Symposium

The Rehnquist Court in Empirical and Statistical Retrospective

WARREN COURT PRECEDENTS IN THE REHNQUIST COURT

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This research empirically examines the use of particular Warren Court decisions as precedents in the Rehnquist Court. Analysis of precedent citation is not widely used but offers insight into judicial decisionmaking and the materiality of the Court's rulings. Our prior research has shown that the Rehnquist Court's citation practices appeared to reduce the coherence of the Supreme Court's network of precedents.[1] In this article we take a finer grained look at the Court's use of various Warren Court opinions.

We begin by analyzing the quantitative study of precedent citation as an analytical measure. Although the tool has some limitations, there is ample reason to believe that it can provide important insights into judicial decisions. Our analysis includes a sample of Warren Court decisions and examines their comparative citation patterns in the Warren, Burger, and Rehnquist

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1. *See* Frank B. Cross et al., The Reagan Revolution in the Network of Law (June 2006), *available at* http://ssrn.com/abstract=909217 [hereinafter Reagan Revolution]; Frank B. Cross et al., Determinants of Cohesion in the Supreme Court's Network of Precedents (Aug. 2006) (San Diego Legal Studies Paper No. 07-67, U of Texas Law, Law & Econ Research Paper No. 90.), *available at* http://ssrn.com/abstract=924110.

Courts. We then apply a model that allows for the aging of precedents and find that the Rehnquist Court has significantly reduced the vitality of, or depreciated the capital of the Warren Court opinions that we studied. This effect was not a uniform one, and the magnitude of the depreciation varied according to which Warren Court Justice authored the opinion to be cited as precedent.

I. PRECEDENT AS A TOOL OF ANALYSIS

The study of use of precedent offers a valuable tool for analyzing judicial decisionmaking. Traditionally, quantitative empirical analysis of the courts has focused only on the apparent binary ideological outcome of the decision (liberal or conservative), without respect to the content of the opinion or any other scale for the decision that could capture its nature.[2] Yet it is the content of the opinion that is significant, especially for Supreme Court decisions. The outcome of such a decision affects only the parties, but the opinion can influence hundreds or thousands of future cases brought on similar facts. While one might assume that a liberal outcome would set a liberal precedent, this is not necessarily the case, and the binary outcome coding cannot measure whether a particular opinion is moderately liberal (or conservative) or more extremely ideological.[3] The quantitative study of precedent can provide some insight into the content of opinions, as precedents are to some degree the "currency" of the judicial opinion. "[T]he judiciary's most important policy output [is] the precedents set by court opinions."[4] However, the meaning of a precedent over time is not constant but is an "iterative process" in which the Court applies and modifies its meaning.[5]

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2. *But see* William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976) (examining the rate of citation over time, which the authors called depreciation of a precedent).

3. *See* Reagan Revolution, *supra* note 1, at 7 (noting that "[a] decision might be liberal in the sense that it ruled for the [more] liberal party to the action but its content much less liberal than another hypothetical liberal decision in the same case or even than the presumed state of the existing law at the time of the decision").

4. James F. Spriggs, II & Thomas G. Hansford, *Measuring Legal Change: The Reliability and Validity of* Shepard's Citations, 53 POL. RES. Q. 327, 328 (2000).

5. *See generally* Wayne McIntosh et al., Using Information Technology to Examine the Communication of Precedent: Initial Findings and Lessons from the CITE-IT Project, (Mar. 17-19, 2005) (prepared for the 2005 Annual Meeting of the Western Political Science Association), *available at* http://www.bsos.umd.edu/gvpt/CITE-IT/Documents/WPSA%202005.pdf.

The quantitative analysis of precedent has seen only limited use, though, perhaps because the accumulation of data is quite time-consuming.[6] Recently, though, data have become available on the network of citations within the Supreme Court.[7] This data enables a direct study of precedent citation. Studies using this network data have begun to emerge. Researchers have used this network data to identify the most cited cases over the Court's history[8] and changes in relative importance of types of cases over time.[9] We have examined the effect of the Rehnquist Court on the coherence of the overall network and the determinants of network cohesion.[10] The remainder of this section discusses the usefulness of analyzing precedent in judicial decisionmaking.

A. LIMITATIONS OF PRECEDENT AS A TOOL OF ANALYSIS

Before commencing our analysis of the Rehnquist Court's use of Warren Court precedent, it is important to add some caveats on the reliance on precedent as a tool for measuring judicial decisionmaking. First, precedents are used in very different ways. An opinion may rely directly upon a precedent and cite it as governing authority. In this usage, the precedent has great importance. Alternatively, a decision may cite a precedent only in passing, such as in a string citation. In this usage, the precedent may carry relatively little weight in determining the decision. Simply counting of precedents does not measure this distinction. Indeed, some realists suggest that precedent simply serves as a mask for ideological decisionmaking and is irrelevant to the Court's decisions.

In addition, precedent may be used in a negative manner that serves to undermine its strength. Most dramatically, the Court may overrule a precedent and virtually eliminate its authority, though this requires a citation of the overruled opinion. Even absent an overruling, the Court may significantly under-

6. One seminal study of Supreme Court citation of precedent and overruling is THOMAS G. HANSFORD & JAMES F. SPRIGGS II, THE POLITICS OF PRECEDENT ON THE U.S. SUPREME COURT (2006).

7. The use of this network analysis and a description of the network used in this article is elaborated in Reagan Revolution, *supra* note 1, at 10–28.

8. *See* James H. Fowler et al., *Network Analysis and the Law: Measuring the Legal Importance of Supreme Court Precedents*, POL. ANALYSIS, (forthcoming 2007), *available at* http://jhfowler.ucsd.edu.

9. *See* James H. Fowler & Sangick Jeon, *The Authority of Supreme Court Precedent: A Network Analysis*, SOC. NETWORKS (forthcoming 2007), *available at* http://jhfowler.ucsd.edu.

10. *See supra* note 1.

mine the authority of an existing opinion.[11] A more limited negative treatment might involve the distinguishing of a precedent. In this usage, a Court would explain why a precedent does not govern the facts of the instant case. While such distinguishing may be perfectly appropriate, because the precedent was inapplicable to the facts, the approach may also be used to undermine the precedent, limiting it to its facts and narrowing its future value.

The use of a precedent in a Court decision may also be unavoidable because of its obvious relevance to the case. It is relatively common for the parties for both sides of a case to cite many of the same precedents in their briefs. This signals that the parties consider this precedent to be of unavoidable relevance for the Court. Similarly, one often finds both the majority opinion and dissenting opinions citing the same precedent, which indicates that its ability to govern the Court's decision was somewhat limited. Nevertheless, there remains some "decisional leeway in determining whether a precedent governs a case."[12]

The viability of precedent will also depend on the cases that come before the Court. An opinion on the dormant commerce clause, for example, will receive fewer citations before a Court that chooses to take for review fewer cases in this issue area. Conversely, if the Court chooses to accept for review more cases in a particular area of the law, precedents on that area will be cited more often. This limitation is not so severe, however, because of the Court's docket control. For example, a Court's decision to take *certiorari* on more Eleventh Amendment cases, for example, will be meaningful. If the failure to cite a prior precedent is due to denial of *certiorari* on relevant applications of that precedent, this decision is also a meaningful one.

Another influence on the Court's use of past precedents will be the simple number of cases that it accepts for review. A Court that decides more cases will inevitably cite past precedents more often. The Rehnquist Court has dramatically reduced the Court's caseload, at least as compared with other recent Courts. Consequently, one would expect it to cite fewer precedents *in toto* than did those other Courts, unless it dramatically increased the per-case citations in its opinions. The outcome of this effect

11. *See* HANSFORD & SPRIGGS, *supra* note 6, at 6 (observing that "the Court can negatively interpret a precedent by restricting its reach or calling into question its continuing importance" and thus undercut its legal authority and "diminish its applicability to other legal disputes").

12. *Id.* at 22.

will be addressed below, as it explains the use of Warren Court precedents in the Rehnquist Court.

B. SURVIVING VIRTUES OF PRECEDENT AS A TOOL OF ANALYSIS

Notwithstanding the limitations addressed above, the analysis of precedent retains utility in the analysis of judicial decisionmaking. If precedents were not meaningful, the Court would not ever take the trouble to overturn them. Moreover, the relative importance of such precedents is obvious from the heavy reliance they receive in briefs presented to the Court.

The greatest importance of a Supreme Court precedent lies in the governance it provides for the future decisions of the Court itself and of lower courts.[13] Because lower courts decide many more cases than does the Supreme Court, the significance of a Court's opinion lies primarily in its progeny—the degree to which it is applied in later cases by lower courts. Ample research indicates that lower courts are relatively reliable interpreters of Supreme Court precedents.[14]

Richard Posner has argued for greater use of such empirical quantitative studies of citations to precedent.[15] He notes that "[j]udges, lawyers who brief and argue cases, and law professors and students . . . [may] make their living" through the analysis and use of such precedents.[16] He argues that "rigorous quantitative analysis" enables the study of "elusive but important social phenomena such as reputation, influence, prestige, celebrity, the diffusion of knowledge, the rise and decline of schools of thought, *stare decisis*," and other factors.[17]

Recent empirical analysis illustrates the relevance of the "vitality" of particular precedents as reflected by their citation

13. *See id.* at 3 (noting that the "legal reasoning" of an opinion "can have more far-reaching consequences" than the simple case outcome "by altering the existing state of legal policy and thus helping to structure the outcomes of future disputes").

14. *See, e.g.*, Sara C. Benesh & Malia Reddick, *Overruled: An Event History Analysis of Lower Court Reaction to Supreme Court Alteration of Precedent*, 64 J. POL. 534 (2002); Charles A. Johnson, *Law, Politics, and Judicial Decision Making: Lower Federal Court Uses of Supreme Court Decisions*, 21 L. & SOC. REV. 325 (1987); Donald R. Songer et al., *The Hierarchy of Justice: Testing a Principal-Agent Model of Supreme Court-Circuit Court Interactions*, 38 AM. J. POL. SCI. 673 (1994).

15. *See generally* Richard A. Posner, *An Economic Analysis of the Use of Citations in the Law*, 2 AM. L. & ECON. REV. 381 (2000).

16. *Id.* at 382.

17. *Id.*

patterns. Not all precedents "have the same bite."[18] There is some dispute over the determinants of precedential vitality, with some suggestion that a larger Court majority might strengthen the authority of an opinion.[19] Hansford and Spriggs examined the question of precedential influence and hypothesized that a precedent's vitality was largely the product of being cited.[20] They found a significant association between the precedent's vitality (as measured by prior citations to the precedent) and its future use by the Court.[21] Perhaps more significantly, they also found that a positive citation to a prior precedent, giving it vitality, significantly increased its future use by lower federal courts.[22] There is ample evidence of the effect of Supreme Court Justices ideology on its decisions,[23] and the authors found that this effect extended to citations—coalitions of more liberal Justices were more likely to increase the vitality of precedents decided by more liberal coalitions of Justices.

Thus, Supreme Court precedents and their citation have material practical importance. When the Court cites a prior opinion as precedent, it gives that opinion greater vitality in the law. Greater vitality, in turn, yields greater significance for the opinion for future decisions. Precedential citation choice, therefore, has meaning and is worthy of empirical analysis.

II. WARREN COURT PRECEDENTS IN THE REHNQUIST COURT

One might expect the relatively conservative Rehnquist Court to make limited use of the relatively liberal Warren Court precedents. To test this hypothesis, we used the Supreme Court network of precedents and examined a random sample of seventy-seven decisions rendered by the Warren Court and their citation rates in the subsequent years of the Warren Court, the Burger Court, and the Rehnquist Court. This enables a comparison of the degree to which Warren Court cases were cited overall and among opinions of that Court.

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18. Ruggero J. Aldisert, *Precedent: What It Is and What It Isn't; When Do We Kiss It and When Do We Kill It?*, 17 PEPP. L. REV. 605, 631 (1990).
19. *Id.* at 632.
20. *See* HANSFORD & SPRIGGS, *supra* note 6, at 32–33.
21. *Id.* at 100 tbl.6.1.
22. *Id.* at 117–19.
23. *See generally, e.g.*, HANSFORD & SPRIGGS, *supra* note 6.

The average Rehnquist Court majority opinion citation rate for the Warren Court cases in our sample was 0.60 per year. This rate ranged from nearly three citations per year for the famous opinion in *Miranda v. Arizona*[24] to zero citations for *Toolson v. New York Yankees, Inc.*[25] The extremes of citation illustrate the limits of Supreme Court choice in citation selection. The conservative Rehnquist Court presumably did not want to vitalize the *Miranda* decision but accepted cases in which the doctrine could not be avoided. However, the Court used these opportunities to hedge the implications of the decision.

Indeed, *Miranda* provides a useful illustration of the Court's use of precedent. Contrary to some expectations, the Rehnquist Court rejected the opportunity to essentially overrule *Miranda* out of respect for *stare decisis*.[26] Nevertheless, the Court used its opinions, and citations to *Miranda*, to chip away at the decision's significance. The Burger Court initially retained *Miranda*'s basic "expansive approach,"[27] but began its retrenchment. This accelerated in the Rehnquist Court, which was "hostile to *Miranda*'s exclusion of reliable evidence."[28] The decision was said to be "silently buried" by the Rehnquist Court.[29] Thus, the high level of citations to *Miranda* in the Rehnquist Court recognized the importance of precedent but simultaneously undermined the power of that precedent.

While *Miranda* was the most cited of the Warren Court cases in our sample, at nearly three citations per year, that rate is not truly so high. In the Warren Court, the decision received more than ten citations per year after its issuance, and in the Burger Court, *Miranda* received an average of more than seven citations per year. Arguably, the Rehnquist Court devitalized *Miranda*, relative to an expected baseline of annualized citations. Thus, it appears that the Rehnquist Court gave *Miranda* fewer citations overall and may have used those fewer citations to limit its authority.

The reduction in citation is similar for other prominent cases contained in our sample. For *New York Times Co. v. Sulli-*

24. 384 U.S. 436 (1966).

25. 346 U.S. 356 (1953).

26. *See* Dickerson v. United States, 530 U.S. 428, 443–44 (2000).

27. Stephanos Bibas, *The Rehnquist Court's Fifth Amendment Incrementalism*, 74 GEO.WASH. L. REV. 1078, 1081 (2006).

28. *Id.* at 1084.

29. Laurence A. Benner, *Requiem for* Miranda*: The Rehnquist Court's Voluntariness Doctrine in Historical Perspective*, 67 WASH. U. L.Q. 59, 163 (1989).

van,[30] the Warren and Burger Courts gave the opinion five or more citations per year, which declined to an average of fewer than 1.5 annual citations during the Rehnquist Court. The important right to counsel ruling of *Gideon v. Wainwright*[31] received over eight citations per year in the Warren Court, and over five citations per year in the Burger Court, but fewer than two citations per year by the Rehnquist Court.

The raw data suggest a considerable depreciation of vitality for Warren Court precedents, including some very important decisions, in the Rehnquist Court. Moreover, the *Miranda* experience suggests that even those fewer citations may have been devoted to undermining the power of the precedent. Analysis of the fate of Warren Court precedents in the Rehnquist Court requires a somewhat more detailed analysis to compare the number of citations with what might be expected for given cases and to try to explain any differences discovered. The following section undertakes this analysis.

III. AGING OF WARREN COURT PRECEDENTS IN THE REHNQUIST COURT

The above section simply presents data on the frequency with which the Rehnquist Court cited certain opinions of the Warren Court. While this provides some information, one would want an "expected value" of such citations before drawing conclusions. We noted the possibility that Warren opinions received more citations because they were such important cases, and it is possible that the Marshall opinions received fewer citations because they happened to be in relatively unimportant cases. Some benchmark expected value is necessary to control for the unavoidability feature of citing precedents. Creating such an expected value of citation, though, requires some benchmark for the expectation, and there is no indisputable objective measure for a particular opinion's citation frequency. We use Burger Court citations to the Warren Court cases as our benchmark, which at least provides a comparison of the Rehnquist and Burger Court eras.

Before proceeding with this analysis, we need some understanding of the effect of age on a precedent's vitality. In other citations networks, such as the World Wide Web, the temporal

30. 376 U.S. 254 (1964).
31. 372 U.S. 335 (1963).

factor has no impact in determining the attractivenness of a document in getting new citations. In our network analysis of the United States Supreme Court, we discovered that time is important because cases tend to age. "Aging" means that a document progressively looses its ability to attract new citations as its age increases. Younger cases tend to be more attractive than very old cases. The dynamics of growth of the network is thus led by this aging phenomenon. We studied the probability that a legal case will get a new citation and we averaged over all cases. This average probability is called the "kernel" of the network in network theory language. It provides information on the growth mechanism of the network. In most real networks, we find a "preferential attachment" mechanism of growth. This means that the probability that a document will get a new citation increases with the degree of the document. We found that in the United States Supreme Court network, we still have a preferential attachment mechanism, but we also found that the age of the case has an important influence.

In particular, the increase of the degree of a legal case, Δk, is related with a power law function of the age according to the following formula:

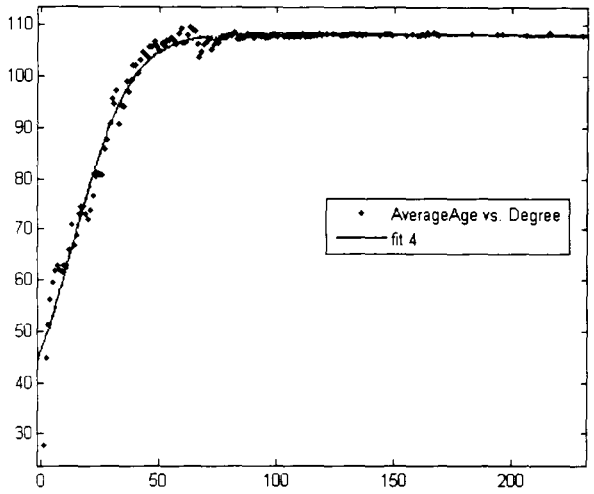
$$\Delta k = a^{-B}$$

where k is the citation to a precedent, a is the age of the precedent, and B is an exponent which depends on the degree of the document and which undergoes strong variations in different historical periods. This provides us with an "age-kernel" formula for separating the effect of a precedent's age on its future citations. This reflects, one could say, the depreciation of the capital stock of precedent over time.[32]

It is important to note that B is not always negative. It takes a certain amount of time for precedents to come into their vitality, and they typically grow in significance over a certain number of years. Cases of great age tend on average to have lost their influence. However, this effect does not occur promptly, and the aging/vitality association has varied over time. Figure 1 displays the distribution of rate of citation (degree) for the year 2000, with the relative age of the precedent on the horizontal axis and the cumulative citations it has received on the vertical axis.

32. *See generally* Landes & Posner, *supra* note 2.

Figure 1
Aging of Precedent in 2000



The fit line for this figure reveals that cumulative citations steadily increased for past precedents up to around fifty years of age. At about that time, the citation rate begins to level off to a point where much older cases are seldom cited, on average.

Different courts have relied to greater or lesser degrees on older precedents. The relative effect of aging in years from recent decades can be seen in the following summary table, which displays the change in *B* over time.

Table 1
Relative Aging of Precedents Over Time

Year	*B*
1950	-0.73776
1960	-0.70922
1980	-0.80599
2000	-0.43904

In 2000, during the Rehnquist Court, aging had relatively less effect on the probability of a case citation, as the negative magnitude of *B* was much smaller than in recent prior Courts. The

Rehnquist Court thus tended to rely more on elderly precedents than did the Courts for the earlier comparison decades.

To ascertain the effect of the Rehnquist Court on the citation of Warren Court precedents, we calculated the citation profile for each of the cases in our sample. For our benchmark, we examined the citation profile for those same cases during the Burger Court era. Initially, we compared the probability of a Rehnquist Court citation to a particular Warren Court precedent with the probability of a Burger Court citation to that precedent and found a high correlation of approximately 0.90. This provides some evidence of the effect of the legal model of decision-making or the unavoidability of citation to a precedent. The citation of particular precedents in the two Courts was roughly parallel, probably a testimony to their indisputed relevance to the cases before the Courts. However, the ten percent variance reveals some change in citation patterns that may be of pragmatic import. In addition, there was only a 0.43 correlation between the Warren Court's use of its own precedents and the Rehnquist Court's use of those precedents.

This correlation only examines the citations among Warren Court precedents, though, and cannot reveal the relative significance given to those precedents by the Rehnquist Court. Thus, it is possible that the Rehnquist Court reduced the vitality of all Warren Court precedents, without altering the relative vitality of particular opinions rendered by that Court. To examine the latter effect, we compared the citation of each of our sample Warren Court precedents in the Burger and Rehnquist Courts. This revealed an average seventy percent reduction in citations to Warren Court precedents as compared to their citations in the Burger Court. Indeed, the Rehnquist Court citations for the cases in our sample were below the comparative expected value for seventy-six of the cases and increased for only one.[33] This demonstrates that the Rehnquist Court significantly decreased the vitality of the Warren Court opinions that we studied.

Some of this effect is certainly attributable to the smaller docket of the Rehnquist Court.[34] While the Burger Court aver-

33. The exceptional case for which Rehnquist Court citations increased was Hanna v. Plumer, 380 U.S. 460 (1965). The case was important procedurally in establishing that the use of the Federal Rules of Civil Procedure survived Erie Railroad Co. v. Tompkins, 304 U.S. 64 (1938), and that the Rules, as opposed to conflicting state rules, govern.

34. One of the most striking features of the Rehnquist Court was its reduction in the Court's docket, as compared to the Burger Court. *See* Frank B. Cross & Stefanie Lindquist, *The Decisional Significance of the Chief Justice*, 154 U. PA. L. REV. 1665,

aged about 135 majority opinions per term, the Rehnquist court dropped this average to around ninety per term. Assuming no change in the number of citations per case, one would expect the probability of any given case's citation to drop by about thirty-three percent, due simply to the decreased caseload. So the reduced caseload could explain about half of the reduction in vitality of Warren Court decisions.

The decrease in precedent vitality was not uniform among the Warren Court opinions examined. The data showed a slight increase in vitality for *Hanna* and *Florida Lime & Avocado Growers, Inc. v. Paul*,[35] and the most dramatic decrease in vitality for *Benton v. Maryland*.[36] The depreciation of precedent thus varied considerably for different opinions.

The results for our sample were integrated into the United States Supreme Court Database, to permit further analysis of citation rates. The difference among cases could be explained by a tendency of the Rehnquist Court to more frequently cite conservative decisions than liberal ones, but this was not the case. There was no difference in citation probability based on the direction of the case outcome. This could be due to a variety of reasons including: (a) sincere, nonideological citation, (b) negative citations to liberal opinions, or (c) the possibility that the direction of the outcome is not a reliable indicator of the degree to which the opinion was liberal or conservative.

Another possible determinant of case citation is the size of the majority vote in the precedential case. Perhaps larger majorities carry greater future weight. The Court's occasional desire for unanimity in controversial cases suggests that this might be so.[37] This theory has been undermined by prior empirical analysis,[38] though, and was untrue for our cases. There was no difference in citation probability based on the size of the majority vote in the case.

Our comparative examination of depreciation focuses on the authors of the opinions in our sample. The Rehnquist Court

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1696 (2006) (displaying the reduction in Figure 7).

35. 373 U.S. 132 (1963). This decision held that a state law regulating agriculture did not offend the Supremacy Clause of the Constitution.

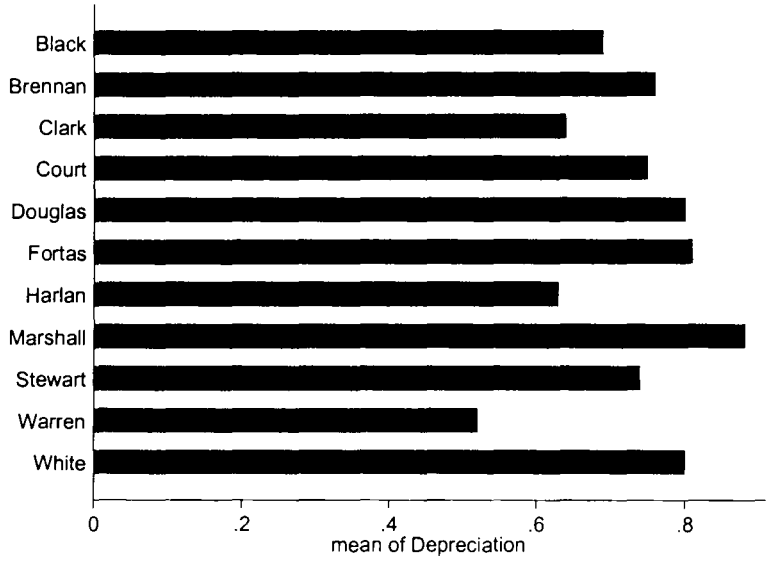
36. 395 U.S. 784 (1969). This decision found that the double jeopardy bar prevented a conviction on a larceny charge after a burglary conviction was set aside.

37. *See* Frank B. Cross, *The Justices of Strategy*, 48 DUKE L.J. 511, 554–57 (1998) (discussing some of the theory and evidence of this effect).

38. *See generally* HANSFORD & SPRIGGS, *supra* note 6.

may have cited opinions by certain Warren Court Justices more than others, for a variety of possible reasons. Our hypothesis is that the Rehnquist Court will be more likely cite cases written by Justices with whom the Court has greater ideological affinity, e.g., the relatively more conservative Warren Court Justices. To test this theory, we took the mean depreciation rate for opinions authored by various Justices of the Warren Court. Figure 2 displays the results.

Figure 2
Precedent Depreciation by Warren Court Justice-Author



There is some differential effect in relative depreciation by Justice of the Warren Court. Justice Marshall's opinions suffered the greatest depreciation, at a rate over twenty-five percent higher than that of Justices Harlan and Clark. Relatively high depreciation rates were also found for Justices Fortas, Douglas, White, and Brennan, as well as for unauthored opinions of the full Warren Court. Although our sample size was small, the differences in depreciation reached statistical significance for opinions written by Warren (less depreciation) and Marshall (more depreciation) and were nearly significant for Fortas and Brennan (more depreciation). The meaning of the difference is not entirely clear—perhaps some Justices wrote narrower opinions of lesser future value, de-

cided less significant cases, or simply wrote poorer, less persuasive opinions. The general association with ideology, though, suggests that the ideological content of the opinions may have influenced their citation rate in the Rehnquist Court.

The relatively anomalous finding of Figure 2 is the relatively low depreciation of decisions authored by Chief Justice Warren, who is generally regarded as more liberal than some other Justices of the Court, such as Justice Harlan. These Warren opinions were presumably very important decisions and hence unavoidable citations, but that effect should be controlled by the comparison with Burger Court citations. This finding may indicate that the actual language of the opinions written by Warren was not so liberal as commonly perceived. Alternatively, these decisions may have been particular targets of negative citations by the Rehnquist Court, as illustrated by its limitation of the Warren-authored *Miranda* opinion. Subsequent research with additional data is necessary to disaggregate the meaning of this finding. Regardless of the reason, it is important to note that Warren opinions were also depreciated by the Rehnquist Court, albeit at a lesser rate than those of other Justices.

Some preliminary conclusions may be drawn. First, the Rehnquist Court depreciated the capital stock of Warren Court decisions. While about half of this might be attributed to its reduced caseload, the remaining half must be explained by some more case-specific choice, whether in opinion writing or case selection. Second, this depreciation varied by opinion author, and it appears that the Rehnquist Court had greater disfavor for precedents written by particular Justices of the Warren Court.

CONCLUSION

Empirical analysis of the legal content of opinions, such as citation of precedents, is the next important frontier for quantitative empirical legal research. Such research has only just begun, with analyses such as *The Politics of Precedent* and other research cited above.[39] We offer an advance in these analyses in the Rehnquist Court's treatment of prior precedents and hope to stimulate further research in the area.

Our most important findings are on the overall depreciation of the overall Warren Court precedents in the Rehnquist Court,

39. *See supra* notes 18–23, 27–29, and accompanying text.

which are consistent with our earlier findings on the effect of the Rehnquist Court on the network of Supreme Court precedents. This is explained in part, but not entirely, by the Rehnquist Court's smaller docket. Earlier research demonstrates the significance of a precedent's vitality on future decisions, so that the Rehnquist Court apparently depreciated the importance of these decisions. The discovery of an association between citations and opinion authors is an intriguing one but not yet conclusive and would benefit from replication with a different set of Warren Court opinions. In addition, much additional research remains on these issues, such as the relative negative treatment of various precedents.