

# Strategy and the Decision to Dissent on the U.S. Courts of Appeals

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Though there has been a substantial amount of research on the strategic behavior of legal actors, the literature is rife with conflicting findings. We contribute to this debate by examining whether U.S. court of appeals judges dissent for the purpose of inviting en banc and/or Supreme Court review. We consider key challenges associated with the empirical modeling of strategic behavior related to the selection of an appropriate unit of analysis for study and the consequences of introducing multicollinearity into statistical models. We explore these issues by examining the dissenting behavior of court of appeals judges from 1970–2002. Our findings indicate that court of appeals judges strategically dissent, and that this behavior is seldom captured by traditional quantitative analyses of judicial behavior. Though our focus is on court of appeals judges, we are confident our conclusions inform studies of strategic behavior in a variety of contexts.

**KEYWORDS:** courts of appeals, dissent, strategic behavior, judicial hierarchy, whistleblower effects, panel effects

Scholars have long concerned themselves with investigating the extent to which legal actors engage in strategic behavior. Such analyses consider, for example, voting on collegial courts (e.g., Epstein and Knight, 1998), how courts relate to legislative and executive institutions (e.g., Epstein, Martin, Segal, and Westerland, 2007), bargaining over the content of judicial opinions (e.g., Maltzman, Spriggs, and Wahlbeck, 2000), and the decision to retire from the bench (e.g., Zorn and Van Winkle, 2000). That scholars have devoted so much attention to understanding strategy on the part of decision makers is not surprising. Choices are frequently dependent on the actions of others, where the “others” may be judges, legislators, or presidents. Rather than positing that individuals make decisions in a vacuum, strategic theories assert that decision makers consider the preferences and likely actions of other relevant actors in order to maximize their own goals.

We add to this literature by investigating the influence of strategic concerns on the decision to dissent on the U.S. courts of appeals.<sup>1</sup> We argue that a judge will be more likely to dissent when en banc and/or Supreme Court review will promote the judge's policy preferences. While previous research has explored this topic, the extant literature is rife with contradictory findings (Cross and Tiller, 1998; Hettinger, Lindquist, and Martinek, 2004, 2006; Kim, 2009, 2010; Lindquist and Martinek, 2009; Linkous and Tiller, 2009; Van Winkle, 1997). We argue that this confusion results, in part, because of the way in which strategic behavior in the courts of appeals is modeled.

In addressing this topic, we make a number of contributions to the literature on judicial behavior, strategic decision making, and the empirical modeling of the behavior of actors more generally. First, this research enhances our understanding of the occurrence of dissenting opinions on the courts of appeals. The importance of both these courts and dissensus in these institutions is essential for understanding the development of American law. As the docket of the U.S. Supreme Court has declined in recent decades, the courts of appeals have become the *de facto* courts of last resort in the federal judiciary, acting as the final adjudicative bodies for the overwhelming majority of cases at the federal level (Hettinger, Lindquist, and Martinek, 2006:13). Understanding the behavior of judges serving on these courts is significant in its own right. More than this, comprehending the decision to dissent on these courts is vital because dissenting opinions on the courts of appeals have consequences. Dissent undermines the consistency of federal law (Hettinger, Lindquist, and Martinek, 2006:2), enhances the belief that judicial decision-making is driven by the ideological proclivities of the judges, thereby potentially decreasing confidence in the judiciary (Hettinger, Lindquist, and Martinek, 2006:19), and contributes to the likelihood of en banc and Supreme Court review (Caldeira, Wright, and Zorn, 1999; Giles, Walker, and Zorn, 2006).

Second, this research resolves many of the inconsistencies regarding the extent to which judges employ dissenting opinions for strategic purposes. While there is substantial evidence that strategic concerns affect the decision to dissent on the U.S. Supreme Court (Collins, 2011; Maltzman, Spriggs, and Wahlbeck, 2000) and on state courts of last resort (Brace and Hall, 1990), empirical support for strategic models applied to the U.S. courts of appeals is more mixed. For example, Cross and Tiller (1998), Kim (2009), and Van Winkle (1997) find that strategic concerns influence dissenting behavior on the courts of appeals, while Hettinger, Lindquist, and Martinek (2004, 2006) provide no evidence for strategic influences on the decision to dissent. These contradictory findings have motivated some to suggest that, due to their heavy workloads and the infrequency with which these judges are reviewed, judges on the courts of appeals do not have sufficient incentives to behave strategically in the pursuit of policy goals (Bowie and Songer, 2009:393; Collins and Martinek, 2011:184). By reconsidering existing approaches to modeling strategic behavior on the courts of appeals, we seek to eliminate some of this confusion. In addition, in exploring the circumstances under which strategic dissents are especially likely to be observed, we shift prior analyses' focus on whether judges strategically dissent to when judges are most likely to strategically dissent.

Finally, this research reviews and offers solutions to problems that plague tests of strategic behavior, a topic relevant to the studies of actors at large. Traditional econometric

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<sup>1</sup>By "strategic," we mean that a judge's decision to dissent will depend on the expected actions of the circuit en banc and/or the Supreme Court. We do not contend that judges dissent against their preferences. Instead, our argument is that strategic considerations provide judges with increased incentives to dissent when doing so is consistent with their preferences.

approaches to modeling strategic behavior suggest that the best tests of strategic hypotheses utilize statistical models that pit sincere and strategic behavior against one another (e.g., Hettinger, Lindquist, and Martinek, 2004, 2006; Van Winkle, 1997). Such techniques, however, fall victim to numerous inferential pitfalls. First, it is common for tests of strategic behavior to suffer from problems associated with behavioral equivalence. Frequently, sincere and strategic theories predict identical behavior on the part of actors. As a result, empirical support for sincere behavior does not necessarily rule out evidence of strategic behavior (and vice versa) (Lindquist and Martinek, 2009). Furthermore, existing approaches to modeling strategic dissents have employed a unit of analysis that calls into question the validity of the research findings. Finally, these approaches are plagued by the introduction of multicollinearity into the statistical models, which enhances the difficulty of identifying the independent effects of variables and generates imprecise estimates of the impact of the explanatory variables (Belsley, Kuh, and Welsch, 1980; Mela and Kopalle, 2002). As we demonstrate below, these issues have led scholars to reject strategic hypotheses when strategic behavior may well exist. While our focus is on dissensus in the courts of appeals, this topic has broad applicability for understanding strategic behavior more generally.

This article proceeds as follows. In the next section, we discuss both sincere and strategic accounts of dissenting behavior on the courts of appeals. We then consider traditional quantitative approaches to investigating strategic dissents, highlighting the problems that result from approaching strategic behavior on the courts of appeals through conventional econometric modeling. We then present two alternative tests to evaluate the presence of strategic behavior on the courts of appeals. Our results indicate that court of appeals judges dissent for the purpose of inviting en banc and Supreme Court review and illuminate the circumstances in which this behavior is especially likely to occur. We close with a discussion of the implications of this work for the study of strategic decision-making.

### SINCERE AND STRATEGIC DISSENTS

There are two primary explanations of the decision to dissent in the courts of appeals (e.g., Hettinger, Lindquist, and Martinek, 2004; Van Winkle, 1997). The presence of dissent may simply signal disagreement among the judges on a panel. A sincere account of the decision to dissent predicts that judges issue dissenting opinions when they disagree with the position adopted by the panel majority. This hypothesis predicts that as the ideological distance between a judge and the majority opinion author increases, the probability of a dissent will also increase. This explanation assumes sincere behavior by judges. If a judge disagrees with a panel outcome and is willing to incur the costs associated with writing separately, we will observe dissent. Under this hypothesis, judges do not consider the potential influence of dissenting on the probability that another court will review the panel decision.

An alternative account of the decision to dissent posits that court of appeals judges may behave strategically by considering the likely actions of the circuit en banc and/or the Supreme Court. While en banc and Supreme Court review of a panel's decision are rare, the probability that a case decided by a three-judge court of appeals panel will be reviewed by either of these bodies increases when the decision is accompanied by dissent (Bowie and Songer, 2009; Caldeira, Wright, and Zorn, 1999; George, 1999; Giles, Walker, and Zorn, 2006; Ginsburg and Falk, 1991). Judges, knowing this, may consider how the circuit as a whole or the Supreme Court would decide the

case in question on review and dissent for the purpose of inviting review by the circuit en banc or the Supreme Court (Cross and Tiller, 1998; Hettinger, Lindquist, and Martinek, 2004, 2006; Van Winkle, 1997). Panel members who disagree with a panel outcome and have preferences that are similar to those of either the Supreme Court or their circuit as a whole may dissent to increase the chances that a case is reviewed by another court.<sup>2</sup> This explanation, like the sincere explanation discussed above, assumes that dissent reflects disagreement with the panel majority. It differs from the sincere account because it suggests that, under certain conditions, the anticipated actions of a reviewing court may influence the utility of a dissent to a judge. If a potential dissenter suspects that review by the circuit or the Supreme Court would lead to a more favorable policy than that advanced by the panel majority, he or she may dissent to signal the reviewing body that the case warrants review.

To illustrate theories of sincere and strategic dissents, we depict three actors operating in a unidimensional policy space: a judge deliberating over whether to author a dissenting opinion (J), the panel majority (P), and the reviewing court (R). (The reviewing court could be the Supreme Court or the circuit en banc.) The utility to a judge of an outcome can be characterized by the distance between the judge's ideal point (J) and the location of the final policy (P or R). The best policy a judge can obtain is a policy located at his or her ideal point. The closer a policy is to the judge's ideal point, the more utility he or she derives from that policy. If the policy that would be imposed by the reviewing court is closer to the potential dissenter than the policy that would be imposed by the panel majority, the judge has an incentive to dissent. Conversely, if the reviewing court would move the policy further away from the judge's ideal point than the panel outcome, there is a disincentive to dissent.



The potential dissenter (J) expects a policy located at P if she does not dissent. If she dissents, she increases the probability of an outcome located at the reviewing court's ideal point. If the reviewing court is located at  $R_1$ , the judge has an incentive to dissent, as the reviewing court's policy is preferable to the panel's policy. Conversely, if the reviewing court is located at  $R_2$ , the judge has a disincentive to dissent, as review would lead to a less preferred policy than P. The presence and magnitude of these incentives and disincentives to dissent can be operationalized by conceptualizing the expected change from the panel outcome to the reviewing court's outcome as a policy gain or loss. Positive values indicate that a potential dissenter will obtain a better outcome if the reviewing court reconsiders the panel outcome and moves policy to the reviewing court's ideal point. Negative values indicate that a judge would be made worse off by review. For all possible configurations of preferences, the potential policy gain (or loss) associated with dissent can be characterized by the following equation:

$$\text{Expected Policy Change from Review} = |J - P| - |J - R|$$

<sup>2</sup>This disagreement may reflect the ideological location of the majority opinion (Hettinger, Lindquist, and Martinek, 2004, 2006; Kim, 2009, 2010; Van Winkle, 1997) and/or the legal doctrine announced in the majority opinion (Cross and Tiller, 1998; Linkous and Tiller, 2009). The empirical prediction from these accounts is identical; both predict a judge will write a dissent to alert a high court that further review of the case is warranted, either to promote the judge's policy preferences or to signal the reviewing court of the panel's inconsistency with that court's precedent.

These expected changes can be used to identify the conditions under which strategic dissents are likely to occur. If the strategic account of dissent is accurate, dissent should be more likely when the potential policy gains of would-be dissenters are greater. If the sincere account of the decision to dissent is dominant, the distance between a judge's ideal point and the expected panel outcome should be the sole predictor of the presence of dissent, and dissent should not be systematically related to the relationship between a judge and the location of reviewing courts.

## TRADITIONAL APPROACHES TO MODELING STRATEGIC DISSENTS

Traditional approaches to econometric modeling suggest that evaluating whether judges dissent for sincere or strategic reasons is straightforward. One simply needs to use appropriate measures to operationalize variables capturing three concepts: (1)  $|J - P|$ : the ideological distance between the judge (J) and the expected panel outcome (P) (the predictor of sincere dissent); (2)  $|J - P| - |J - EB|$ : the policy change expected from en banc review (EB) (a predictor of strategic dissent); and 3)  $|J - P| - |J - SC|$ : the policy change expected from Supreme Court review (SC) (a predictor of strategic dissent).

Though intuitive, there are two significant problems with this technique that counsel against its implementation. The first problem involves the selection of a unit of analysis. Some extant research has employed the judge-vote as the unit of analysis, excluding majority opinion writers because they cannot author dissenting opinions (Hettinger, Lindquist, and Martinek, 2004, 2006). This results in the inclusion of two observations in the data for each case decided by a three-judge panel. The problem is that, by definition, only one of the two judges in such a dataset can dissent: if both could dissent, a new majority would form. Consequently, employing a research design that includes two judge-level observations per case produces a dataset in which half of the observations are incapable of experiencing the event of interest. As a result, the parameter estimates from these models are likely to be biased.

Even if this problem could be overcome, an additional obstacle remains. The approach outlined above introduces high levels of multicollinearity into the model. Multicollinearity can lead to inflated standard errors, implausible signs and magnitudes of the parameter estimates, and the inability to distinguish the independent effects of each explanatory variable (Belsley, Kuh, and Welsch, 1980; Mela and Kopalle, 2002). In the case of predicting dissents, multicollinearity arises because the variables that measure the policy gains a judge can expect to receive from en banc ( $|J - P| - |J - EB|$ ) or Supreme Court ( $|J - P| - |J - SC|$ ) review are, in part, a function of the judge's ideological distance from the expected panel outcome ( $|J - P|$ ). Thus, the most direct empirical test of the spatial model presented above would introduce significant multicollinearity by trying to simultaneously evaluate the sincere and strategic hypotheses when the required independent variables are, by design, inseparable.<sup>3</sup>

<sup>3</sup>Hettinger, Lindquist, and Martinek (2004) model dissenting behavior by using regimes to categorize the incentives to dissent to signal en banc review, while Hettinger, Lindquist, and Martinek (2006) employ interaction terms to evaluate the decision to dissent to achieve policy gains from en banc and Supreme Court review. As with the technique discussed above, the variables intended to capture sincere dissents are built into the measures of strategic dissents in both studies, thus making it difficult to parse out sincere versus strategic dissenting behavior.

In addition, collinearity involves the correspondence between the variables capturing the policy change expected from en banc and Supreme Court review since both of these variables depend on a judge's ideological distance from the expected panel outcome. This problem is further compounded by the reality that, on average, the ideological preferences of court of appeals judges and Supreme Court justices are quite similar, in part because the federal judicial selection process results in judges that reflect the preferences of the nominating president and confirming Senate (Dahl, 1957). As a consequence, jointly modeling the policy gains that a judge would obtain from en banc and Supreme Court review in the same model specification creates a difficult test for strategic hypotheses. The standard solution to the presence of multicollinearity is to add additional data in the hopes of including observations with more variation on the variables of interest (e.g., Epstein and King, 2002:206). Here, this advice is not practical since the primary independent variables are highly correlated by construction.

To be clear, our argument is not that multicollinearity necessarily results in biased model estimates. Rather, our position is that researchers should take extra care to remember the maxim that "the absence of evidence is not evidence of absence" in cases where the inflated standard errors (and other problems) that result from multicollinearity may make it even harder to reject the null hypothesis of no effect than it would be in the absence of multicollinearity. In other words, while the model's estimates may be unbiased, the test of the strategic hypothesis is biased toward a finding of no significant effect.

## ALTERNATIVE APPROACHES TO MODELING STRATEGIC DISSENTS

We have argued that existing tests of the use of strategic dissents are biased against finding evidence of strategic behavior on the part of court of appeals judges. We now turn to two limited, but more precise, tests that are not subject to the shortcomings highlighted above. First, we evaluate a set of bivariate relationships to assess their consistency with the strategic account of dissenting behavior using the case as the unit of analysis. Second, we evaluate the hypothesis of strategic dissent by focusing on panels with mixed partisan composition, which allows us to focus on a subset of cases where dissent is most likely. These approaches require that we make some significant tradeoffs. In our first test, we lose the ability to directly compare sincere and strategic accounts of the decision to dissent. In the second, our sample is limited to those judges who are most likely to dissent as a result of the partisan makeup of the three-judge panels on which they serve. Our hope is that these supplementary analyses will either confirm the null results of previous studies or provide evidence that comports with the theory of strategic dissent and makes sense of the mixed findings characteristic of the literature.

### The Effects of Dual Review

A unique institutional feature of decision making on three-judge panels in the courts of appeals is that decisions are reviewable by two supervising courts: the circuit en banc and the Supreme Court. If judges are strategic in their use of dissents, they should respond to the potential for the circuit and the Supreme Court to revise and reverse panel decisions. Moreover, when review by both courts would benefit a potential dissenter, strategic effects may be enhanced (Cross and Tiller,

1998; Hettinger, Lindquist, and Martinek, 2006). We predict that dissents should be observed more frequently on panels in which at least one judge would benefit from both Supreme Court and circuit court review. In such a situation, at least one judge on the panel recognizes that his or her policy preferences are closer to the circuit and the Supreme Court than the expected panel outcome. Such a judge can make reasonably confident estimates as to the potential outcome of further review, as compared to alternative situations. For example, if review by one court would result in a policy gain, and review by another court would result in a policy loss, such cross-pressures increase the uncertainty as to the potential benefits that would accrue from further review. However, if a judge estimates that he or she will obtain policy gains from review by both the circuit en banc and the Supreme Court, that judge can be much more certain that dissent is advantageous. Conversely, dissent should be rare when no judge on a panel would benefit from review by the circuit en banc or the Supreme Court. In this situation, all judges on the panel would incur policy losses from further review, thus reducing the incentives to dissent to signal the reviewing courts that the case warrants review.

To evaluate these expectations, we utilize data on the dissenting behavior of court of appeals judges from 1970–2002 from the Songer (2009) and Kuersten and Haire (2009) databases.<sup>4</sup> These datasets include a random sample of thirty published cases per year for each of the courts of appeals, with the exception of the Federal Circuit. Because we are interested in dissenting behavior on three-judge panels, we exclude en banc panels from the data. The unit of analysis is the case. The dependent variable is a dichotomous measure that is equal to 1 when a decision includes an opinion dissenting in whole or in part, and 0 otherwise.<sup>5</sup>

Assessing whether dissents are consistent with our predictions requires measures of the ideologies of the judges serving on the panel and the locations of the policies that the judges would expect the panel, the Supreme Court, and the circuit to impose. We follow others (Hettinger, Lindquist and Martinek, 2004, 2006) in assuming that panel outcomes are located at the ideal point of the majority opinion author, that en banc outcomes are located at the ideal point of the median member of the circuit,<sup>6</sup> and that Supreme Court outcomes are located at the ideal point of the median member of the Supreme Court.

While locating expected panel outcomes at the majority opinion author's ideal point facilitates the comparison of our results to those of two leading studies on strategic dissents (Hettinger, Lindquist, and Martinek, 2004, 2006), it does not capture the possibility that members of a panel may adjust the location of the policy in the face of a threat to dissent (Cross and Tiller, 1998; Kastellec, 2007). Nor does it account for the prospect that a potential dissenter may withhold a dissent and join the majority coalition to increase his or her influence over the majority

<sup>4</sup>Consistent with Hettinger, Lindquist, and Martinek (2004:130), we begin our analyses in 1970 owing to the fact that our measure of the ideology of court of appeals judges begins with judges appointed by Eisenhower, and many panels prior to 1970 included judges appointed by earlier presidents (Giles, Hettinger, and Peppers, 2001).

<sup>5</sup>We follow Hettinger, Lindquist, and Martinek (2004) in coding "silent dissents"—those in which a judge dissents but does not write a separate opinion—as 0. If, as the strategic account suggests, dissents are intended to serve as signals to reviewing courts, these signals will be more meaningful if they are costly to the sender. Written dissents, because they require a significant expenditure of effort on the part of their author, are stronger signals. For the seminal treatment of costly signaling in economics, see Spence (1973). Our results are robust to alternative specifications that include silent and written dissents in the dependent variable.

<sup>6</sup>While the Ninth Circuit uses a limited en banc panel, consisting of 11 judges, the en banc panel assignments are random. Thus, we use the median member of the circuit to capture all circuits under analysis.

TABLE 1  
Proportion of Cases with Dissent by Strategic Context on the Courts of Appeals, 1970–2002

	<i>Review by Supreme Court and Circuit Would Result in Policy Gain for at Least One Judge on the Panel</i>	<i>Review by Supreme Court and Circuit Would Result in Policy Loss for All Judges on the Panel</i>
Yes	0.096 (0.004)	0.079 (0.010)
<i>N</i>	5,858	708
No	0.082 (0.005)	0.092 (0.003)
<i>N</i>	3,162	8,312
z-statistic	−2.159*	1.129

*Note.* Entries report the proportion of cases with a dissenting opinion for different strategic contexts. Column 1 reveals that, when review by both the Supreme Court and the circuit en banc would result in a policy gain for at least one judge on the panel, the proportion of dissent equals 0.096, compared to a proportion of 0.082 when this condition is not satisfied. The z-statistic tests whether the difference between the two values in each column is statistically significant. Column 2 repeats this test for the strategic context in which review by the Supreme Court and the circuit en banc would result in a policy loss for all judges on the panel. Numbers in parentheses are standard errors. \* $p < 0.05$  (one-tailed tests).

opinion (Farhang and Wawro, 2004). Accordingly, the Electronic Appendix reports the results of alternative models that locate panel outcomes at the panel mean, the results of which are consistent with those reported here.

To operationalize expected panel, en banc, and Supreme Court outcomes, we rely on the Judicial Common Space scores (Epstein et al., 2007), which place each of the relevant actor's ideological preferences on a common scale. The attitudes of court of appeals judges are based on the Giles, Hettinger, and Peppers (2001) scores, while the preferences of the median justice on the Supreme Court for a given year are based on a transformation of the Martin and Quinn (2002) scores, which put Supreme Court justices on a common ideological space as court of appeals judges. Higher values of these variables indicate more conservative ideologies.<sup>7</sup>

To determine whether at least one judge on the panel would incur policy gains or losses from en banc and/or Supreme Court review, we return to the implications of the spatial model presented above. If the absolute value of a judge's ideological distance from the circuit median, subtracted from the absolute value of a judge's ideological distance from the majority opinion author ( $|J - P| - |J - EB|$ ), is positive, this indicates that a judge would benefit from en banc review. If the absolute value of a judge's ideological distance from the median justice on the Supreme Court, subtracted from the absolute value of a judge's ideological distance from the majority opinion author ( $|J - P| - |J - SC|$ ), is positive, this indicates that a judge would benefit from Supreme Court review.

We use these measures to characterize two relevant contexts. In the first, review by both the Supreme Court and the circuit en banc would make at least one judge on the panel better off. In the second, there is no judge for whom review by either the Supreme Court or the circuit en banc would result in a policy gain. Each column in Table 1 compares the proportion of panels accompanied by a dissenting opinion for each strategic context. The first column indicates that dissents are observed in approximately 10 percent of panels in which at least one judge would

<sup>7</sup>Due to missing data on the ideologies of one or more of the judges on a panel, we were forced to exclude 236 cases, resulting in a 2.5 percent decrease in the size of our sample.

benefit from review by both the circuit en banc and the Supreme Court. Dissents are present in about 8 percent of panels when this condition is not met. A two-sample test of the equality of proportions reveals that this is a statistically significant difference. This suggests that, consistent with our expectation, when dissent is strategically advantageous, it is observed more frequently.

The second column illustrates the proportion of cases with dissent when no judge on the panel would benefit from review by the Supreme Court or the circuit en banc. In this situation, we expect dissents to be less common. Though the difference in the frequency of dissent between the two categories of cases is in the predicted direction, it is not statistically significant. Thus, we find only partial support for our expectations in Table 1. Notably, however, this table does indicate that the strategic context in which judges act is systematically related to the presence of dissent. If, as predicted by a purely sincere account of dissenting behavior, the strategic context is irrelevant, the frequency of dissent should not co-vary with changes in the strategic context. However, Table 1 provides evidence that dissents are more common when at least one judge on a panel would benefit from review by both the circuit en banc and the Supreme Court, consistent with strategic accounts of dissenting behavior.

### Isolation and the Decision to Dissent

While the evidence presented in Table 1 is consistent with strategic accounts of dissenting behavior on the courts of appeals, we prefer to rely on a multivariate analysis for more conclusive results. For the reasons discussed above, there are severe limitations in our ability to conduct a test that is not biased toward finding no evidence of strategic behavior. Consequently, the characteristics of our data lead us to propose a more focused test of the use of dissent as a signal that a case warrants review.

To do this, we examine a subset of judges most likely to employ dissents: those who are ideologically isolated on their panels (e.g., Kim, 2009). We characterize appointees of Republican [Democratic] presidents as isolated when they are on panels with two appointees of Democratic [Republican] presidents. We focus on isolated judges because we believe these are the judges most likely to be motivated to dissent for nonstrategic reasons. Thus, in our analysis, co-partisanship serves as a proxy for expected ideological compatibility. We expect that judges appointed by presidents of the same party will be more likely to vote together than judges appointed by presidents of opposite parties. Focusing on isolated judges provides a mechanism by which we can plausibly identify the panelist most likely to dissent in a case *a priori*, thereby overcoming the unit of analysis problem discussed above.

Our expectation is that the probability of dissent by isolated judges will be conditioned on their ideological compatibility with the circuit en banc and/or the Supreme Court. When an isolated judge shares the partisanship of the majority of judges on the reviewing court, we expect dissent to be advantageous as the isolated judge will anticipate that the panel decision will be reversed by the reviewing court since it deviates from the preferences of the majority of judges on that court. This is expected to result in the reviewing court handing down a decision that is closer to the isolated judge's policy preferences than the decision of the three-judge panel.

If, however, the isolated judge's partisanship differs from the majority of judges on the circuit or justices on the Supreme Court, dissent will be disadvantageous as the isolated judge will expect that further review will result in the reviewing court affirming the decision of the three-judge

panel. Because this may result in the reviewing court adopting a policy further away from the isolated judge's preferences than the decision of the three-judge panel, dissent is not optimal for a strategic judge in this context.

In addition, we consider the effects of dual review by both the circuit en banc and the Supreme Court. As discussed above, we expect that the incentives to dissent to signal further review will be enhanced when review by both the circuit en banc and the Supreme Court would result in a judge obtaining policy gains relative to the location of the panel outcome. Accordingly, we hypothesize that judges will be more likely to dissent when they are ideologically compatible with both the circuit and the Supreme Court.

By focusing on the judge who is most likely to dissent on a panel and then introducing a key characteristic of the strategic environment (the relationship between a judge and the partisan composition of the reviewing courts), we are able to conduct a theoretically appropriate, falsifiable, and, as importantly, verifiable test of the strategic model. Furthermore, this is a particularly desirable strategy because we are able to execute the test of strategic dissenting behavior while avoiding the methodological problems that have plagued more traditional approaches.

To test these hypotheses, we utilize the data from the Songer (2009) and Kuersten and Haire (2009) databases discussed above. The dependent variable indicates whether a judge dissented, scored 1 if the judge authored a dissenting opinion and 0 otherwise. Because our focus is on isolated judges, the unit of analysis is the isolated judge's vote, meaning that there is only a single observation for each case. Because majority opinion writers cannot author dissents, they are excluded from the analyses.<sup>8</sup> To account for the sampling composition of the data, we employ the weights reported in Kuersten and Haire (2009) and Songer (2009). In addition, we use robust standard errors, clustered on judges, to account for the non-independence of observations (in that judges appear multiple times in the data). Due to the dichotomous nature of the dependent variable, we utilize a logistic regression model to estimate influences on the decision to dissent.<sup>9</sup>

To characterize the strategic context in which isolated judges decide whether to dissent, we adopt the concept and operationalization of partisan regimes introduced by Giles et al. (2007). Giles et al. suggest that the ideological tenor of the reviewing courts can be characterized by their partisan balance. Intuitively, we expect reviewing courts with higher numbers of judges appointed by Republican appointees to be more conservative than those staffed by higher numbers of Democratic appointees. We characterize judges as in the circuit regime when they share the partisan identification of the majority of judges in their circuit. Republican [Democratic] judges in circuits where the majority of judges were appointed by Republican [Democratic] presidents are considered to be in the dominant regime. Thus, Democratic [Republican] judges in circuits where the majority of judges were appointed by Republican [Democratic] presidents are not in the majority regime.<sup>10</sup> Similarly, if a judge shares the partisan affiliation of the majority of

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<sup>8</sup>To allay concerns that our results are driven by selection on the dependent variable, we re-estimated the model presented in Table 2 including majority opinion authors. Those results corroborate our findings and are reported in the Electronic Appendix.

<sup>9</sup>The mean of the dependent variable is 0.064. Given this, the Electronic Appendix reports the results of a rare events logit model (King and Zeng, 2001), the results of which corroborate those of the standard logit model.

<sup>10</sup>The regime data were originally collected by Giles et al. (2007) and extended by Blackstone and Smelcer (2006). We obtained information on the partisan affiliation of the appointing president for each judge in the data from Gryski and Zuk (2009).

Supreme Court justices (based on the partisanship of the appointment president), he or she is in the Supreme Court regime.

To estimate the impact of in-regime status on the probability of dissent, we construct a series of dichotomous regime measures. *Judge Only in Circuit Regime* is scored 1 when an isolated judge is a member of the circuit regime but is not a member of the Supreme Court regime, and 0 otherwise. Conversely, *Judge Only in Supreme Court Regime* is equal to 1 when an isolated judge is a member of the Supreme Court regime but is not a member of the circuit regime, and 0 otherwise. Finally, *Judge in Both Circuit and Supreme Court Regime* is equal to 1 when a judge is a member of both the circuit and Supreme Court regimes, and 0 otherwise. These binary variables characterize three of the four possible relationships between a judge and the reviewing courts. The scenario in which a judge is in neither the circuit nor Supreme Court regimes is the omitted baseline category.

The strategic hypothesis suggests that in-regime judges should utilize dissents to invite en banc or Supreme Court review. Conversely, judges who are not in the controlling regime of the circuit or the Supreme Court will not enjoy substantially improved policy if the circuit or Supreme Court reviews the case. We therefore expect our regime variables to be positively signed, indicating that isolated judges will be more likely to dissent for strategic reasons when review by the circuit and/or the Supreme Court is advantageous.

In addition to providing a reasonable test of the possibility of strategic dissents, this approach also allows us to control for other influences on a judge's decision to dissent. To operationalize the incentive to dissent for purely ideological reasons, we include an *Ideological Distance* variable, which represents the absolute value of the isolated judge's ideological distance from the majority opinion author, based on the Common Space scores discussed above (Epstein et al., 2007).<sup>11</sup> By limiting our sample to isolated judges, we are able to include this variable without introducing problems stemming from multicollinearity into the model: the strongest correlation between any of our regime measures and the *Ideological Distance* variable is  $-0.09$  (for the *Judge Only in Supreme Court Regime* variable). The average variance inflation factor for these variables is 1.10.<sup>12</sup>

To account for other factors that might influence the decision to dissent, we include variables corresponding to characteristics of the judges, cases, and circuits under analysis. The first set of variables corresponds to attributes of judges. Existing research indicates that judges who are new to the bench undergo a period of acclimation during which they are less able to devote time to authoring separate opinions (Hettinger, Lindquist, and Martinek, 2003:796). To capture this possibility, we include a *Freshman* variable, scored 1 if a judge was serving during his or her first two years of service and 0 otherwise (Gryski and Zuk, 2009). In addition, chief judges may be less likely to dissent due to the myriad administrative responsibilities that place a burden on their time and because they may seek to demonstrate norms of collegiality (Hettinger, Lindquist, and Martinek, 2006:52). We test this through the use of a *Chief Judge* variable, scored 1 for the chief judge of the circuit and 0 otherwise (Gryski and Zuk, 2009). Designated district court judges

<sup>11</sup>The Electronic Appendix reports an alternative model specification that locates panel outcomes at the panel mean, the results of which are consistent with those reported herein.

<sup>12</sup>The variance inflation factor (VIF) captures the extent to which the variance of a variable is inflated due to collinearity with another variable in the model (e.g., Allison, 1999:48–50). High VIFs indicate the presence of high levels of collinearity. Though there is disagreement as to how high a VIF has to reach to indicate serious multicollinearity problems, Allison takes a conservative approach and indicates that he becomes concerned about multicollinearity when VIFs rise above 2.50.

serving on courts of appeals panels may be more likely to show deference to their colleagues by deferring to the majority (Collins and Martinek, 2011; Hettinger, Lindquist, and Martinek, 2006). As a result, we include a *Designated Judge* variable, scored 1 for district court judges sitting by designation and 0 for regular court of appeals judges (Kuersten and Haire, 2009; Songer, 2009). Finally, we include two variables that capture a judge's status as a gender or racial minority. Some have suggested that minority judges bring unique life experiences to the bench that may cause them to view litigation differently than their white male counterparts, thus increasing the chances they will dissent (Hettinger, Lindquist, and Martinek, 2003, 2004). To test this prospect, we include two variables. *Female* is scored 1 for female judges and 0 for male judges, while *Minority* is scored 1 for African American, Asian American, Hispanic, or Native American judges and 0 for Caucasian judges (Gryski and Zuk, 2009).

Next, we include three variables based on attributes of the cases that are expected to influence the decision to dissent. Existing research indicates that, in cases with far-reaching policy implications, judges are more likely to dissent (Hettinger, Lindquist, and Martinek, 2003, 2004, 2006). Accordingly, we include a measure of *Saliency*, adopted from Hettinger, Lindquist, and Martinek (2004:132). This variable is a factor analysis of three cases attributes: the presence of amicus curiae briefs, the presence of a civil rights or liberties issue, and the exercise of judicial review (Kuersten and Haire, 2009; Songer, 2009). In addition, judges might be more likely to dissent in legally complex cases since cases with multiple issue areas provide ample opportunity for disagreement (Hettinger, Lindquist, and Martinek, 2004, 2006). Our measure of *Legal Complexity*, adopted from Hettinger, Lindquist, and Martinek (2004:132), is a factor analysis of the length of the majority opinion and the number of issues raised in the litigation (Kuersten and Haire, 2009; Songer, 2009). Finally, we control for whether the majority reversed the decision of the lower court. When this occurs, it is indicative that the case's outcome is far from clear since two courts, considering the same case, differed as to the outcome (Hettinger, Lindquist, and Martinek, 2003:799). *Reversal* is coded 1 if the court of appeals majority reversed the lower court decision and 0 if it affirmed that decision.

In addition to these judge and case-specific attributes, we also include variables relating to aspects of the circuit as a whole. First, we posit that judges serving in circuits with relatively large workloads will be less likely to have the time to devote to writing dissenting opinions (Hettinger, Lindquist, and Martinek, 2003, 2004, 2006). Accordingly, we include a *Workload Pressure* variable, which represents the number of cases terminated on the merits per judge per circuit year (Hettinger, Lindquist, and Martinek, 2004; Federal Judicial Center, 2011; Scott, 2006). In addition, circuit norms might influence the decision to dissent. In circuits where authoring dissenting opinions is relatively common, we believe judges will be more likely to dissent (Hettinger, Lindquist, and Martinek, 2003, 2004, 2006). Given this, we include a *Circuit Norm* variable, which is operationalized as the one-year lag of the percentage of decisions with separate opinions for each circuit (Kuersten and Haire, 2009; Songer, 2009). Circuit size might also shape a judge's decision to dissent in that circuits with a relatively large number of judgeships create the potential for enhanced disagreement (Hettinger, Lindquist, and Martinek, 2004, 2006). Our *Circuit Size* variable indicates the number of authorized judgeships for each circuit per year (Federal Judicial Center, 2011). Finally, while they are infrequently employed, several circuits have implemented the use of the pre-filing circulation of opinions as an informal en banc procedure that may limit the need for judges to author dissenting opinions for the purpose of inviting en banc review (Sloan, 2009; Wasby, 2001). To ensure that the availability of informal en banc review

TABLE 2  
Logit Model of a Judge's Decision to Dissent When Isolated on the Courts of Appeals, 1970–2002

<i>Variable</i>	<i>Coefficient</i>	<i>Marginal Effect</i>
Judge Only in Circuit Regime	0.241 (0.271)	
Judge Only in Supreme Court Regime	0.232 (0.253)	
Judge in Both Circuit and Supreme Court Regimes	0.417* (0.194)	+2.2
Ideological Distance	0.338 (0.367)	
Freshman	-0.522* (0.260)	-1.8
Chief Judge	-0.036 (0.253)	
Designated Judge	-0.088 (0.266)	
Female	0.520* (0.264)	+2.9
Minority	-0.076 (0.347)	
Salience	0.083 (0.076)	
Legal Complexity	0.015 (0.097)	
Reversal	0.488* (0.176)	+2.7
Workload Pressure	0.002 (0.002)	
Circuit Norm	0.262 (1.041)	
Circuit Size	0.033 (0.032)	
Constant	-3.947* (0.574)	
<i>N</i>	4,085	
Wald $\chi^2$	84.26*	

*Note.* The dependent variable indicates whether a judge authored a dissenting opinion (1 = dissenting opinion, 0 = no dissenting opinion). Numbers in parentheses report robust standard errors, clustered on judge. The model includes eleven circuit dummy variables (results not shown). Marginal effects of the statistically significant variables indicate the percentage point change in the dependent variable corresponding to a 0 to 1 increase in dichotomous variables and a one standard deviation increase in continuous variables, holding all other variables constant at their mean or modal values. \* $p < 0.05$  (one-tailed tests).

does not influence our results, and to control for any remaining circuit-level effects, we include a dummy variable for each circuit, save one.

Table 2 presents the results of a logit model examining the dissenting behavior of isolated judges. The results reveal that, while neither membership in the circuit or Supreme Court regimes independently leads to a significantly higher probability of dissent, when review by both courts results in a policy benefit to an isolated judge, the judge is significantly more likely to dissent than when he or she is outside of both regimes. Substantively speaking, an isolated judge is 2.2 percentage points more likely to dissent when he or she is a member of the prevailing regimes in both the circuit and the Supreme Court, as compared to a situation in which the judge is outside of these regimes—an increase of 47 percent. Because judges who are members of the dominant political regime in the circuit and on the Supreme Court will presumably reap policy gains from further review regardless of which superior court accepts the case, there are increased incentives to dissent and less uncertainty surrounding the likely outcome of further review. Table 2 reveals that court of appeals judges take advantage of this situation, thus providing evidence of strategic dissenting behavior on the courts of appeals.

Notably, we do not identify independent effects for membership in either the Supreme Court or circuit regimes. This suggests that when a court of appeals judge is in the circuit regime (but not the Supreme Court regime) or is in the Supreme Court regime (but not the circuit regime), he

or she is not significantly more likely to dissent as compared to a situation in which the judge is in neither regime. These non-findings provide further insight into the ways in which dual review may affect strategic behavior in the courts of appeals. Theories of judicial decision-making on the courts of appeals do not make clear whether the circuit en banc or the Supreme Court should be a more significant influence on court of appeals judges. While our findings do not allow us to definitively answer this question, they suggest that, when a judge is subject to cross-pressures from two reviewing courts, the strategic benefit associated with review by one court may be neutralized by the divergent preferences of the other court. This finding corroborates Kastellec's (2011) recommendation that it is imperative to account for the presence of multiple courts with the ability to review court of appeals decisions when studying the federal judicial hierarchy. Studies finding no evidence of strategic behavior while considering oversight by only one of the supervising bodies may fail to provide support for strategic behavior, not because it is not occurring but instead because judges are responding to offsetting incentives by reviewing courts with divergent preferences.

In short, we find that isolated judges are more likely to dissent in an attempt to obtain policy gains from further review when they are members of the dominant partisan regime on both reviewing courts. Furthermore, these tests are particularly useful in that they offer insight into the conditions under which judges are especially likely to engage in strategic dissenting behavior by demonstrating that isolated judges systematically respond to the strategic context that accompanies change in the partisan control of reviewing courts. Thus, it moves us closer to understanding, not just whether court of appeals judges dissent strategically, but when court of appeals judges are most likely to utilize strategic dissents to signal further review of a case (e.g., Bowie and Songer, 2009).

Our model does not identify a significant effect for the ideological distance between the potential dissenter and the location of the majority opinion author. We believe the reason for this null finding is the fact that only isolated judges are included in this sample, and isolation is acting as a proxy for a judge's ideological compatibility with the policy contained in the majority opinion. To illustrate, the average distance between an isolated judge and the majority opinion author on a panel is nearly twice the average distance between a non-isolated judge and the majority opinion author (0.308 for non-isolated judges compared to 0.611 for isolated judges,  $p < 0.001$ ). Thus, while the model in Table 2 does not provide evidence of sincere dissenting behavior (based on a judge's ideological distance from the panel outcome), this null finding likely reflects our decision to include only those judges whose ideological disagreement with the panel outcome is strongest. This is bolstered by the fact that, as we would expect, isolated judges dissent significantly more frequently than judges serving with partisan allies. Isolated judges dissent in 6.4 percent of cases, compared to 4.0 percent for other judges ( $p < 0.001$ ). Accordingly, these results are consistent with our foundational assumption that the basis for both sincere and strategic dissents is disagreement over the content of panel decisions.

Turning to the control variables, Table 2 indicates that isolated freshman judges are 1.8 percentage points less likely to dissent than their senior colleagues, thereby providing evidence for acclimation effects on the courts of appeals. Isolated female judges are 2.9 percentage points more likely to dissent than their male counterparts. This finding is consistent with arguments that suggest female jurists might bring unique life experiences with them to the bench, viewing cases differently from their male colleagues. Finally, the results reveal that isolated judges are 2.7 percentage points more likely to dissent when the court of appeals panel reverses a district court

decision, indicating that dissents are more common in cases in which the district court judge and circuit court majority disagreed as to the appropriate application of the law.<sup>13</sup> Our model fails to evince statistically significant effects of the other control variables.

## CONCLUSIONS

Do judges strategically dissent on the courts of appeals for the purpose of inviting en banc or Supreme Court review? Existing studies of this topic are rife with contradictory findings, with some providing evidence of strategic dissents (Cross and Tiller, 1998; Kim, 2009; Van Winkle, 1997), and others concluding court of appeals judges do not use dissents for strategic purposes (Hettinger, Lindquist, and Martinek, 2004, 2006). The purpose of this study was to revisit the topic for the purpose of rectifying the conflicting nature of this debate. In so doing, we addressed the pitfalls associated with traditional econometric approaches to modeling strategic behavior, particularly relating to the selection of units of analysis for study and the introduction of multicollinearity into statistical models. Furthermore, by identifying the conditions under which strategic dissents are most likely to be observed, we have amassed evidence that court of appeals judges use dissenting opinions for the purpose of inviting further review of cases. These are particularly significant findings because, while dissenting opinions are rare in the courts of appeals, they have important political and legal implications, such as undermining the consistency of federal law and increasing the likelihood of en banc and Supreme Court review.

While our findings are consistent with those of Cross and Tiller (1998), Kim (2009), and Van Winkle (1997), who also find that court of appeals judges dissent for the purpose of inviting further review of a dispute, we have done more than replicate existing findings. First, we have demonstrated that strategic theories of dissenting behavior are applicable to a wide range of cases, and do not just find support in the analysis of particular issue areas, such as administrative (Cross and Tiller, 1998), search and seizure (Van Winkle, 1997), and sex discrimination law (Kim, 2009). Second, by investigating the conditions under which strategic dissents are most likely to occur, we have shed fresh light as to when court of appeals judges are most likely to engage in strategic dissenting behavior. Finally, our analysis helps rectify the conflicting nature of previous work on the subject. Strategic behavior occurs in the courts of appeals, but, as strategic theories predict, the operation of strategic concerns is conditional, and frequently there is equivalence between the predictions of sincere and sophisticated accounts of decision making (Lindquist and Martinek, 2009). In part, this is a function of the fact that theories of sincere and strategic decision making agree that judges are motivated primarily by their policy preferences. Therefore, evidence that judges behave as predicted by sincere models does not eliminate the possibility that judges also engage in strategic behavior since strategic behavior should manifest itself only under specified conditions. Because strategic behavior requires opportunity and strategic considerations are sometimes assumed to be secondary to sincere policy preferences, tests of strategic theories must be carefully tailored to ensure that hypotheses are capable of being falsified and verified. By exploring in greater detail the primary frameworks used to evaluate hypotheses of strategic dissent, we have uncovered important features of popular research designs that introduce bias

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<sup>13</sup>The binary variables capturing circuit effects indicate that isolated judges on the Fourth Circuit are more likely to dissent than judges on the Third Circuit (the excluded category).

against strategic hypotheses, which allow us to make sense of the seemingly anomalous findings in extant research.

While we have focused on decision making in the courts of appeals, the arguments we advance have implications for research on strategic behavior in a host of contexts. For example, studies of separate opinion writing on the U.S. Supreme Court frequently pit strategic and sincere motivations against one another (e.g., Maltzman, Spriggs, and Wahlbeck, 2000), while analyses of voting behavior often concern themselves with strategic versus sincere voting (e.g., Caldeira, Wright, and Zorn, 1999). Moreover, work in the separation of powers tradition examines how members of one institution might behave strategically depending on the likely actions of actors in different institutions (e.g., Epstein and Knight, 1998), just as strategic concerns regularly motivate the analysis of the decision to retire (e.g., Zorn and Van Winkle, 2000). Given the applicability of this work to these veins of research and many others, we conclude by positing that scholars considering strategic interaction between any actors must carefully evaluate standard econometric research designs for inherent bias for or against their hypotheses. Multivariate regression analysis is a powerful tool and should remain a fundamental instrument for the rigorous analysis of social science theories. However, we should recognize its limitations. Some theories defy the requirements and expectations of large-sample statistical analyses. In these instances, researchers may need to look beyond traditional approaches to glean model implications that can be evaluated by alternative methods and considered alongside standard approaches to either corroborate or contradict statistical results. To be sure, robust theoretical models should be capable of generating numerous empirical implications. Our findings indicate that triangulation, be it through a variety of quantitative techniques, qualitative techniques, or a combination of the two, may best contribute to our understanding of the behavior of legal and political actors.

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### SUPPLEMENTAL MATERIAL

Supplemental data for this article can be accessed on the publisher's website.

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