

# Ideological Influences on Decision Making in the Federal Judicial Hierarchy: An Empirical Assessment

**Christopher Zorn** Pennsylvania State University  
**Jennifer Barnes Bowie** George Mason University

*Scholars of judicial politics have long speculated that the factors influencing judicial decision making operate to varying degrees at different levels of the judicial hierarchy. We investigate what we term the “hierarchy postulate”: that the effect of judges’ policy preferences on their decisions increases as one moves up the judicial hierarchy. Using original data on cases decided at each level of U.S. federal courts, which allow us to evaluate the impact of policy preferences on judicial decision making while holding constant the influence of case-specific factors, we find robust support for the contention that ideological and policy-related influences on federal judges’ decisions are larger at higher levels of the judicial hierarchy.*

Judicial decision making—how and why judges decide cases the way they do—is at the heart of the contemporary study of judicial politics, and the past 60 years have witnessed an explosion of work devoted to this complex topic. Throughout the development of this work, scholars have remained sensitive to the fact that, as compared to other political decision environments, the legal context of judging provides a particular challenge to understanding what judges do and why they do it. Gibson accurately described the intricacy of judging by famously remarking that “judges’ decisions are a function of what they prefer to do, tempered by what they think they ought to do, but constrained by what they perceive it feasible to do” (1983, 9).

To understand judicial decision making thus requires that we be particularly cognizant of the interaction of institutional- and judge-level factors, and in particular of how judges’ institutional context mediates the influence of other factors on their behavior. At the same time, existing work counsels that we consider the influence of case-specific factors on those decisions as well. This is no small challenge: to date, studies of judicial decision making that have been sensitive to the latter concerns have proceeded *seriatim* with respect to institutional factors, analyzing decision making on single courts

and focusing on the interplay of judge- and case-level factors. Conversely, the relatively small volume of institutionally comparative work has tended to ignore case-level factors entirely, focusing instead on how institutional factors constrain or facilitate the operation of judge-level influences on decision making.

Here, we examine in detail the intersection of institutional and judge-level influences on judicial decision making, through an analysis of what we term the “hierarchy postulate.” More specifically, we operationalize and test a policy-based model of judicial voting on the U.S. federal courts that allows the influence of policy-related factors on judges’ votes to vary across different levels of the federal judicial hierarchy, while simultaneously holding constant—in a general, intuitive, and empirically justifiable way—the influence of case-specific factors on those decisions. The result is a set of findings that robustly support the widely held perception that judges’ policy preferences influence their decision making to a greater extent at higher levels of the judicial hierarchy than at lower ones. More importantly, while this finding itself is largely intuitive, our work is—to the best of our knowledge—the first explicit analysis of the hierarchy postulate that utilizes data across all three levels of the U.S. federal judiciary.

## Decision Making in the Federal Judicial Hierarchy

Arguably the signature characteristic of the U.S. federal judicial system is its hierarchical structure, and questions about the operation of the federal judicial hierarchy are among the oldest and most significant for scholars of the courts (Frankfurter and Landis 1928). While the significance of that structure for judges' decision making is complex and multifaceted, we believe those influences can be largely classified into two broad categories: the importance of the judicial hierarchy to the *goals* of the judges operating within it, and that structure's effect on the *strategic environment* in which judges make their decisions. We consider each of these in turn.

### Judicial Goals and the "Pyramid"

In his influential work on judicial decision making, Baum (1997) takes as his point of departure the goals that judges seek to achieve with their actions. Using the metaphor of a pyramid to summarize existing work on judicial behavior, Baum notes that trial court judges often have both the broadest range of goals and the greatest degree of heterogeneity in how they prioritize those goals. Those goals include "getting the outcome right," facilitating the processing of their expansive workload, increasing their own visibility and prestige, communicating with relevant legal and extra-legal audiences, avoiding reversal from appellate courts, and a host of other considerations (Baum 1997, 24–25; Baum 2006, 9–22). Moreover, the conventional view of decision making in the district courts has been one of enforcing norms in criminal and civil cases rather than making doctrinal pronouncements (Baum 2006; Glick 1988; Jacob 1983). For instance, much of the work of district judges deals with routine matters such as supervising trials, approving plea agreements in criminal cases, overseeing settlements in civil suits, and ascertaining case facts. Even when the situation may arise for a district court judge to make policy, "both the hierarchical nature of the system and the general atmosphere created by handling mostly routine cases discourages this even when a novel situation begs such a response" (Goldman and Jahnige 1976, 222). Thus, while ideological and policy-related influences undoubtedly play some role in their decisions, they are but two of several competing considerations, and in many instances not the most important ones.

Conversely, the justices of the U.S. Supreme Court—commanding the "top" of the pyramid—are

widely understood to focus primarily, if not exclusively, on policy-related considerations in their decision making. The sources of this influence can be found in a range of institutional factors: the relative political independence of the Court and its members' general lack of any progressive ambition for higher office (Segal and Spaeth 2002); its almost-complete agenda control; and the far-reaching policy significance of its decrees. Moreover, that policy relevance creates incentives for the appointment of single-minded policy seekers, which in turn has increased the importance that not only presidents but also senators place on ideological criteria when selecting and confirming justices to the Court (Epstein et al. 2006).

What Baum describes as "mid-level" courts sit between the two extremes described above, and the institutionally induced goals of such judges reflect that intermediate position. Midlevel judges—in the U.S. federal courts, judges on the federal courts of appeals—are typically viewed as having a narrower range of goals than their district court colleagues, but a broader set than the justices of the Supreme Court. As a result, factors such as policy preferences, while more important for appeals court judges than for their district court counterparts, are only one of a number of influences on their decisions (Baum 1997, 28–29).

Existing empirical research on judicial decision making generally supports the idea of the pyramid. On the one hand, studies of federal district court judges' decisions almost always underscore the prevalence of legal and other case-specific factors over policy concerns (e.g., Ashenfelter, Eisenberg, and Schwab 1995; Ducat and Dudley 1989; Eisenberg and Johnson 1991; Rowland and Carp 1980; but see Perino 2006; Johnson and Songer 2002). On the other hand, the importance of policy preferences on the votes of U.S. Supreme Court justices is a well-established part of the empirical literature (Segal and Cover 1989; Segal and Spaeth 2002). And, appropriately, studies of federal circuit courts of appeal seem to consistently conclude that legal factors, coupled with policy preferences, and other influences all conspire to shape those judges' decisions (e.g., Cross 2003; Hettinger, Lindquist, and Martinek 2006; Kaheny, Haire, and Benesh 2008; Klein 2002; Scott 2006).

The implications of this variability in judges' goals within the "pyramid" are several. First, the multiplicity of goals at lower levels suggests that any single influence on lower court judges' decision making will explain relatively little, if any, of the aggregate variation in judges' decisions. Conversely, at higher levels those few goals relevant to decision

making will do a reliably better job of explaining the decisions reached. Second, they suggest that judicial decision making will be more strongly influenced by policy-related factors at higher levels of the judicial hierarchy than at lower ones. That is, as one moves up the judicial pyramid, ideological factors will be increasingly predictive of the decisions judges reach.

### **Institutional Constraints and Appellate Review**

Beyond differences in judges' goals, the hierarchical structure of the federal courts also shapes judges' decisions more directly, both through the institutional constraints it imposes on decision making and via the case selection process. With respect to the first of these, the hierarchical structure induces judges at varying levels of the system to consider how their decisions will be received by other actors within the system. District courts receive the most appellate scrutiny and are bound by precedents set at both the Supreme Court and circuit levels, and a number of studies have suggested that district court judges are, at least to some extent, responsive to the policies promulgated by their respective courts of appeals (e.g., Baum 1980; Vines 1963). As triers of fact in courts of first instance, district court judges also appreciate that their decisions are reviewable on appeal as a matter of right and are therefore subject to direct oversight (Caminker 1994). As a result, pressures to avoid reversal and "get the law right" often mitigate ideological effects. Simultaneously, district court judges also recognize that, in most instances, the policy implications of their decisions are relatively minimal, since the impact of those decisions are largely confined to the case at hand and where the outcome, for the most part, only affects the litigants involved in the particular case.

At the other end of the spectrum, the justices of the U.S. Supreme Court constitute the court of last resort in the federal system, and as such have no direct judicial oversight of their decisions. While the Court is in principle bound by its own precedents, the extent of this constraint has been shown to be minimal at best (Spaeth and Segal 1999). Moreover, in contrast to district court decisions, Supreme Court pronouncements often have broad policy implications, as they apply to not only the case at hand but to all future cases regarding the particular issue. Judges on the circuit courts of appeals occupy a middle position in this hierarchy, and therefore present an intermediate case. While on the one hand they are constrained by Supreme Court precedent, and that of

the circuit, it is also the case that their decisions affect the circuit at large, and more often than not represent the "last word" in policymaking.

Beyond issues of precedent, oversight, and policy significance, the nature of the appellate process has also been suggested as a contributing factor to variability in the causes of appellate decision making. In their influential work on appellate courts, Priest and Klein (1984) suggest that the cases most likely to ascend through each level of the judicial hierarchy are those where the chances of success for each party are close to parity. An important implication is that such cases are more likely to lack a clear legal standard or are otherwise indeterminate with respect to a particular outcome.

### **Empirical Implications**

The combination of divergent and heterogeneous goals, issues of time and workload, varying degrees of institutional constraints, and the nature of the appellate process at each of the various levels of the federal courts suggests that the factors influencing decision making in each of those courts will vary substantially from the others. Consider, for example, arguably the most widely-studied influence on judicial decision making: judges' personal policy preferences. The influence of those preferences—typically cast as "ideology," and operationalized along the liberal-to-conservative continuum common to other aspects of American politics—on judges' decisions in individual cases is as normatively significant as it is empirically well-documented. The points raised above all suggest a general statement about the influence of policy preferences on federal judges' decisions that we term the *hierarchy postulate*:

*The Hierarchy Postulate:* The influence of judges' policy preferences on their decision making increases as one moves higher up the judicial hierarchy.

Each of the various phenomena described above—judicial goals, institutional constraints, and case selection dynamics—contributes, in theory, to the operation of the hierarchy postulate. One might think of these influences as corresponding to *means*, *motive*, and *opportunity* for ideological influence. Institutional constraints (or the lack thereof) provide the means for ideological factors to come into play: both the reduced influence of precedent and the relative infrequency (or, in the case of the Supreme Court, total absence) of direct appellate oversight provide judges at higher levels of the hierarchy with a mechanism by which policy preferences can come to influence behavior. The

focus on policy-related goals by higher-court judges, together with the greater policy significance of cases decided at the appellate levels, gives higher court judges a relatively stronger motive to bring their own preferences to bear in making such decisions than their trial court counterparts. Finally, the appeal decisions of litigants themselves—which lead to the selection of "closer" cases at higher levels of appeal—mean that judges in those higher courts have relatively more opportunities to decide cases in which policy preferences may come into play.

Empirically, the notion that the decisions of higher-court judges are influenced by policy preferences to a greater degree than those of their lower-court colleagues is effectively a truism in political science. Yet to date support for the postulate comes largely from studies conducted discretely at each level of the hierarchy; with very few exceptions, existing work on this question has focused only on a single level of the federal courts (e.g., Cameron, Segal, and Songer 2000; Cohen 2002; Rowland and Carp 1996; Segal and Spaeth 2002). The relative lack of integrated empirical analyses across the range of the judicial hierarchy means that much of our understanding about cross-court differences in fact comes from studies of single courts or specific kinds of courts. Below, we outline and conduct a test of the hierarchy postulate that overcomes these limitations.

## Study Design

Our goal is to examine the hierarchy postulate empirically, across all three levels of the U.S. federal courts. To do so requires both data with which cross-level comparisons can be made, and a set of techniques—both of measurement and of analysis—that allow for such comparisons to be made validly and reliably. We discuss each of these components in turn.

Central to valid cross-level comparisons is a means of ensuring that the issues facing judges at each level of the hierarchy are similar. Particularly important in this regard is the issue of *case facts*. Case-specific characteristics offer a rare point of convergence between the various schools of thought on judicial decision making; as Segal and Spaeth note, "(F)acts obviously affect the decisions of the Supreme Court, but on that point the attitudinal model does not differ from the legal model" (2002, 319). As a result, any model of judicial decision making necessarily must incorporate case facts, and "fact pattern" analyses have been the dominant approach to studying judicial decision making over the past

three decades.<sup>1</sup> But while the importance of case facts to judicial decisions cannot be gainsaid, existing approaches to incorporating case-specific factors suffer from two related deficiencies. The first is the need to determine *ex ante* the relevant case facts to be included in the model. Second, such an approach necessarily limits studies to a single area of the law, a fact that works to limit the generalizability of the approach.

Our solution to these problems is to adopt a "vertical" approach, examining cases heard and decided at each of the three levels of the federal hierarchy, and to analyze the behavior of the judges at each stage in a unified framework. Our study thus begins by identifying all cases decided in the U.S. Supreme Court which originated in a federal district court; these data were drawn from Harold Spaeth's Supreme Court Judicial Database (Spaeth 2006). For the analyses herein, we examine data from the 1968, 1982, and 1990 Terms of the Court;<sup>2</sup> from these three years, for a total of 362 cases (128 from OT1968, 145 from OT1982, and 89 from OT1990). To ensure that each case sampled from the database originated in federal district court, we cross-checked each case in our sample using Westlaw®.

With this sample of cases in hand, we then coded the actions of all participating federal judges in each of the lower court proceedings through which the case passed. These include the initial decision rendered by the district court judge, the votes and decision of the three-judge court of appeals panel which heard the case on review, and (where relevant) the votes and decisions of the circuit that reviewed the decision of the three-judge panel *en banc*. We began the coding of each with a Westlaw Search of the Supreme Court decision; the results of that search yielded lower court (e.g., U.S. courts of appeals and U.S. district court) citation information about each Supreme Court case. Next, each lower court decision was coded for the name of the judge (s) in question,

<sup>1</sup>The archetype of this approach is Segal's (1984) study of the Supreme Court's search and seizure decisions. Subsequent work on "jurisprudential regimes" has convincingly demonstrated that changes in Supreme Court doctrine in discrete areas of the law lead to changes in the relative importance of case facts on subsequent decisions (e.g., Richards and Kritzer 2002).

<sup>2</sup>The three terms selected are broadly representative: they provide a reasonable approximation of the types of cases originating in the district courts across all the years in the study, and are also representative of the changes in Supreme Court ideology over the period. More specifically, the 1968 term was arguably the pinnacle of Warren Court liberalism; the 1982 term was a transitional period characteristic of Chief Justice Burger's years on the Court, while the 1990 term saw a Rehnquist Court dominated by Republican appointees.

the type of opinion that judge wrote in the case (e.g., majority, concurring or dissenting), and the directionality of the judge's vote in the case at issue.<sup>3</sup> Our coding of the votes of the judges follows the protocol used in Spaeth (2006), and focuses on the directionality of the decision (liberal or conservative). Specifically, a conservative vote was given a value of one, a liberal vote was coded as zero, and (following standard practice) mixed or indeterminate votes were omitted from our analysis. Judge-specific data such as the identity of the president who appointed the judge were subsequently gathered from the Federal Judicial Center's *Biographical Directory of Federal Judges* (Federal Judicial Center 2010).<sup>4</sup>

Our data thus consist of 4,131 votes cast by federal judges in 334 separate cases. Those include 349 votes in the federal district courts, 776 votes by judges in the U.S. courts of appeals, and 3,006 votes by the justices of the U.S. Supreme Court.<sup>5</sup> Accordingly, for each case in our data, we typically have 13 separate votes on the merits (one district court, three court of appeals, and nine Supreme Court votes). By coding data at the various levels of the judicial hierarchy in each case, this approach allows us to examine judicial voting "within" a given case context, holding constant the range of case-specific factors that might otherwise influence judicial decisions.<sup>6</sup> Equally important, this approach also offers a means

of examining the mechanism by which the hierarchy postulate operates. For example, if case selection is the driving force behind the postulate, then we would expect to find little if any difference in the association between preferences and decision making across courts once case-specific factors (such as "closeness") are controlled for. In contrast, institutional- and goal-related factors would lead such differences to persist even after case-specific factors are taken into account.

To measure judges' policy preferences, we turn to three well-established indicators of judges' political ideology. Two are rooted in political party identification: as numerous previous works have noted, both the *party identification of the judge* him- or herself, and that of his or her *appointing president*, have been shown to be both valid, reliable indicators of judges' policy preferences and strongly related to their decisions in individual cases (Pinello 1999). In addition, both political party indicators have the additional benefit of being simple to measure accurately for judges at all levels of the federal hierarchy, thus facilitating comparability of the results.

Our third measure of policy preferences is the judicial ideology scores of Giles, Hettinger, and Peppers (2001; hereinafter "GHP"). The GHP measure is based on Poole's (1998, 2009; Carroll et al. 2009) common space scores for senators and presidents. As Epstein et al. note,

(T)he state-of-the-art measure for the preferences of U.S. court of appeals judges (and, for that matter, federal district court judges) too relies on the common Space scores but exploits the norm of senatorial courtesy. If a judge is appointed from a state where the President and at least one Home-state Senator are of the same party, the nominee is assigned the NOMINATE common Space score of the home-state Senator (or the average of the home-state Senators if both member so the delegation are from the President's party). If neither home-state Senator is the President's party the nominee receives the NOMINATE Common Space score of the appointing President. (2007, 306)

The GHP scores are thus available (and valid) for both federal district court and federal court of appeals judges. In addition, following the practice in the lower courts, we use the common space scores of their appointing president as our GHP measure of policy preferences for the justices of the U.S. Supreme Court. Importantly, GHP scores are calculated identically for all judges in our data; this means that estimates based on GHP scores are directly comparable to each other.

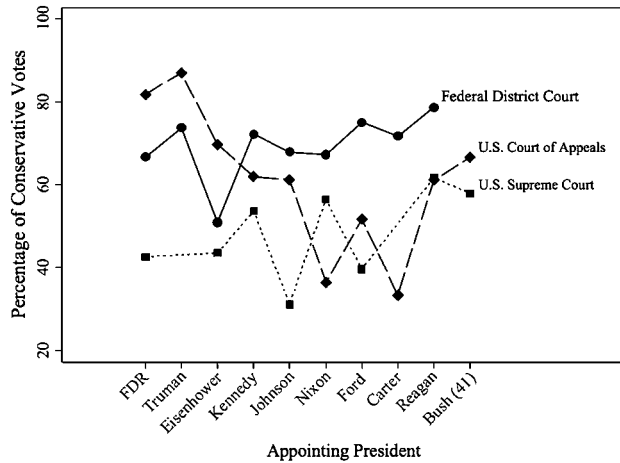
<sup>3</sup>For each case, we used Spaeth's issue variable to identify the specific question (s) addressed by the Supreme Court and ensured that the decision coded at each lower court level conformed to that issue or issues. In the vast majority of cases, the central issue in the case was both clear and dispositive (in that the outcome of the case turned on its resolution), which made coding decisions across levels straightforward. At the same time, we recognize that issues can at times be transformed as a case proceeds through the appeals process.

<sup>4</sup>See the authors' web appendix at <http://mason.gmu.edu/~jbowie> for more information regarding the study design.

<sup>5</sup>Note that these include several cases originating in three-judge district courts, such that the total number of district court judge votes is greater than the number of cases.

<sup>6</sup>A possible concern with our approach is its inability to capture the true effects of policy preferences in lower court decisions, due to the fact that the Supreme Court typically grants certiorari only in particularly important cases. This would be the case if, for example, the Supreme Court's propensity to hear high-salience cases led to lower court judges tempering their true policy preferences in such cases, perhaps out of fear of reversal. Existing studies, however, suggest that lower court judges do not, in general, modify their behavior in response to fear of appellate review (Cross 2007; Klein and Hume 2003). In addition, recent work by Bowie and Songer (2009) finds that lower court judges have a difficult time predicting which cases the Supreme Court will grant certiorari, but are keenly cognizant of the extremely low probability of any given case being heard by the Court, even in cases that are considered highly salient.

**FIGURE 1** Conservative Voting Percentages for Federal District Court Judges, Court of Appeals Judges, and Supreme Court Justices, by Appointing President



*Note:* Figure plots the percentage of conservative votes cast by each of the three judge types, disaggregated by appointing president. See text for details.

## Analysis and Results

As a preliminary analysis, we consider the bivariate relationship between party identification and voting.<sup>7</sup> Figure 1 plots the aggregate percentage of conservative votes cast by judges and justices in our data according to the president who appointed them. Cases decided in the federal district courts, while (on average) more conservative than those in the appellate and Supreme courts, demonstrate little systematic variability across presidents in terms of the voting patterns of their appointees ( $\chi^2(11) = 11.0$ ,  $p = 0.35$ ). For decisions in the U.S. courts of appeals, a clearer pattern emerges, with overall higher levels of conservative voting generally exhibited by judges appointed by Republican presidents ( $\chi^2(11) = 76.4$ ,  $p < 0.001$ ). Similarly clear differences in conservative voting are seen among the justices of the U.S. Supreme Court, where we find the highest levels of such voting by the Nixon, Reagan, and Bush (41) appointees, and the lowest levels among the appointees of FDR and Johnson ( $\chi^2(11) = 116.4$ ,  $p < 0.001$ ).

<sup>7</sup>We also conducted a series of six difference-of-means tests of judicial voting against two different indicators of party identification, categorized by court and measure. Those *t*-tests show statistically meaningful effects of party identification only in the U.S. Supreme Court ( $p < 0.001$ , one-tailed); those for both the district courts ( $p = 0.88$ ) and the courts of appeals ( $p = 0.10$ ) failing to attain conventional levels of statistical significance.

A more nuanced test must necessarily control for the host of factors that might both influence judges' votes and be related to their policy preferences. For a particular judge  $j$ 's vote in given case  $i$ , we can write the probability of a conservative vote (that is,  $V_{ij} = 1$ ) as:

$$\begin{aligned} \Pr(V_{ij} = 1) = f[ & \beta_0 + \beta_1(\text{Policy Preferences}_j) \\ & + \beta_2(\text{Court of Appeals}_j) \\ & + \beta_3(\text{Supreme Court}_j) \\ & + \beta_4(\text{Policy Preferences}_j \\ & \times \text{Court of Appeals}_j) \\ & + \beta_5(\text{Policy Preferences}_j \\ & \times \text{Supreme Court}_j) + \alpha_i + u_{ij}] \end{aligned} \quad (1)$$

Here, the  $\alpha_i$ s denote case-specific factors distinctive to the case in question. Note that, within the context of a particular case, the influence of such case-related factors can be thought of as being held constant. Operationalized in this way, the model allows for the influence of policy preferences to differ at each level of the federal judicial hierarchy; the net effect of those preferences in the district courts is  $\beta_1$ , while the effect in the courts of appeals is equal to  $\beta_1 + \beta_4$  and that in the Supreme Court to  $\beta_1 + \beta_5$ . If the hierarchy postulate is correct, we would expect that  $\beta_1 > 0$ —that is to say, the policy preferences would have some marginal impact on decision making in the district courts—and that both  $\beta_4$  and  $\beta_5 > 0$  as well, with  $\beta_5 > \beta_4$ . The latter expectation simply states that, per the hierarchy postulate, the influence of policy preferences will be greatest in the Supreme Court, relative to the district courts and the courts of appeals.

We estimate our model using a series of random-effects logit specifications. This model treats the case-level effects as random perturbations to the general propensity of judges to vote liberally or conservatively in a particular case. More specifically, we assume that  $\alpha_i \sim N(0, \sigma_\alpha^2)$ , where the parameter  $\sigma_\alpha^2$  is estimated from the data.<sup>8</sup> In this way, we control, in a general way, for case-specific factors that influence the propensity of judges to vote in a particular direction in each case, in essence allowing for a separate (random) "intercept" for each case in the data.

<sup>8</sup>As in all standard random-effects models, the random-effects logit used here requires that the unit effects be uncorrelated with the covariates in the model. Here, because the unit-level effects are case characteristics, while the covariates are characteristics of judges, we believe we have a strong case for that orthogonality. However, as a check on robustness, we also estimated the models in Table 1 using a fixed-effects specification; those results are substantively identical to those presented here. All of these ancillary analyses are available from the authors upon request.

The estimates from our random-effects logit models are presented in Table 1.<sup>9</sup> Our findings are broadly and consistently supportive of the hierarchy postulate. For the initial model using judges' party identification, the effect of that variable is effectively zero for judges sitting on federal district courts: the estimate of -0.22 suggests that Republican judges are actually less likely to vote in a conservative policy direction, though the estimate is substantially smaller than its standard error. For judges in the U.S. courts of appeals, however, the net impact of party identification is positive; the estimate of  $\beta_1 + \beta_4$  is 0.38, with a standard error of 0.18 ( $p = 0.01$ , one-tailed), indicating that Republican judges are, on average, roughly 1.5 times more likely to vote in a conservative direction than are their Democratic counterparts. On the U.S. Supreme Court, the corresponding estimate of  $\beta_1 + \beta_5$  is 0.69, with a standard error of 0.09 ( $p < 0.001$ , one-tailed); this translates to doubling of the conditional probability of a conservative vote by Republican judges relative to their Democratic colleagues. In addition, the difference between preferences' effects in the courts of appeals and the Supreme Court is also statistically differentiable from zero ( $\chi^2(1) = 2.54$ ,  $p = 0.05$ , one-tailed).

The substantive impact of these different effects is illustrated in Figure 2, which plots the mean-case predicted probability of a conservative vote (along with 95% confidence intervals) for Democratic and Republican judges at each of the three levels of the federal judiciary. The relative differences in probability correspond clearly to the three levels examined, with the greatest effects coming in the U.S. Supreme Court, and the differences in the district courts clearly bounded by their standard error bars.

Our results in column two of Table 1 (using the party of the nominating president as a proxy for the judges' policy preferences) are effectively identical to those in column one. This is unsurprising, since in the vote data the latter measure correlates very strongly with the former ( $\gamma = 0.99$ ,  $\tau_b = 0.79$ ). The findings in column three, using the GHP-based measure of preferences, also broadly support the hierarchy postulate; while the estimated impact of ideological factors on voting is statistically indistinguishable from zero among district court judges, its marginal effect in the courts of appeals and the Supreme Court is both large ( $\beta_1 + \beta_4 = 1.32$ ,  $\beta_1 + \beta_5 =$

0.96) and statistically reliable ( $p < 0.001$ ) in both instances. Those estimates suggest that a one standard deviation increase in conservatism corresponds to a 66% increase in the probability of a conservative vote on the courts of appeals, and a 45% increase on the Supreme Court.<sup>10</sup>

Taken together, the results of our study consistently support the notion that the influence of policy-related factors on decision making (here, voting) is greater at higher levels of the federal judiciary than at lower ones.<sup>11</sup> In other words, as one moves up the institutional pyramid, judges' policy preferences exert an increasingly important influence on their decisions. Theoretically, our findings support the proposition that institutional and goal-related factors—including oversight and the varying importance of precedent—drive the differences in effects across courts. At the same time, they fail to support the Priest-Klein supposition that litigant choices and case selection are the sole driving force behind hierarchy effects. Rather, our results point to the conclusion that, while case selection may play some role in the differential influence of ideology across courts, other aspects of the system also contribute to that variation.

## Conclusion

Writing nearly a half-century ago, Kenneth Vines noted that, to understand the federal judiciary as a

<sup>10</sup>Importantly, however, the influences of such preferences in the two higher levels of the hierarchy are not statistically different from one another ( $\chi^2(1) = 1.47$ ,  $p = 0.77$ , one-tailed).

<sup>11</sup>Interestingly, the results in Table 1 also corroborate the pattern—illustrated in Figure 1—that district courts tend, in general, to rule in a more conservative direction than either the courts of appeals or the Supreme Court. One potential explanation for this finding lies in the institutional differences discussed above. In particular, district courts—whether due to judicial norms, caseload pressure, or some combination thereof—often face incentives to dispose of cases on pretrial motions to dismiss or via summary judgment. To the extent that the initial plaintiffs tend to take positions that (under Spaeth's coding rules) are defined as liberal, such pretrial dispositions will yield a disproportionate number of conservative outcomes. While judges on the circuit courts may face fewer pressures of this sort, they remain bound by the district court's findings of fact, while the Supreme Court's discretionary jurisdiction—coupled with its tendency to reverse lower court decisions it hears on appeal—will lead it to relatively more liberal outcomes. We thank an anonymous reviewer for suggesting this interpretation of our findings, and plan in future work to examine this empirical regularity more fully (e.g., through an analysis of the modes—pretrial or trial—by which the district courts reach their decisions).

<sup>9</sup>Note that we conducted several robustness checks in addition to the models reported here; those results can be found at the authors' online appendix.

**TABLE 1** Random-Effects Logit Models of Judicial Voting

Variable	Judge's Party Identification	Appointing President's Party Identification	Giles et al. Score
(Constant)	1.24 (0.22)	1.25 (0.22)	1.15 (0.17)
Court of Appeals Judge	−1.13 (0.23)	−1.12 (0.23)	−0.79 (0.16)
Supreme Court Justice	−1.66 (0.21)	−1.71 (0.21)	−1.30 (0.15)
Policy Preferences	−0.22 (0.28)	−0.25 (0.28)	−0.44 (0.43)
Court of Appeals Judge × Policy Preferences	0.60 (0.33)	0.59 (0.33)	1.76 (0.51)
Supreme Court Justice × Policy Preferences	0.92 (0.29)	0.88 (0.30)	1.40 (0.45)
$\sigma^2_\alpha$	1.62 (0.10)	1.61 (0.10)	1.67 (0.10)
NT	4,131	4,131	3,890

Note: Cell entries are coefficient estimates; standard errors are in parentheses. See text for details.

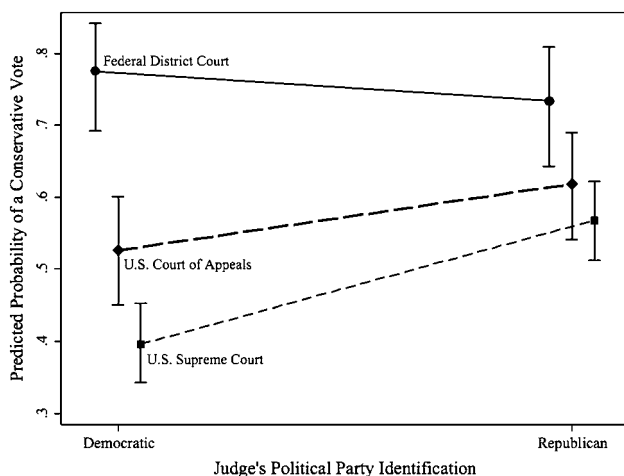
system, "a model is needed which recognizes that important policies are made throughout the federal court system, and describes the process of interaction as essentially a complicated set of relationships among different levels of courts in the course of deciding issues" (1963, 307). Our central goal here was to set forth a strategy for addressing questions about decision making in the federal judicial hierarchy. To that end, we have focused on one widely held hypothesis about decision making in the federal courts—the hierarchy postulate—and have examined empirically a model that allows us to test in a rigorous way whether the expectations of that postulate hold. Our findings offer robust support for that hypothesis and are consistent with the prevalent belief that institutional factors

impose greater constraints on lower court judges' ability to enact their policy preferences from the bench than on judges in higher tribunals. In addition, we uncover these effects while controlling in a general way for the influence of case-specific factors that have potentially confounded the results of earlier such studies. By integrating data at all levels of the federal judicial hierarchy, our model constitutes a significant improvement over existing research on this topic.

But while the hierarchy postulate is among the more obvious implications of the dynamics discussed above, it by no means exhausts them. In fact, given the substantial institutional differences across varying levels of the federal courts, it is likely that nearly all aspects of judicial behavior are, at least to some extent, mediated by institutional context. Thus, while we limit our empirical analysis here to a direct test of the hierarchy postulate, we foresee the approach we adopt as being potentially applicable to a range of topics in judicial politics.

In addition, our analytical approach can offer novel insights into a range of important aspects of the federal judiciary, and of judicial systems more generally. Our study design offers a quasi-experimental method for testing general hypotheses about judicial decision making in a hierarchical system, one which is sensitive to differences in case content while circumventing many of the difficulties inherent in current approaches to studying judicial decision making. We believe this approach has the potential to advance our understanding of a range of important questions about judicial decision making in an appellate system, including agenda setting, discretionary judicial activity (including separate opinion writing), the prevalence of and conditions for vertically anticipatory ("strategic") behavior, and a host of others.

Finally, recent developments in models for multi-level data will allow us to consider potential interactions

**FIGURE 2** Predicted Probabilities of a Conservative Vote, by Party Identification and Court

Note: Figure plots the predicted probability of a conservative vote in a case with a mean random effect ( $\alpha_i = 0$ ), along with 95% pointwise confidence intervals. See text for details.



between case- and judge-level effects, analyses which have the potential to be particularly informative about the interplay of influences on judges' decisions. To take but one example, by allowing for stochastic case-level effects, and then permitting the influence of those effects to vary with judge- and hierarchy-related factors, we can evaluate whether case-specific characteristics exert a stronger influence on judges' decisions at trial than on appeal.

## Acknowledgments

Our thanks to David Klein, Don Songer, and the anonymous reviewers for their helpful comments and suggestions; the usual caveat applies. A previous version of this paper was presented at the 2007 annual meeting of the Southern Political Science Association, New Orleans. Data and supporting materials necessary to reproduce the numerical results in the paper will be made available at the ICPSR's Publication-Related Archive no later than December 31, 2010. Online appendix materials can be found at <http://journals.cambridge.org/jop>.

*Manuscript submitted 20 April 2009*

*Manuscript accepted for publication 13 May 2010*

## References

- Ashenfelter, Orley, Theodore Eisenberg, and Stewart J. Schwab. 1995. "Politics and the Judiciary: The Influence of Judicial Background on Case Outcomes." *Journal of Legal Studies* 24 (2): 257–82.
- Baum, Lawrence. 1980. "Responses of Federal District Judges to Court of Appeals Policies: An Exploration." *Western Political Quarterly* 33 (2): 217–24.
- Baum, Lawrence. 1997. *The Puzzle of Judicial Behavior*. Ann Arbor: University of Michigan Press.
- Baum, Lawrence. 2006. *Judges and Their Audiences A Perspective on Judicial Behavior*. Princeton, NJ: Princeton University Press.
- Bowie, Jennifer Barnes, and Donald R. Songer. 2009. "Assessing the Applicability of Strategic Theory to Explain Decision Making on the Courts of Appeals." *Political Research Quarterly* 62 (2): 393–407.
- Cameron, Charles, Jeffrey Segal, and Donald Songer. 2000. "Strategic Auditing in a Political Hierarchy: An Informational Model of the Supreme Court's Certiorari Decisions." *American Political Science Review* 94 (1): 101–16.
- Carroll, Royce, Jeffrey B. Lewis, James Lo, and Keith Poole. 2009. "Measuring Bias and Uncertainty in DW-NOMINATE Ideal Point Estimates via the Parametric Bootstrap." *Political Analysis* 17 (3): 261–75.
- Caminker, Evan H. 1994. "Precedent and Prediction: The Forward-Looking Aspects of Inferior Court Decision Making." *Texas Law Review* 73 (1): 1–82.
- Cohen, Jonathan M. 2002. *Inside Appellate Courts: The Impact of Court Organization on Judicial Decision Making in the United States Courts of Appeals*. Ann Arbor: University of Michigan Press.
- Cross, Frank. 2007. *Decision Making in the U.S. Courts of Appeals*. Stanford, CA: Stanford University Press.
- Cross, Frank. 2003. "Decision Making in the U.S. Circuit Court of Appeals." *California Law Review* 91 (6): 1457–1515.
- Ducat, Craig R., and Robert L. Dudley. 1989. "Federal District Judges and Presidential Power During the Postwar Era." *Journal of Politics* 51 (1): 98–118.
- Eisenberg, Theodore, and Sheila Lynn Johnson. 1991. "The Effects of Intent: Do We Know How Legal Standards Work?" *Cornell University Law Review* 76 (5): 1151–97.
- Epstein, Lee, Rene Lindstadt, Jeffrey A. Segal, and Chad Westerland. 2006. "The Changing Dynamics of Senate Voting on Supreme Court Nominees." *Journal of Politics* 68 (2): 296–307.
- Epstein, Lee, Andrew Martin, Jeffrey A. Segal, and Chad Westerland. 2007. "The Judicial Common Space." *Journal of Law, Economics, and Organization* 23 (2): 303–25.
- Federal Judicial Center. 2010. "Biographical Directory of Federal Judges." Available at <http://www.fjc.gov/public/home.nsf/hisj>. (Accessed March 21, 2010).
- Frankfurter, Felix, and James M. Landis. 1928. *The Business of the Supreme Court: A Study in the Federal Judicial System*. New York: MacMillan.
- Gibson, James. 1983. "From Simplicity to Complexity: The Development of Theory in the Study of Judicial Behavior." *Political Behavior* 5 (1): 7–49.
- Giles, Micheal W., Virginia A. Hettinger, and Todd Peppers. 2001. "Picking Federal Judges: A Note on Policy and Partisan Selection Agendas." *Political Research Quarterly* 54 (3): 623–41.
- Glick, Henry R. 1988. *Courts, Politics, and Justice*. 2nd ed. New York: McGraw Hill.
- Goldman, Sheldon, and Thomas P. Jahnige. 1976. *The Federal Courts as a Political System*. 2nd ed. New York: Harper & Row Publishers.
- Hettinger, Virginia, Stefanie Lindquist, and Wendy Martinek. 2006. *Judging on a Collegial Court: Influences on Appellate Court Decision Making*. Charlottesville: University of Virginia Press.
- Jacob, Herbert. 1983. *Justice in America*, 4th ed. Boston: Little, Brown, and Company.
- Johnson, Susan W., and Donald R. Songer. 2002. "The Influence of Presidential versus Home State Senatorial Preferences on the Policy Output of Judges on the United States District Courts." *Law & Society Review* 36 (3): 657–76.
- Kaheny, Erin B., Susan Brodie Haire, and Sara C. Benesh. 2008. "Change over Tenure: Voting, Variance, and Decision Making on the U.S. Courts of Appeals." *American Journal of Political Science* 52 (3): 490–503.
- Klein, David E. 2002. *Making Law in the United States Courts of Appeals*. New York: Cambridge University Press.
- Klein, David E., and Robert J. Hume. 2003. "Fear of Reversal as an Explanation of Lower Court Compliance." *Law & Society Review* 37 (3): 579–606.
- Perino, Michael A. 2006. "Law, Ideology, and Strategy in Judicial Decision Making: Evidence from Securities Fraud Actions." *Journal of Empirical Legal Studies* 3 (3): 497–524.
- Pinello, Daniel R. 1999. "Linking Party to Judicial Ideology in American Courts: A Meta-Analysis." *Justice System Journal* 20 (3): 219–54.

- Poole, Keith T. 1998. "Estimating a Basic Space From a Set of Issue Scales." *American Journal of Political Science* 42 (3): 954–93.
- Poole, Keith. 2009. "Common Space Scores, 75th to 108th Congresses." Available at <http://voteview.com/>. (Accessed March 21, 2010).
- Priest, George, and Benjamin Klein. 1984. "The Selection of Disputes for Litigation." *Journal of Legal Studies* 13 (1): 1–55.
- Richards, Mark J., and Herbert M. Kritzer. 2002. "Jurisprudential Regimes in Supreme Court Decision Making." *American Political Science Review* 96 (2): 305–20.
- Rowland, C. K., and Robert A. Carp. 1980. "A Longitudinal Study of Party Effects on Federal District Court Policy Propensities." *American Journal of Political Science* 24 (2): 291–305.
- Rowland, C. K., and Robert A. Carp. 1996. *Politics and Judgment in Federal District Courts*. Lawrence: University of Kansas Press.
- Scott, Kevin M. 2006. "Understanding Judicial Hierarchy: Reversals and the Behavior of Intermediate Appellate Judges." *Law and Society Review* 40 (1): 163–92.
- Segal, Jeffrey A. 1984. "Predicting Supreme Court Decisions Probabilistically: The Search and Seizure Cases (1962–1981)." *American Political Science Review* 78 (4): 891–900.
- Segal, Jeffrey A., and Albert D. Cover. 1989. "Ideological Values and the Votes of the U.S. Supreme Court Justices." *American Political Science Review* 83 (2): 557–65.
- Segal, Jeffrey A., and Harold Spaeth. 2002. *The Supreme Court and the Attitudinal Model Revisited*. New York: Cambridge University Press.
- Spaeth, Harold. 2006. *The Supreme Court Judicial Database, 1953–2005 Terms*. <http://www.cas.sc.edu/poli/juri/supreme-court.html>. (Accessed March 21, 2010).
- Spaeth, Harold J., and Jeffrey A. Segal. 1999. *Majority Rule Or Minority Will: Adherence To Precedent On The U.S. Supreme Court*. New York: Cambridge University Press.
- Vines, Kenneth N. 1963. "The Role of Circuit Courts of Appeal in the Federal Judicial Process: A Case Study." *Midwest Journal of Political Science* 7 (4): 305–19.

Christopher Zorn is the Liberal Arts Research Professor of Political Science, Pennsylvania State University, University Park, PA 16802.

Jennifer Barnes Bowie is Assistant Professor of Political Science, George Mason University, Fairfax, VA 22030.