# An Examination of Strategic Anticipation of Appellate Court Preferences by Federal District Court Judges

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## INTRODUCTION

Federal district courts' "inferior position in the hierarchical chain of national authority subjects them to more strict Supreme Court surveillance."[1] To any scholar of basic political institutions in the United States, this statement recites what is likely common belief. After all, the federal judiciary is designed as a hierarchy. At the top of this judicial hierarchy sits the United States Supreme Court, a body responsible for handling, among other things, disputes of national importance and those leading to conflict among lower courts. Immediately below the Supreme Court are the circuit courts of appeals, the twelve intermediate appellate federal courts[2] that handle the initial round of appeals in all federal cases. And, nearly always, the bottom tier of the federal judicial hierarchy belongs to the federal district courts, the trial courts for federal litigants.[3]

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1. Walter F. Murphy, *Lower Court Checks on Supreme Court Power*, 53 AM. POL. SCI. REV. 1017, 1022 (1959).

2. The federal judiciary also includes a number of specialized courts including, for example, the Court of International Trade, the U.S. Court of Federal Claims, and the U.S. Court of Appeals for the Federal Circuit. Federal courts outside the judicial branch include the U.S. Tax Court, the U.S. Courts of Appeals for the Armed Services, the U.S. Court of Appeals for Veterans Claims, and administrative agency adjudicatory bodies.

3. 28 U.S.C. § 1345 (2000), *amended by* 28 U.S.C. § 1345 (Supp. V 2005). The notable exception is federal bankruptcy courts, where appeals go to the federal district courts. 28 U.S.C.

In this Article, we tackle the complicated relationships within the federal judicial hierarchy with a focus on the relatively understudied connection between the Supreme Court and district courts. In Part I, we discuss why we should study the hierarchical relationship of district courts to their appellate court superiors, focusing on the system's necessity, control provisions, and importance to numerous actors. In Part II, we explore the significance of federal district courts, the institution of focus in our study. In this section, we detail these trial courts' cumulative decision-making, their policy implementation, and the salient decisions that come before them. Then, in Part III, we turn to a review of the major literature in this area, with work falling in two broad categories: compliance and rational anticipation. Part IV focuses on the role of Supreme Court precedent in district court decision-making. In Part V, we explicate the spatial theory that drives our hypotheses. Our hypotheses explain whether and when district courts rationally anticipate their appellate court superior's preferences when citing and interpreting Supreme Court precedent. Part VI discusses the research design and data we use to test our hypotheses, and Part VII presents the statistical results. We conclude with a discussion of the implications of this study and directions for future research.

## I. WHY STUDY THE FEDERAL JUDICIAL HIERARCHY?

The federal court system's hierarchical design is in many ways a necessity, for it allows each case to be reviewed without overextending judicial resources. At the same time, the hierarchical structure of the federal judiciary presumably allows the higher appellate courts to maintain control over the legal outcomes of the lower courts. The relationship of the courts in the hierarchy to one another, and how this relationship affects cases, is something that

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§ 158(a) (2000). For more details on bankruptcy appeals, see, e.g., Judith A. McKenna & Elizabeth C. Wiggins, *Alternative Structures for Bankruptcy Appeals*, 76 AM. BANKR. L.J. 625 (2002). Additionally, administrative agency appeals sometimes (as provided-rarely-in statute) go to district courts. *See, e.g.*, David P. Currie & Frank I. Goodman, *Judicial Review of Federal Administrative Action: Quest for the Optimum Forum*, 75 COLUM. L. REV. 1 (1975); Jonathan A. Schorr, Note, *The Forum for Judicial Review of Administrative Action: Interpreting Special Review Statutes*, 63 B.U. L. REV. 765 (1983).

matters significantly to at least three groups: (1) scholars, (2) litigants and their lawyers, and (3) judges.

### *A. The Federal Judicial Hierarchical Structure Is a Necessity*

The federal judiciary's design enables its courts to handle the vast amount of litigation that is filed. At the same time, courts exist to give litigants a fair shot at achieving justice. As one anonymous judge put it, "we have a responsibility for reaching a *correct* and *just* result."[4] Because these two goals of efficient workload management and justice provisions for litigants may differ from each other, the hierarchical nature of the federal court system attempts to provide a good balance. Much of this is due to the institutions within the federal court system, the distinct roles that they assume, and the interactions that they have with one another.

To begin, a body is needed to handle the entry level of litigation, a role designated to trial courts. These courts, known as district courts in the federal system, hold jurisdiction based on their geography, with each state having at least one court.[5] Because litigants have any number of reasons for filing lawsuits, the sheer number of cases that come before the courts is bound to be large. Figure 1 plots the number of district court cases terminated from 1983 to 2006, a number that is as low as slightly more than 250,000 in 1983 to more than 350,000 in 2006. The organization required to handle all of these cases is immense, leading district courts to rely on technological advances for assistance.[6]

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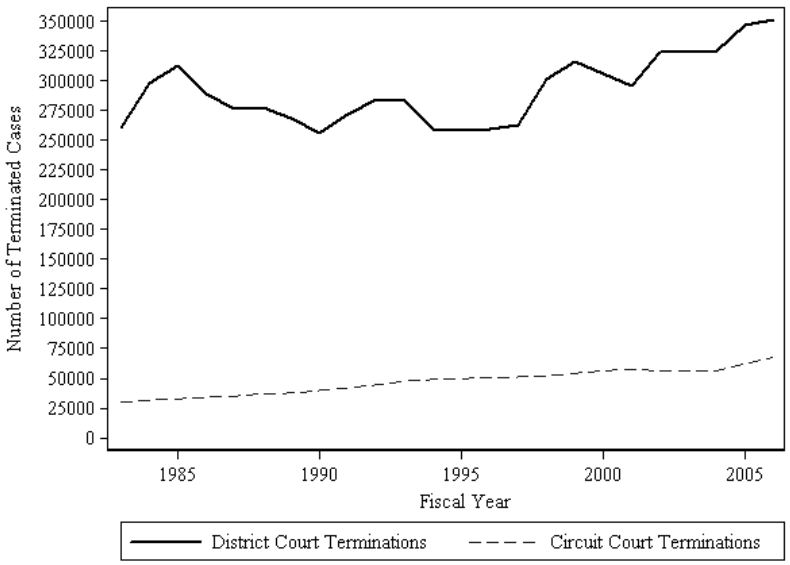
4. THOMAS B. MARVELL, APPELLATE COURTS AND LAWYERS: INFORMATION GATHERING IN THE ADVERSARY SYSTEM 26 (1978).

5. Although each state has at least one district court, many have more. California, New York, and Texas have the largest number of district courts with four each. For more details on the ninety-four district courts, see United States District Courts, http://www.uscourts.gov/districtcourts.html (last visited Feb. 2, 2009).

6. A number of outwardly visible signs indicate that federal district courts have risen well to the challenge. The increase in the use of electronic case filings and docketing as well as the universal access to these materials through PACER ("Public Access to Court Electronic Records") is certainly an indicator of the organization already in place for these courts. PACER Service Center Home Page, http://pacer.psc.uscourts.gov/ (last visited Feb. 2, 2009). For more on PACER, see, e.g., Brian N. Lizotte, *Publish or Perish: The Electronic Availability of Summary Judgments by Eight District Courts*, 2007 WIS. L. REV. 107 (2007).

FIGURE 1: NUMBER OF CASES TERMINATED IN FEDERAL DISTRICT AND CIRCUIT COURTS, BY YEAR, FROM 1983 TO 2006




*Note*: The solid line represents terminations in federal district courts; the dashed line represents the same for federal courts of appeals. Data compiled from the Administrative Office of the U.S. Courts.[7]

Similarly, their institutional design helps these courts terminate the large body of cases before them. A single judge supervises the case and is responsible for making decisions throughout the proceedings, and these actions have a real impact on the case's outcome.[8] Throughout the proceedings, the case's factual record is

7. Federal Court Management Statistics, http://www.uscourts.gov/fcmstat/index.html (last visited Apr. 14, 2009).

8. The district court judge often receives assistance from a magistrate judge, a non-Article III judge who is appointed to serve a district court for eight years (full time) or four years (part time). Under the Federal Magistrate Act of 1968, magistrate judges may determine pretrial matters, conduct hearings, try misdemeanors, and, upon the consent of the parties, conduct civil jury and bench proceedings. Pub. L. No. 90-578, 82 Stat. 1107 (1968) (codified as amended at 28 U.S.C. §§ 631–39 and 18 U.S.C. §§ 3401, 3402, 3060 (2000)). According to the Act's legislative history, its purpose is "to cull from the ever-growing workload of the U.S.

established. Lawyers and litigants actively participate in the case proceedings, so much so that many argue that in trial courts the judges act as managers of the case and the real case activity exists outside of the court's direct supervision.[9] Within this adversarial process, the opposing parties have many opportunities to settle their cases, something that frequently happens[10] and is at times actively encouraged by the presiding judge.[11]

Even though an appeal from a federal district court to the appropriate federal court of appeals is generally an appeal of right, losing litigants do not appeal every defeat. Rather, the choice to appeal is often one tempered by strategy, costs, and anticipation.[12] On appeal, the number of cases is drastically smaller. As is evident in Figure 1, the number of cases filed in the courts of appeals amounts to a much smaller raw number than is present at the trial court level (although this number has risen since the early 1980s).[13]

Whether the appeal is taken because of an anticipated reversal, to force a settlement, to achieve exposure, or to achieve long-term policy gains, the proceedings that occurred in the case while in the trial court continue to have a large effect on the further developments of the case. As Judge Frank Coffin notes,

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district courts matters that are more desirably performed by a lower tier of judicial officers." United States v. Richardson, 57 F.R.D. 196 (E.D.N.Y. 1972) (quoting LEGISLATIVE HISTORY OF THE FEDERAL MAGISTRATES ACT, *reprinted in* 1968 U.S.C.A.N. 4255).

9. *See, e.g.*, Judith Resnik, *Managerial Judges*, 96 HARV. L. REV. 374 (1982).

10. *See, e.g.*, Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIR. LEGAL STUD. 459 (2004) (finding that trials are declining and settlements are on the rise); Kevin M. Clermont & Theodore Eisenberg, *Litigation Realities*, 88 CORNELL L. REV. 119, 137 (2002) (noting the "continuing dominance of settlement" in federal litigation); Gillian K. Hadfield, *Where Have All the Trials Gone? Settlements, Nontrial Adjudications, and Statistical Artifacts in the Changing Disposition of Federal Civil Cases*, 1 J. EMPIR. LEGAL STUD. 705 (2004). According to Priest and Klein, settlement is often the rational outcome for a case. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

11. *See, e.g.*, Judith Resnik, *Failing Faith: Adjudicatory Procedure in Decline*, 53 U. CHI. L. REV. 494, 528 (1986) ("Many federal judges have begun to perceive themselves as being in the business of settlement as much as (sometimes more than) in the business of adjudication.").

12. *See, e.g.*, SCOTT BARCLAY, AN APPEALING ACT: WHY PEOPLE APPEAL IN CIVIL CASES (1999).

13. Note, however, that there still are lingering concerns about overextending COAs. A solution for this has been to have district court judges serve by designation on the COAs.

> Unlike a congressional committee, a government department head, or a business executive, an appellate court may not consider every last piece of information that comes to its attention. It is restricted in two ways: it must confine itself to the factual record established in the trial court or administrative agency, and it must generally recognize only those legal issues which were raised in the trial court.[14]

Nonetheless, cases on appeal face a different set of procedures and a different institutional design than they did in district courts. Importantly, cases on appeal are now heard by a collegial body of judges. In cases heard in the courts of appeals, a panel of three judges is typically assigned to the case.[15] Further review at these appellate courts may lead to an en banc hearing, where all or many of the active judges in the circuit decide the case.[16] And, of course, cases receiving plenary review at the Supreme Court are always heard en banc.

Collegial decision-making is (potentially) quite different from merely having an individual decision-maker. The benefits of this environment are described by Hettinger, Lindquist, and Martinek in their book *Judging on a Collegial Court*:

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14. Frank M. Coffin, *Reflections from the Appellate Bench: Deciding Appeals, Work Cycle, and Collaborating with Law Clerks*, VIEWS FROM THE BENCH: THE JUDICIARY AND CONSTITUTIONAL POLITICS 56 (Mark W. Cannon & David M. Obrien eds., 1985).

15. The parties generally have no way of knowing this panel composition upon the decision to appeal. In fact, depending on the circuit, the identities of the three judges presiding over a case are not known until approximately oral arguments. *See, e.g.*, UNITED STATES COURTS FOR THE FIRST CIRCUIT, FIRST CIRCUIT INTERNAL OPERATING PROCEDURES § VIII(B) (2008), *available at* http://www.ca1.uscourts.gov/files/rules/rulebook.pdf ("The names of the judges on each panel may be disclosed for a particular session seven (7) days in advance of the session"). *But see, e.g.*, UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT, HANDBOOK OF PRACTICE AND INTERNAL PROCEDURES § II.B.8(a) (2007), *available at* http://www.cadc.uscourts.gov/internet/home.nsf/content/Court+Rules+and+Operating+Procedures (follow "Handbook") ("Ordinarily, the Court discloses merits panels to counsel in the order setting the case for oral argument.")

16. In all circuit courts but the Ninth Circuit, en banc review includes all circuit judges. For the Ninth Circuit, the court has instituted limited en banc review, a feature that allows for ten randomly selected circuit judges and the chief judge to review a case. UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT, FEDERAL RULES OF APPELLATE PROCEDURE AND NINTH CIRCUIT RULES 35-3 (2007), *available at* http://www.ca9.uscourts.gov/ca9/Documents.nsf/FRAP+and+Circuit+Rules?OpenView.

> On appeal, litigants can be assured of review by a body composed of several judges. The rationale underlying this system is that arbitrary decision making in collegial bodies will be reduced by the moderating influence of alternative points of view. Since the panel outcome is governed by majority rule, the litigant will not be subjected to the errant or unconventional ideas of any one panel member.[17]

Thus, while the average appellate judge is not necessarily better than a trial judge at providing "justice,"[18] the requirement that she reach consensus with other judges does provide additional protections. Or, as Judge Coffin puts it, "an appellate judge is no wiser than a trial judge. His only claim to superior judgment lies in numbers; three, five, seven, or nine heads are usually better than one."[19]

### *B. The Federal Judicial Hierarchy Provides Control*

With interactions between courts that are both regular and ordered, the design of the federal court system arguably creates principal-agent relationships between the courts. In this model, higher appellate courts serve as the principal to their lower-tiered brethren.[20]

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17. VIRGINIA A. HETTINGER ET AL., JUDGING ON A COLLEGIAL COURT: INFLUENCES ON FEDERAL APPELLATE DECISION MAKING 1 (2006).

18. *But see* Elliot E. Slotnick, *Federal Trial and Appellate Judges: How Do They Differ?*, 36 W. POL. Q. 570, 570 (1983) ("Conventional wisdom suggests that the more prestigious U.S. Courts of Appeals will be staffed by judges who are 'better' trained and more 'qualified' in several respects than their counterparts on the U.S. District Courts.").

19. Coffin, *supra* note 14, at 56.

20. Kornhauser espouses an alternative to principal-agency theory known as team theory. Of this theory, he says:

> I treat the judicial system as a team and argue that the optimal structure of the judicial system is determined by the extent of a resource constraint, the nature of the flow of cases into the system, and the difficulty of law-finding. The flow of cases to the courts and the style and competence of judicial reasoning determine the desirability of hierarchy and of specialization as well as the extent of precedent within the system. . . . I assume that the "judicial team" seeks to maximize the expected number of "correct" answers subject to its resource constraint.

Lewis A. Kornhauser, *Adjudication by a Resource-Constrained Team: Hierarchy and Precedent in a Judicial System*, 68 S. CAL. L. REV. 1605, 1605–06 (1995); *see also* Chad Westerland et al., Lower Court Defiance of (Compliance with) the U.S. Supreme Court (July

In his 1984 article in *The American Journal of Political Science*, Terry Moe famously describes the basic tenants of principal-agency theory:

> The principal-agent model is an analytic expression of the agency relationship, in which one party, the principal, considers entering into a contractual agreement with another, the agent, in the expectation that the agent will subsequently choose actions that produce outcomes desired by the principal.[21]

Given that political actors, particularly high-ranking ones, "are most troubled by insufficient time and information,"[22] there is often a need for the delegation of substantial work and discretion. This delegation can range from simple administrative tasks to broad policymaking roles. Due to the principal's reliance on his agent after delegation has taken place (in addition to his need to delegate in the first place), Moe warns of the dangers of the implicit moral hazard.[23] He says that "there is no guarantee that the agent, once hired, will in fact choose to pursue the principal's best interests or to do so efficiently. The agent has his own interests at heart . . . ."[24] Because of this moral hazard, principals must properly incentivize their agents to prevent shirking of the type described above.[25] When agents are

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17, 2006) (unpublished manuscript, *available at* http://epstein.law.northwestern.edu/research/compliancefirst.pdf).

21. Terry M. Moe, *The New Economics of Organization*, 28 AM. J. POL. SCI. 739, 756 (1984).

22. H. Owen Porter, *Legislative Information Needs and Staff Resources in the American States*, *in* LEGISLATIVE STAFFING: A COMPARATIVE PERSPECTIVE 40 (James J. Heaphey & Alan P. Balutis eds., 1975).

23. The idea of moral hazards has its origin in the insurance context. A moral hazard is "[t]he risk that an insured will destroy property or allow it to be destroyed (usu. by burning) in order to collect the insurance proceeds." BLACK'S LAW DICTIONARY 723 (7th ed. 1999). Moral hazard is now a widely used component of principal-agent theorizing. *See* Gary J. Miller, *The Political Evolution of Principal-Agent Models*, 8 ANN. REV. POL. SCI. 203 (2005).

24. Moe, *supra* note 21, at 756.

25. Miller, *supra* note 23; *see also* 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, 673 (1994) ("Principal-agent theory explicitly questions the degree to which agents act on behest of their principals versus the extent to which they shirk (i.e., the extent to which they act on their own behalf), and the extent to which control mechanisms by the principal can minimize shirking.").

treated properly (as described by Moe), principals can delegate their workload to them and at the same time maintain control over their output.[26]

This design is ideal for the federal judicial system. The Supreme Court's role under its constitutional mandate makes it the high court in the land. As such, it is a national policy-maker. At the same time, however, the Court can hear only a small proportion of cases, a number that in recent years hovers below one hundred.[27] With such a limited discretionary caseload, in most circumstances the Supreme Court has in essence delegated the role of final appellate decision-maker to the courts of appeals. With such a delegation, "most decisions of the courts of appeals will escape consideration by the Supreme Court,"[28] meaning that "the U.S. Courts of Appeals have become the de facto (if not the de jure) venue for final appellate review."[29] Under this scheme, although the Supreme Court might rarely intervene in cases, its monitoring of the activity of these lower appellate courts allows it to actively retain its appellate role where noncompliance is rampant. Such power likely explains the observed variability in review of the circuits by the Supreme Court.[30]

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26. Moe, *supra* note 21, at 756–57.

27. *See* Arthur D. Hellman, *The Shrunken Docket of the Rehnquist Court*, 1996 SUP. CT. REV. 403 (arguing that Chief Justice Rehnquist's tenure led to a steady decline in the Court's docket size); *see also* Gregory A. Caldeira & John R. Wright, *The Discuss List: Agenda Building in the Supreme Court*, 24 LAW & SOC'Y REV. 807 (1990).

28. Songer et al., *supra* note 25, at 675.

29. HETTINGER ET AL., *supra* note 17, at 89. This role is appropriate:

> Even if the Supreme Court were to overrule appellate court decisions three-quarters of the time, the U.S. courts of appeals would still be making decisions that formally prevailed in more than 98 percent of their cases. This indicates that the role held by the intermediate appellate courts in shaping legal policy is significant. While the Supreme Court may indicate the broad outlines of a certain policy, much of the burden of giving detailed shape to that policy will be carried by the intermediate appellate courts.

JOHN C. HUGHES, THE FEDERAL COURTS, POLITICS, AND THE RULE OF LAW 40 (Marcus Boggs ed., 1995) (internal footnote omitted).

30. Justice Scalia has said that it is a "disproportionate segment of [the Supreme] Court's discretionary docket that is consistently devoted to reviewing Ninth Circuit judgments, and to reversing them by lop-sided margins." Kevin M. Scott, *U.S. Supreme Court Reversals: Supreme Court Reversal of the Ninth Circuit*, 48 ARIZ. L. REV. 341, 344 (2006) (quoting Antonin Scalia, Submitted Testimony to the Commission on Structural Alternatives for the Federal Courts of Appeals (1998)).

Yet, to be an effective and legitimate institution,[31] its lower courts must act consistently with the Supreme Court's implicit and explicit mandates. Some suggest that such self-constraint among lower courts is most likely when their chances of reversal are high.[32] Others, however, note that because the litigants decide to appeal *after* the court issues its judgment, "[t]he decisions in which circuit judges follow their own preferences should be the most likely to be appealed,"[33] particularly when those preferences do not align with the higher court.

### *C. The Federal Judicial Hierarchy Matters to Actors*

While the structure of the federal judicial hierarchy is well known, the same is not necessarily true for the relationship of the courts to one another. Understanding these hierarchical relationships is critical to three actors who care about federal courts: (1) scholars, (2) litigants and lawyers, and (3) judges. For scholars, and especially those empirically examining court decisions, much has been done to account for the presence of the tiers in the judiciary. Models of this process include such explanatory variables as *direction of the lower court decision*,[34] *presence of dissent*,[35] and *ideology of median appellate judges*,[36] all of which are designed to capture, albeit at

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31. When an institution is legitimate, citizens are willing to accept its authority. JAMES L. GIBSON, OVERCOMING APARTHEID: CAN TRUTH RECONCILE A DIVIDED NATION? 4 (2004). Empirical evidence indicates that this is indeed the case for courts in the United States. *See, e.g.*, James L. Gibson et al., *Measuring Attitudes Toward the United States Supreme Court*, 47 AM. J. POL. SCI. 354 (2003).

32. *See, e.g.*, David E. Klein & Robert J. Hume, *Fear of Reversal as an Explanation for Lower Court Compliance*, 37 LAW & SOC'Y REV. 579 (2003).

33. Songer et al., *supra* note 25, at 675; *see also* Donald R. Songer et al., *Do Judges Follow the Law When There Is No Fear of Reversal?*, 24 JUST. SYS. J. 137 (2003) (finding that courts of appeals judges deciding tort cases follow law, even when there is little chance that the Supreme Court will reverse their decisions).

34. *See, e.g.*, Gregory A. Caldeira & John R. Wright, *Organized Interests and Agenda Setting in the U.S. Supreme Court*, 82 AM. POL. SCI. REV. 1109 (1988); Christina L. Boyd et al., Untangling the Causal Effects of Sex on Judging (July 19, 2007) (unpublished manuscript, *available at* http://papers.ssrn.com/sol3/papers.cfm? abstract_id=1001748).

35. *See, e.g.*, Charles A. Johnson, *Law, Politics, and Judicial Decision Making: Lower Federal Court Uses of Supreme Court Decisions*, 21 LAW & SOC'Y REV. 325, 329 (1987); HETTINGER ET AL., *supra* note 17.

36. *See, e.g.*, Frank Cross, *Appellate Court Adherence to Precedent*, 2 J. EMPIR. LEGAL STUD. 369 (2005); Andrew D. Martin et al., *The Median Justice on the United States Supreme*

times implicitly, a higher or lower court's effect on an individual case. In addition, explaining these hierarchical relationships is key to understanding the composition of cases in each level of the judiciary. After all, the cases that are appealed and advance into each higher tier represent a non-random sample of all cases that are litigated.[37]

For the litigant, the structure of the judiciary plays a pragmatic role. Litigants want to be able to predict outcomes at all stages so they can determine when to settle and when to continue pursuing litigation. The result of this bargaining and forecasting is that "the disputes selected for litigation (as opposed to settlement) will constitute neither a random nor a representative sample of the set of all disputes."[38] Litigants also make similar predictions when it comes to whether to appeal a case.

Finally, for judges in the judicial hierarchy, this system governs relationships, imposes decision constraints, and affects future employment opportunities. Judges want to know if their opinions and directives are going to be respected and, generally speaking, want to avoid reversal.[39] These same actors often are driven by career advancement, something that in the federal judiciary means consideration for appointment to a higher bench.[40]

## II. DISTRICT COURTS IN THE FEDERAL HIERARCHY

Within the federal judicial hierarchy, the institutional actor undoubtedly receiving the least systematic and empirical attention is

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*Court*, 83 N.C. L. REV. 1275, 1285–87 (2005).

37. For more on the selection of cases, see, e.g., Samuel R. Gross & Kent D. Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319 (1991); Priest & Klein, *supra* note 10; Jonathan Kastellec & Jeffrey Lax, Can We Ignore Case Selection When We Study Judicial Politics? (Oct. 22, 2007) (unpublished manuscript, on file with authors).

38. Priest & Klein, *supra* note 10, at 4.

39. *See, e.g.*, Klein & Hume, *supra* note 32; David Klein & Darby Morrisroe, *The Prestige and Influence of Individual Judges on the U.S. Courts of Appeals*, 28 J. LEGAL STUD. 371 (1999). *But see* Richard A. Posner, *Judicial Behavior and Performance: An Economic Approach*, 32 FLA. ST. U. L. REV. 1259, 1273 (2005) (arguing that the Supreme Court reviews too few cases to allow it to serve as an active reversal constraint on courts of appeals judges).

40. Evan H. Caminker, *Why Must Inferior Courts Obey Superior Court Precedents?*, 46 STAN. L. REV. 817 (1994); *see also* HETTINGER ET AL., *supra* note 17, at 23.

the federal district court.[41] Although data limitations or methodological reasons help explain this,[42] the result is that we lack information on how this lowest tier of the federal judiciary fits into the system.[43] Despite the relative lack of scholarship focused on these actors, the evidence is overwhelming that district courts are important, and not just to the individual parties before them in a case. Their importance includes their filtering duty, their policy-making function, and their implementation role.

District courts are the workhorses of the federal judiciary. They handle the mass of litigation and serve a filtering role for the rest of the judicial branch. Indeed, for most federal litigants, these trial courts are their only encounter with the justice system. As one district court judge put it, "[j]ustice stops in the district. They either get it here or they can't get it at all."[44]

District courts might not receive as much attention from scholars or the media as other federal courts, but they do have a central policy-making role to play. Mather, for example, argues that district courts are well positioned to make a cumulative policy impact through the actions and decisions of judges, parties, lawyers, and juries.[45] As she

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41. *See* Evan J. Ringquist & Craig E. Emmert, *Judicial Policymaking in Published and Unpublished Decisions: The Case of Environmental Civil Litigation*, 52 POL. RES. Q. 7 (1999).

42. Although some district court data are publicly available, *see, e.g.*, Inter-University Consortium for Political and Social Research, Federal Court Cases: Integrated Databases, http://www.icpsr.umich.edu/cocoon/ICPSR/SERIES/00072.xml (last visited Feb. 20, 2009), nothing as systematic or thorough, such as the Spaeth Supreme Court Database, is publicly available for these lower courts. *See* Supreme Court Database, http://www.cas.sc.edu/poli/juri/sctdata.htm (follow "Original U.S. Supreme Court Database" hyperlinks for documentation and data in different formats) (last visited Feb. 20, 2009).

43. As Caminker notes, "[t]his imbalanced attention is a bit curious, given that lower courts, 'as a matter of empirical fact, play a far more important role in the actual lives of citizens than does the Supreme Court.'" Evan H. Caminker, *Precedent and Prediction: The Forward-Looking Aspects of Inferior Court Decisionmaking*, 73 TEX. L. REV. 1, 81–82 (1994) (quoting Sanford Levinson, *On Positivism and Potted Plants: "Inferior" Judges and the Task of Constitutional Interpretation*, 25 CONN. L. REV. 843, 844 (1993)).

44. David M. O'Brien, *Introduction* to Part II of VIEWS FROM THE BENCH, *supra* note 14, at 29 (citation omitted).

45. Lynn Mather, *The Fired Football Coach (or, How Trial Courts Make Policy)*, *in* CONTEMPLATING COURTS (Lee Epstein ed., 1995); *see also* HENRY R. GLICK, COURTS, POLITICS, AND JUSTICE (1983); MARTIN SHAPIRO, LAW AND POLITICS IN THE SUPREME COURT (1964).

puts it, "the accumulation of similar individual decisions defines policy just as much as one major decision."[46]

The ultimate example of the implementation role held by district courts comes from the aftermath of *Brown v. Board of Education*[47] and the subsequent school desegregation battles. Although the Supreme Court made a lasting national impression with its decision in *Brown*, the implementation of this decision was left to the federal district courts. As the Supreme Court said in *Brown II*:[48]

> [T]he courts may consider problems related to administration, arising from the physical condition of the school plant, the school transportation system, personnel, revision of school districts and attendance areas into compact units to achieve a system of determining admission to the public schools on a nonracial basis, and revision of local laws and regulations which may be necessary in solving the foregoing problems. . . . [The] cases are remanded to the District Courts to take such proceedings and enter such orders and decrees consistent with this opinion as are necessary and proper to admit to public schools on a racially nondiscriminatory basis with all deliberate speed the parties to these cases.[49]

In their study of the degree of school segregation remaining in 1970, Giles and Walker found that more desegregation had taken place when school districts were smaller as well as when the schools were in areas outlying the judges' courts.[50]

For every high-profile Supreme Court case, there is a lower court case to match. Without a doubt, many of these cases held a low national profile while proceedings were taking place in the trial court. But some were highly visible from filing. And some cases that likely will never reach the Supreme Court are nonetheless headline grabbers while in the district courts, including, for example, the recent case

46. Mather, *supra* note 45, at 173.
47. 347 U.S. 483 (1954).
48. Brown v. Bd. of Educ. (II), 349 U.S. 294 (1955).
49. *Id*. at 300–01.
50. Michael W. Giles & Thomas G. Walker, *Judicial Policy-Making and Southern School Segregation*, 37 J. POL. 917 (1975).

involving the unauthorized *Harry Potter* Encyclopedia[51] or the case of Richard Reid, better known as the Shoe Bomber.[52]

## III. THE HIERARCHY OF JUSTICE IN REVIEW

Given this brief background on the federal judicial hierarchy and district courts within that hierarchy, clearly the relationship of these courts to one another is ripe for systematic scholarly review. In areas of compliance of lower courts with higher court preferences and the anticipation of higher court action by lower courts, this is exactly what many scholars have given it.

### *A. Compliance*

Understanding the hierarchical design of the federal court system and the seemingly small amount of direct intervention by the Supreme Court, a number of scholars have sought to empirically test for the compliance of lower courts to higher court decision-making. Compliance or noncompliance is "behavior that is in some way consistent or inconsistent with the behavioral requirements of the judicial decision."[53]

For example, Gruhl's examination of lower court libel cases finds strong evidence of compliance by these courts with Supreme Court doctrine.[54] This study complements Baum's work from the same year on patent cases.[55] Baum finds that federal district courts' policies are directly connected to those of the courts of appeals, leading him to conclude that "courts of appeals exert real influence over the decisions of their subordinates."[56]

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51. Warner Bros. Entm't Inc. v. RDR Books, 575 F. Supp. 2d 513 (S.D.N.Y. 2008).

52. United States v. Reid, 206 F. Supp. 2d 132 (D. Mass. 2002).

53. BRADLEY C. CANON & CHARLES A. JOHNSON, JUDICIAL POLICIES: IMPLEMENTATION AND IMPACT 17 (1999).

54. John Gruhl, *The Supreme Court's Impact on the Law of Libel: Compliance by Lower Federal Courts*, 33 W. POL. Q. 502 (1980).

55. Lawrence Baum, *Responses of Federal District Judges to Court of Appeals Policies: An Exploration*, 33 W. POL. Q. 217 (1980).

56. *Id*. at 223. Baum notes that the strength of this relationship is limited, and as such, the courts of appeals do not have control in "any absolute sense." *Id.* at 224.

The large number of studies focusing on courts of appeals' compliance with Supreme Court decisions has found overwhelming evidence of compliance.[57] Benesh and Reddick examine lower court compliance with Supreme Court precedent when that precedent has been recently altered.[58] They find that variables such as age of the overruled precedent, change in Supreme Court composition, and case complexity predict compliance and the speed thereof.[59] Similar findings for these courts, albeit with different research designs, can be found in work by Songer and Sheehan,[60] Klein,[61] and Westerland et al.[62] In addition, similar levels of compliance have been found between the Supreme Court and administrative agencies coming before the Court.[63]

Thus, while this relatively large body of articles utilizes different methods and courts for testing for compliance (or lack thereof), their findings are generally consistent: although some examples of skirting compliance have been found, no work has found systematic non-compliance among lower courts of the decision-making of higher federal appellate courts. As such, the existing work seems to affirm the effectiveness of higher federal courts in maintaining control and eliminating widespread shirking.[64]

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57. For an excellent review of compliance studies, see Pauline T. Kim, *Lower Court Discretion*, 82 N.Y.U. L. REV. 383 (2007).

58. 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).

59. The authors utilize an event history analysis to study "not only compliance but also the speed with which the circuits comply." *Id.* at 541.

60. Donald R. Songer & Reginald S. Sheehan, *Supreme Court Impact on Compliance and Outcomes:* Miranda *and* New York Times *in the United States Courts of Appeals*, 43 W. POL. Q. 297 (1990) (finding that, in general, federal courts of appeals comply with the Supreme Court (or at least do not completely defy it)).

61. DAVID E. KLEIN, MAKING LAW IN THE UNITED STATES COURTS OF APPEALS (2002) (finding that circuit courts comply with Supreme Court precedent when the precedent is clear).

62. Westerland et al., *supra* note 20.

63. *See* James F. Spriggs II, *The Supreme Court and Federal Administrative Agencies: A Resource-Based Theory and Analysis of Judicial Impact*, 40 AM. J. POL. SCI. 1122 (1996); James F. Spriggs II, *Explaining Federal Bureaucratic Compliance with Supreme Court Opinions*, 50 POL. RES. Q. 567 (1997).

64. Of course, this observed tendency is observationally equivalent with another explanation—that higher courts strategically anticipate lower court non-compliance and write opinions that they expect lower courts will follow. *See, e.g.*, Murphy, *supra* note 1.

### *B. Rational Anticipation*

Although the compliance literature examines whether and how judges respond to existing Court precedent, a separate literature accounts for lower courts' anticipation of future judicial actions within the hierarchy. Under theories of anticipation, lower courts will temper their activities in the present based on what they expect will happen with the case in the future. This future gazing includes expectations on whether the case will be appealed, if the case will be granted certiorari (if the appeal is to the Supreme Court), and what the outcome on that appeal will be. Judge Jerome Frank spoke of judicial anticipation in these strong words: "when a lower court perceives a pronounced new doctrinal trend in Supreme Court decisions, it is its duty, cautiously to be sure, to follow not to resist it."[65]

A number of studies have utilized anticipation theories. Many of these, such as Caminker, speak of anticipation in a largely theoretical framework.[66] Others, however, aim to provide empirical tests of judicial anticipation. Much of this work focuses on the theory of dynamic interpretation. An early proponent of this theory, Eskridge develops a model around the dynamic interactions of the Supreme Court, congressional committees, Congress, and the President.[67] As he says, "[t]he game is a dynamic one because each player is responsive to the preferences of other players *and* because the preferences of the players change as information is generated and distributed in the game."[68] Applied within the judicial hierarchy, dynamic interpretation basically means that judges will not take simply the cases that older courts have decided as good law. Rather, these judges will think about the preferences of the current higher courts when determining (assessing probabilistically) if the current higher court is still wedded to its former decisions.

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65. Perkins v. Endicott Johnson Corp., 128 F.2d 208, 218 (1942), *quoted in* Murphy, *supra* note 1, at 1026.

66. *See* Caminker, *supra* note 43.

67. William N. Eskridge, Jr., *Overriding Supreme Court Statutory Interpretation Decisions*, 101 YALE L.J. 331 (1991).

68. *Id*. at 334.

While the anticipation literature is not nearly as deep as that regarding compliance, the empirical results thus far are highly divergent. For instance, Benesh's study of courts of appeals' anticipation of the Supreme Court in the area of the law of confessions suggestions they do rationally anticipate the superior tribunal.[69] Some as-of-yet unpublished findings in this difficult research area find a similar relationship. Randazzo, for example, examines a sample of federal district court cases decided from 1925 to 1996 that were reviewed by courts of appeals.[70] He finds that with civil liberties and economics cases, "[i]f the federal trial judges anticipate a negative response on appeal, then they curtail their ideological influences."[71] Similarly, Westerland et al.'s 2006 conference paper finds that circuit court judges engage in "dynamic hierarchical interpretation," and as such, these courts are particularly concerned about the current Supreme Court's preferences (rather than, for example, their own ideological preferences or the ideological position of the Supreme Court's old precedent).[72] Works by David Klein[73] and Frank Cross,[74] however, fail to find support for courts of appeals' strategic anticipation of the Supreme Court. In short, the literature presents a set of mixed results regarding whether lower courts rationally anticipate their appellate court superiors, and thus this study is a needed step toward resolving this debate.

## IV. THE ROLE OF SUPREME COURT PRECEDENT IN DISTRICT COURT DECISION-MAKING

District courts, when adjudicating disputes and answering the legal questions brought before them, produce at least two outcomes. First, they determine if the plaintiff suffered a wrong, and, if so, what

69. SARA C. BENESH, THE U.S. COURT OF APPEALS AND THE LAW OF CONFESSIONS: PERSPECTIVES ON THE HIERARCHY OF JUSTICE (2002).

70. Kirk A. Randazzo, Strategic Anticipation and the Hierarchy of Justice in the U.S. District Courts (Feb. 1, 2008) (unpublished manuscript, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1114207).

71. *Id*. at 21.

72. Westerland et al., *supra* note 20, at 2 (emphasis removed).

73. KLEIN, *supra* note 61.

74. FRANK B. CROSS, DECISION MAKING IN THE U.S. COURTS OF APPEALS (2007); Cross, *supra* note 36.

remedy is appropriate. In other words, they produce a disposition, which determines who wins the case. Second, district courts set broader legal and public policy when deciding a case. In so doing, they not only affect the direct litigants in a case but also potentially influence a larger set of actors in society and thus cause distributional effects.[75]

These effects result in large part from legal doctrine, which provides referents for behavior in society. Law is a set of rules that enables actors to anticipate the consequences of their actions by forecasting answers to potential legal questions. Law in this sense reduces uncertainty in society. Although a given opinion (or even a series of decisions) does not eliminate legal uncertainty (due to indeterminacy of language, changing social conditions, and so on), law nevertheless affects outcomes by influencing actors' expectations of how other actors and judges might respond to the choices they make.[76]

Long ago, famed political scientist Walter Murphy wrote of the relationship between the Supreme Court and lower courts, noting that "[t]he Supreme Court typically formulates general policy. Lower courts apply that policy, and working in its interstices, inferior judges may materially modify the High Court's determinations."[77] Federal district courts certainly count as the "lower courts" to which Murphy refers. When ruling on motions or more generally presiding over cases, federal district court judges will often cite to the Supreme Court for support for their decisions. In *Retired Public Employees' Association of California v. California*,[78] for example, Judge Orrick's decision on the plaintiff's request for an injunction relied heavily on the Supreme Court's relevant precedent:

> Although the Court's jurisdiction over plaintiffs' third claim is founded on the doctrine of pendent jurisdiction, the Eleventh

75. *See, e.g.*, Ringquist & Emmert, *supra* note 41.

76. For work discussing law as a set of legal rules, see, e.g., FORREST MALTZMAN, JAMES F. SPRIGGS II & PAUL J. WAHLBECK, CRAFTING LAW ON THE SUPREME COURT: THE COLLEGIAL GAME (2000); Paul J. Wahlbeck, *The Life of the Law: Judicial Politics and Legal Change*, 59 J. POL. 778 (1997).

77. Murphy, *supra* note 1, at 1018.

78. 614 F. Supp. 571 (N.D. Cal. 1984).

> Amendment is an explicit limitation on the judicial power of the United States. In *Pennhurst*, the Supreme Court overturned an award of injunctive relief against state officials and agencies based on a pendent state law claim. The Court found that the Eleventh Amendment was a constitutional bar to a federal court's jurisdiction over a pendent state claim against the state and state officials and agencies. *Pennhurst* is controlling here. Therefore, this Court is without jurisdiction to consider plaintiffs' third claim for relief in the 1977 complaint.[79]

And we could give countless other examples that proceed identically to *Retired Public Employees' Association* and show that federal district court judges are often called upon to apply and interpret Supreme Court precedent. As seen in Figure 2, federal district courts frequently cite the Supreme Court as a legal authority for their decisions, and in recent history they do so tens of thousands of times each year.[80]

Following common law tradition and the norm of stare decisis—by which judges are bound to decide cases consistent with the rulings in similar, prior, mandatory authority cases—judges use analogical reasoning.[81] This entails determining whether and how a precedent applies to the factual scenario in a legal dispute they are deciding.[82] To make these determinations, judges draw two key pieces of information from precedent. First, precedent informs judges which facts are relevant for deciding a particular kind of legal dispute and which fact situations should be grouped together and treated similarly. The information conveyed by a precedent thus helps judges determine when a precedent is similar enough to a subsequent legal

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79. *Id*. at 581 (internal citations omitted).

80. These data are taken from James H. Fowler et al., *Network Analysis and the Law: Measuring the Legal Importance of Precedents at the U.S. Supreme Court*, 15 POL. ANALYSIS 324 (2007).

81. *See, e.g.*, BENJAMIN N. CARDOZO, THE NATURE OF THE JUDICIAL PROCESS 142–80 (1960); EDWARD H. LEVI, AN INTRODUCTION TO LEGAL REASONING (1949); 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 (1990).

82. *See, e.g.*, Aldisert, *supra* note 81; Frederick Schauer, *Precedent*, 39 STAN. L. REV. 571 (1987).

dispute to be applicable to it. Second, precedent provides tests or standards for judges to employ in the context of particular factual circumstances. That is, precedent gives judges criteria for determining whether a legal wrong has occurred and how it might be remedied.

This process of district court judges' citing and interpreting precedent produces a form of legal change. Law changes as judges decide whether and how to apply an existing precedent to a factual situation not directly considered in the precedent-setting case. Hansford and Spriggs's description of this process at the Supreme Court is equally applicable to district courts:

> The Court rarely defines doctrine in a comprehensive or complete manner in any one opinion. It sometimes takes a series of opinions to clarify a rule, fill in important details, and define its scope or breadth. When Court opinions legally treat or interpret an existing precedent they shape it by restricting or broadening its applicability. Legal rules or precedents can thus evolve as the Court interprets them over time.[83]

Like the Supreme Court, district courts shape existing law by applying and interpreting precedent.

The law is thus a dynamic entity that develops over time as courts choose which precedents to cite and how to interpret them. Previous research characterizes the interpretation of precedent as broadly falling into two categories, positive and negative treatment.[84] A court positively interprets a precedent when it invokes it as a legal authority and follows its legal holding or reasoning. The positive interpretation of precedent can expand the meaning and scope of a precedent, especially when the precedent is applied to factual circumstances not considered by it. A court negatively treats a precedent when it uses language that restricts the reach of the case, calls into question its legal authority, or even chooses not to apply it to a setting. The negative interpretation of precedent includes milder forms of treatment, such as the distinguishing of precedent, whereby

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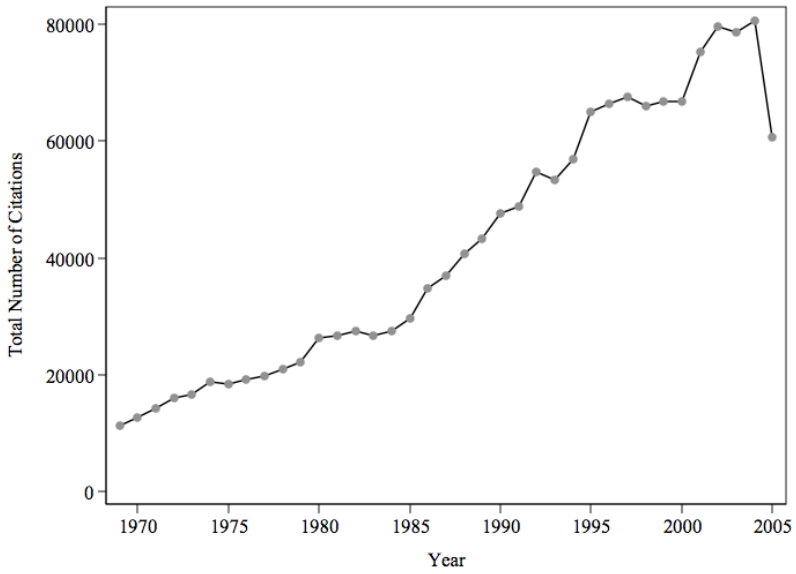
83. *See* THOMAS G. HANSFORD & JAMES F. SPRIGGS II, THE POLITICS OF PRECEDENT ON THE U.S. SUPREME COURT 5–6 (2006) (internal footnotes and citations omitted).

84. *See id.*

a court determines that a precedent is inapplicable to a case. It also includes stronger forms of negative treatment, such as limiting a precedent to its facts or, if a court has authority to do so, overruling a precedent and declaring that it is no longer binding law.

Simply put, citation and interpretation of precedent is integral to the development of law. When lower courts choose to cite Supreme Court precedent and treat it negatively or positively, they are helping to shape the meaning and reach of that case. Therefore, district court judges actively participate in creating law and policy.

FIGURE 2: TOTAL NUMBER OF DISTRICT COURT CITATIONS TO U.S. SUPREME COURT PRECEDENT FROM 1970 TO 2005[85]




85. Fowler et al., *supra* note 80.

## V. A SPATIAL MODEL OF THE HIERARCHICAL RELATIONSHIP

We turn now to a spatial model that lays out hypotheses concerning how district courts interpret precedent in light of the hierarchical relationship appellate courts have over them. We base our spatial model on two assumptions. First, we follow a long tradition in the judicial politics literature and assume that judges have policy preferences over legal rules.[86] Judges, like nearly all political decision-makers, possess ideological points of view, and these attitudes lead them to care about the effects their decisions will have on society. Judges therefore prefer legal rules that are likely to produce outcomes most consistent with their ideological orientations. Maltzman, Spriggs, and Wahlbeck, when explaining the opinion-writing process at the Supreme Court, refer to this assumption as the "Outcome Postulate," by which "Justices prefer Court opinions and legal rules that reflect their policy preferences."[87]

It follows that district court judges will react to Supreme Court precedent based in part on their ideological orientations. Judges recognize that the reach and meaning of a precedent is a central element of the law, and they therefore desire to interpret precedent in ways consistent with their policy preferences. By doing so, they can influence how other actors view a precedent, affect the choices they may make in light of the precedent, and thereby influence distributional outcomes. We therefore argue that the ideological distance between the district court and the Supreme Court precedent should influence the likelihood and way that the district court utilizes it.

To more formally depict this idea, Figure 3 presents a one-dimensional ideological policy space. D represents the district court's position in that ideological space, and P represents the ideological location of the relevant Supreme Court precedent. When D and P are aligned, or at least close to each other, it is easy to imagine precedential deference (for either ideological or normative reasons). But as D and P grow further apart, district courts for policy-based

86. LEE EPSTEIN & JACK KNIGHT, THE CHOICES JUSTICES MAKE (1998); HANSFORD & SPRIGGS, *supra* note 83; MALTZMAN ET AL., *supra* note 76.

87. MALTZMAN ET AL., *supra* note 76, at 17.

reasons will desire to "shirk" from the law as laid down by the Supreme Court. Our *ideological distance hypothesis* states this relationship more formally.

FIGURE 3: IDEOLOGICAL RELATIONSHIP OF A DISTRICT COURT (D) AND RELEVANT SUPREME COURT PRECEDENT (P)


*Note: Ideological Distance Hypothesis:* A district court will be less likely to cite or positively interpret a Supreme Court precedent (and more likely to treat a precedent negatively) when it is ideologically further from the precedent.

Second, we assume that the hierarchical relationship of the appellate courts to the district courts incentivizes district court judges to consider the appellate court's policy preferences when deciding cases. This assumption is consistent with the literature, most of which argues that although judges act on their policy preferences, they also are constrained by a variety of institutional rules. Examples of such rules include the collegial nature of appellate courts,[88] legal norms (such as stare decisis),[89] and the process of oral argument.[90] The rule we focus on is the hierarchical ladder in the federal judicial system. Both the circuit courts and the Supreme Court are vertically superior to the district courts, and each has the ability to set precedent that district courts must follow. Because of this relationship, district courts are bound to consider the law as set by not only the Supreme Court but also the circuit courts.

88. *See id.*; HETTINGER ET AL., *supra* note 17; EPSTEIN & KNIGHT, *supra* note 86.

89. *See, e.g.*, HANSFORD & SPRIGGS, *supra* note 83; Jack Knight & Lee Epstein, *The Norm of* Stare Decisis, 40 AM. J. POL. SCI. 1018 (1996); Stefanie A. Lindquist & Frank B. Cross, *Empirically Testing Dworkin's Chain Novel Theory: Studying the Path of Precedent*, 80 N.Y.U. L. REV. 1156 (2005).

90. *See, e.g.*, TIMOTHY R. JOHNSON, ORAL ARGUMENTS AND DECISION MAKING ON THE UNITED STATES SUPREME COURT (2004).

Because the courts of appeals are the final appellate review for most cases, they are the first principals that district court judges are likely to consider. This idea is consistent with previous scholars' theories on how agents consider multiple principals. Lindquist and Haire, for example, note that in the context of courts of appeals as agents to the Supreme Court and Congress, judicial agents "might be expected to weigh more heavily the preferences of those principals who exercise direct supervisory control over their activities."[91] In this Article, we therefore focus on the appeals courts' supervisory role over the district courts, and we do not factor in the Supreme Court's similar role.

Although recognizing the supervisory role of circuit courts is easy in theory, in practice it becomes much more difficult. This is due in large part to the way courts of appeals decide cases. Because circuit cases are heard in panels of three, the composition of which is not decided until after the appeal, the district court judge faces uncertainty as to the ideological preferences of the reviewing circuit panel. Nonetheless, (1) circuits have an ideological environment or identity, and (2) circuit rules make the en banc court the only court that can overturn circuit precedent. Although neither of these factors provides certainty to district court judges about what might happen in the case upon appellate review, they are likely to help create a sense of the case's future.

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91. Stefanie A. Lindquist & Susan B. Haire, *Decision Making by an Agent with Multiple Principals*, *in* INSTITUTIONAL GAMES AND THE U.S. SUPREME COURT 237 (James R. Rogers et al. eds., 2006). When considering courts of appeals as agents to the Supreme Court and Congress, Lindquist and Haire note that they "expect the Supreme Court's effect to be magnified because of its supervisory role over the appeals courts in the federal judicial hierarchy." *Id.* at 238; *see also* James C. Brent, *An Agent and Two Principals: U.S. Court of Appeals Responses to* Employment Division, Department of Human Resources v. Smith *and the Religious Freedom Restoration Act*, 27 AM. POL. Q. 236 (1999). The role of multiple principals also has been noted with regard to district courts:

> District judges may find themselves "trying to please two masters" when the preferences of their circuit superiors are at odds with those of the Supreme Court. And while the Supreme Court generally does not have direct sanctioning authority over the district court, the Supreme Court's judgments influence those of the district court's immediate superior in important ways.

Susan B. Haire et al., *Appellate Court Supervision in the Federal Judiciary: A Hierarchical Perspective*, 37 L. & SOC'Y REV. 143, 148 (2003).

As a result, we expect that district courts' interpretation of Supreme Court precedent depends not only on their preferences but also on their expectations of the likely response of the appellate court to their decision. For a variety of reasons, including fear of reversal and the desire to be elevated to a circuit court, district court judges have incentives to anticipate how the courts of appeals will react to different ways of deciding a case.[92] District court judges will thus choose how to interpret Supreme Court precedent based in part on the relevant circuit court's ideological viewpoint. This expectation therefore leads us to include an additional actor, the appellate court, in the spatial model.

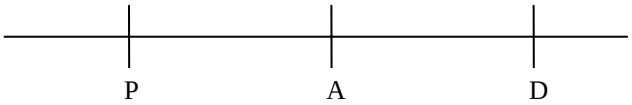
Figure 4 depicts the four possible arrangements (or regimes) of a district court, a circuit court, and a Supreme Court precedent.[93] Under Regime I, the appellate court (A) is ideologically closer to the Supreme Court precedent (P) than is the district court. Although a district court prefers to negatively interpret precedents that are ideologically more distant from it, the appellate court's closer proximity to the precedent can temper this relationship. Regime II depicts a scenario in which the District Court (D) is ideologically closer to the precedent than is the appellate court, and we expect this spatial configuration to decrease the district court's propensity to positively interpret precedent. It does so due to the district court's strategic anticipation of the likely response of the appellate court. In Regime III, P is in between D and A, and the degree to which the district court may deviate from its preferred interpretation will depend on whether the appellate court is further from P than it is. Finally, Regime IV is a situation in which there is no appellate court constraint, given that D and A share the same policy preference.

92. *See, e.g.*, HETTINGER ET AL., *supra* note 17.

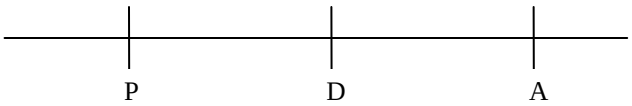
93. One should recognize that each of these regimes also has a mirror image. For example, the mirror image of Regime I is the following: D < A < P.

FIGURE 4: IDEOLOGICAL SPACE RELATIONSHIPS OF A DISTRICT COURT (D), THE CIRCUIT COURT (A), AND THE RELEVANT SUPREME COURT PRECEDENT (P)

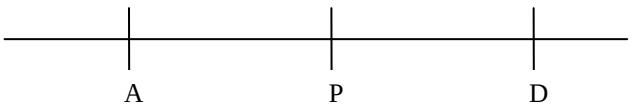
Regime I



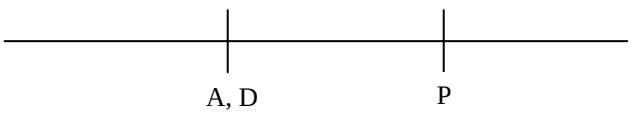

Regime II




Regime III




Regime IV




*Note*: We refer to each set of relationships as a Regime. For more details on these four Regimes, please refer to the text.

Our *Relative Distance Hypothesis*[94] more formally articulates the relationship between D, A, and P found in Figure 4. It makes clear that if A is closer to P than D is to P, then the effect of *Ideological Distance* will be dampened. This interactive relationship between *Ideological Distance* and *Relative Distance* captures the constraint

94. The effect of *Ideological Distance* will be moderated by the relative distance of the appellate court and district court to the Supreme Court precedent.

the appellate courts can exert over the district courts as the latter anticipate the likely responses of the former to their decisions.

## VI. EMPIRICALLY TESTING THE SPATIAL MODEL

To recapitulate, our principal objective is to test whether, when citing and interpreting Supreme Court precedent, federal district court judges take into consideration the preferences of their appellate court superiors. Below, we describe the data and variables that make this test possible.

### *A. Unit of Analysis*

The dependent variables for this study consist of counts of the number of times federal district courts cite and legally interpret the 2,274 Supreme Court opinions released during the Burger Court (1969-1985 Terms).[95] More specifically, our data set contains an observation for each of these 2,274 cases for each of the 12 circuits for each year, starting in the year the Supreme Court case was decided and ending in 2005.[96] For example, a case decided by the Supreme Court in 1975 has a total of 372 observations in our data set, with 12 observations (1 for each of the federal circuits) for the case in each year from 1975 through 2005. Our data set therefore contains a total of 722,410 observations for these 2,274 cases. Our statistical tests estimate the number of times a given district court cites or interprets a specific Supreme Court opinion in a particular year.

### *B. Dependent Variables*

We examine three dependent variables regarding federal district courts' usage of Supreme Court precedent. For each of them, we used *Shepard's Citations* to determine the number of times, for each federal circuit, federal district courts cited or legally interpreted each

95. We drew these cases from MALTZMAN ET AL., *supra* note 76.

96. We do not examine each of the ninety-four district courts separately and instead treat all district courts within the same federal circuit as constituting a single district court. Our analysis therefore aggregates these ninety-four separate district courts into each of the twelve circuits of which they are a part.

Supreme Court opinion in a given year. *Shepard's Citations* is a legal citation service that, among other things, provides a list of all citations from American courts to each Supreme Court opinion. Shepard's also offers an "editorial" analysis that determines the legal effect the citing case may exert on the cited case, meaning it indicates how the citing case legally interpreted the cited case.[97]

Our first dependent variable examines the number of times district courts cite a Supreme Court opinion without legally interpreting it, meaning the district court refers to the case but does not use language in its decision that potentially affects the legal status of the precedent. Generally, this dependent variable contains what are commonly referred to as "string citations," in which the citing case does little more than refer to the cited case and offers little in the way of meaningful discussion of it. We use the *Shepard's Citations* categories of "cited by,"[98] "explained by,"[99] and "harmonized by"[100]

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97. *Shepard's* uses a set of rules to make these determinations, which can be found in two places. These coding protocols are located in an online description, available in the *Shepard's Product Guide* on LexisNexis(R). Product Guide-Shepard's Citations, http://www.lexis.com (follow "Lexis Nexis(R) Information & Training" hyperlink; then follow "Product Guide-SHEPARD'S Citations" hyperlink) (last visited Feb. 20, 2009) [hereinafter Shepard's Product Guide]. Their rules for making the subjective determination of the type of treatment a citing case delivers to a cited case is discussed more extensively in an unpublished training manual, which we refer to as "Shepard's Citations Unpublished Training Manual." Shepard's Citations Unpublished Training Manual (1993) (on file with authors). Hansford & Spriggs show that *Shepard's* coding protocols are reasonably valid (*Shepard's* assignment of treatment designations actually captures the difference in positive and negative interpretation) and reliable (*Shepard's* coding of decisions can be reproduced by other individuals), and thus they meet the exacting standards of social science. For a discussion of validity and reliability in the social sciences, see James F. Spriggs II & Thomas G. Hansford, *Measuring Legal Change: The Reliability and Validity of* Shepard's Citations, 53 POL. RES. Q. 327 (2000), and Edward G. Carmines & Richard a. Zeller, *Reliability and Validity Assessment*, *in* QUANTITATIVE APPLICATIONS IN THE SOCIAL SCIENCES (Sage University Papers Series No. 07–017, 1979).

98. *Shepard*'s labels a case as "cited by" if there is no language in the decision that would lead to an assignment of one of the substantive treatment categories, such as "followed" or "distinguished." In other words, the citation is basically a string citation. *See* HANSFORD & SPRIGGS, *supra* note 83, at 44–46.

99. *Shepard*'s defines "explained by" as: "Statement of import of decision in cited case. Not merely a restatement of facts." Shepard's Citations Unpublished Training Manual, *supra* note 97, at 13. Although there is discussion of a case, it does not amount to a substantive legal interpretation of the cited case. On this point, see HANSFORD & SPRIGGS, *supra* note 83, at 44.

100. Shepard's defines "harmonized by" as: "Apparent inconsistency explained and shown not to exist." Shepard's Product Guide, *supra* note 97, at 13. Although there is discussion of a case, it does not amount to a substantive legal interpretation of the cited case. *See* HANSFORD & SPRIGGS, *supra* note 83, at 44.

for this dependent variable, and we label it as *Non-Treating Citations*. Specifically, this measure is the total number of times, counted separately for each of the federal circuits and for each year, that *Shepard's Citations* codes federal district court opinions as citing, explaining, or harmonizing a particular Court opinion.

As discussed in Part IV, the presence of a citation can tell us something about law and legal development, but it does not provide information about the *way* in which a lower court deals with a precedent. We therefore also examine the substantive manner in which federal district courts legally interpret Supreme Court precedent. When a court interprets a precedent, it can shape it by restricting or broadening its applicability, and this treatment of the precedent potentially influences the shape of law regarding it.

Hansford and Spriggs suggest the interpretation of precedent falls into two general categories: positive and negative treatment.[101] Positive interpretation takes place when a citing case relies on a precedent and in so doing reiterates its authoritativeness and possibly expands its scope. The citing case thus follows the cited case and indicates that it was "controlling authority."[102] By contrast, negative interpretation occurs when a citing case manifests some level of disagreement with a previous decision. Negative interpretation of a precedent may restrict its reach or even call into question its legal standing. For instance, a court can distinguish a precedent by finding it inapplicable to a new factual situation, limit a case by restating the legal rule in a more limited way, or (if it has the authority to do so) even overrule a case and declare that it is no longer binding.

To measure positive and negative interpretation, we rely on *Shepard's Citations*, which provides an editorial analysis capturing the potential legal effect of each citing case on the cited case. For each citing case-cited case pairing, *Shepard's Citations* determines, as stated in its unpublished training manual, "[w]hat effect, if any, does the citing case have on the cited case?"[103] This editorial analysis therefore provides substantive information about the way in which the citing case legally interpreted the cited case. For *Shepard's* to

101. *See* Spriggs & Hansford, *supra* note 97, at 330.
102. Shepard's Citations Unpublished Training Manual, *supra* note 97, at 17.
103. *Id*. at 13.

indicate that a citing case legally treated a cited case, it must do more than simply cite it. The citing case must provide specific language that has a potential effect on the legal authority or meaning of the precedent.[104] Hansford and Spriggs provide a detailed discussion of the type of language an opinion must use in order for *Shepard's* to assign one of these treatment categories, concluding that *Shepard*'s coding protocols lead to valid and reliable data.[105]

*Shepard's* considers a citing case to positively interpret a precedent if it "follows" the cited case. We therefore count a Supreme Court opinion as being positively interpreted by the lower courts if it was "followed by"[106] or "paralleled by"[107] a federal district court decision. We call this category *Positive Treatment*. These are the treatment categories that *Shepard's* labels as "green signals," meaning that there was positive treatment indicated in the language of the citing case.[108]

*Shepard's* labels a citing case as treating a cited case negatively if it potentially exerts a negative effect on the legal status of the precedent.[109] We include four of *Shepard's* coding categories into what we label *Negative Treatment*: "questioned by,"[110] "limited by,"[111] "criticized by,"[112] and "distinguished by."[113] These categories are the ones for which *Shepard's* assigns an "orange" or "yellow"

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104. Shepard's Citations Unpublished Training Manual states, for example, that "[m]erely citing or quoting, with nothing more, is not a sufficient expression of reliance to permit an 'f' (or any letter, for that matter)." *Id*. at 17.

105. HANSFORD & SPRIGGS, *supra* note 83.

106. *Shepard's* defines "followed by" as a citing opinion relying on the cited case as controlling or persuasive authority. Shepard's Product Guide, *supra* note 97.

107. "Paralleled by" means the citing case relies on the cited case by describing it as "on all fours" or parallel to the citing case. Shepard's Product Guide, *supra* note 97.

108. *See* Shepard's Product Guide, *supra* note 97.

109. Shepard's Citations Unpublished Training Manual, *supra* note 97, at 14, 24.

110. *Shepard's* defines "questioned by" as the citing opinion questions the continuing validity or prececdential value of the cited case. Shepard's Product Guide, *supra* note 97.

111. *Shepard's* defines "limited by" as the citing opinion restricts the application of the cited case, finding its reasoning applies only in specific, limited circumstances. Shepard's Product Guide, *supra* note 97.

112. *Shepard's* defines "criticized by" as: "Soundness of decision or reasoning in cited case criticized for reasons given." Shepard's Citations Unpublished Training Manual, *supra* note 97, at 12.

113. *Shepard's* defines "distinguished by" as: "The citing case differs from the cited cases either involving dissimilar factors or requiring a different application of the law." Shepard's Citations Unpublished Training Manual, *supra* note 97.

signal, meaning that the "validity" of the cited case has been "questioned" or that it has received "possible negative treatment," respectively.[114] As with our *Non-Treating Citation* dependent variable, we measure *Positive Treatments* and *Negative Treatments* as counts of the number of times, for each federal circuit in each year, *Shepard's* indicates that a given Court opinion was legally treated in one of these ways.

### *C. Independent Variables*

Our spatial model in Part V contains three moving parts: (1) the ideological location of each appellate court in each year, (2) the ideological placement of a district court in each year, and (3) the ideological location of each Supreme Court opinion. We therefore require a measure that can place the federal district court, appellate court, and Supreme Court precedent in the same one-dimensional ideological space. We do so by utilizing the Judicial Common Space scores ("JCS scores") developed by Epstein et al., which provide a measure of the "ideal point" (that is, the ideological location) of each district court judge, appellate court judge, and Supreme Court Justice serving in the modern era.[115]

To measure the location of each Supreme Court precedent, we use the median value of the common space scores for the Justices sitting on the Court the year in which the Court decided the precedent. To locate the position of the district court in each year, we use the median value of the common space scores for all district judges serving in a given federal circuit in a year. For an appellate court's ideological location, we use the median score of all appellate court judges serving on that appellate court in a particular year.

Using these data, we then created three independent variables to test our hypotheses. First, we measure *Ideological Distance* as the absolute value of the difference between the Supreme Court

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114. *See* Shepard's Product Guide, *supra* note 97.

115. JCS scores and the details for their compilation are on the project's Web page. The Judicial Common Space, http://epstein.law.northwestern.edu/research/JCS.html (last visited Feb. 20, 2009). Because district court judge scores are not publicly available, the authors have compiled these using the methodology employed in Lee Epstein et al., *The Judicial Common Space*, 23 J.L. ECON. & ORG. 303 (2007).

precedent and the district court median in a given year. Second, we measure *Relative Distance* as the absolute distance between the district court median and the Supreme Court precedent minus the absolute distance between the appellate court median and the Supreme Court precedent.

*Relative Distance* takes on positive values when the appellate court is closer to the existing Supreme Court precedent than the district court is, and it assumes negative values when the district court is closer to Court precedent than the appellate court is. Another way of thinking about this measure is that it assumes positive values for all observations falling within Regime I (and some observations in Regime III), and it takes on negative values for all observations within Regime II (and some observations in Regime III). *Relative Distance* equals zero for cases in Regime IV, meaning the district court and appellate court share the same preference.[116] Third, we include an interaction term between these two variables, *Ideological Distance * Relative Distance*, which enables us to test explicitly for whether, as our theory predicts, the influence of *Ideological Distance* varies based on whether the appellate court or district court is ideologically more proximate to the Supreme Court precedent.[117] This interaction term therefore assesses whether district court judges are constrained by their appellate court superiors through rational anticipation.

The interpretation of each of these coefficients is the following. One interprets *Ideological Distance* as the effect of the ideological distance between the district court and the relevant Supreme Court precedent, under the condition that the appellate court and the district

116. Given our measurement strategy, it is possible for cases in Regime III to have the value of zero on *Relative Distance*, which would indicate that the appellate court and district court were equally spaced on opposite sides of the Court precedent. Our data contain no such observations, so we can interpret the coefficient for *Ideological Distance* as exclusively demonstrating its effect for Regime IV cases. Regimes I, II, III, and IV respectively contain 19.3%, 34.8%, 26.3%, and 19.6% of the observations in our data.

117. Interaction terms permit researchers to test the hypothesis that the effect of one independent variable on the dependent variable is conditioned by a second independent variable. On the use of interactive terms, see Robert J. Friedrich, *In Defense of Multiplicative Terms in Multiple Regression Equations*, 26 AM. J. POL. SCI. 797 (1982), and Thomas Brambor et al., *Understanding Interaction Models: Improving Empirical Analyses*, 14 POL. ANALYSIS 63 (2006).

court are ideologically aligned (meaning the observation falls within Regime IV). We expect the coefficient on *Ideological Distance* to be negative for the *Non-Treating Citation* and *Positive Interpretation* dependent variables, and we predict that it will be positive for the *Negative Interpretation* model. *Relative Distance* captures the effect of this factor for precedents ideologically preferred by the district court (that is, when *Ideological Distance* equals zero). For both the *Positive Interpretation* and *Non-Treating Citation* dependent variables, we hypothesize the coefficient for *Relative Distance* will be positive, and we expect it to be negative in the *Negative Interpretation* model. The independent variable of most interest is the multiplicative term, *Ideological Distance * Relative Distance*, in that it directly tests for the constraining influence of appellate courts. Evidence of such a constraint will be found in a positive coefficient in the *Non-Treating Citation* and *Positive Interpretation* models, which would indicate that the negative coefficient on *Ideological Distance* becomes less negative if the appellate court is closer to the Supreme Court precedent than is the district court. Likewise, a negative coefficient on this interaction term in the *Negative Treatment* model demonstrates that district courts rationally anticipate their appellate court superiors in that the positive effect of *Ideological Distance* shrinks in magnitude when the appellate court is closer to the Court precedent than is the district court.

### *D. Control Variables*

We include a series of control variables to help ensure that our estimate for the above variables of theoretical interest are not capturing variation in citation or treatment of Supreme Court precedent potentially due to other variables with which they are correlated. We draw these variables from prior research on lower court citation of Supreme Court precedent.[118]

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118. *See* HANSFORD & SPRIGGS, *supra* note 83; Fowler et al., *supra* note 80; Ryan C. Black & James F. Spriggs II, *An Empirical Analysis of the Length of U.S. Supreme Court Opinions*, 45 HOUS. L. REV 621 (2008); Frank Cross, James F. Spriggs II, Timothy R. Johnson & Paul Wahlbeck, *Citations in the U.S. Supreme Court: An Empirical Analysis of Their Use and Significance*, 2010 ILL. L. REV. (forthcoming).

We include a series of control variables that do not vary for a given Supreme Court precedent over time. We control for the political salience of a case at the time it was decided, coded as one if the case was discussed on the front page of the *New York Times* the day after the Court decided it.[119] We also use an additional measure for case salience, based on the number of amicus briefs filed on the merits in the case. Because the average number of briefs filed at the Court during the time period of our study increases substantially, our measure of *Amicus Briefs* is a z-score for the level of amicus participation in the case, measured as:

$$\frac{(\text{Number of Briefs Filed in Case X} \times \text{Average Number of Briefs Filed in Term Y})}{\text{Standard Deviation of Number of Briefs Filed in Term Y}}$$

We also control for the nature of the voting and opinion coalitions in the opinion that scholars and judges often suggest condition how lower courts use Supreme Court precedent. We measure *Number of Special Concurrences* as the number of "specially" concurring opinions in a case, as determined by the Spaeth Database.[120] We capture the size of the final majority coalition in the precedent with two dummy variables, and *Final Vote Was Minimum Winning* equals one if the final vote was 5–4 (in a nine- or eight-member Court) and *Final Vote was Unanimous* equals one if there were no dissenting Justices; non-minimum winning and non-unanimous final votes serve as the baseline comparison for these two variables. We measure *Precedent Opinion Length* as the total number of words in the Supreme Court opinion, as drawn from Black and Spriggs.[121] They show that lower federal courts are more likely to cite and legally interpret longer Supreme Court opinions.[122] We also include a variable for *Case Complexity*, for which we follow the literature[123]

119. Lee Epstein & Jeffrey A. Segal, *Measuring Issue Salience*, 44 AM. J. POL. SCI. 66 (2000).

120. *See* Supreme Court Data, http://www.cas.sc.edu/poli/juri/sctdata.htm (follow "The Original U.S. Supreme Court Judicial Database" hyperlinks) (last visited Apr. 8, 2009) [hereinafter Spaeth Database].

121. Black & Spriggs, *supra* note 118.

122. *Id*.

123. MALTZMAN ET AL., *supra* note 76; Timothy R. Johnson et al., *Oral Advocacy Before the United States Supreme Court: Does It Affect the Justices' Decisions?*, 85 WASH. U. L. REV.

and use exploratory factor analysis[124] to produce a single factor score for each case. The input to the factor analysis includes the number of legal issues and the number of statutes or laws under review in the case.[125] *Per Curiam Precedent* equals one if the precedent-setting opinion was designated as per curiam by the Court. We also include two variables for the nature of the issue considered in the Court precedent—*Constitutional Precedent* equals one if the Court used the Constitution as the basis for the opinion, and *Civil Liberties Precedent* equals one if the opinion dealt with civil liberties. We measure *Overruling Precedent* as one if *Shepard's Citations* indicates the opinion overruled a prior decision of the Court. *Precedent Strikes Law as Unconstitutional* equals one if Spaeth determined the opinion struck down a state or federal law as unconstitutional.[126]

We further control for variables whose values can vary during the life of a case. To control for the possibility of changes in the way cases are cited over time, we include a variable, *Citing Year*, which takes on the value of the year being examined in a given observation of the data; that is, if the data point in question concerns the year 1969, this variable would take on the value of 1969. We also control for an important characteristic of a case that varies both across cases and through time: its continuing relevance for law at the Supreme Court. To measure *Legal Relevance of Precedent*, we use a variable created by Fowler et al.,[127] who used a quantitative technique in

457 (2007).

124. Factor analysis in this context is a data-reduction technique that uses the correlation among two or more observed variables to produce a single variable, which one assumes to be a latent unobservable quantity and a linear function of the observed variables. *See* Jae-On Kim & Charles W. Mueller, *Introduction to Factor Analysis: What It Is and How to Do It*, *in* QUANTITIAVE APPLICATIONS IN THE SOCIAL SCIENCES (Sage University Papers Series No. 07–013, 1978). We therefore use factor analysis to model case complexity as an unobservable variable with manifestations in number of legal provisions and number of issues involved in a given case.

125. We drew these data from the Spaeth Database, *supra* note 120. We used Spaeth's "LAW" variable to determine the number of constitutional provisions, statutes, or court rules at issue in a case, and we used the "ISSUE" variable to count the number of different legal issues in a decision.

126. Spaeth Database, *supra* note 120.

127. This measure uses both inward citations (i.e., citations to a given Supreme precedent from other Supreme Court opinions), and outward citations (i.e., citations within a given Supreme Court opinion to other Supreme Court cases) to measure how central each opinion was in the network of all opinions at the Court from 1791 through 2005. We use their measure of

social network analysis that examined patterns of citations within and across Supreme Court opinions to develop a measure of how central each opinion was in the entire network of Supreme Court law in each year of a case's life. Larger values indicate that a case is more relevant in the network of law of the Court. We also control for the age of a case, given the now well-established empirical regularity of older cases being cited less often than younger cases, and this effect either switching directions or becoming smaller for exceedingly old cases.[128] We measure this non-linear effect of age with two variables, *Age of Precedent*, which is the number of years since the Court decided an opinion, and the square of this number, *Age of Precedent-Squared*. This quadratic formulation enables age to have a non-linear effect; specifically, it allows for the effect of age to switch directions at one point across the values of precedent age.[129] To control for possible caseload effects across the district courts, we include a variable, *District Court Caseload*, measured as the total number of cases decided by the district courts in a particular circuit in a given year. Finally, to control for temporal dependencies within a Supreme Court case during time not otherwise captured by our other control variables, we include *Lag of Dependent Variable*, which is a one-year lag of the dependent variable being examined.

Because our dependent variables are counts of events, we utilize a negative binomial regression model.[130] Also, we use robust standard errors, clustered on Supreme Court precedents, to control for the

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*Inward Relevance*, and a more "inwardly relevant case is one that is widely cited by other prestigious decisions, meaning that judges see it as an integral part of the law." Fowler et al., *supra* note 80, at 330. They further label inwardly relevant cases as those that are most "influential" in the network of law at the Supreme Court. *Id.* at 331. Their measure is based exclusively on citations within Supreme Court opinions and thus captures legal relevance of a case for the network of cases at the Court. *Id*.

128. HANSFORD & SPRIGGS, *supra* note 83; 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); Fowler et al., *supra* note 80; William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976).

129. *See* ALAN AGRESTI & BARBARA FINLAY, STATISTICAL METHODS FOR THE SOCIAL SCIENCES 358–64 (3d ed. 1997) (discussing how one models a nonlinear relationship).

130. *See, e.g.*, J. SCOTT LONG, REGRESSION MODELS FOR CATEGORICAL AND LIMITED DEPENDENT VARIABLES (1997).

possibility of the error term being correlated within a given Court precedent over time.[131]

## VII. RESULTS

Table 1 presents the statistical results for our analysis. We begin our discussion with the results for the *Positive Interpretation* and *Non-Treating Citation* dependent variables because we predict similar effects for the independent variables. Our first hypothesis, which is a standard component of nearly any model of federal court decision-making, contends that district court judges will use Supreme Court precedent in ways consistent with their policy preferences. We thus expect that the further ideologically removed from a Supreme Court precedent district court judges are, the less likely they are either to string cite it or to interpret it positively. The coefficient for the variable capturing this relationship, *Ideological Distance*, is negative and statistically significant in both models. Strictly speaking, this particular coefficient indicates that district court judges are less likely to cite or positively interpret a Court precedent under the condition that the appellate court and the district court share the same preference for that precedent (that is, *Relative Distance* equals zero).

131. J. SCOTT LONG & JEREMY FREESE, REGRESSION MODELS FOR CATEGORICAL DEPENDENT VARIABLES USING STATA 86 (2d ed. 2006).

TABLE 1: NEGATIVE BINOMIAL REGRESSION OF THE NUMBER OF CITATIONS AND TREATMENTS OF MAJORITY OPINIONS OF THE U.S. SUPREME COURT BY DISTRICT COURTS, 1970–2005

| | Coefficient (Robust Standard Error) | | |
|---|---|---|---|
| | Positive Treatment | Non Treating Citation | Negative Treatment |
| Ideological Distance | -0.475* | -0.489* | -0.384 |
| | (0.062) | (.041) | (0.080) |
| Relative Distance | 0.304* | 0.878* | 0.649 |
| | (0.097) | (0.078) | (0.147) |
| Ideological Distance x Relative Distance | 0.212 | -1.032 | -0.460 |
| | (0.280) | (.200) | (0.480) |
| Constant | -105.64* | -52.913* | -14.724 |
| | (14.718)* | (7.904) | (13.59) |
| Alpha | 4.29* | 2.029* | 3.807* |
| | (0.414) | (0.214) | (0.26) |
| Number of Observations | 722410 | 722410 | 722410 |

*Note*: * denotes $p < 0.05$ (two-tailed test). Robust standard errors are provided in parentheses. The full results are reported in the appendix.

Our model includes a multiplicative term of *Ideological Distance* with *Relative Distance,* which means that one cannot calculate the effect of one without taking into consideration the observed value of the other. To determine whether the effect of *Ideological Distance* is different for values of *Relative Distance* other than zero, one must calculate the conditional coefficients and standard errors. That is, one can calculate the effect size and standard error of *Ideological Distance* for each observed value of *Relative Distance*.[132] When considering the *Positive Interpretation* dependent variable, our data

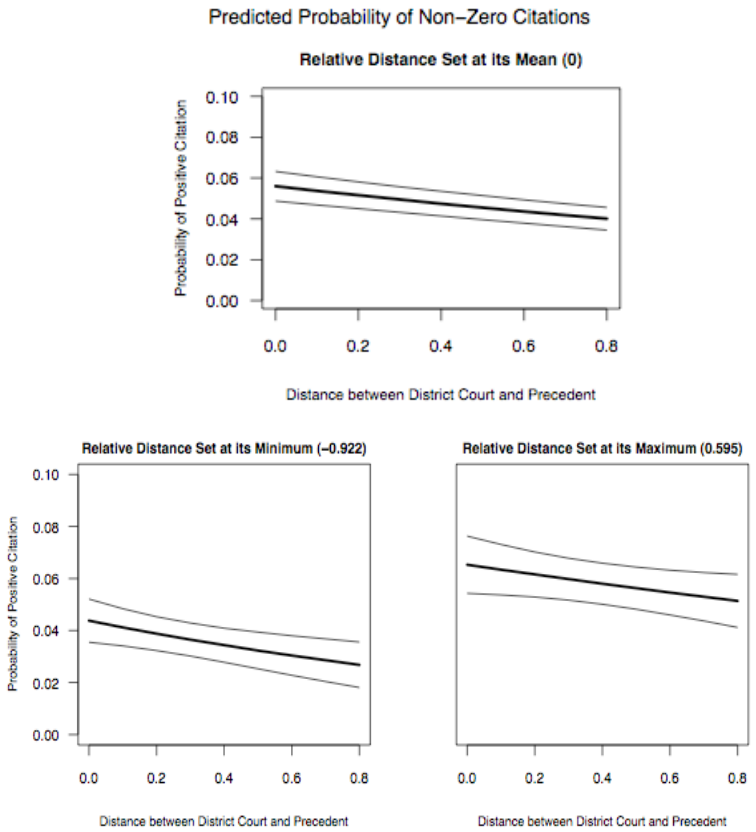
132. See Friedrich, *supra* note 117, and Brambor et al., *supra* note 117, regarding the use of interaction terms.

indicate that the effect of *Ideological Distance* is negative and statistically significant for all values of *Relative Distance* less than or equal to -0.5757. This means that the effect of *Ideological Distance* is consistent with our expectations for 99.98% of the data in our study. When we turn to the relationship of *Ideological Distance* with *Non-Treating Citations*, we uncover a similar relationship, and it is negative and statistically significant for all values of *Relative Distance* greater than or equal to -0.3485 (meaning this variable is significant for 98.44% of the data in this study).

We also hypothesized that the coefficient on *Relative Distance* would be positive for both of these dependent variables, and the results support this expectation. This relationship shows that, when a district court prefers a Supreme Court precedent, it is even more likely to cite it or positively interpret it when the appellate court is closer to the precedent.[133] Figure 5 depicts this effect (for positive citations) by plotting the effect of *Ideological Distance* for the minimum, mean, and maximum values of *Relative Distance*. As is visible from the figure, no matter the value of relative distance, a district court is more likely to positively cite to precedent when *Ideological Distance* between the court and the precedent is small. Similarly, the greater the value of *Relative Distance*, the more likely we are to see positive citation. We should point out that we do not interpret these two coefficients as demonstrating the constraining effect of appellate courts on district court judges. Rather, it suggests that district courts are free to act on their preferences when the appellate courts share those policy preferences.

133. We should point out that the values on *Relative Distance* must be less than or equal to zero because, when *Ideological Distance* equals zero (meaning the ideological location of the district court is the same as the location of Supreme Court precedent), it is not possible for an appellate court to be closer to the precedent than the district court is.

FIGURE 5: PREDICTED PROBABILITIES OF DISTRICT COURT OPINIONS CONTAINING ONE OR MORE POSITIVE CITATIONS TO SUPREME COURT PRECEDENT




*Note*: The probabilities are represented across the ideological distance between the district court and the precedent. The thick lines depict the mean predicted probability, and the thin lines show the upper and lower 95% confidence intervals on that probability. The top panel shows the probabilities while *Relative Distance* is held at its mean (0), and the bottom panels indicate *Relative Distance* at its minimum (-0.922) and maximum (0.595) values. All other variables are held at their median or modal values.

We now turn to the results for the interaction term, and, contrary to our spatial model's predictions, we do not observe district courts taking the preferences of their appellate court superiors into consideration. Although the coefficient in the *Positive Interpretation* model is positive, as we predict, it is not statistically distinguishable from zero. In effect, this means that, although the magnitude of the effect of *Ideological Distance* does diminish when appellate courts are closer to Court precedent than the district courts, we cannot rule out that this change is due to random noise. The coefficient for *Ideological Distance* * *Relative Distance* is not even in the predicted direction in the *Non-Treating Citations* model.

In light of the results for the prior two dependent variables, the results for the *Negative Treatment* model are puzzling. The data do not show that district court judges consider their own policy preferences when negatively treating Supreme Court precedent. In fact, the coefficient on *Ideological Distance* is opposite our prediction, suggesting that, for situations in which the appellate court's and district court's preferences are aligned, district judges are *less* likely to negatively treat a precedent if they dislike it. While the coefficient on *Ideological Distance* does become positive when *Relative Distance* is less than or equal to -0.835, the effect is not statistically distinguishable from zero. Moreover, even if this effect were statistically significant, the coefficient for *Ideological Distance* is positive for such a small range of the data (only 4.3% of the observations) that we would consider the effect to be substantively trivial. The coefficient on *Relative Distance* is also contrary to our model's prediction. While the coefficient on the interaction term is appropriately signed, it is statistically insignificant, and, when considered in conjunction with the results for judge ideology, it does not offer support for a theory of constraint.

In short, the data analysis convincingly demonstrates the effect of judge ideology on the citation and positive interpretation of Supreme Court precedent. Judges are more likely to cite precedent or follow it when the precedent is ideologically favorable. Our analysis, however, fails to find evidence that federal district court judges cite or interpret Supreme Court precedent based on the ideological location of the appellate court sitting above them.

## CONCLUSION

The hierarchical relationships of the federal judiciary are of major importance to many, and the present study takes steps forward in theoretically and empirically testing them. Our objective in this Article was to assess whether and to what degree district court judges rationally anticipate the Court of Appeals sitting above them. Our empirical tests consisted of examining whether district courts cited and interpreted Supreme Court precedent in light of their expectation of the appeals court's preference toward a precedent. We based this hypothesis on a simple spatial model that included a district court, the relevant court of appeals, and Court precedent in a unidimensional ideological policy space.

Our analyses uncover no evidence for the strategic anticipation hypothesis. We do, however, find evidence that district court judges' ideological view of a Court precedent influences how often they cite and positively interpret it. Given the long line of literature that has found ideological considerations operating in judicial decision-making across the judicial hierarchy,[134] our results in this regard are not surprising. We also find that the frequency of citation and interpretation of Court precedents varies by both static characteristics of those precedents (e.g., length of the precedent) and dynamic attributes of them (e.g., continuing legal relevance at the Court and age of precedent). These results are largely consistent with prior literature on lower court usage of Supreme Court precedent.[135]

Existing literature offers contradictory results regarding strategic anticipation. The null results in this Article provide valuable information, but further pursuing work on the federal judicial

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134. *See, e.g.*, JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED (Cambridge University Press 2002) (finding that Supreme Court Justices' decisions are ideologically motivated); Virginia A. Hettinger et al., *Comparing Attitudinal and Strategic Accounts of Dissenting Behavior on the U.S. Courts of Appeals*, 48 AM. J. POL. SCI. 123 (2004) (finding that ideological disagreement among judges is an important predictor of dissent); C.K. Rowland et al., *Judges' Policy Choices and the Value Basis of Judicial Appointments: A Comparison of Support for Criminal Defendants Among Nixon, Johnson, and Kennedy Appointees to the Federal District Courts*, 46 J. POL. 886 (1984) (finding that the party of the appointing President is an important predictor of district court judge decision-making).

135. *See supra* notes 80, 83, 118.

hierarchy is necessary to better understand this finding. There are a variety of ways that our analysis should be refined as scholarship on this question progresses. First, our spatial model is an individual-level argument that leads to hypotheses about how a district court will behave with regard to a particular precedent. We then tested our hypotheses by aggregating data across all district courts within a particular circuit regarding their citation and treatment of a particular precedent in each year. While aggregate analyses of this sort can be illuminating, one loses information on various specifics that may assist in understanding hierarchical judicial relationships. One needed refinement is disaggregating the data so that each district court within a circuit is treated as a separate decision-maker. We think future research should also examine data at the individual case level, examining how district court judges, in a given citing case, choose to apply and interpret precedents relevant for it.[136] This unit of analysis would allow one to use a more refined measure of variables such as district court and circuit court judge ideology and case characteristics.

Future efforts might also model the dynamic nature of the Supreme Court. Our model here simply accounts for the ideological location of the Supreme Court precedent. It does not include the Court as a decision-maker in the model, and thus district courts are not modeled as strategically anticipating the Court. But, given that the preferences of the Court can and do change over time, the next logical step will be to also model the Supreme Court's preferences at the time that the district court makes its decision.

Implementing these changes will be no trivial feat. Collecting these additional data will be an arduous task. The spatial model will also have to be made more complex in order to generate the predictions coming from those relationships. As additional constraints are added, it becomes more difficult to model and empirically test all of the expectations. Because understanding the complicated and dynamic relationships that are inherent in the judicial hierarchy is so important, we commend others to also take on this task.

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136. An example of such a unit of analysis can be found in HANSFORD & SPRIGGS, *supra* note 83. Their study, however, was not aimed at testing rational anticipation.

TABLE 1(A). FULL NEGATIVE BINOMIAL REGRESSION RESULTS OF THE NUMBER OF CITATIONS AND TREATMENTS OF MAJORITY OPINIONS OF THE U.S. SUPREME COURT BY DISTRICT COURTS, 1970–2005

| | Coefficient (Robust Standard Error) | | |
|---|---|---|---|
| Independent Variables | Positive Treatment | Non Treating Citation | Negative Treatment |
| Ideological Distance | -0.475* | -0.489* | -0.384 |
| | (0.062) | (.041) | (0.080) |
| Relative Distance | 0.304* | 0.878* | 0.649 |
| | (0.097) | (0.078) | (0.147) |
| Ideological Distance x Relative Distance | 0.212 | -1.032 | -0.460 |
| | (0.280) | (.200) | (0.480) |
| New York Times | -0.078 | -0.042 | 0.045 |
| | (0.095) | (0.051) | (.118) |
| Amicus Briefs | 0.018 | 0.006 | 0.021* |
| | (0.010) | (0.005) | (0.009) |
| Number of Special Concurrences | -0.038 | -0.013 | -0.016 |
| | (0.051) | (0.028) | (0.048) |
| Final Vote Was Minimum Winning | -0.039 | 0.001 | -0.030 |
| | (0.081) | (0.046) | (0.078) |
| Final Vote Was Unanimous | 0.034 | .031 | -0.152 |
| | (0.078) | (0.043) | (0.082) |
| Precedent Opinion Length | 0.00007* | 0.00005* | 0.00005* |
| | (0.00001) | (0.000008) | (0.00001) |
| Case Complexity | -0.005 | 0.025 | 0.033 |
| | (0.030) | (0.016) | (0.030) |
| Per Curiam Precedent | -1.178* | -0.947* | -1.409* |
| | (0.344) | (0.259) | (0.264) |
| Constitutional Precedent | -0.235* | -0.259* | -0.176* |
| | (0.080) | (.046) | (0.082) |
| Civil Liberties Precedent | 0.135 | 0.149* | -0.002 |
| | (0.086) | (0.047) | (0.102) |

| | Coefficient (Robust Standard Error) | | |
|---|---|---|---|
| Independent Variables | Positive Treatment | Non Treating Citation | Negative Treatment |
| Overruling Precedent | 0.369* | 0.256 | 0.457 |
| | (0.147) | (0.132) | (0.188) |
| Precedent Strikes Law as Unconst. | -0.291* | -0.235* | -0.006 |
| | (0.122) | (0.065) | (0.081) |
| Citing Year | 0.051* | 0.026* | 0.005 |
| | (0.007) | (0.004) | (0.007) |
| Legal Relevance of Precedent | 2.058* | 1.760* | 1.761* |
| | (.171) | (0.113) | (.173) |
| Age of Precedent | -0.169* | -0.093* | -0.157* |
| | (0.010) | (0.006) | (0.008) |
| Age of Precedent-Squared | 0.003* | 0.001* | 0.0034* |
| | (0.000) | (0.0001) | (0.0002) |
| District Court Caseload | 0.000006* | 0.000005* | 0.000006* |
| | (0.0000005) | (0.0000003) | (0.0000007) |
| Lag of Dependent Variable | 1.007* | .270* | 1.370* |
| | (0.091) | (.037) | (0.051) |
| Constant | -105.638* | -52.913* | -14.724 |
| | (14.718)* | (7.904) | (13.590) |
| Alpha | 4.29* | 2.029* | 3.807* |
| | (0.414) | (0.214) | (0.26) |
| Number of Observations | 722410 | 722410 | 722410 |

*Note*: * denotes $p < 0.05$ (two-tailed test). Robust standard errors are in parentheses. Further discussion of the variables is available in the main text.