the relative merits of a very detailed coding system versus a more general one, see *infra* Part IV.B.

c. What Kind of Information Is Missing from the Database?

The comparison between the Recoding Project and the Original Database also provides important insights about what kind of information tends to go unrecorded in the Database. Tables C and D highlight the differences between the types of issues coded in the Recoding Project and in the Original Database. Both tables list the number of recoded cases that have at least one issue code in each issue area. In other words, they report the number of recoded cases with a civil rights issue area code, the number with a criminal code, and so on. Because my recoding protocol allows multiple issue areas per case, most cases are counted more than once, and the total number of reported issue areas is well more than ninety-five. Table C focuses on those issue areas that are not new, and compares the number of cases in each recoded issue area that were comparably coded by Spaeth. Table D focuses on newly-created areas.

TABLE C: ISSUE AREAS NOT NEWLY CREATED

ISSUE AREA	NUMBER OF RECODED CASES	NUMBER OF SUCH CASES WITH A MATCHING ISSUE AREA CODE IN THE ORIGINAL DATABASE	PERCENTAGE MATCHING
CIVIL RIGHTS	16	9	56.3%
CRIMINAL PROCEDURE	26	13	50.0%
DUE PROCESS	17	10	58.8%
ECONOMIC ACTIVITY	24	16	66.7%
EMPLOYMENT (UNIONS)	7	1	14.3%
FEDERAL TAXATION	5	4	80.0%
FEDERALISM	19	6	31.6%
FIRST AMENDMENT	10	6	60.0%
JUDICIAL POWER	46	12	26.1%
LEGAL PROFESSION (ATTORNEYS)	7	1	14.3%

TABLE D: NEWLY CREATED ISSUE AREAS

ISSUE AREA	NUMBER OF RECODED CASES
NATIVE AMERICANS	3
ENVIRONMENT	2
FEDERAL GOVERNMENT	24
INTELLECTUAL PROPERTY	3
MILITARY	3
STATE/LOCAL GOVERNMENT	13

Most striking about these results is the extent to which the Database appears to systematically underreport information about government structure and operations, about judicial power, and about lawyering. (I will refer to these kinds of issues as structural and jurisprudential issues.) The lowest percentage of overlap appears in the issue areas of Employment and Legal Profession. But this is unsurprising, because I substantially expanded both of these areas from the preexisting Unions and Attorneys issue areas. In issue areas that I did not significantly expand, the lowest overlap, by far, is in the areas of Federalism and Judicial Power—31.6% and 26.1% respectively. In fact, nearly half of the recoded cases had a code in the Judicial Power issue area, while only twelve (12.6%) of the cases were so coded in the Original Database. (Judicial Power includes such issues as standing, jurisdiction, comity, and procedure.) Likewise, in the newly created issue areas, Federal Government Structure and Operations and State/Local Government Structure and Operations far outstripped any other newly-created issue area (as well as Employment and Legal Profession) in terms of the sheer numbers of cases presenting such legal issues.

This finding that structural and jurisprudential issues are underreported is not surprising.¹⁹⁰ Structural issues may be of great

190. My finding that the Database gives short shrift to structural issues is consistent with other research. In their 2006 article, Michael S. Greve and Jonathan Klick begin an empirical study of Rehnquist Court cases addressing preemption, a structural issue implicating the relationship between the states and the federal government. Finding that reliance on “[e]ven the most complete, up-to-date, and widely-used data set, the United States Supreme Court Judicial Data Base [sic] . . . contains only a sample of ‘preemption’ cases—a good number of which do not conform to something a competent lawyer would recognize as preemption,” the authors generated their own list of preemption cases. Greve & Klick, *supra* note 38, at 46. They used several techniques, including a LEXIS keyword search and “less systematic means, such as reviews of the pertinent legal literature.” *Id.* at 91–92. Out of their final list of 105 preemption cases, the Database failed to code thirty-four cases (32.38%) as preemption cases, underreporting this important structural issue. *Id.* at 92 n.99. Of the seventy-six cases coded as preemption cases by the Database, eight were not in fact preemption cases. *Id.* There are other preemption studies that rely at least in part on Spaeth’s coding, thereby missing a significant number

interest and salience to lawyers and judges, and they can be crucial to certain kinds of legal analysis. They are less likely, however, to be the kinds of issues that make headlines. Thus, they are much less likely to be deemed the salient issue area for purposes of identifying the “public policy context” of a case. At the same time, structural and jurisprudential issues arise in cases about any and all kinds of other legal issues, from the First Amendment to environmental law to tax law. Many of these other legal issues may be more easily characterized as “public policy contexts” than are structural and jurisprudential issues, and are therefore likely take precedence when a coder must select only one issue per case.¹⁹¹

This missing information, however, represents significant lost opportunities for scholars to investigate the way that law operates—or does not operate. Tracking the interaction between these structural issues and other legal issues or public policy contexts, for example, can illuminate the extent to which the attitudinal model describes the Justices’ behavior, or the extent to which—whether out of strategic considerations or a commitment to legal doctrine or for other reasons—their decisions and votes appear to be affected or dictated by structural or jurisprudential issues.

Compare, for example, the cases of *Reeves v. Sanderson Plumbing Products*,¹⁹² *Leatherman v. Tarrant Co. Narcotics & Coordination Unit*,¹⁹³ and *Swierkiewicz v. Sorema N.A.*¹⁹⁴ All three cases addressed the application of particular Rules of Civil Procedure to a civil rights cause of action, and all three were decided unanimously in favor of the civil rights plaintiff for reasons relating explicitly to the requirements of the Rules.¹⁹⁵ Spaeth, however, gives none of the cases an issue code related to

of cases Greve and Klick identified and counting a few that should not have been included. See, e.g., Brady Baybeck & William Lowry, *Federalism Outcomes and Ideological Preferences: The U.S. Supreme Court and Preemption Cases*, 30 *PUBLIUS* 73, 83–84 (2000); James B. Staab, *The Tenth Amendment and Justice Scalia’s “Split Personality,”* 16 *J.L. & POL.* 231, 300 n.266 (2000); see also Whittington, *supra* note 2, at 506 n.139 (identifying the universe of “federalism” cases as those Spaeth coded with issue codes 930–49).

191. For her work on tax cases, Professor Staudt has constructed her own database of every Supreme Court tax case from 1941 through 2004. Staudt et al., *supra* note 38, at 1815 n.63 (describing nature and content of LEXIS search). For those years that her database overlaps with the Original Database, Staudt compared the two and found that the Original Database accurately identified about 88% of the tax cases. E-mail from Nancy Staudt, Class of 1940 Research Professor of Law at Northwestern Univ. Sch. of Law, to author (Sept. 15, 2008, 15:52:00 CST) (on file with the author). This substantial overlap is not surprising. Federal taxation is a fairly discrete and easily identifiable area of law and policy. But these cases may well also involve structural and jurisprudential issues like federalism, federal government operations and powers, administrative law, and judicial procedure; all of which are likely to go uncoded as issues in the Database.

192. 530 U.S. 133 (2000). *Reeves* was in the Recoding Project sample. See *infra* Appendix 2.

193. 507 U.S. 163 (1993).

194. 534 U.S. 506 (2002).

195. See generally cases cited *supra* notes 192–94.

procedure; all are coded in the Database only as civil rights cases.¹⁹⁶ Spaeth's unidimensional issue coding thus makes it very difficult for a researcher to evaluate the interaction between, for example, procedure and civil rights.

A related finding emerges from the overwhelming number of cases that involve more than one issue or issue area. As I have already discussed, even in cases that do not implicate structural issues, there may be interaction effects between different legal issues or between legal issues and their factual or public policy contexts. Spaeth's unidimensional issue coding masks these effects, and makes it impossible to make meaningful findings about the way those effects operate in different cases and across different issues and issue areas.¹⁹⁷

This problem arose for *Trumping the First Amendment*, discussed in Part II. But it can extend to numerous other areas of law. Consider the case of *Gonzales v. Raich*.¹⁹⁸ In that case, the Court had to decide whether the Commerce Clause permits the federal government to outlaw intrastate production and use of marijuana for medical purposes.¹⁹⁹ The case was widely understood to pit the Justices' positions on federalism and congressional power against their likely policy preferences about medical marijuana.²⁰⁰ Would the liberal Justices who favor robust congressional and federal power be willing to uphold a federal regulation that deprives terribly ill patients of relief? And would the conservative Justices who generally favor more limited federal power be willing to strike down an anti-drug law? Full coding of all aspects of the opinion—and comparable full coding of other cases—are necessary for researchers to study these interaction effects.²⁰¹ But as the Recoding Project demonstrates, the magnitude of the unidentified interaction effects is potentially enormous. Future research and coding efforts must work to alleviate this problem.

2. Legal Provision

As with legal issues, the Recoding Project reveals that Spaeth fails to report significant numbers of legal provisions that in fact play a role in

196. The Database does not even identify the Rules of Civil Procedure as a legal provision for *Reeves*, although it does for both *Leatherman* and *Swierkiewicz*. See Supreme Court Data, *supra* note 4. The problem of underreported legal provisions is discussed in the following subsection.

197. Cf. Edelman & Chen, *supra* note 81; Fischman & Law, *supra* note 50.

198. 545 U.S. 1 (2005).

199. *Id.* at 5.

200. For a particularly entertaining discussion of the Justices' dilemmas in this case, see Dahlia Lithwick, *Dude, Where's My Integrity? Medical Marijuana Tests the Supreme Court's True Love of Federalism*, SLATE, Nov. 29, 2004, <http://www.slate.com/id/2110204>; see also Michael C. Dorf, *Whose Ox is Being Gored? When Attitudinalism Meets Federalism*, 21 ST. JOHN'S J. LEGAL COMMENT. 497, 507–12 (2007); Ernest A. Young, *Just Blowing Smoke? Politics, Doctrine, and the Federalist Revival After Gonzales v. Raich*, 2005 SUP. CT. REV. 1, 1–3 (2005).

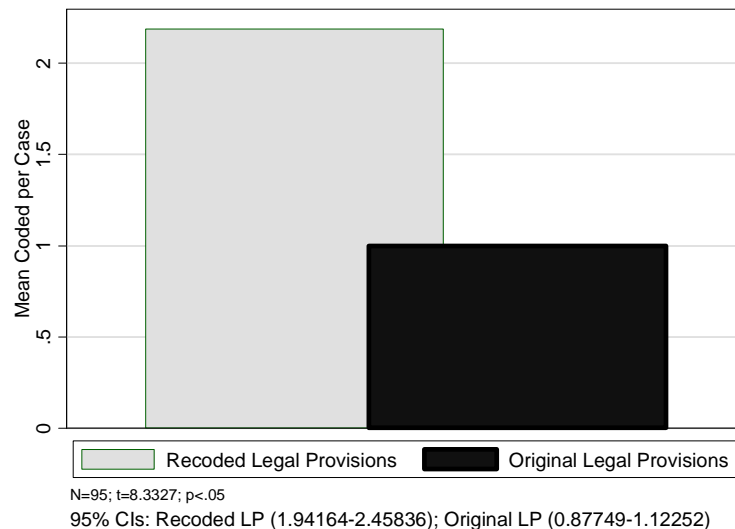
201. *Raich's* only issue code is in the federalism issue area. See Supreme Court Data, *supra* note 4.

the cases. Spaeth's protocols are not consistently applied to the cases in the Database, and due to limitations both in the protocols and in their application, as with legal issues, legal provisions likely to implicate structural issues are often omitted.

a. How Many Legal Provisions per Case?

Although Spaeth does not explicitly discourage coding of multiple legal provisions per case, the Database in fact coded only a tiny proportion of cases in my sample—six (6.3%)—as having more than one legal provision. It coded the vast majority of the cases—seventy-nine (83.2%)—as having only one legal provision, and an additional ten (10.5%) cases were coded as having no legal provisions. In contrast, the Recoding Project identified substantially higher numbers of legal provisions—more than two-thirds had more than one legal provision, and no cases had no legal provisions. As Figure 2 shows, the mean number of legal provisions per case in the Recoding Project was 2.2; for the same cases as coded in the Original Database, the mean was 1.0.

FIGURE 2: LEGAL PROVISION: MEAN CODED PER CASE
RECODED (LIGHT) AND ORIGINAL (DARK)



The Database's coding for legal provision, in comparison to the Recoding Project, captures only about half of the legal provisions actually considered or at issue in the cases.

Finally, we can compare the percentage of recoded cases that have more than one legal provision with Spaeth's legal provision coding for the entire final Rehnquist Natural Court. There are 958 cases in the

Database for that Natural Court. Of those, only 143 (14.9%) are coded as having more than one legal provision.²⁰² In contrast, in my sample, sixty-three of the ninety-five cases (66.3%) had more than one legal provision.

b. How Much Overlap Is There with the Database Coding?

Out of the ninety-four legal provisions identified in the Database, three were substantively wrong.²⁰³ Additionally, seven legal provisions contained typos.²⁰⁴ The remaining eighty-four legal provisions identified by the Database matched the Recoding Project.²⁰⁵

c. What Is Missing from the Database?

But what of the legal provisions that the Database fails to identify? Only a relatively small proportion of the total recoded legal provisions—eight (4.0%)—were legal provisions that Spaeth himself would not have recognized as such. In other words, in my sample, legal provisions not based on a statute, constitutional provision, or court rule—such as the doctrine of qualified immunity or the question of *Chevron* deference—did not account for many of the missing codes. In addition, the Recoding Project identified fourteen legal provisions that arose in the Questions Presented but that were not considered or relied on by any of the opinions. These legal provisions, as well, were not encompassed by Spaeth's coding protocols.

As for the remaining legal provision codes, once again, the Database appears to give short shrift to codes that often relate to structural issues. Eighteen recoded cases identified a state or local statute or court rule as

202. To calculate this statistic, I compared the number of unique case citations (analu=0)—958—with the number of cases in which the Original Database reports multiple legal provisions (analu = 3 and analu=5). It is not possible to easily calculate the *number* of legal provisions Spaeth coded per case.

203. For example, Spaeth codes the legal provision in *Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Co.*, 513 U.S. 527 (1995), as 28 U.S.C. § 1331, which is the statute authorizing federal question jurisdiction in the federal courts. But *Grubart* is about *maritime* jurisdiction. 513 U.S. at 529. The correct legal provision is 28 U.S.C. § 1333, the statute authorizing maritime jurisdiction. Likewise, in *Cooper Industries, Inc. v. Leatherman Tool Group, Inc.*, 532 U.S. 424, 433–34 (2001), the Court addressed the substantive limits that the Fourteenth Amendment places on punitive damages. The only legal provision that Spaeth codes is the Fifth Amendment.

204. For example, Spaeth codes the legal provision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 139 (2001), as 33 U.S.C. § 1334, when the correct legal provision is 33 U.S.C. § 1344. (33 U.S.C. § 1334 does not exist.) In addition, a number of legal provisions in which the statute is labeled with a five-digit section number contain only four of those digits. (Spaeth acknowledges that the Database sometimes so codes such five-digit statutes. Codebook 2008, *supra* note 28, at 33.) See, e.g., *Norfolk S. Ry. v. Shanklin*, 529 U.S. 344 (2000) (addressing 49 U.S.C. § 20106; coded in Database as 49 U.S.C. § 2010); *Norfolk & W. Ry. v. Hiles*, 516 U.S. 400 (1996) (addressing 49 U.S.C. § 20302; coded in Database as 49 U.S.C. § 2030).

205. In calculating this match, I counted as legal provisions as matching if they identified the same statute, even if they used different notation. Some statutes can be identified by an abbreviation of their popular name, but statutes may also be identified by citation. Likewise, a citation might be to the first section of a statute or to a particular section within it. For some discussion on the challenges of coding statutes, see *infra* Part IV.B.

a legal provision considered by the Court. Spaeth's coding protocol explicitly provides for identifying such legal provisions (using the code STATE), but he does not in fact identify a single one of the eighteen. Yet Supreme Court cases that involve a state law often implicate—in some way—the relationship between the states and the federal government.²⁰⁶ Likewise, out of ten cases I coded as having habeas corpus legal provisions—cases that are quite likely to implicate the federal courts' right to intervene in state judicial systems or the relationship between the executive and the judiciary—Spaeth identified only three.

The most surprising finding, however, relates to the accuracy of Spaeth's reliance on cases' syllabi to code his legal provisions. I expected that almost all of the missing legal provisions would, as in *Almendarez-Torres*, be missing because they were not explicitly mentioned in the syllabus. This, however, did not turn out to be the case. Instead, what I found was that Spaeth frequently failed to code legal provisions that, by his own coding protocols, he *should* identify. Of the eighteen uncoded state laws, for example, all but four were mentioned in the numbered holdings of their cases' syllabi.²⁰⁷

There were, besides the eighteen missing state codes and the handful of non-statutory based legal provisions, eighty-eight legal provisions that I identified but Spaeth did not. Seven of those legal provisions were attributable to decisions I made to provide more detail than Spaeth—coding individual rules of civil procedure separately, for example, instead of identifying the rules in general as a single legal provision. Of the remaining eighty-one legal provisions, twenty-seven were squarely cited in the appropriate portion of the syllabus. Another sixteen were referred to indirectly in the syllabus, without an explicit citation, and another four were referred to in the syllabus, but not in a numbered holding—the part to which Spaeth looks. In contrast, I identified only ten legal provisions that were relied on or considered in the text of an opinion but went unmentioned in the syllabus. Table E sets forth the categories and

206. Readers familiar with the Database might wonder whether the STATE code is necessary to identify cases that address state laws. One of Spaeth's codes—authority for decision—identifies cases in which the Court is engaged in judicial review of state action or law for constitutionality. But this code is both underinclusive and overinclusive. It is underinclusive because not every case in which the Court considers a state law receives this code, even under Spaeth's coding protocols. Statutory preemption cases, for example, which may require the Court to construe a state statute to determine if it conflicts in some way with federal law, generally do not receive this particular code as they do not involve constitutional judicial review. In fact, of the eighteen cases I coded as involving a state law, only nine were coded by Spaeth as involving judicial review of state action or law. And the code is overinclusive in that it identifies cases in which the state action being reviewed is not a statute or ordinance but is, for example, some action taken by an executive or law enforcement official or a ruling of a state court.

207. Three were not mentioned at all, and one was mentioned but not in a numbered holding.

distributions of the types of legal provisions that the Database failed to identify.

TABLE E: LEGAL PROVISIONS UNIDENTIFIED IN ORIGINAL DATABASE

LOCATION OF LEGAL PROVISIONS	STATE LAW	OTHER LEGAL PROVISIONS	TOTAL
IN SYLLABUS	14	27	41
IN SYLLABUS BUT NOT EXPLICIT	0	16	16
IN SYLLABUS BUT NOT IN NUMBERED HOLDING*	1	4	5
IN AN OPINION, BUT NOT IN SYLLABUS*	3	10	13
IN AN OPINION, BUT CASE HAS NO SYLLABUS	0	7	7
IN QUESTIONS PRESENTED ONLY*	0	14	14
MISCELLANEOUS*	0	3	3
TOTAL	18	81	99

*Not encompassed in Spaeth's coding protocols.

In all, 57.6% of the legal provisions that the Recoding Project identified but that were not in the Original Database (and not including legal doctrines and seminal cases, which the Database did not recognize) were mentioned in a numbered holding of the syllabus. It is unclear why the Database fails to code so many legal provisions that in fact fall squarely within its coding protocols. As I explained in Part I, my best guess is that, despite Spaeth's claims to the contrary, he unavoidably must make judgments about whether to *actually* record many of the legal provisions referred to in the syllabus. But whatever the explanation, that he in fact fails to record a significant number of such legal provisions belies his claims that looking to the syllabi is a more reliable way to code than is looking to the opinions themselves.

This finding is particularly significant in light of the Database's systematic underreporting of legal issues. If the Database could be relied on for comprehensive and accurate reporting of legal provisions, that would go a long way to make up for the limitations in the issue code (although even then researchers would have to understand the importance of using both codes). My findings indicate, however, that Spaeth misses about half of the legal provisions considered or relied on by the opinions. Between the missing legal provisions and the missing legal issues and issue areas, even a researcher relying on a combination

of legal issue and legal provision to identify or analyze particular types of cases cannot rely on the Database for comprehensive information. Even the approach taken by Epstein and Segal, for example—identifying all cases that have a First Amendment issue code *or* have the First Amendment coded as a legal provision—cannot be relied on to produce an accurate or comprehensive list of cases involving the First Amendment.

IV. IMPLICATIONS FOR FUTURE RESEARCH

The analysis and findings presented in this Article raise two types of implications for future research: First, how and when can researchers rely on the Database as it currently exists or, relatedly, rely on research that itself relies on the Database? Second, what lessons do my findings provide for one of the greatest challenges of empirical legal scholarship—coding complex and multifaceted cases in ways that are comprehensive, reliable, and accurate, and that account for legal doctrine and legal analysis. This Part addresses each of these questions in turn.

A. USING THE DATABASE

Researchers will—and should—continue to rely on the Database, but it should not be used uncritically for every purpose. Researchers interested in a particular area of law, for example, should not assume that the Database provides a comprehensive or accurate list of cases in that area—even if they rely on both issue and legal provision codes. As the discussion of Epstein and Segal’s *Trumping the First Amendment* illustrates, the limitations of the Database have the potential to render unreliable the results of some such research projects. On the other hand, a research project that deals with cases at a very high level of generality—lumping together a host of issue areas under the rubric of “civil liberties,” for example—is more likely to be reliable.

Researchers should not use the Database as currently constructed to investigate interactions between different areas of law. The deliberate decision to code only one issue per case, combined with the Database’s underreporting of legal provisions, masks information about how and when the Court deals with cases that involve more than one area of law. Likewise, researchers should not draw conclusions from the fact that there are very few cases in the Database coded with more than one issue or with more than one legal provision.

Consumers of empirical legal research, even if they do not themselves undertake such work, should also keep these concerns in mind in evaluating empirical research. How does a particular study identify the cases that it focuses on? What claims does it make about those cases? If it does rely on the Database, does it discuss or otherwise address concerns about that reliance?

This Article addresses only three variables in detail, but the same critical analysis should be applied to any project that relies on other substantive variables from the Database. Such other variables include those identifying, for example, the authority for the Court's action (statutory interpretation, judicial review, etc.) and the types of parties involved in the case. Ultimately, there is no substitute for a careful and thoughtful reading of the Codebook, even for researchers who do not themselves engage in empirical analysis.

B. CREATING NEW RESOURCES

The Recoding Project offers some insights into some of the challenges and opportunities presented by efforts to create new resources that take a more nuanced approach to law. For example, as scholars consider how to take account of law and legal doctrine in quantitative empirical analysis, we may want to rethink the familiar categories of the Spaeth Database. I suspect, based in part on my own recoding efforts, that the distinction between legal provision and legal issue, for example, may not be useful, particularly as we take account of judge-made or judge-elaborated doctrines like qualified immunity or preemption.²⁰⁸

Scholars must also address problems of specificity. For example, Spaeth often codes an entire statute when particular aspects of it are at issue. While such coding is adequate for some analyses, some researchers may want to address, for example, how the Court approaches statutes that Congress has amended—comparing for example habeas corpus law in light of the Antiterrorism and Effective Death Penalty Act of 1996,²⁰⁹ or Title VII in light of the Civil Rights Act of 1991.²¹⁰ Identifying habeas corpus or Title VII as the legal provision does not identify such cases. Similarly, in some cases, the Court may compare or address different parts or sections of the same statute. Spaeth's current coding is unlikely to capture such cases.

Scholars may also find it useful to identify legal issues in a particular case in terms of their relationships to each other. In *Markman*, for example, a single question²¹¹—whether a judge or a jury is responsible for patent claims construction—can be accurately characterized as both a patent issue and a Seventh Amendment jury right issue. Yet these different issues are not different legal analyses that the Court had to

208. Additionally, identifying “seminal cases” appears to be particularly challenging. When I had twenty cases independently recoded, the recoders identified substantially more such cases than I did. See *infra* Appendix I.

209. Pub. L. No. 104-132, 110 Stat. 1214 (codified as amended in scattered sections of 8, 18, 22, 28, and 42 U.S.C.).

210. Pub. L. No. 102-166, 105 Stat. 1071 (codified as amended in scattered sections of 2 U.S.C.).

211. 517 U.S. 370, 372 (1996).

resolve, but rather identify the bodies of law involved in the case. In other cases, such as *Reeves*, *Leatherman*, and *Swierkiewicz*, the legal issues involved may explicitly have to do with the way, for example, Rules of Civil Procedure apply in a particular area of law, such as employment discrimination, or how they interact with established doctrine. In yet other cases, the legal issues presented might be completely distinct from each other—a case that first addresses a standing question and then moves on to reach the merits, for example. Similarly, it could be very valuable to identify types or methods of legal analysis—if a particular case involves statutory interpretation, for example, what interpretive approaches are used by the different opinions.²¹²

Relatedly, scholars seeking to create replicable, reliable, and comprehensive data may find that advances in database architecture and technology make possible more complex coding. Tagging, for example, allows a database to identify multiple and evolving aspects of the data. There is no inherent limit to the number of tags that can be attached to a particular case. So scholars can add information about, say, the use of canons of statutory interpretation, without disturbing preexisting data. Similarly, as new legal or public policy issues come to the forefront of public and legal consciousness—issues related to the federal government's response to terrorist threats, for example—those issues could be identified, again without the need to remove or omit information about other issues.

Of course, the more nuanced and detailed a coding regime for case law, the more likely it is to involve subjective determinations, meaning that different coders might code the same case differently. Such difficulties may limit the level of detail that a multi-user database can realistically provide.²¹³ The issue codes created for the Original Database and the similar codes that I developed for the Recoding Project may be too detailed (at least in some issue areas) to be functional in the long run. The broader issue area codes, on the other hand, may be too general to provide necessary information for many scholars. But the difficulty of

212. Tiller and Cross have proposed some interesting ideas for getting at this kind of multilayered legal analysis. See generally Tiller & Cross, *supra* note 17; see also Epstein et al., *supra* note 40, at 322 (“[While] social scientists code cases addressing the Internal Revenue Code as involving one issue: ‘federal taxation[,]’ [t]his description . . . ignores all the subsidiary questions the Court may have addressed, including problems of statutory interpretation, concerns about the federal budget or the national economy, and general notions of equity and efficiency.”).

213. One potential approach worth further investigation would be to turn to the West Key Number System. This System has the potential to provide at least some of the detail missing from the Database, as it is geared towards practicing lawyers who might be interested in any number of aspects of a given case, and so aims for more comprehensive coding than the Database. On the other hand, the level of detail provided appears to vary greatly from case to case, with some cases identified by many, often repetitive keys, and others identified by only the most general.

finding the right balance between detail and reliability does not justify continued uncritical use of a resource that, as I have shown, provides so little detail that findings based upon it often cannot be trusted.

CONCLUSION

Although this Article highlights the limitations of the Original Supreme Court Database, my purpose is not simply to criticize this pillar of empirical legal research. To the contrary, I embarked on this project out of necessity. My own first attempts to use the Database to investigate aspects of the Supreme Court's jurisprudence were stymied by the Database's structure, and by the substantial and important information that was omitted.

Yet I also found that some scholars who use and rely on the Database or on findings that emerge from it simply do not appreciate its limitations, even as the Database's influence and ubiquity grows. That the Database is so widely used is not a reason to continue to rely on it uncritically. It is, if anything, a reason not to. If scholars do not—at a minimum—take into account the Database's limitations in devising their research strategies, their findings will often be unreliable.

My hope is that this Article will contribute to increased understanding and communication between positive empirical scholars—primarily political scientists—and legal academics, and that it will prompt increased research and experimentation. Until empirical scholarship takes account of law, legal doctrine, and legal analysis, many of its insights will—and should—be viewed with skepticism by more traditional legal scholars. The two enterprises must find a way to strengthen each other. This Article is an attempt to begin to do just that.

APPENDIX I: METHODOLOGY OF THE RECODING PROJECT

I began the Recoding Project with a 10% random sample drawn (using Stata) from the cases decided during the last Rehnquist Natural Court—the last eleven years of the Rehnquist court, during which there were no personnel changes.²¹⁴ This sample contained ninety-five individual cases, which are listed in Appendix 2. I define an individual case as an opinion with a unique case citation (analu=0).²¹⁵ I included only cases with published opinions, but I did not limit the sample to cases that were orally argued or even to cases that had an opinion of the Court.

I also created a codebook. In many respects, I followed Spaeth's database architecture and coding protocols, but I added a number of new variables and changed the definitions of several others. My goals in recoding were severalfold. First, I wanted to test the scope of the problems I identified with the Database. For this reason, I wanted my coding to be fairly comparable to Spaeth's. Second, and in some tension with the first goal, I wanted to code information in the cases more accurately and comprehensively. Finally, I wanted to develop insights into the challenges of operationalizing law, with the expectation that the lessons learned in this project would be useful to myself and others in the future.

I. VARIABLES

For purposes of this Article, the most important variables were legal provision, issue and issue area. The changes I made to these variables are described in more detail below.

A. LEGAL PROVISION

For this variable, I wanted to find ways of coding more accurately than by simply looking at the syllabus or other summaries. I concluded that the first place to look should be the Questions Presented (QPs)—available on Westlaw for most argued cases, at least during the last Rehnquist Natural Court. The QPs are the formal questions on which the Supreme Court agrees to hear argument when it grants certiorari. Therefore, they provide information about how the lawyers understood what the case was about and how they presented it to the Court.

The Court does not necessarily answer every QP, however. Sometimes, it concludes that it does not need to reach some or all of QPs in a particular case in order to adequately resolve it, for example, or sometimes the Court deals with the case in front of it on completely

214. I drew the sample originally for a project that, due to the Database's limitations, I was unable to complete.

215. Codebook 2008, *supra* note 28, at 3.

different grounds—making a jurisdictional ruling, for example, or dismissing the writ of certiorari as improvidently granted. And even when the Court does answer all of the QPs, it sometimes finds it unnecessary to address every legal provision identified. Conversely, the Court may address some legal provisions that were not mentioned in the QPs. Therefore, the coding was not limited to legal provisions mentioned in the QPs, but also extended to the opinions themselves.

Initially, I defined legal provision as a statute, constitutional provision, legal doctrine, or seminal case that is squarely raised or implicated by the QPs as well as discussed or relied on by one of the opinions. After a while, however, it became clear that a legal provision simply mentioned in an opinion was often not necessarily worth coding. I narrowed the scope of the variable to include any legal provision *construed or relied on* by any opinion.²¹⁶

My definition of legal provision is broader than Spaeth's in that I included legal doctrine or seminal cases as legal provisions. I did this primarily to see if it would be possible to report more accurate information in this manner. Determining what constitutes a seminal case or a legal doctrine, however, was not easy. My codebook provided:

If the opinion [or Question Presented] discusses [a] case in order to distinguish it (or refuse to distinguish it), the case is probably not a legal provision. If, on the other hand, the opinion discusses the case in terms of the application of a legal doctrine that the case stands for, then the case is probably a legal provision.²¹⁷

For example, in *Missouri v. Seibert*,²¹⁸ the Court considered the application of two precedents. The first was the famous case of *Miranda v. Arizona*,²¹⁹ which announced the requirement that a suspect in police custody be warned about his right to remain silent before being questioned. The second case was *Elstad v. Oregon*.²²⁰ In *Elstad*, the Court held that where a suspect responded to uncoercive questions without having been given his *Miranda* warnings, a subsequent statement, made after warnings were made, was admissible.²²¹ In *Seibert*, the police deliberately withheld *Miranda* warnings from the suspect in the hopes that having made incriminating statements once, she would be more likely to do so again after the warnings were given.²²²

216. See CAROLYN SHAPIRO, CODEBOOK FOR CODING COMPLEXITY: BRINGING LAW TO THE EMPIRICAL ANALYSIS OF THE SUPREME COURT I (2009), available at <http://dvn.iq.harvard.edu/dvn/dv/shapiro/faces/study/StudyPage.jsp?studyId=38080&tab=files> (follow "download" hyperlink located to the right of "Coding Complexity Codebook.pdf").

217. *Id.* at 3.

218. 542 U.S. 600 (2004).

219. 384 U.S. 436 (1966).

220. 470 U.S. 298 (1985).

221. *Id.* at 318.

222. 542 U.S. at 618. There were also other differences between the factual circumstances of the

Seibert, then, is about whether to extend *Elstad* to a slightly different factual situation or whether to distinguish it. Therefore, I did not identify *Elstad* as a legal provision. But as the case also involved *Miranda* warnings, arising from the paradigmatic seminal case of *Miranda v. Arizona*, that case (or the doctrine that arose from it) was identified as a legal provision.²²³

Another example of a seminal case is *Mathews v. Eldridge*,²²⁴ the three-decades-old case that set forth a widely-used balancing test for procedural due process claims. Courts use this balancing test to determine what process is due when a plaintiff alleges a deprivation of property or liberty without adequate process. The test requires the Court to balance the nature of the individual's interest; the risks of erroneous deprivations under current procedure; and the government interests at stake, including the burdens and costs of superior procedure.²²⁵ Three cases in my sample involved *Mathews v. Eldridge*.

For legal doctrine and seminal cases alike, my codebook also provided that case or doctrine names should be added where they are a significant way to label a legal issue.²²⁶ One recurrent legal doctrine is qualified immunity (coded as QI). Spaeth himself codes a few legal doctrines or seminal cases as legal provisions, including *Miranda* (5AMI) and *res judicata* (RJ).²²⁷

B. ISSUE AND ISSUE AREA

Instead of defining an "issue" as the "public policy context" of a case, I coded for *legal* issues. I explained legal issues this way: "[I]magine that you are trying to describe the case to a first year law student. You want the student to understand what the case is about and what areas of law it implicates."²²⁸ I did not put any upper limit on the number of legal issues or issue areas that could be coded for any particular case.

Instead of making issue area derivative of issue, I identified the issue area first. The same (or very related) issues therefore might occur in different issue areas in my coding, but not in Spaeth's.

I created a number of issue areas that did not previously exist: (1) Federal Government Operations and Structure; (2) State/Local Government Operations and Structure; (3) Intellectual Property; (4) Environment; (5) Immigration; (6) Native Americans; (7) Military. I also

two cases, which the *Seibert* court noted. *Id.* at 615–16.

223. See *supra* note 97 (noting that Spaeth himself recognizes the *Miranda* doctrine as a legal provision).

224. 424 U.S. 319 (1976).

225. *Id.* at 335.

226. See SHAPIRO, *supra* note 216, at 3.

227. Codebook 2008, *supra* note 28, at 35, 38.

228. SHAPIRO, *supra* note 216, at 5.

renamed and expanded two issue areas. Attorneys became Lawyers and Legal Profession and Unions became Employment. In addition, I rearranged some of Spaeth's coding, moving issues to different areas when I felt it appropriate, and creating new issue codes.

In perhaps the most dramatic alteration, I eliminated the Database's "privacy" issue area. I placed issues related to abortion and other substantive due process concerns in the due process issue area, and I moved issues related to privacy statutes, like the Freedom of Information Act, to Federal Government Operations and Structure, a new issue area. Table F summarizes the major changes that I made in the definitions and contents of issue areas.

TABLE F: MAJOR CHANGES TO ISSUES AND ISSUE AREA

ORIGINAL ISSUE AREAS	MY ISSUE AREAS	NOTES
Criminal Procedure	Criminal Law and Procedure	Largely the same, with some rearranged and new codes
Civil Rights	Civil Rights	Largely the same, with some rearranged and new codes
First Amendment	First Amendment	Largely the same, with some rearranged and new codes
Due Process	Due Process	Substantive due process codes, including abortion were moved here from the Original Database's privacy issue area
Privacy	DELETED	Moved to due process and federal government operations and structure
	Federal Government Operations and Structure	Under this issue area, I included codes having to do with executive and congressional power, administrative law, government liability, and FOIA. Most of these codes were new; a handful were imported from preexisting issue areas
	State/Local Government Operations and Power	Under this issue area, I included codes having to do with state and local government activities and powers. Most were new codes, but two — state regulation of business and zoning, constitutional — were imported from the Original Database's preexisting issue areas
Federalism	Federalism	Largely the same, but with additional codes related to the 10th and 11th amendments, to constitutional preemption, ERISA, and the spending clause
Interstate Relations	Interstate Relations	Largely the same
Attorneys	Legal Profession and Lawyering	Most of the codes in this issue area were either in the Original Database's Attorneys issue area or were newly created. For example, I created a code for alternative dispute resolution, misc.

ORIGINAL ISSUE AREAS	MY ISSUE AREAS	NOTES
Unions	Employment	I greatly expanded the codes available to describe legal issues arising from the employer-employee relationship. For example, I added codes for minimum wage, child labor, health insurance, and workers compensation
Economic Activity	Other Economic Activity	Because I removed some codes from this issue area, I renamed it to make clear that it is not comprehensive
	Intellectual Property	Some codes were imported from economic activity; some were new
	Environment	These codes were primarily new
Judicial Power	Judicial Power	Largely the same
Federal Taxation	Federal Taxation	Largely the same
	Immigration	These codes were largely imported from Civil Rights
	Native Americans	Some codes were imported from Civil Rights; some were new
	Military	Most of these codes were imported from Civil Rights
Miscellaneous	DELETED	

II. DATABASE ARCHITECTURE

Each record identified a single legal provision, with multiple issues and issue areas. There was no limit to the number of records a case could have, so multiple legal provisions could be coded. The number of records (that is, the number of legal provisions) per case was also coded, as was the number of issues and issue areas per case.

III. CODING PROCESS

Initially, I assigned the coding to two second-year law students. I asked them each to code all ninety-five cases in the sample. My original hope was to do minimal recoding myself. As I reviewed and compared the students' coding, however, it became clear that there were several sources of mistakes that I had not anticipated. In many instances, for example, accurately coding the cases required background knowledge about different areas of law, knowledge that my law student coders did not always have. Ultimately, I recoded all of the cases myself, although I used their work to ensure that I did not omit issues and legal provisions. Additionally, it was sometimes necessary to add issue codes. Although the coders proposed some additions to me during their work—most of

which I adopted—I found it necessary to add a few new codes myself during the recoding, and I made necessary revisions to the codebook.

IV. INTERCODER RELIABILITY

Following completion of the Recoding Project, two independent recoders (law professors Matthew Sag and David Franklin) each recoded a random sample of ten cases each. I then compared the legal provision and issue area coding for the twenty independently coded cases with my recoding using Cohen's Kappa.²²⁹ This measure showed moderate to substantial agreement in the legal provision coding and substantial agreement in the issue area coding.²³⁰

Both of the recoders were significantly more generous in identifying cases as legal provisions than I was.²³¹ Therefore, I figured this Cohen's Kappa twice—once including all of the cases they identified and once excluding them.

TABLE G: LEGAL PROVISION AGREEMENT: INCLUDING CASES

AGREEMENT	EXPECTED AGREEMENT	KAPPA	STD. ERR.	Z	PROB. > Z
51.35%	6.36%	0.4805	0.0253	19.00	0.0000

TABLE H: LEGAL PROVISION AGREEMENT: EXCLUDING CASES

AGREEMENT	EXPECTED AGREEMENT	KAPPA	STD. ERR.	Z	PROB. > Z
63.33%	5.00%	0.6140	0.0269	22.82	0.0000

229. Cohen's Kappa is a statistical comparison of the coding of the same items by different coders, taking into account the level of agreement that would occur purely by chance. "If Kappa equals 0 then the amount of agreement between the two coders is exactly what one would expect by chance. If Kappa equals 1, then the coders agree perfectly." James F. Spriggs II & Thomas G. Hansford, *Measuring Legal Change: The Reliability and Validity of Shepard's Citations*, 53 POL. RES. Q. 327, 334 n.11 (2000) (citing Jacob Cohen, *A Coefficient of Agreement for Nominal Scales*, 20 EDUC. & PSYCHOL. MEASUREMENT 37 (1960)).

230. 2 STATA BASE REFERENCE MANUAL: RELEASE 9, at 2 (2005) (citing J.R. Landis & G.G. Koch, *The Measurement of Observer Agreement for Categorical Data*, 33 BIOMETRICS 159, 165 (1977)) (offering these interpretations).

231. In looking at agreement on legal provision, I looked for substantive agreement. So, for example, if the recoder identified two sections of one large statute, and my recoding identified that large statute, I counted that coding as a single match. To calculate Cohen's Kappa, I created one row per case for each unique legal provision identified in the case. Where both the recoder and I identified the same legal provision, both were identified in that row. Where the recoder identified a legal provision that I did not, I put a dummy code in the column for my coding, and vice versa. Note that this approach understates the intercoder agreement, as it fails to capture the myriad legal provisions that the recoder and I both agreed *not* to include.

TABLE I: ISSUE AREA AGREEMENT²³²

AGREEMENT	EXPECTED AGREEMENT	KAPPA	STD. ERR.	Z	PROB. > Z
92.22%	78.42%	0.6396	0.0513	12.48	0.0000

232. To calculate this measure, I made one row per case for each issue area. For twenty recoded cases, and eighteen issue areas, there were 360 rows. For each row, I created two dichotomous variables—one each for my coding and for the recoder. I calculated Cohen's Kappa based on the match between these variables.

APPENDIX 2: CASES IN RECODING SAMPLE

	L.ED.2D CITE	CASE NAME AND U.S. REPORTS CITE
1	130/0219	<i>Austin v. United States</i> , 513 U.S. 5 (1994)
2	130/0454	<i>Reich v. Collins</i> , 513 U.S. 106 (1994)
3	130/1024	<i>Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Co.</i> , 513 U.S. 527 (1995)
4	131/0324	<i>Whitaker v. Superior Court</i> , 514 U.S. 208 (1995)
5	131/0395	<i>Heintz v. Jenkins</i> , 514 U.S. 291 (1995)
6	131/0403	<i>Celotex Corp. v. Edwards</i> , 514 U.S. 300 (1995)
7	131/0532	<i>Rubin v. Coors Brewing Co.</i> , 514 U.S. 476 (1995)
8	133/0578	<i>Yamaha Motor Corp., U.S.A. v. Calhoun</i> , 516 U.S. 199 (1996)
9	133/0611	<i>Comm'r v. Lundy</i> , 516 U.S. 235 (1996)
10	134/0034	<i>Norfolk & W. Ry. Co. v. Hiles</i> , 516 U.S. 400 (1996)
11	134/0577	<i>Markman v. Westview Instruments, Inc.</i> , 517 U.S. 370 (1996)
12	135/0036	<i>Loving v. United States</i> , 517 U.S. 748 (1996)
13	135/0248	<i>Bush v. Vera</i> , 517 U.S. 952 (1996)
14	135/0843	<i>Bd. of County Comm'rs v. Umbehr</i> , 518 U.S. 668 (1996)
15	136/0347	<i>Ohio v. Robinette</i> , 519 U.S. 33 (1996)
16	136/0696	<i>Babbitt v. Youpee</i> , 519 U.S. 234 (1997)
17	137/0001	<i>Schenck v. Pro-Choice Network</i> , 519 U.S. 357 (1997)
18	137/0041	<i>Maryland v. Wilson</i> , 519 U.S. 408 (1997)
19	137/0055	<i>Regents of the Univ. of Cal. v. Doe</i> , 519 U.S. 425 (1997)
20	137/0063	<i>Lynce v. Mathis</i> , 519 U.S. 433 (1997)
21	137/0093	<i>Dunn v. Commodity Futures Trading Comm'n</i> , 519 U.S. 465 (1997)
22	137/0281	<i>Bennett v. Spear</i> , 520 U.S. 154 (1997)
23	137/0945	<i>Clinton v. Jones</i> , 520 U.S. 681 (1997)
24	137/0980	<i>Suitum v. Tahoe Reg'l Planning Agency</i> , 520 U.S. 725 (1997)
25	138/0091	<i>Lords Landing Vill. Condo. Council of Unit Owners v. Cont'l Ins. Co.</i> , 520 U.S. 893 (1997)
26	138/0120	<i>Gilbert v. Homar</i> , 520 U.S. 924 (1997)
27	138/0162	<i>Mazurek v. Armstrong</i> , 520 U.S. 968 (1997)
28	138/0285	<i>Abrams v. Johnson</i> , 521 U.S. 74 (1997)
29	138/0914	<i>Printz v. United States</i> , 521 U.S. 898 (1997)
30	139/0433	<i>Jefferson v. City of Tarrant</i> , 522 U.S. 75 (1997)
31	139/0702	<i>Buchanan v. Angelone</i> , 522 U.S. 269 (1998)
32	140/0350	<i>Almendarez-Torres v. United States</i> , 523 U.S. 224 (1998)
33	140/0542	<i>Atl. Mut. Ins. Co. v. Comm'r</i> , 523 U.S. 382 (1998)

	L.ED.2D CITE	CASE NAME AND U.S. REPORTS CITE
34	140/0759	<i>Crawford-El v. Britton</i> , 523 U.S. 574 (1998)
35	140/0875	<i>Ark. Educ. Television Comm'n v. Forbes</i> , 523 U.S. 666 (1998)
36	140/0970	<i>Calderon v. Ashmus</i> , 523 U.S. 740 (1998)
37	141/0222	<i>Am. Tel. & Tel. Co. v. Cent. Office Tel., Inc.</i> , 524 U.S. 214 (1998)
38	142/0599	<i>Buckley v. Am. Constitutional Law Found., Inc.</i> , 525 U.S. 182 (1999)
39	143/0818	<i>Wilson v. Layne</i> , 526 U.S. 603 (1999)
40	144/0067	<i>City of Chicago v. Morales</i> , 527 U.S. 41 (1999)
41	144/0347	<i>Martin v. Hadix</i> , 527 U.S. 343 (1999)
42	144/0494	<i>Kolstad v. Am. Dental Ass'n</i> , 527 U.S. 526 (1999)
43	146/0236	<i>Garner v. Jones</i> , 529 U.S. 244 (2000)
44	146/0374	<i>Norfolk S. Ry. Co. v. Shanklin</i> , 529 U.S. 344 (2000)
45	146/0530	<i>Nelson v. Adams USA, Inc.</i> , 529 U.S. 460 (2000)
46	146/0542	<i>Slack v. McDaniel</i> , 529 U.S. 473 (2000)
47	146/0561	<i>Beck v. Prupis</i> , 529 U.S. 494 (2000)
48	146/0707	<i>Fischer v. United States</i> , 529 U.S. 667 (2000)
49	147/0105	<i>Reeves v. Sanderson Plumbing Prods., Inc.</i> , 530 U.S. 133 (2000)
50	147/0374	<i>Arizona v. California</i> , 530 U.S. 392 (2000)
51	148/0373	<i>Green Tree Fin. Corp.-Ala. v. Randolph</i> , 531 U.S. 79 (2000)
52	148/0576	<i>Solid Waste Agency v. U.S. Army Corps of Eng'rs</i> , 531 U.S. 159 (2001)
53	149/0164	<i>TraFFix Devices, Inc. v. Mktg. Displays, Inc.</i> , 532 U.S. 23 (2001)
54	149/0430	<i>Easley v. Cromartie</i> , 532 U.S. 234 (2001)
55	149/0590	<i>Daniels v. United States</i> , 532 U.S. 374 (2001)
56	149/0674	<i>Cooper Indus., Inc. v. Leatherman Tool Group, Inc.</i> , 532 U.S. 424 (2001)
57	151/0489	<i>Adarand Constructors, Inc. v. Mineta</i> , 534 U.S. 103 (2001)
58	151/0659	<i>Chao v. Mallard Bay Drilling, Inc.</i> , 534 U.S. 235 (2002)
59	151/0820	<i>Lee v. Kemna</i> , 534 U.S. 362 (2002)
60	152/0437	<i>United States v. Craft</i> , 535 U.S. 274 (2002)
61	152/0701	<i>Verizon Commc'n, Inc. v. F.C.C.</i> , 535 U.S. 467 (2002)
62	152/0888	<i>Alabama v. Shelton</i> , 535 U.S. 654 (2002)
63	153/0027	<i>Delvin v. Scardelletti</i> , 536 U.S. 1 (2002)
64	154/0491	<i>Howsam v. Dean Witter Reynolds, Inc.</i> , 537 U.S. 79 (2002)
65	154/0501	<i>Abdur'rahman v. Bell</i> , 537 U.S. 88 (2002)
66	154/0588	<i>Sattazahn v. Pennsylvania</i> , 537 U.S. 101 (2003)
67	154/0653	<i>Barnhart v. Peabody Coal Co.</i> , 537 U.S. 149 (2003)
68	155/0001	<i>Moseley v. Secret Catalogue, Inc.</i> , 537 U.S. 418 (2003)

	L.ED.2D CITE	CASE NAME AND U.S. REPORTS CITE
69	155/0017	<i>Boeing Co. v. United States</i> , 537 U.S. 437 (2003)
70	155/0164	<i>Smith v. Doe</i> , 538 U.S. 84 (2003)
71	155/0376	<i>Brown v. Legal Found.</i> , 538 U.S. 216 (2003)
72	155/0535	<i>Virginia v. Black</i> , 538 U.S. 343 (2003)
73	155/0793	<i>Illinois ex rel. Madigan v. Telemktg. Assocs., Inc.</i> , 538 U.S. 600 (2003)
74	155/0933	<i>Inyo County v. Paiute-Shoshone Indians</i> , 538 U.S. 701 (2003)
75	155/0946	<i>City of L.A. v. David</i> , 538 U.S. 715 (2003)
76	155/1017	<i>Nat'l Park Hospitality Ass'n v. Dep't of Interior</i> , 538 U.S. 803 (2003)
77	156/0544	<i>Stogner v. California</i> , 539 U.S. 607 (2003)
78	157/0112	<i>Doe v. Chao</i> , 540 U.S. 614 (2004)
79	158/0291	<i>Nixon v. Mo. Mun. League</i> , 541 U.S. 125 (2004)
80	158/0450	<i>Household Credit Servs., Inc. v. Pfennig</i> , 541 U.S. 232 (2004)
81	158/0659	<i>Dretke v. Haley</i> , 541 U.S. 386 (2004)
82	158/0764	<i>Tenn. Student Assistance Corp. v. Hood</i> , 541 U.S. 440 (2004)
83	158/0787	<i>Till v. SCS Credit Corp.</i> , 541 U.S. 465 (2004)
84	159/0548	<i>Rasul v. Bush</i> , 542 U.S. 466 (2004)
85	159/0578	<i>Hamdi v. Rumsfeld</i> , 542 U.S. 507 (2004)
86	159/0643	<i>Missouri v. Seibert</i> , 542 U.S. 600 (2004)
87	160/0611	<i>Whitfield v. United States</i> , 543 U.S. 209 (2005)
88	161/0066	<i>Cherokee Nation v. Leavitt</i> , 543 U.S. 631 (2005)
89	161/0563	<i>Rousey v. Jacoway</i> , 544 U.S. 320 (2005)
90	161/0651	<i>Small v. United States</i> , 544 U.S. 385 (2005)
91	161/0876	<i>Lingle v. Chevron U.S.A. Inc.</i> , 544 U.S. 528 (2005)
92	161/0953	<i>Deck v. Missouri</i> , 544 U.S. 622 (2000)
93	162/0407	<i>Am. Trucking Ass'n, Inc. v. Mich. Pub. Serv. Comm'n</i> , 545 U.S. 429 (2005)
94	162/0418	<i>Mid-Con Freight Sys., Inc. v. Mich. Pub. Serv. Comm'n</i> , 545 U.S. 440 (2005)
95	162/0982	<i>Medellin v. Dretke</i> , 544 U.S. 660 (2005)