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Determinants of Citations to Supreme Court Opinions (And the Remarkable Influence of Justice Scalia)

Frank B. Cross*

This research considers the citations to Supreme Court opinions issued over a ten year period of the Rehnquist Court. It traces the citations to those opinions received over the ten years following their issuance, broken down into total citations, significant positive citations, and negative citations. Nearly all categories of citations were positively associated, suggesting that certain features influence all types of citations at all court levels, though Supreme Court negative citations appeared to diminish the overall influence of opinions. The type of case was an important determinant of the citations received, especially by lower courts, where civil rights and other types of decisions received more citation. The vote margin in the case was not a significant predictor of citations, but conservative opinions consistently received more citations than liberal opinions, during this era. Opinion author proved significant, and the most dramatic findings were the much higher citation rates associated with Justice Scalia's opinions for the Court, including negative citations. This finding survived controls for case type and ideological direction and suggests that some feature of Scalia's opinions makes them especially powerful precedents.

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I. INTRODUCTION

Citations have various implications for the course of the law, and an opinion receiving more citations is commonly regarded as more valuable. Such citation analyses have been used to rank federal appellate judges.¹ The analysis of citations has been called a tool for “[m]easuring a justice’s influence on the law” as “the frequency with which a particular opinion has been cited generally indicates how often it has influenced the resolution of subsequent cases.”² Hence, the study of citation rates could provide valuable information on the significance of particular opinions and their characteristics.

This study uses a newly created database of a ten-year period of the Rehnquist Court. For each authored opinion of the period studied, I counted citations of several types for the following ten years, at the Supreme Court, circuit court, and district court levels. This enables a test of the factors that determine the citation rates for the Court’s opinions. My study measures overall citation counts, significant positive citations, and negative citations to Supreme Court opinions in the Court, the circuit courts, and the district courts. I begin by descriptively examining the citation rates and how they changed over the period studied. There is a very high correlation among different types of citations at different court levels, which suggests that particular cases or their associated opinions have legal importance.

The second section considers the factors associated with more citations. The case type was significantly associated with different citation rates, as might be expected due simply to court agendas. Conservative opinions tended to receive more citations, and some justices’ opinions were cited more often. The final section provides a statistical analysis of these determinants. The most salient finding was that opinions authored by Justice Scalia received significantly more citations from lower courts, both positive and negative, after controlling for other significant determinants. Other justices had negative associations, receiving fewer citations. This suggests that some unique characteristics of opinion writing, such as minimalism or maximalism, have a significant effect on the citations received by the Court’s opinions.

¹ William M. Landes, et al, *Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges*, 27 J Legal Stud 271 (1998); Stephen Choi and Mitu Gulati, *Choosing the Next Supreme Court Justice: An Empirical Ranking of Judge Performance*, 78 S Cal L Rev 23 (2004).

² Montgomery N. Kosma, *Measuring the Influence of Supreme Court Justices*, 27 J Legal Stud 333 (1998). One important study of citations as a tool to evaluate opinion quality is found in Richard A. Posner, *Cardozo: A Study Of Reputation* 80-90 (1990).

II. DESCRIPTIVE INFORMATION ON CITATION RATES AND TIME

Supreme Court decisions have seen considerable quantitative empirical analysis. Political scientists have carefully examined how the ideological orientation of those decision outcomes correlates with the ideological preferences of the justices.³ However, relatively little empirical study has analyzed the functioning of the opinions and precedents of the Court. The rule of *stare decisis* reflects the “fundamental values of the legal process” and operationalizes the legal model of judicial decisionmaking.⁴ The significance of a Supreme Court opinion may be measured in hindsight by the nature of the citations that it receives.

Supreme Court opinions have seen much less empirical analysis than have Court outcomes, perhaps because it is much more difficult to quantitatively code for the content of these opinions. Yet it is in the opinions, and not the simple outcomes, that the greatest importance of a Supreme Court action lies.⁵ A decision resolves only the dispute between the two parties; the opinion sets a precedent to resolve countless further disputes involving similar facts. Thus, it is the opinion, rather than the particular outcome of the decision, which matters. The significance of the opinion is largely found in its usage by subsequent courts, as a citation supporting their decisions and opinions.

One very recent empirical study of the Supreme Court’s network of citations confirms this supposition.⁶ The research examined those Supreme Court cases that had received the most Supreme Court citations over time, established their “authority score” on this basis, and compared them with expert qualitative judgmental measures of the most important cases that the Court had decided. The authors found that there was a close correspondence between citations received by an opinion and the expert measures of its importance, and the citation measure performed better than any given expert analysis. This

³ See, for example, Jeffrey A. Segal and Harold J. Spaeth, *The Supreme Court and the Attitudinal Model* (1993).

⁴ Jonathan R. Macey, *The Internal and External Costs and Benefits of Stare Decisis*, 65 Chi-Kent L Rev 93, 93 (1989).

⁵ The precedents set by courts, especially the Supreme Court “may be viewed as the principal asset of a judicial system. Jonathan R. Macey, 65 Chi-Kent L Rev at 106 (cited in note 4). There may be some rare exceptions to this rule, for example, *Bush v Gore*, 531 US 98 (2000), but generally the importance of an opinion is its precedential power.

⁶ James H. Fowler and Sangick Jeon, *The Authority of Supreme Court Precedent*, 30 Social Networks 16 (2007).

historic finding demonstrates the practical significance of citation measures.

Coding for the citations received by opinions is a readily available alternative for quantitative analysis. There is no consensus measure for citation analysis, but one might consider either total citations, significant positive citations, or negative citations in testing the precedential significance of opinions. While my analysis covers fewer years than the network analysis, it adds two important features to the research. It considers different types of citations and also measures lower court citations to the Supreme Court's opinions.

A. Descriptive Statistics

This analysis of citation rates (Table 1.) uses a unique database, examining over four hundred Supreme Court decisions rendered during the period of 1987 to 1997.⁷ The period begins along with the Rehnquist Court's first year. The citations for each of these opinions were then compiled for the ten years following its rendering (or eight and nine years in the case of decisions rendered in 1997 and 1996). These citations were categorized in three categories: total citations, significant positive citations,⁸ and negative citations.⁹ For each category, I separately measured Supreme Court citations, circuit court citations, and district court citations. The combination of these factors enables some assessment of the precedential significance of the Supreme Court's

⁷ The data was created by having several law students go through each covered Supreme Court majority opinion and code the simple number of citations of various types for each year after the opinion's issuance. These counts were then integrated into the well-established U.S. Supreme Court Judicial Database, archived at *The S. Sidney Ulmer Project*, online at <http://www.cas.sc.edu/poli/juri/supremecourt.html> (visited Apr 28, 2010). This served as the source for categories such as issue type, vote margin, and ideological direction of the decision.

⁸ Significant positive citations were characterized as those receiving "four stars" in Westlaw's Keycite system. The system categorizes such citations as those in which the opinion was carefully examined, usually for a page or more in the citing opinion. This is a fairly restrictive definition, though, as many positive citations will receive fewer than four stars.

Westlaw's Keycite system is similar to the well-known Shepard's citation system but with somewhat more detail on positive citations. Some comparative research has found that the two yield roughly comparable results. Scott D. McClurg and Scott A. Comparato, *Rebellious or Just Misunderstood?: Assessing Measures of Lower Court Compliance with U.S. Supreme Court Precedent*, (unpublished paper, 2003), online at http://www.allacademic.com/meta/p_mla_apa_research_citation/0/6/2/0/4/p62049_index.html (visited Apr 28, 2010) presented at the 2003 annual meeting of the American Political Science Association. This research found imperfections in both systems but concluded that the Westlaw system was somewhat preferable for large-N studies such as this.

Table 1. Descriptive Statistics

	Mean	Std. dev.	Range
Supreme Court Total	7.28	.507	0-133
Supreme Court Significant Positive	0.70	.066	0-12
Supreme Court Negative	0.24	.044	0-14
Circuit Court Total	113.85	8.967	0-1640
Circuit Court Substantial Positive	8.33	.657	0-12
Circuit Court Negative	3.70	.309	0-59
District Court Total	138.43	12.971	0-3106
District Court Substantial Positive	9.94	1.086	0-255
District Court Negative	3.18	.312	0-56

NOTE: This table reports the mean, standard deviation, and range for Supreme Court, circuit court, and district court citations for the ten years following a Supreme Court opinion. Substantial positive and negative citations are characterized according to Westlaw's Keycite system.

opinion. An important caveat to this result is that the data are limited to published opinions. A significant number of lower court opinions are not published (and only a fraction of unpublished opinions are captured by Westlaw), so it is important to appreciate that the study may not address the effect in unpublished opinions.

The Supreme Court's docket is much smaller than that of lower courts, so its absolute citation frequency numbers are correspondingly less. The difference in numbers between circuit courts and district courts is not so great, indicating a higher citation intensity per circuit court opinion. All court levels have roughly the same ratio of significant positive to negative citations. There is plainly a wide range in citation rates per opinion, but the standard deviations are not so great.

The most cited opinion by the Supreme Court itself was *Martin v District of Columbia Court of Appeals*,¹⁰ which limited the use of *in forma pauperis* petitions. At the circuit court level, four cases received over one thousand citations, and the single most cited case was *Heck v Humphrey*,¹¹ setting standards for inmate § 1983 actions. Seven opinions received over one thousand district court citations and the most cited was *Farmer v Brennan*,¹² setting standards for civil rights actions by prison inmates. Few would regard these as the most substantively important opinions of the era, and the data

⁹ Negative citations were also characterized according to Westlaw's Keycite system, which identifies certain treatments as negative.

¹⁰ *Martin v DC Court of Appeals*, 506 US 1 (1992).

¹¹ *Heck v Humphrey*, 512 US 477 (1994).

¹² *Farmer v Brennan*, 511 US 825 (1994).

demonstrate the significance of case type. The citation rates reveal the significance of inmate litigation in federal courts, though the difference was largely an effect of lower court citations, not those of the Supreme Court. For subsequent analyses of lower court citations, I exclude these types of cases, discussed further below.

B. Total and Positive Citations

Any citation to a Supreme Court opinion might be regarded as a positive one, in that it recognizes the importance of the opinion, rather than simply ignoring it. However, citations come in different types. A citation may be fundamentally determinative of the outcome, if the applying court regards it as controlling, as often in the case of a significant positive citation. A citation may play a much less significant role, perhaps an insignificant one, as in the case of inclusion in a string citation. Alternatively, a citation may receive negative treatment, where the court recognizes its validity but evades its controlling authority. Most of the existing research on the topic has examined the path of different types of citations over time, which is reviewed in this section.

The total citations received by an opinion and the total significant positive citations might be considered a measure of its importance in the corpus of law, though citation rates may be affected by a variety of factors. There are various theories to be analyzed about citation rates, some simply involving time. The seminal article on citation rates was written by Landes and Posner, primarily examining circuit court citations.¹³ They found that the citations received by an opinion depreciated over time, though Supreme Court opinions depreciated more gradually. Citations also varied significantly depending on the subject matter of the opinions.

Kosma studied citations to Supreme Court opinions over time.¹⁴ He focused on the relative Supreme Court and circuit court citation rates for the justices throughout history and ranked them according to their relative rates of citation receipt. Because he covered such a great time period, he adjusted the rates to account for citation opportunities. In this analysis, the key element to citations is the author of the opinion, and Kosma found substantial differences among the justices, though he did not control for a number of third factors that might have influenced the citation rates.

A separate theory suggests that litigants substantially drive Supreme

¹³ William N. Landes and Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J Law Econ 249 (1976).

¹⁴ Kosma, 27 J Legal Stud 333 (cited in note 1).

Court cases, which predicts a different path of Court citations. In this approach, the Court's opinions signal an interest in changing the law, to which private parties respond by bringing new test cases, which tend to show up on the Court's docket in the fourth or fifth year after the original opinion.¹⁵ Examination of the types of cases that appear on the Court's agenda after a major decision has confirmed this effect.¹⁶ This effect might also be expected to appear in citation rates. Opinions should receive more Supreme Court citations four or five years after issuance (and more circuit and district court citations proportionally earlier).

Even absent this strategic litigant effect, it is obviously true that litigation choices will substantially dictate citation rates. The type of case heard by a court largely dictates the *corpus* of precedents relevant for use in its resolution. If the Supreme Court issues an opinion in an area of the law that has less litigation, one would expect that opinion to receive fewer lower court citations, simply for lack of opportunity to cite it. Conversely, an opinion in an area with a great deal of litigation would be expected to receive a high level of lower court citations. This phenomenon should be much less pronounced at the Supreme Court level, with the Court's docket control. While the Court is also hostage to the choices of appellants, it can select its cases from the thousands of petitions for *certiorari* that it receives annually.

Yet another theory adopts a legal model and suggests that citations are driven by the path of precedent. Hansford and Spriggs have examined Supreme Court citation practice, considering strong positive citations to cases and negative citations.¹⁷ The authors stress that precedents "do not necessarily remain static over time" but instead the "meaning and scope of a precedent can change as the Supreme Court revisits and interprets it in future cases."¹⁸ At the Supreme Court level, they find that citation of precedent (positive and negative) is influenced by the prior case's ideological alignment with the citing majority and by the prior case's "vitality" (a measure of how often it had been cited previously). At the level of the lower courts, a precedent's vitality is important to its relative usage rate. More Supreme Court citations transfer into more lower court citations.

It may be that characteristics of Supreme Court opinions associated with particular justices may influence their citation rates. Cass

¹⁵ This theory is propounded in Vanessa A. Baird, *Answering The Call Of The Court* (2007).

¹⁶ *Id* at 95.

¹⁷ Thomas G. Hansford and James F. Spriggs II, *The Politics of Precedent on the U.S. Supreme Court* 11 (2006).

¹⁸ *Id* at 2.

Sunstein has argued that the justices have different jurisprudential philosophies that influence the nature of their opinions. On the current court, he characterizes Justices Scalia and Thomas as “fundamentalists” who “seek to make large-scale changes in constitutional law.”¹⁹ He contrasts them with “minimalists” who “seek to avoid taking stands on the biggest and most contested questions of constitutional law” and “prefer decisions that resolve the problem at hand without also resolving a series of other problems that might have relevant differences.”²⁰ This characteristic of opinion writing might be expected to show up in citation rates, with broader fundamentalist opinions offering more opportunities for citation.

Another characteristic of opinions, though, may also influence citations in the contrary direction. Opinions may provide clear “rules” for the resolution of future cases or more amorphous “standards” that offer greater discretion in future applications.²¹ The lessened uncertainty associated with opinions offering decision rules might be expected to yield less litigation than would opinions containing standards.²² A clear rule may prevent “legal disputes from arising in the first place or, if they do arise, induces them to be settled without litigation.”²³ The justices that Sunstein characterizes as fundamentalists are also dedicated to the propagation of “firm, clear rules.”²⁴ This theory would suggest that their opinions might receive *fewer* citations, because the clarity of their legal commands would produce less litigation.

These theories and others may be tested using the database of citations. This analysis is facilitated by use of the U.S. Supreme Court Judicial database, widely utilized in empirical research.²⁵ This includes

¹⁹ Cass R. Sunstein, *Radicals In Robes: Why Extreme Right-Wing Courts Are Wrong For America* 26 (2005).

²⁰ *Id.* at 27, 29.

²¹ See, for example, Kathleen M. Sullivan, *The Justices of Rules and Standards*, 106 Harv L Rev 22 (1992).

²² See Andrew F. Hanssen, *The Effect of Judicial Institutions on Uncertainty and the Rate of Litigation*, 28 J Legal Stud 205, 205 (1999) (noting that “litigation rates will be higher where uncertainty over court decisions is greater”). This is grounded in the well-established Priest-Klein hypothesis, which explains how greater certainty of outcome yields settlement rather than litigation. See George L. Priest and Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J Legal Stud 1 (1984). However, Louis Kaplow suggests a countervailing effect, that “[l]ower litigation costs make litigation more likely under rules, but the greater predictability of outcomes makes litigation less likely.” Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 Duke LJ 557, 573 n 35.

²³ Landes and Posner, 19 J Law Econ 249 (cited in note 13).

²⁴ Sunstein, *Radicals in Robes* at 27 (cited in note 19).

²⁵ See U.S. Supreme Court Judicial Database, archived at *The S. Sidney Ulmer Project* (cited in note 7). The codebook describing the variables measured by the database is available at the same site.

measures such as the type of case decided, the justice authoring the majority opinion, the vote in the case, and the ideological direction of the Court's decision.

The comparison of citation rates at different court levels is complicated by the Supreme Court's docket control. Citations are related in substantial part to the cases before the court. Thus, an 11th Amendment case will get many more citations if the Court takes additional 11th Amendment cases for future resolution. It may not receive citations if the Court shuns additional cases in the particular area. At the Supreme Court level, at least, the number of citations may largely reflect *certiorari* decisions rather than the persuasiveness or power of the precedential opinion. By contrast, the lower courts have little choice in the cases they decide, which are largely determined by litigant decisions to proceed to resolution or appeal.

Initially, I examine the rate of citations over the ten-year time period studied, at each court level. While Supreme Court opinions do not depreciate so rapidly as lower court precedents, it is worth examining the rate at which this occurs. The accompanying figures graphically display the rates for each type of citations. I begin with total citations and to more closely normalize the graph lines, the Supreme Court citation rate is multiplied by ten. Figure 1 displays the average number of citations per majority opinion in each year after its issuance.

For simple annual citations, district court rates consistently exceed circuit court rates, which in turn exceed Supreme Court rates (even

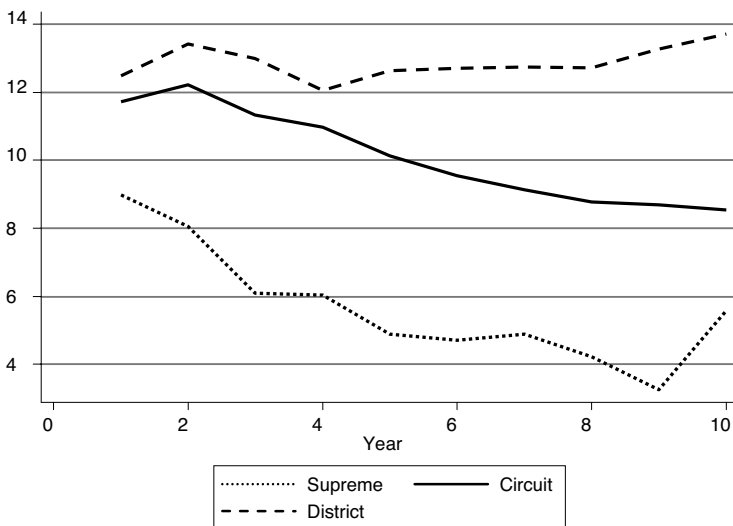


Figure 1. Citations Over Time

multiplied by ten). Citation rates at the Supreme Court and circuit court levels show a fairly significant decline over the ten-year period being studied, which is consistent with the Landes & Posner depreciation theory for precedent. For district court usage, though, the citations show no decline over the period, indicating that Supreme Court decisions continue their authority unabated at this level. The citation rates do not show any increase at the four to five year point suggested by the litigant driven theory. Simple chronological data does not permit a test of the Hansford and Spriggs path of precedent theory.

The next graph, Figure 2, displays the rate of substantial positive citations. Again, Supreme Court substantial positive citations are multiplied by ten.

For substantial positive citations, the circuit court and district court rates show steady depreciation over the ten-year period, at a faster rate for the circuit court than for overall citations. This is as expected; the lower courts must initially analyze the meaning of a citation, which then helps set the standard for future opinions within the jurisdiction in question. At the Supreme Court, though, this effect was less pronounced (such citations saw a distinct increase in years seven and ten). The Supreme Court's much smaller docket presumably makes case type chosen on *certiorari* a significant determinant of citation rates. Even with substantial positive citations, there is no evidence of great depreciation of opinion significance for the Supreme Court over this time period.

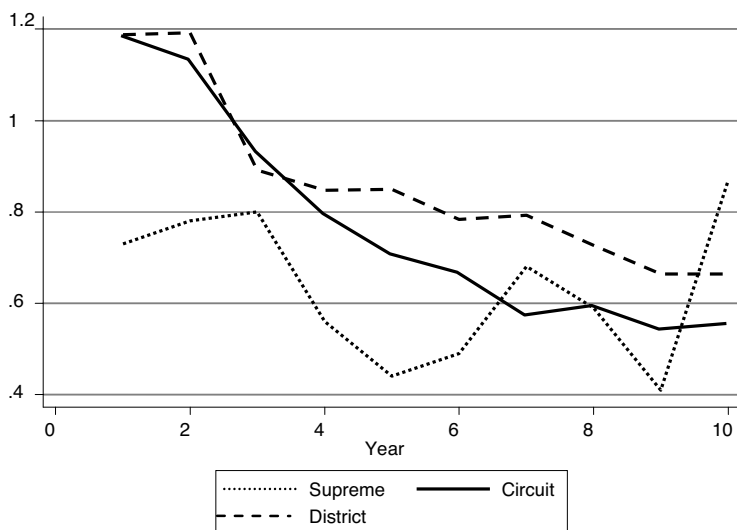


Figure 2. Substantial Positive Citations Over Time

C. Negative Citations

While opinion citations are generally viewed as a testament to the power of *stare decisis*, some citations are considered negative. Some opinions must explain away an apparently contrary precedent. The Westlaw Keycite system identifies such negative citations as those that distinguish a prior holding, decline to extend such a holding, expressly recognize a limitation of that holding, reject aspects of the earlier opinion as mere *dicta*, or even overrule the prior decision.

Although prior research has occasionally used studies of such negative citations, they are not necessarily “negative” or contrary to *stare decisis*. When an opinion distinguishes a prior holding, that may be objectively correct—perhaps the prior opinion could not logically be extended to the present case. Likewise, some opinion language may in fact be *dicta*, so recognizing that fact is perfectly appropriate. Considering such treatments to be negative is nevertheless a reasonable approach. The cases that reach court are those that are not perfectly clear on the law, otherwise the action would be settled.²⁶ Hence, the negative treatment is at least somewhat discretionary for the applying judge. Moreover, for purposes of empirical analysis, the “correct” negative treatment should represent only randomly distributed noise that would be more likely to obscure the strength of true associations. Figure 3 displays the rates of negative citations, with the same normalization as in the prior graphs.

The chronological negative citation rate data is more interesting. Circuit court negative citations are fairly constant over time, and district court negative citations increase only slightly, after the fourth year. At the Supreme Court, however, negative citations are low for seven years and then jump dramatically for the final three years of the period. This is a different form of depreciation at the Supreme Court level, as opinions receive more negative treatment after seven years, though this tendency does not appear in lower courts.

D. Association of Positive and Negative Citations

One might believe that particularly strong opinions would receive many positive citations and few negative citations. However, the converse is also quite possible. Some opinions may be written in areas that produce a greater number of future decisions, which in turn leads to more future citations, both positive and negative. To evaluate this effect, I produce a correlation matrix of the associations between the treatments of precedent at the different court levels, dis-

²⁶ Priest and Klein, 13 J Legal Stud 1 (cited in note 22).

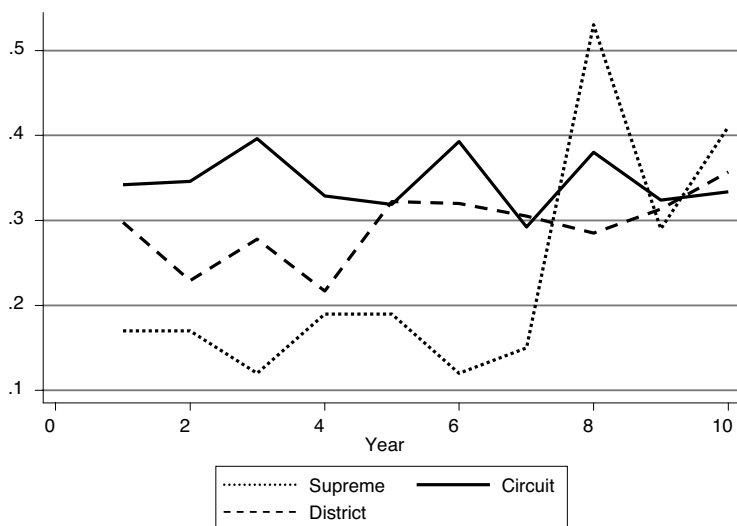


Figure 3. Negative Citations Over Time

played below (Table 2.). The categories are total citations (cite), significant positive citations (poscite) and negative citations (negcite).

The matrix shows a high level of intercorrelation for citations to Supreme Court opinions. The data are for Supreme Court opinions only, so the first three columns might be considered the most salient. All of the associations are positive, and nearly all the associations are significant ones, which suggests that the importance of the opinion area is an important determinant of citations independent of the Court's treatment. It appears that negative citations do not severely undermine the authority of a precedent, as cases with more negative citations also receive more positive citations.

The exception is the insignificant association of total district and circuit court citations in cases receiving negative treatment from the Supreme Court. This is consistent with the path of precedent theory, as one would expect negative Supreme Court treatment to devalue a precedent somewhat and cause it to receive fewer lower court citations. This provides some confirmation of the Hansford and Spriggs finding that a negative treatment at the Supreme Court level devalues an opinion. The lack of association with significant positive citations may be a feature of the timing of their application at lower court levels. The citation rates show considerable variation, beyond that explained by subsequent treatment, and I embark on an investigation of the determinants of greater numbers of the different categories of citation.

Table 2. Correlation Matrix of Citation Rates

	SC cite	SC poscite	SC negcite	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
SC cite	1.00								
SC poscite	0.54	1.00							
SC negcite	0.50	0.57	1.00						
Circuit cite	0.12	0.21	0.05	1.00					
Circuit poscite	0.17	0.38	0.12	0.70	1.00				
Circuit negcite	0.16	0.29	0.20	0.41	0.67	1.00			
District cite	0.11	0.17	0.06	0.71	0.32	0.32	1.00		
District poscite	0.12	0.31	0.09	0.62	0.78	0.41	0.74	1.00	
District negcite	0.12	0.23	0.15	0.31	0.49	0.51	0.47	0.65	1.00

NOTE: This table displays the correlation between the different frequencies of different types of citations per Supreme Court opinion. Boldface indicates that the association was significant at the 0.10 level.

III. DESCRIPTIVE DETERMINANTS OF CITATION RATES

The descriptive statistics provided above demonstrate that Supreme Court cases have widely varying rates of citation. Various factors may explain this wide variation. Choi and Gulati have examined citation rates at the circuit court level and found that they varied systematically by the judge authoring the opinion and by that judge's ideological preferences.²⁷ One can imagine many other factors that could influence citation numbers. Some types of cases simply arise more frequently at the lower court level, so opinions in those case types will tend to produce more future citations, as suggested by the

²⁷ See Choi and Gulati, 78 S Cal L Rev 23 (cited in note 1) (reporting differential citation rates by circuit judges) and Stephen J. Choi and Mitu Gulati, *Ranking Judges According to Citation Bias*, 82 Notre Dame L Rev 1279 (2007) (examining ideological influence on circuit court citation rates).

data in the initial two tables of the article. The ideological direction of the result might also influence citation rates. The size of the Court majority might also have an influence on a decision's future citations. This section examines some of these determinants.

A. Opinion Author

The first analysis considers the relative citation rates by the author of the cited Supreme Court opinion. Some of the justices only served for part of the era studied, and their citation rates therefore need be taken *cum grano salis*. In addition, the numbers are affected by the opinion assignment process; the Chief or senior minority member may tend to assign especially important opinions to particular justices. The number of opinions authored for the period are Justices Ginsburg (8 opinions), Thomas (17 opinions), Brennan (20 opinions), Souter (20 opinions), Marshall (21 opinions), Kennedy (38 opinions), Blackmun (39 opinions), White (40 opinions), Scalia (42 opinions), Stevens (44 opinions), Rehnquist (45 opinions), and O'Connor (51 opinions). Mean citation rates at the Supreme Court are displayed in Table 3.

These relative citation rates might be distorted by the ideological composition of the Court. During this period, the Court was relatively conservative, so one might expect an upward bias for citations to conservative opinions. This effect does not appear to be a profound

Table 3. Opinion Author and Mean Supreme Court Citations

	SC cite	SC poscite	SC negcite
Blackmun	6.12	0.67	0.26
Brennan	6.80	0.80	0.40
White	7.40	1.03	0.18
Ginsburg	5.50	0.13	0.13
Kennedy	7.74	0.21	0.21
Marshall	6.76	0.43	0.10
O'Connor	7.12	0.78	0.08
Rehnquist	7.36	1.07	0.42
Scalia	8.12	0.62	0.19
Souter	5.00	0.25	0.20
Stevens	8.82	0.98	0.55
Thomas	7.06	0.59	0.12

NOTE: This table displays the mean Supreme Court citations, significant positive citations, and negative citations by the justice who authored the majority opinion cited.

SOURCE: U.S. Supreme Court Database

Table 4. Opinion Author and Mean Lower Court Citations

	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
Blackmun	99.10	9.21	4.50	169.85	11.61	4.76
Brennan	100.60	9.70	6.70	99.05	7.75	4.15
White	88.70	7.80	3.58	101.38	8.28	2.35
Ginsburg	103.00	6.13	5.63	58.88	1.75	1.00
Kennedy	80.42	7.08	2.48	114.50	7.95	2.34
Marshall	100.14	8.24	5.55	111.38	9.00	1.95
O'Connor	143.84	8.47	3.49	168.12	9.02	2.46
Rehnquist	100.87	6.60	2.69	107.02	6.98	2.78
Scalia	213.24	12.45	5.02	258.93	18.43	6.33
Souter	169.10	11.90	3.20	250.55	18.75	3.40
Stevens	88.39	8.07	3.07	112.34	10.57	2.64
Thomas	116.89	9.06	5.12	166.65	10.30	4.82

NOTE: This table displays the mean lower court citations, significant positive citations, and negative citations by the justice who authored the majority opinion cited.

SOURCE: U.S. Supreme Court Database

one, though, as Justice Stevens showed high citation rates overall and for significant positive citations.

The next analysis, Table 4, considers citation rates at the lower court level by opinion author. To avoid the distorting effect of inmate litigation, I excluded two categories of cases: those involving cruel and unusual punishment and tort actions for liability, which reflected prisoner actions that receive high citations due simply to the very large number of cases filed by litigants in these case types.²⁸

Perhaps the most striking result is the extremely high rate of citations to Justice Scalia's opinions, with lower court citations and substantial positive citations at over twice the rate of the average of other justices. His opinions also have relatively high negative citation rates. It appears that the relatively maximalist nature of Justice Scalia's writing translates into considerable precedential influence for lower courts.

Other interesting features of these results are Justice Souter's very high citation rate in lower courts but relatively low rate in Supreme Court opinions, contrasted with Justice White's and Stevens' high rate of citations at the Supreme Court and very low rate in lower courts. Although there is an overall correlation between citations at

²⁸ These exclusions were based on the case type categories of the Supreme Court database in which these decisions were found (characterized as issue types 41 and 391).

Table 5. Opinion Direction and Lower Court Citations

	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
Conservative	136.51	9.49	3.34	165.21	12.21	3.47
Liberal	89.86	7.10	4.20	115.65	7.49	2.89

NOTE: This table displays the mean Supreme Court citations, significant positive citations, and negative citations by the ideological direction of the opinion cited.
SOURCE: U.S. Supreme Court Database

different court levels, it appears that this does not extend to all opinion authors. Some opinions are much more useful to future Supreme Court opinions, while others are relatively more valuable as citations for lower courts.

B. Ideology

The next analysis, Table 5, considers whether the ideological direction of the Supreme Court opinion influences the number and nature of subsequent citations. One might expect particularly dramatic or activist decisions to receive more citations, as with a case such as *Roe v Wade*. While liberal decisions are often regarded as the activist ones, some have argued that conservatives in this Rehnquist Court era were the true activists.²⁹ The ideological direction of the outcome might also be relevant in light of lower court ideological preferences. Once again, the inmate litigation categories were excluded, and mean citation rates for conservative and liberal decisions are reported in the following table. The coding for ideological direction was drawn from the U.S. Supreme Court database.

Conservative opinions appear to receive distinctly more lower court citations than liberal ones. The circuit court citation rate means are especially striking in that conservative Supreme Court opinions receive about fifty percent more overall citations, twenty-five percent more significant positive citations and yet twenty per-

²⁹ See, for example, Orin S. Kerr, *Upholding the Law*, Legal Affairs at 31 (Mar/Apr 2003) (observing that “[a]ccusations that conservatives on the Rehnquist Court are the real judicial activists have become commonplace”); Erwin Chemerinsky, *Perspective on Justice*, LA Times at B11 (May 18, 2000) (contending that the Court has engaged in “aggressive conservative judicial activism”); Jack M. Balkin and Sanford Levinson, *Understanding the Constitutional Revolution*, 87 Va L Rev 1045, 1092 (2001) (arguing that we are undergoing a revolutionary period of conservative judicial activism); Larry D. Kramer, *Popular Constitutionalism, Circa 2004*, 92 Cal L Rev 959, 960 (2004) (referring to the “unparalleled activism” of the Rehnquist Court).

cent *fewer* negative citations at the circuit court level. For district courts, the conservative opinions receive more citations of all types. This difference was not driven entirely by the Scalia effect identified above. For all the justices except Blackmun, Marshall, and Thomas, opinions accompanying conservative decisions received more lower court citations than did liberal ones.

The implications of the association of conservative votes and more citations are not entirely clear. In some cases, conservative opinions of the era may be deemed more activist, but the association of more citations for conservative opinions occurred even for the opinions authored by justices such as Brennan, Stevens, Souter, and Ginsburg, who are not likely the authors of whatever conservative opinions are deemed activist.

The association with ideology may reflect selective citations by lower courts, and in fact, the circuit courts for most of this period were relatively conservative.³⁰ The more positive citation rates for conservative opinions may have been a product of a more conservative lower court judiciary. Because I do not have data for the composition of the lower court panels citing the Supreme Court opinion, though, this is indeterminate. Hansford and Spriggs directly examined a smaller set of cases and found no significant association between the ideology of the lower court and the ideological direction of a Supreme Court opinion in citation rates.³¹

C. Vote Margin

Citation rates may be affected by the size of the Supreme Court's deciding majority. There is a conventional wisdom that opinions from larger majorities carry greater power.³² A "traditional view" is that "an opinion's precedential authority is directly proportional to the number of Justices that join it."³³ Some empirical work supports this theory. One study found that the size of the Court majority increased the reliance of circuit and district courts on its reasoning.³⁴ Circuit

³⁰ See Lee Epstein, et al., *The Judicial Common Space*, 23 J Law Econ & Org 303 (2007) (displaying ideological positions of circuit court medians over different years).

³¹ Hansford and Spriggs, *The Politics of Precedent on the U.S. Supreme Court* at 118 (cited in note 17).

³² See Frank B. Cross, *The Justices of Strategy*, 48 Duke L J 511, 544-45 (1998) (noting that the Court sought unanimity in *Brown* and *Nixon* to gain greater assurance of compliance with its ruling).

³³ Mark Alan Thurmon, *When the Court Divides: Reconsidering the Precedential Value of Supreme Court Plurality Decisions*, 42 Duke L J 419, 449 (1992).

³⁴ Charles A. Johnson, *Law, Politics, and Judicial Decision Making: Lower Federal Court Uses of Supreme Court Decisions*, 21 Law & Soc'y Rev 325, 332 (1987).

courts responded more rapidly overrulings of precedent that were unanimous.³⁵ The Court's majority appears to have an effect upon lower court compliance on remand.³⁶ This effect could explain the desire of the justices to achieve larger majorities for their opinions.

There is a directly countervailing theory on the significance of voting margin, however. This theory suggests that the Supreme Court is most likely to divide on the most controversial and salient opinions. On cases of comparatively little importance, either legally or politically, the justices may be less likely to make the effort to dissent and adhere to a consensual norm. Because they are less important, these cases are also less likely to receive citations, which would suggest that larger majorities might receive fewer citations of all types. This finds some confirmation from data showing that unanimous opinions are associated with less significance in the network of legal citations.³⁷

The role of larger Court majorities on the precedential power of opinions has seen relatively little study. Hansford and Spriggs found that the voting margin has no significant association with future lower court citations, positive or negative.³⁸ I examine the association of different voting margins, from minimum winning coalitions to unanimity on all the types of citation rates in the data for the most frequent Supreme Court vote combinations, excluding the inmate litigation (Table 6.).

Contrary to the many theoretical hypotheses and claims about the significance of vote margin, the size of the Court's majority appears to have little effect on citations. At the Supreme Court level, closer decisions tend to receive more future citations but this effect does not appear in lower courts. The lower courts appear less likely to treat a unanimous Supreme Court opinion negatively, but otherwise the vote margin matters little for any of the citation measures. An authentic effect of voting margin on citations may be obscured by other factors, though, such as the type of case heard by the Court.

³⁵ Sara Benesh and Malia Reddick, *Overruled: An Event History Analysis of Lower Court Reaction to Supreme Court Alteration of Precedent*, 64 J Pol 534, 545 (2002).

³⁶ Richard L. Pacelle and Lawrence Baum, *Supreme Court Authority in the Judiciary: A Study of Remands*, 29 Am Pol Q 169 (1992).

³⁷ See Frank B. Cross, et al, *Determinants of Cohesion in the Supreme Court's Network of Precedents* (presented at November 2007 Conference on Empirical Legal Studies).

³⁸ Hansford and Spriggs, *The Politics Of Precedent On The U.S. Supreme Court* at 118 (cited in note 17).

Table 6. Voting Margin and Mean Citations

	SC cite	SC poscite	SC negcite	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
5-4	9.08	1.14	0.33	109.49	10.13	5.43	131.49	10.03	3.54
6-3	7.24	0.76	0.17	127.42	8.47	4.05	130.37	9.29	3.67
7-2	8.32	0.58	0.25	109.64	7.01	3.66	149.73	8.53	3.47
8-1	6.44	0.67	0.11	125.74	9.00	4.00	139.74	11.67	3.41
9-0	6.18	0.54	0.26	117.01	7.91	2.97	149.38	9.88	2.68

NOTE: This table displays the mean Supreme Court citations, significant positive citations, and negative citations by the voting margin in the opinion cited.

SOURCE: U.S. Supreme Court Database

D. Case Type

The findings on the thousands of citations gleaned by opinions involving inmate litigation illustrate the potential significance of case type on citation rates. The categorization of case type is obviously a difficult one. The Supreme Court database provides for a breakdown of case types in its “value” variable, which I use for this analysis.³⁹ This variable categorizes cases into thirteen major groups, for which I calculate mean citations at the different court levels. The subcategories specific to inmate litigation are again excluded as were the broad categories for interstate relations and miscellaneous (which had only one and two cases in the period, respectively).

Plainly, the type of case has a significant effect on the citations received by a Supreme Court opinion (Table 7.). The most citations in lower courts involve civil rights, attorneys, and judicial power categories, while the Supreme Court citations are primarily First Amendment cases, followed by other constitutional areas of due process and privacy. This is presumably due to case selection effects, as the Court takes a relatively higher portion of these issues on *certiorari*. It is noteworthy that significant positive citations and negative citations at the lower court level more closely resemble the constitutional case types with most absolute citations at the Supreme Court level, indicating that lower court judges may also have an affinity for these case types and expound more on them, when they arise.

At this point in the analysis, it appears that various factors influ-

³⁹ The labels for the case types are not entirely transparent. The cases labeled “attorneys” deal primarily with attorneys’ fee issues. The cases labeled “judicial power” typically involve procedural issues, including jurisdiction and standing to sue. A detailed breakdown of the categories for each variable can be found in the codebook.

Table 7. Case Type and Mean Citations

	SC cite	SC poscite	SC negcite	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
Criminal procedure	7.65	0.81	0.21	142.10	0.82	4.87	108.62	6.75	1.91
Civil Rights	8.69	0.79	0.21	167.77	0.79	3.30	244.79	14.92	3.08
First Amendment	12.58	1.32	0.97	74.65	1.32	4.65	96.00	9.35	4.71
Due Process	8.71	1.21	0.50	125.29	1.21	4.50	107.57	10.00	2.29
Privacy	8.75	1.88	0.00	60.38	1.88	3.13	86.88	9.13	2.50
Attorneys	5.5	0.50	0.10	168.40	0.50	5.20	234.40	14.30	4.10
Unions	4.00	0.29	0.14	49.00	0.29	1.00	44.29	3.14	0.33
Economic Activity	5.38	0.36	0.12	59.88	0.36	2.25	120.78	11.51	4.48
Judicial Power	5.98	0.45	0.18	135.67	0.45	3.78	189.47	8.41	3.41
Federalism	8.19	0.50	0.19	89.31	0.50	4.24	178.96	16.38	4.24
Federal Taxation	2.17	0.08	0.08	80.67	0.08	1.83	65.08	3.58	2.00

NOTE: This table displays the mean Supreme Court citations, significant positive citations, and negative citations by the case type of the majority opinion cited.

SOURCE: U.S. Supreme Court Database

ence citation rates at the different court levels. Opinion author, case type, and ideological direction all appear to be significant factors. Because these factors interact, though, any conclusions must be preliminary. For example, the higher citation rates associated with opinions authored by Justice Scalia might be an artifact of the types of cases on which he wrote.⁴⁰ To address this question, I employ an analysis incorporating all the variables.

IV. STATISTICAL ANALYSIS OF CITATION RATES

This section provides a statistical analysis of citation rates for the period, using the above factors in a multiple regression. I begin with

⁴⁰ This would itself be a potentially significant finding. Because Chief Justice Rehnquist assigned the opinions in which he joined the majority, it would suggest that he channeled precedentially important opinions to Justice Scalia to write.

a base model that uses as independent variables the direction of the decision, the vote in the Supreme Court case, and the type of case being considered (Table 8.). Case type is a dummy variable, and the privacy case category was dropped (and is included in the constant). Hence, the case type coefficients are essentially a comparison with privacy decisions. The association for vote is simply the size of the majority (a negative sign is associated with a closer vote in the case) and direction is a dummy variable for liberal (a negative sign is associated with an association with conservative decisions).

At the Supreme Court level, the least important decisions appear to involve federal taxation, which has fewer total and significant positive citations, at a statistically significant level. The statistically

Table 8. Mean Citations by Case Type, Vote, and Direction

	SC cite	SC poscite	SC negcite	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
Vote	-0.04	-0.01	0.00	0.54	-2.07	-0.05	0.70	0.03	-0.02
Direction	-0.37	-0.07	0.02	-43.80	-.01	1.29	-55.38	-5.33	-0.76
Criminal procedure	-1.08	-1.06	0.02	71.09	1.26	2.12	8.25	-3.61	-0.70
Civil Rights	0.06	-1.06	0.20	97.78	1.23	0.59	145.67	4.77	0.56
First Amendment	3.80	-0.56	0.97	9.34	0.21	1.68	2.88	-0.36	2.13
Due Process	0.17	-0.62	0.50	49.46	0.87	2.06	1.01	-0.77	-0.22
Attorneys	-2.99	-1.33	0.10	108.47	4.01	2.24	147.97	5.41	1.81
Unions	-4.80	-1.60	0.15	-27.19	-3.76	-1.53	-62.63	-7.85	-2.56
Economic Activity	-3.09	-1.46	0.11	-7.91	-3.67	-0.43	24.37	1.71	2.13
Judicial Power	-2.30	-1.34	0.17	63.11	-1.27	1.40	86.94	-1.80	1.15
Federalism	-0.10	-1.30	0.19	19.26	0.01	1.76	79.62	6.45	2.02
Federal Taxation	-5.84	-1.67	0.07	21.41	-2.25	-0.84	-20.69	-4.90	0.08
Constant	11.97	2.42	-0.05	51.53	10.47	5.60	74.24	10.33	4.92

NOTE: This table displays the results of an OLS regression, with robust standard errors, of variables of voting margin, ideological direction of outcome, and case type on total citations, significant positive citations, and negative citations, separated at the Supreme Court, circuit court, and district court levels. Boldface indicates statistical significance at the 0.10 level.

SOURCE: U.S. Supreme Court Database

significant effects for significant positive and negative associations by case type must be read in light of the fact that the constant represents privacy decisions. Thus, the consistently negative coefficients for significant positive citations are in comparison to such citations in privacy opinions. Voting margin shows no effect, but conservative decisions appear to be more powerful, with statistical significance for significant positive citations.

The most striking findings are the much greater significance of conservative opinions at the lower court level. The association of conservative outcomes and circuit court and district court citations is very large and statistically significant. There are also substantially and statistically significant associations of conservative opinions with more significant positive citations at the district court level and fewer negative citations at the circuit court level.

This association could be attributable to several explanations. Perhaps the lower courts were very conservative during the time period and were therefore inclined to cite conservative Supreme Court opinions. Although the Supreme Court during this era was considered conservative, even radically conservative, the citation study suggest that it may have been relatively moderate when contrasted with the lower courts. Alternatively, the lower courts may have been responding to a conservative Supreme Court during the era, citing more conservative opinions in order to insulate their decisions from potential later reversal by that Court.⁴¹ Another possibility is that perhaps something about the nature of the conservative opinions themselves led to more lower court citations.

The possible independent effect of the Court's opinions should appear in a study of the author of the opinion. Conceivably, the positive association with conservative outcome opinions is an artifact and actually has to do with the opinion authors of those decisions, rather than the ideological direction of the decision. The failure to control for the author variable might obscure correct associations for other variables as well. Given the apparent pronounced effect of Scalia opinions, I introduce his authored opinions as a dummy variable to the analysis set out in Table 7 (Table 9.).

⁴¹ There is strong evidence that lower courts have not adapted their decision outcomes to Supreme Court preferences. See Frank B. Cross, *Appellate Court Adherence to Precedent*, 2 J Empirical Leg Stud 31 (2005) (finding that the direction of circuit court outcomes had a statistically significant negative correlation with contemporary Supreme Court ideological preferences and questioning the plausibility of the fear of reversal as a determinant of those opinions). However, it is plausible that lower court judges would use selective citations to insulate their decisions from reversal, for example, by supporting a liberal outcome with citations to conservative opinions that had been issued by the Court.

Table 9. Mean Citations by Case Type, Vote, Direction, and Scalia Opinion

	SC cite	SC poscite	SC negcite	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
Scalia	1.15	-0.36	-0.04	111.09	4.72	1.80	113.42	8.19	3.27
Vote	-0.04	-0.01	0.00	0.68	-0.04	-0.05	0.84	0.04	-0.02
Direction	-0.30	-0.07	0.02	-37.01	-1.79	1.40	-48.45	-4.83	-0.56
Criminal procedure	-1.13	-1.06	0.21	67.53	1.11	2.06	4.62	-3.87	-0.80
Civil Rights	-0.07	-1.06	0.21	45.45	0.67	0.37	132.03	3.78	0.16
First Amendment	3.74	-0.56	0.98	2.87	-0.06	1.57	-3.73	-0.84	1.94
Due Process	-0.06	-0.62	0.51	26.50	-0.11	1.69	-22.43	-2.46	-0.89
Attorneys	-3.34	-1.32	0.11	71.77	2.54	1.68	112.67	2.86	0.79
Unions	-5.10	-1.59	0.16	-56.89	-5.02	-2.11	-92.94	-10.04	-3.56
Economic Activity	-3.23	-1.46	0.12	-21.39	-4.24	-0.66	10.61	0.72	1.72
Judicial Power	-2.49	-1.34	0.18	44.96	-2.04	1.11	68.41	-3.14	0.61
Federalism	-0.25	-1.30	0.19	5.49	-0.58	1.53	65.57	5.44	1.60
Federal Taxation	-5.88	-1.67	0.07	17.91	-2.40	-0.89	-24.27	-5.16	-0.01
Constant	11.83	2.42	-0.05	37.82	9.89	5.37	60.25	9.32	4.52

NOTE: This table displays the results of an OLS regression, with robust standard errors, of variables of voting margin, ideological direction of outcome, and case type on total citations, significant positive citations, and negative citations, separated at the Supreme Court, circuit court, and district court levels. Boldface indicates statistical significance at the 0.10 level.

SOURCE: U.S. Supreme Court Database

Scalia opinions appear to be markedly more significant for lower court citations. The typical Scalia opinion gets over one hundred more citations than average at both the circuit and district court levels. Although not always statistically significant, the justice's opinions also receive more substantial positive and negative citations. Scalia opinions are apparently written in a fashion that projects greater precedential significance. The lower court preference for conservative opinions is not limited to the Scalia effect, though, and largely survives the introduction of the dummy variable for Justice Scalia as opinion author.

The next analysis considers the opinions of all the members of the

Table 10. Mean Citations by Opinion Author with Control Variables

	Circuit cite	Circuit poscite	Circuit negcite	District cite	District poscite	District negcite
Blackmun	-7.54	2.09	1.44	44.30	3.04	2.10
Brennan	10.44	2.17	2.36	-18.21	-0.42	0.86
White	-41.70	-1.55	-0.88	-51.84	-2.19	-0.74
Ginsburg	-12.00	-2.74	0.80	-72.39	-6.76	-1.97
Kennedy	-37.63	-1.51	-1.45	-31.80	-2.83	-1.33
Marshall	7.05	1.41	2.09	-6.18	1.09	-1.14
O'Connor	33.74	-0.05	-0.35	32.71	-1.44	-0.76
Rehnquist	-23.26	-3.67	-1.69	-39.51	-3.22	-0.28
Scalia	111.09	4.72	1.80	113.42	8.19	3.27
Souter	63.85	4.70	-0.26	119.56	10.56	0.33
Stevens	-14.06	0.53	-0.33	-39.17	-0.61	-1.00
Thomas	7.15	1.11	2.26	33.14	-0.11	1.96

NOTE: This table displays the results of an OLS regression, with robust standard errors, on individual regressions for each opinion author, with unreported control variables of voting margin, ideological direction of outcome, and case type on total citations, significant positive citations, and negative citations, separated at the Supreme Court, circuit court, and district court levels. Boldface indicates statistical significance at the 0.10 level.

SOURCE: U.S. Supreme Court Database

Court during the time period. To execute this, I ran separate regressions, using each of the justice's authored opinions as a dummy variable with the control variables as in Table 9 (Table 10.). None of the justices had significant results at the Supreme Court level, so the following table reports the associations for lower court citations. For space reasons, I do not report the effect of the control variables, which retained their significant associations as reported in Table 8, for each of the individual justice regressions.

The positive effect for Justice Scalia is pronounced, as he is the only justice with more citations at a statistically significant rate. The coefficients for Justice Souter are also quite high, especially at the district court level. His results did not reach statistical significance because a high robust standard error, which indicates that some of his opinions had very high citation rates, while Justice Scalia's opinions had consistently high rates.

These results provide some empirical support for Sunstein's taxonomy. The foundationalist Scalia was consistently high, and Justice Thomas had high, though not statistically significant, negative citation rates. By contrast, the expected judicial minimalists, of more moderate ideological orientation, tended to have lower citation rates. Justice Kennedy's statistically significant lower negative citation

rates are testimony to his minimalism, as his opinions apparently do not demand much distinguishing at the lower court level. Justice White's results for overall citation rates suggest his minimalism. Although Sunstein did not suggest this, his historic record could be considered a minimalist one.⁴² Justice O'Connor did not reveal this effect, though, and perhaps her opinions were not as minimalist as projected. The negative district court results for the opinions of Justice Ginsburg are suggestive but should not be given too much weight due to the small number of her opinions in the sample and perhaps the fact that they were her very first opinions as a Supreme Court justice.

The results for Chief Justice Rehnquist are perhaps surprising. Although he has been considered more of a "maximalist," his citation rates in lower courts appear minimalist. An analysis of his opinions, though, finds some minimalist tendencies.⁴³ The time period studied involved only his tenure as Chief Justice. There is evidence that his decisionmaking changed upon ascending to the position of Chief, as he became more concerned with institutional considerations.⁴⁴ Perhaps his position drove him to issue more minimalist opinions during this era.

The findings on the significance of opinion authors for precedential significance are profound. The association with the opinions of Justice Scalia is not only statistically significant but also substantially enormous, as each of his opinions yields an average of more than one hundred additional citations at the circuit court and district court levels. This is very plausibly associated with his identification as a maximalist, especially when considering the citation effects of other justices regarded as more minimalist.

The maximalist/minimalist conclusion must remain uncertain, though. The substantial effect for Justice Souter's opinions, though not reaching levels of statistical significance, is also an intriguing one, as he is not regarded as an especially maximalist decider. Justices Thomas and Stevens, commonly regarded as more maximalist, do not show distinctly higher citation rates. Perhaps some unidentified feature of opinion writing is creating this effect. The finding calls

⁴² See Michael Herz, *Nearest to Legitimacy: Justice White and Strict Rational Basis Scrutiny*, 74 U Colo L Rev 1329 (2003) (declaring that his "minimalist" approach to *Griswold* deferred to the democratic branches of government). Professor Herz examines Justice White's other opinions as well and finds the same feature. See also Sheldon Gelman, *The Hedgehog, the Fox, and the Minimalist*, 89 Georgetown L J 2297, 2303 n 38 (2001) (describing Justice White as minimalist in orientation).

⁴³ Gelman, 89 Georgetown L J at 2338 (cited in note 42).

⁴⁴ See Frank B. Cross and Stefanie Lindquist, *The Decisional Significance of the Chief Justice*, 154 U Pa L Rev 1665, 1689-93 (2006).

for further qualitative analysis of opinion features in order to develop hypotheses for future empirical testing.

One final caveat must be recognized—these findings are all at the margin. There is a tremendous amount of random variation, or “noise,” in the citation comparisons. Some unmeasured feature (probably a refinement of case type) explains most of the variation. The R^2 terms for the regressions are consistently below 0.10. The boldface designations of statistical significance are at the relaxed ten percent level. Hence, the reader should not conclude that a Scalia opinion inevitably produces a high number of citations. However, the coefficients show that the mean Scalia opinion may result in over a hundred additional citations over the ten-year period, which is clearly an important discovery.

V. CONCLUSION

The study of citation rates is still in a nascent state, but this article sheds light on the precedential power of Supreme Court opinions. Although research to date has focused on Supreme Court treatment of opinions, the effect in lower courts is significant, distinct from Supreme Court treatment, and requires further study. In this context, it is possible to identify the features that make a decision a very significant one.

Independent of the effect of the path of precedent, there are salient determinants of the citations received by Supreme Court decisions by lower courts. Several case types are significant, which presumably reflects the docket characteristics of the lower courts. The significant positive associations with conservative opinions are an intriguing finding, with uncertain explanation as explained above. Additional study, including of different time periods, would be necessary to fully understand this result.

Perhaps the most significant new finding is the dramatic associations of certain opinion authors with subsequent lower court citations to their opinions. The most dramatic findings involved the opinions of Justice Scalia, which were uniquely powerful. Some characteristic of his opinions yielded this power (both positive and negative), which is plausibly associated with his identification as a “maximalist” opinion writer. This finds some confirmation in the relatively low citations for the justices deemed more minimalist