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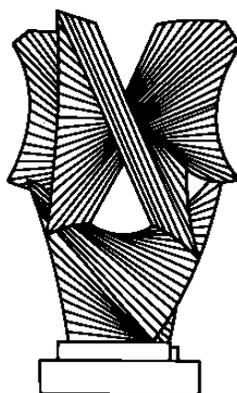
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What Do Federal District Judges Want? An Analysis of Publications, Citations, and Reversals

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**What Do Federal District Judges Want?:
An Analysis of Publications, Citations, and Reversals**

Stephen J. Choi, Mitu Gulati, and Eric A. Posner¹

January 5, 2010

Abstract

We report evidence from a dataset of federal district judges from 2001 to 2002 that district judges adjust their opinion-writing practices to minimize their workload while maximizing their reputation and chance for elevation to a higher court. District judges in circuits with politically uniform circuit judges are better able to predict what opinions will get affirmed by the circuit court, leading to higher publication rates and a higher affirmance rate. In contrast, district judges in circuits with politically diverse circuit judges are less able to predict the preferences of the reviewing circuit court panel, leading district judges to publish fewer but higher quality opinions in an effort to maximize their affirmance rate.

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1. Introduction

A large literature has found that Supreme Court justices and federal appellate judges decide cases at least partly on the basis of ideological preferences. Scholarship on district court judges has been less extensive, and its results less consistent. Some research finds that district court judges are influenced by ideological preferences, especially in sentencing and cases involving salient topics, but other research finds little or no correlation between ideological preferences and decisions (Rowland and Carp 1983; Rowland and Carp 1996; Ashenfelter, Eisenberg and Schwab 1995).

The most plausible explanation for these different results is that district judges are more closely supervised than are judges higher up in the court hierarchy. Supreme Court justices do not face review and appellate court judges face review in only a tiny fraction of the cases they decide. By contrast, district judges are routinely subject to appellate review. Reversal can be a burden for district judges, requiring them sometimes to conduct new trials and usually to hear new motions. At the same time, pressure is put on district judges to clear their dockets—to decide cases expeditiously. Reversal is also potentially embarrassing and detrimental to a trial judge's prospects for promotion to the appeals courts. Judges on the appeals courts, by contrast, have little prospect of promotion.

We suspect that district judges care as much about political outcomes as appellate judges do, but cannot advance their ideological preferences because they are subject to appellate review. Thus, we hypothesize that district judges care about minimizing their workload and maximizing their reputation (and hopes for elevation to an appellate court) by avoiding appellate reversal.² If

² The literature on judging frequently mentions the aversion of judges to reversal (Higgins and Rubin 1980; Drahozal 1988; Watson 1988). Research on the appeals courts, however, has found little evidence of reversal aversion (Klein and Hume 2003; Cross 2007; Songer, Humpries and Sarver 2003). With respect to the district

district judges want to avoid reversal, and appellate judges decide cases on the basis of political preferences, then district judges will decide cases on the basis of the political preferences of appellate judges. When district judges can predict the political orientation of appellate panels, typically consisting of three circuit judges randomly assigned, the district judges will decide cases in line with that political orientation. When district judges cannot predict the political orientation of appellate panels, they will adopt additional strategies to minimize reversal. They will publish fewer opinions—because the reversal of an unpublished opinion is less public than reversal of published opinions—and they will write higher-quality opinions. Where the political orientation of the appellate panel is unpredictable, a higher-quality opinion will have a lower chance of reversal, other things equal, because reversing a higher-quality trial court opinion likely requires greater effort on the part of the appellate panel. But given limits on time and resources, we predict that those district judges’ reversal rate will be no better, and possibly worse, than those of judges who sit in circuits with predictable political orientations.

We test this theory of district judge behavior using a dataset consisting of the decisions of 629 federal district judges over a two-year period from 2001 to 2002. If, as other studies have shown, appellate judges decide cases in a politically biased way, then district judges who sit in politically diverse circuits will have more trouble predicting appellate rulings than district judges who sit in politically uniform circuits. As a result, judges in politically diverse circuits will have higher reversal rates and publish fewer opinions, but those opinions that are published will be of relatively high quality. Our results are roughly consistent with these hypotheses.

2. The Motivations of Federal District Judges

courts, there is some evidence of reversal aversion, but there has been but minimal inquiry into the question (Cohen 1992).

Much has been written about the motivations of judges. Many political scientists, many economists, and some law professors believe that judges maximize a utility function that includes standard elements such as leisure and wealth but also ideological preferences and general concern with one's reputation for legal ability (Posner 1993; Drahozal 1998). For judges at the top of the hierarchy, these assumptions lead to straightforward predictions that judges will decide cases in a way that advances their ideological biases. It is possible that a concern for reputation, or for avoiding legislative reversal (in the case of statutory decisions) or future judicial or constitutional reversal (in the case of constitutional decisions), constrains these judges, but these constraints are probably minimal. For intermediate appellate judges, the possibility of reversal by the Supreme Court is greater, but it is still remote in the federal system (Bowie & Songer 2008). Numerous studies find evidence that political attitudes influence appellate decisionmaking, though they cannot rule out the possibility that appellate judges are also concerned about the legal quality of their opinions, which is the mainstream view among lawyers.³

The implications of this model for district judges are more complex.⁴ The decisions of district judges are routinely reviewed by appellate courts; it therefore seems likely that district judges have less discretion to advance their ideological views—at least, to the extent that their ideological views differ from those of the appellate judges who review their opinions. Conceivably, they can hide them by making biased rulings about the facts, which appellate courts can review only with great difficulty. Although there is some evidence for this conjecture (Schanzenbach and Tiller 2007), it is difficult to test. Rulings about facts involve subjective

³ The literature has become too vast to cite. For seminal work, see Segal & Spaeth 2002.

⁴ See Baum 1997, 24-25.

judgments about the credibility of witnesses and the coherence of narratives that cannot be independently verified.

District judges differ from appellate judges in another important respect. District judges have a greater chance of promotion than appellate judges do, and promotion brings with it more money, higher status, and better working conditions.⁵ We suspect that district judges who are repeatedly reversed will have less chance of being promoted.⁶ It is possible that a district judge who decides cases in an ideologically biased way and is repeatedly reversed will be attractive to a president with the same ideology who has a majority or supermajority in the Senate. But such alignment is unusual, and even when it occurs, the minority party can use the judge's reversal rate to make the case that she is incompetent.

We hypothesize that instead of focusing on advancing an ideological agenda, district court judges will focus on minimizing their workload while at the same time maximizing their general judicial reputation through a lower reversal rate to increase their chance of promotion to the appellate court. Anecdotal evidence suggests that district judges care about their reversal rate and about case management—both easily measured by outsiders (Knight and Gulati 2010). This evidence is consistent with the assumption that district judges hope to be elevated and also the assumption that they compete for status, which is based on these easily measurable metrics (Posner 2008).⁷ Reversal implies that a judge is not legally skilled; it also produces more work.

⁵ A large portion of those appointed to the federal appeals courts tend to be from the federal trial courts (Swenson 2006). Over the past decade, however, this trend may have diminished. Only four of the judges in our 2001-2002 dataset had been elevated as of 2009.

⁶ In one of the few studies that examines this question, Higgins and Rubin (1980) found that a judge's reversal rate did not affect promotion prospects. However, the Higgins and Rubin study examined a relatively small data set and one from over two decades prior to ours. We suspect that judges have a greater fear that reversal rates will be used against them today, as occurred with Justice Sotomayor, than was the case in prior decades.

⁷ See Judicial Nomination Sent to Senate on a Party-Line Vote, L.A. Times, June 17, 2005, <http://articles.latimes.com/2005/jun/17/nation/na-judge17> (“Some senators and liberal groups have consistently opposed Boyle, arguing that he has been reversed by higher courts too many times and that he has ruled unfairly on civil rights, women's rights and employees' rights.”). And although they did not prevail, arguments about her high

Judges who fall behind on their dockets will annoy litigants, government officials, and their colleagues, who may believe that those judges are shirking.⁸

If all this is true, district judges will not decide cases in a manner that promotes their ideological preferences; they will decide cases in a manner that promotes the ideological preferences of the appellate court.⁹ For example, Democratic district judges will produce liberal case outcomes when they sit in circuits dominated by Democratic appellate judges, and they will product conservative case outcomes in circuits dominated by Republican appellate judges. This may explain why studies to date have not consistently found that district court judges decide cases in a way that advances their ideological preferences. If they did, then it would be impossible to reconcile this fact with the high affirmance rate (around 90 percent) and the fact that appellate judges decide cases in a way that reflects *their* ideological biases. Except when they sit in a circuit with appellate judges who share their ideological preferences, district judges must choose between deciding cases that promote their ideological preferences and enjoying a high rate of affirmance. Since the former choice just means reversal and ultimately the failure to promote their ideological preferences, there is no choice at all. District judges will suppress their ideological leanings and decide cases so as to avoid reversal.¹⁰

reversal rate were made by opponents of then-judge Sotomayor's nomination to the U.S. Supreme Court (Mauro 2009).

⁸ One former federal district court judge we spoke to confirmed these assumptions. He said that trial judges, unlike appellate judges, must face litigants and their lawyers every day, and know that their reputation will significantly affect their interactions with lawyers. Trial judges know that if they are frequently reversed, their rulings will be frequently appealed, leading to more work on remand and hence less time to focus on opinions, which will have more flaws, in a downward spiral.

⁹ There is similarly evidence that elected and appointed state judges will suppress their ideological preferences so as to be reelected or reappointed by people with different ideological preferences. See Shepherd 2009a; 2009b.

¹⁰ Higgins and Rubin (1980) and Ashenfelter, Eisenberg, and Schwab (1995) find no evidence that district judges are influenced by political preferences. See also Zorn & Barnes (2007). Sisk, Heise, and Morris (1998) examine a dataset consisting of district court decisions on the constitutionality of sentencing guidelines, and find no evidence that these decisions were influenced by the judges' political affiliations. The paper found some correlations between party affiliation and certain methodological approaches of the judges, but these correlations did not appear to reflect conventional political attitudes. Taha (2004) uses the Sisk et al. dataset to test hypotheses concerning the determinants of a district judge's decision to publish an opinion, and finds that younger judges with a prior political

Suppose, then, that the main factor determining a judge's reputation is his or her affirmance rate. If judges care only about their affirmance rate, then they will decide cases in a manner that they predict an appellate panel will approve. If the appellate panel's views are predictable, then all district judges will have 100 percent affirmance rates. District judges will simply decide in a way that conforms to the appellate panel's political biases.¹¹ If the appellate panel's views are diverse, then affirmance should drop below 100 percent. But the reason is not that district judges ignore the political biases of the appellate judges. The reason is that the district judges face greater uncertainty at the time they write their opinions as to the political makeup of the specific three-judge appellate panel that will eventually review the district judges' opinions.

In a diverse circuit, a number of options are open to a district court judge seeking to avoid the embarrassment of reversal. First, the judge can decline to publish an opinion. To be sure, the litigants can appeal an unpublished opinion, and the appellate court can reverse it. But we conjecture that reversal of unpublished opinions is less embarrassing than reversal of published

position and higher ABA ratings are more likely to publish, as are judges with smaller caseloads, longer tenure, and the potential for promotion (among other things). Schanzenbach and Tiller (2006) find that district judges' sentencing decisions can be predicted from their political orientation: Democrats give shorter sentences to those convicted of street crimes than Republicans do. Further, they find that Democratic judges grant downward departures in street crime cases under the sentencing guidelines to a greater extent when the circuit is Democratic than when it is Republican, and to a greater extent than Republican district judges do. (See also Schanzenbach and Tiller 2008.) Rowland & Carp (1996) find quantitative evidence that district judges' decisions reflect political orientation but do not test this hypothesis statistically. Randazzo (2008) examines a sample of district court cases decided between 1925 and 1996 in civil rights, economics and criminal law cases. Randazzo finds that, in civil rights and economics cases, district judges temper their ideological tendencies where they conflict with those of the appeals court. Similar findings, however, do not show up with the criminal law cases he examines. Smith (2006) examines whether trial courts adjust their behavior in response to reversals by the appeals court. Using data from the D.C. Circuit on civil rights cases, he finds that trial court judges will initially attempt to advance their ideological preferences. However, if reversed by the appeals court, they adjust their behavior to bring it more in line with the preferences of the appeals court. Finally, using a nationwide sample, Boyd and Spriggs (2009) examine the citation patterns of the trial courts. Boyd and Spriggs predict that trial judges, because of their aversion to reversal, will calibrate their inclinations to cite Supreme Court precedent that they favor as a function of the ideological preferences of the intermediate appeals court. They do not, however, find evidence that the trial courts adjust their citation patterns to cite Supreme Court cases more positively or negatively as a function of where the appellate court sits on the ideological spectrum vis-à-vis those cases.

¹¹ Cf. Understanding Judicial Hierarchy: Reversals and the Behavior of Intermediate Appellate Judges, Kevin M. Scott, 2006, *Law and Society Rev.* Vol. 40, p. 163

opinions. Published opinions are seen as more important, and so an error is more important; and published opinions are better known, so the reversal will be more widely known (and thus have a greater effect on the district court judge's reputation). In addition, because unpublished opinions likely carry less influence with other judges, a circuit court may view a reversal of such an opinion as less important and therefore be less likely to reverse it, all other things being equal.¹² Although there are guidelines directing judges when to publish opinions, prior research suggests that these guidelines are at best considered suggestive by the judges (Songer 1988; Olson 1992). Judges appear to exercise significant discretion over whether to publish opinions. At the margin, therefore, district judges should publish less often when they face politically diverse appellate review.

Second, the judge can put more effort into writing an opinion. Appellate judges' willingness to overturn an opinion is likely to be at least partly a function of its quality. Given that the appellate panel will have to exert greater effort to reverse a high quality trial court opinion, resource-constrained appellate panels will be less likely to reverse high quality trial court opinions.¹³ In order to produce higher quality opinions, district judges in politically diverse circuits will need to devote less time to other activities. They might work harder and have less time for leisure; or they might spend less time on case management.

Accordingly, we predict that district judges in more diverse circuits publish fewer opinions than district judges in more uniform circuits, but that their published opinions are higher quality.

¹² For a discussion and some ambiguous evidence on the publication decision, see Rowland & Carp (1996).

¹³ Along these lines, Hoffman, Izenman and Lideker (2007) suggest that district court judges are more likely to explain their reasons for a decision when those decisions are subject to the risk of reversal (decisions on certain types of motions, for example denials of motions to dismiss, are not subject to the risk of appeal as contrasted with grants of motions to dismiss).

We also speculate that district judges in circuits with higher quality appellate courts will publish more opinions and higher quality opinions. Since low quality appellate courts will erroneously reverse high quality opinions and affirm low quality opinions, district judges gain little by writing higher quality opinions. District judges will also, at the margin, decline to publish an opinion rather than go to the trouble of publishing it and take the risk that it will be erroneously reversed. This reasoning suggests that when both the diversity and quality of appellate courts increase, so should the number and quality of the opinions of the district courts.

The net effect of a diverse circuit court on a district judge's overall reversal rate is unclear. On the one hand, in a diverse circuit it is more difficult to predict the appellate court review panel, leading to a higher reversal rate. On the other hand, efforts on the part of the district judge to publish fewer opinions and to focus on writing (or selecting) higher quality opinions for publication will lead to a lower reversal rate. Our prediction is that, because of time and resource constraints, district judges in diverse circuits will likely have a higher reversal (and thus lower affirmance) rate compared with judges from non-diverse circuits.

3. Dataset

Our dataset consists of information about the decisionmaking of all of the 629 federal district judges who held office in 2001 or 2002. In 2001 and 2002 there were 665 judgeships; with vacancies, there were about 602 judges in 2001 and 597 judges in 2002.¹⁴ Changes in personnel bring our total up to 629. An observation is a single judge. Because of missing information for some dependent variables, our usable data set ranges from 553 to 606, depending on the type of dependent variable. Table 1 provides a breakdown of our district judges by circuit,

¹⁴ See Administrative Office of the U.S. Courts, Federal Court Management Statistics, <http://www.uscourts.gov/cgi-bin/cmsd2002.pl>. We calculate number of judges by subtracting from the number of judgeships the number of vacant judgeship months divided by twelve.

along with circuit-level information about our main dependent variables. Table A1 in the Appendix provides definitions, sources, and summary statistics for all of the variables.

[Table 1]

3.1. Dependent Variables

We use three dependent variables. *Publication Rate* refers to the propensity of a judge to publish opinions. We calculate Publication Rate by dividing the number of published opinions for a judge, by the average number of filings per judge in that judge's district (total filings for the district divided by number of judgeships in that district).¹⁵ We take this approach because we do not know how many unpublished opinions a particular judge issues. However, this approach is reasonable because filings are divided evenly among judges, excluding perhaps the chief judge, because the chief judge has administrative duties. To control for this, we include a dummy variable if a judge was a chief judge during our period.

Affirmance Rate equals the number of published opinions that were not reversed divided by published opinions. Our definition treats opinions that were not appealed as implicitly being affirmed. The affirmance rate variable does not fully capture a judge's success in terms of having decisions upheld: circuit courts can affirm and reverse unpublished dispositions as well. However, because published opinions likely reflect more important cases, are more carefully

¹⁵ By published opinions, we mean opinions that are available in the published reports issued by Westlaw. Although Westlaw can publish whatever opinions it wants to publish, anecdotal reports suggest that Westlaw simply publishes whatever opinions judges choose to designate as published opinions. In recent years, because of the widespread availability of judicial decisions on the electronic databases, and particularly the passage of the E-Government Act, the distinction between published and unpublished opinions may have become less important. However, we suspect that the choice to send an opinion for inclusion in the print version is still an important one that reveals information about the case in question and the judge. That said, we constrain our data base of opinions to roughly the period immediately prior to the passage of the E-Government Act in late 2002. See E-Government Act of 2002 (Pub.L. 107-347, 116 Stat. 2899, 44 U.S.C. § 101, H.R. 2458/S. 803) (enacted December 17, 2002, with an effective date for most provisions of April 17, 2003).

written, and are more widely read, the affirmance rate of published opinions does reflect an aspect of a judge's reputation.

Positive Citation Rate refers to the average number of positive outside-circuit federal court citations to a judge's published opinions as tracked by Westlaw. As is common in the citation literature, we use outside-circuit citations rather than total citations (including in-circuit citations) because in-circuit citations might reflect intra-circuit norms.¹⁶ To check robustness, we use various other measures of opinion quality, including law review citations and the difference between positive and negative outside-circuit citations.

There are some interesting variations among the circuits. Table 1 shows that district judges in the D.C. Circuit publish more frequently than district judges in other circuits. This is intuitive: the District of Columbia produces a lot of important, government-related cases, while having a small population, which would normally be the source of trivial cases like prison litigation. There is little variation in affirmance rate, except that district judges in the 10th Circuit are affirmed much less frequently than other district judges. Finally, district judges in the D.C. Circuit and the 9th Circuit write higher-quality opinions than judges in the other circuits. We do not have explanations for these last two patterns but they are interesting and suggest avenues for further research.

3.2. Independent Variables

Following the literature, for each of our district judges we include demographic variables, experience variables, the salience of the average case heard by a judge, and political variables (the Judge Control variables). Our demographic variables include indicator variables for a female judge (*Female*), black judge (*Black*), and judges of other minorities (*Other Race*). Our

¹⁶ This number includes citations by state courts that are outside the circuit in question.

experience variables include indicator variables for the judge's prior profession immediately before becoming a federal district court judge as follows: whether the judge worked as a judge, such as a magistrate judge, prior to becoming a federal district court judge (*Prior Judge*), the judge worked as a prosecutor (*Prior Prosecutor*), and the judge worked in private practice (*Prior Private Practice*). To capture the salience of a judge's mix of cases, we develop a variable (*Salient*) by dividing the judge's number of salient published cases—defined as those involving issues that frequently appear in newspapers¹⁷—by the judge's total number of published cases. For our political controls, we use an indicator variable for whether the judge was appointed by a democratic President (*Judge Democrat*) and a variable for the judge's experience in years defined as the difference between 2002 and the appointment year of the judge (*Judge Experience*). We also include in our Judge Controls an indicator variable for chief judge status during either 2001 or 2002 or both (*Chief Judge*) and an indicator variable for whether the judge attended one of the three top law schools as measured by U.S. News in 1992 – Harvard, Yale, and Stanford – which also were the three law schools most frequently represented among the circuit court judges in our sample (*Top School*).

For our tests, we also include variables relating to the circuit court of each of the district judges in our sample. Our focus is on the political composition of the circuit court. We hypothesize that district judges respond differently when faced with the prospect of review by a set of homogeneous circuit judges and when faced with review by diverse circuit judges. A district judge interested in maintaining a high affirmance rate for her published opinions will be better able to adjust her decisions and opinions to ensure affirmance if faced with a circuit of judges with relatively homogeneous preferences. In contrast, a district judge will have less

¹⁷ Salient cases are those involving church and state, campaign finance, federalism, first amendment, and other constitutional rights (Choi & Gulati 2008, which relies on the methodology of Epstein & Segal 2000).

ability to craft an opinion to cater to the interests of a specific panel of circuit judges to the extent the underlying pool of circuit judges for the specific circuit is more heterogeneous in their case outcome preferences.

We develop three measures of circuit heterogeneity based on a dataset of active federal circuit court judges from 1998 to 2000 developed by Choi and Gulati (2004). First, we measure the diversity among circuit court judge political ideology. We use the President who appointed each circuit court judge as a proxy for her political ideology (Democrat or Republican). We then compute the fraction of a circuit that consists of Republicans, giving us a number ranging from 0 to 1. We then transform this number into a *Circuit Diversity* measure by using a function that maps the percentage of judges with a particular political affiliation to a value from 0 (all judges have the same affiliation) to 1 (a 50-50 split).¹⁸

Second, we compute the mean ratio of published dissents to published majority opinions for circuit judges in a particular circuit (*Circuit Dissent*). The more a judge dissents, all other things being equal, the more likely the judge has differing views from other judges in the circuit. The more heterogeneous the group of circuit court judges, in turn, the harder it will be for a district court judge to predict the preferences of any specific panel that may review the district judge's opinions.

Third, we use a measure of circuit judge independence based on the tendency of circuit judges to write opinions that disagree with co-partisans when the pool of judges provides opportunities to do so. We define an "opposing opinion" as either a published majority opinion

¹⁸ Circuit Diversity is computed as follows. Call the fraction of republican judges in the circuit (determined for the 1998-2000 time period) Republican-Fraction. If Republican-Fraction is less than or equal to 0.5 we define Circuit Diversity as $2 \times \text{Republican-Fraction}$. If Republican-Fraction is more than 0.5, we define Circuit Diversity as $2 + (-2 \times \text{Republican-Fraction})$. Under this formulation, if the circuit is all Republican (so Republican-Fraction equals 1), Circuit Diversity will equal 0. If the circuit is all Democrat (so Republican-Fraction equals 0), Circuit Diversity will equal 0. If Republican-Fraction is equal to 0.5 (so 50-50 division between Democrats and Republicans), Circuit Diversity will equal 1, the highest possible diversity.

when a dissent exists, or a published dissent when a majority exists. We assume that a judge exhibits independence when she writes an opposing opinion against a co-partisan. More independent judges may make decisions less along lines based on political affiliation and more on idiosyncratic personal views, leading to greater heterogeneity in outcomes across different judges in the same circuit.

To compute our independence measure, we define `Opposite_Party` as the number of opposing opinions written, by the circuit judge of interest, against a circuit judge of the opposite party divided by the number of opposing opinions written against a circuit judge of either party from 1998 to 2000. This variable measures propensity to side with co-partisans. Not all opposing opinions are driven by the ideology of the opposing judges. A judge who dissents at random would dissent 70% of the time against an opposite party judge if the background pool of majority opinions consisted of 70% opposite party authored opinions. To take into account the background pool of opinions, we define `Opposite Pool` as the total number of published majority opinions authored by an opposite party judge divided by the total number of majority opinions authored by either an opposite or same party judge (not including the judge in question) from 1998 to 2000.

We define `Independence` for a specific circuit judge as `Opposite_Pool` minus `Opposite_Party`. A more negative `Independence` score corresponds to a judge who writes opposing opinions against opposite party judges more frequently than the background pool of majority opinions authored by opposite party judges. Conversely, a more positive `Independence` score corresponds to an authoring judge who writes opposing opinions less frequently against opposite party judges compared with the background pool of opinions (and thus more frequently against co-partisans). We treat a more positive `Independence` score as indicative of a more

independent judge. To obtain an overall independence score for a circuit, we averaged the independence score of each judge sitting in the circuit from 1998 to 2000 (termed *Circuit Independence*).

We also calculate a *Circuit Quality* variable based on the average outside-circuit citations of appellate opinions by circuit. As noted above, we are interested in the possibility that district judges write better opinions in higher quality circuits than in lower quality circuits.

4. Results

4.1. Publication Rate

We should start with some background. The average judge in our dataset is assigned 275 cases (or filings) per year. The judge will dispose of the vast majority of these cases—265, or 96 percent—in unpublished opinions or dispositions. Thus, the average judge publishes only about 10 opinions per year. The adversely affected party has the right to appeal an unpublished disposition, just as that party has the right to appeal a published disposition. We do not have numbers for appeals. But we do have numbers for reversals. (Thus, we cannot distinguish between cases that are settled before appeal and cases that are appealed and affirmed). On average, 8.5 percent of *published* opinions are reversed. So the average judge publishes 10 opinions per year and in most years one of those opinions will be reversed, while the others are either affirmed on appeal or settled. Meanwhile, of the 265 unpublished opinions, about 1.2 are reversed per year, or about 0.5 percent. Clearly, judges face a much lower level of reversal for their unpublished opinions. This is no doubt because most of these cases are trivial or frivolous (for example, much of prison litigation).

This pattern assumes that appellate courts do not rigidly follow a rule of affirming when opinions are unpublished. If that were the case, district judges who seek to avoid reversal would simply refrain from publishing all opinions. We assume that district judges do not have this much discretion, and would invite a scolding if they abused this process. Nonetheless, we assume that at the margin, district judges decline to publish opinions as a strategy for holding down their reversal rate. For that reason, we predict that judges in diverse, unpredictable circuits will be less likely to publish their opinions.

We estimate equations on pooled data from 2001 to 2002 for our district judges using an ordinary least squares regression model with robust standard errors clustered by district. Our theory predicts that judges in more heterogeneous circuits publish fewer opinions per filing and write longer opinions.

$$\text{Publication Rate}_i = \alpha + \beta_{1i}\text{Circuit Quality}_i + \beta_{2i}\text{Circuit Diversity}_i + \sum \beta_{ki}\text{Judge Controls}_{ki} + \varepsilon_i$$

The model tests the hypothesis that district judges in politically diverse circuits publish fewer opinions than district judges in politically uniform circuits.

[Table 2]

Model 1 of Table 2 reports our results. We replace Circuit Diversity with Circuit Dissent as reported in Model 2. We replace Circuit Diversity with Circuit Independence as reported in Model 3. The regression results of the three models are consistent with our predictions. All three of the measures of diversity—Circuit Diversity, Circuit Dissent, and Circuit Independence—have the correct sign (negative), and the first two are statistically significant, at the 10 percent

and 1 percent levels, respectively. Judges in diverse circuits are less likely to publish opinions than are judges in uniform circuits.¹⁹

We find no evidence that district judges in higher quality circuits publish more than district judges in lower quality circuits. Two of our control variables are interesting, however. Judges who went to top law schools publish more than other judges. This result (at the 1 percent level in all three models) is intuitive: these judges either have better educations or went to schools that selected them because of their greater ability.

In addition, judges whose dockets are dominated by salient cases are less likely to publish opinions. This result is significant at the 5 percent level in the first model, and at the 1 percent level in the other two models. It seems plausible that judges would avoid publishing politically sensitive cases, as illustrated by the controversy when it was revealed that then-Judge Sotomayor had issued an unpublished opinion involving a politically charged reverse discrimination case. Judges who care about their reputation (and/or hope to be elevated to the appellate court) might seek to avoid publishing salient cases because such opinions carry a high downside risk—although, as the Sotomayor controversy illustrates, this strategy might backfire and cause people to believe that the judges are trying to conceal controversial decisions.

In sum, our results are consistent with our hypotheses that district judges in more ideologically diverse circuits publish fewer opinions than district judges in less ideologically diverse circuits.

4.2. Affirmance Rate

¹⁹ We also tried clustering by circuit court; the results were similar but the level of statistical significance fell, in a couple cases below the ten percent level.

The next prediction of our theory is that judges in diverse circuits will enjoy a lower rate of affirmance than judges in uniform circuits. Our theory is not unambiguous about this prediction, however. It is possible that judges in diverse circuits will exert greater effort on fewer published opinions in order to secure a higher affirmance rate for those published opinions. Still, given their other obligations, at the margin their affirmance rate should not rise—it should stay the same or decline. Again, we estimate equations on pooled data from 2001 to 2002 for district judges using an ordinary least squares regression model with robust standard errors clustered by district court.

$$\text{Affirmance}_i = \alpha + \beta_{1i}\text{Circuit Quality}_i + \beta_{2i}\text{Circuit Diversity}_i + \sum \beta_{ki}\text{Judge Controls}_{ki} + \varepsilon_i$$

To test the impact of higher quality circuit court review, we include Circuit Quality as a measure of the average quality of the reviewing circuit judges. To test the impact of circuit judge political diversity we include our Circuit Diversity measure (Model 1). The model includes the same Judge Controls as in the Publication model above. We also estimate models replacing Circuit Diversity with the Circuit Dissent (Model 2) and Circuit Independence (Model 3) alternate measures of circuit heterogeneity.

[Table 3]

Some of the results in Table 3 are consistent with our prediction. When circuit diversity increases, affirmance rates decline. However, the results are not robust. Although the coefficient on Circuit Diversity is, as predicted, negative and significant at the 1% level, the coefficients on our other measures of circuit diversity, Circuit Dissent and Circuit Independence are not significantly different from zero, and the coefficient for the latter is the wrong sign. And, indeed,

given that our theory is that district judges in diverse circuits would use extra effort to overcome the disadvantage, it is not entirely clear whether we should expect an effect.²⁰ The other independent variables, including Circuit Quality, are not correlated with the dependent variables at a statistically significant level.²¹

We also checked to see whether opinions were more likely to be affirmed when a judge's political orientation and the circuit's political orientation are aligned (cf. Schanzenbach and Tiller 2007). One might predict that a Democratic judge will be more likely to be affirmed by Democratic panels. The problem with this theory is that if district judges want to avoid reversal, which would eliminate the effect of their decisions and create more work for them, they will swallow their ideological inclinations and decide cases in a way that advances the ideological inclinations of the appellate panel. Accordingly, the affirmance rate should not depend on political alignment. We tested this theory and indeed found no statistically significant correlation between political alignment and affirmance (unreported).

4.3. Citations

Finally, our theory predicts that judges in diverse circuits will write higher quality opinions than judges in uniform circuits. We measure quality by looking at the average number of positive outside-circuit citations to the opinions of a particular district court judge. We estimate the following model with errors clustered by district court reported as Model 1 in Table 4. The model includes the same Judge Controls as in the Publication model above. We also substitute Circuit Diversity with Circuit Dissent (Model 2) and Circuit Independence (Model 3).

²⁰ We checked for robustness by running tobit regressions, which produced very similar results in qualitative terms.

²¹ We do not report the coefficients for the Judge Controls in Table 3; none of the Judge Control coefficients were significantly different from zero.

$$\text{Positive Citation}_i = \alpha + \beta_{1i}\text{Circuit Quality}_i + \beta_{2i}\text{Circuit Diversity}_i + \sum \beta_{ki}\text{Judge Controls}_{ki} + \varepsilon_i$$

As predicted, when circuit diversity increases, positive citations increase. The coefficients on Circuit Diversity and Circuit Dissent are positive and significant at the 1% level. The coefficient on Circuit Independence is positive and significant at the 5% level. District judges appear to increase the quality of their published opinions when faced with more diverse circuit courts.²²

[Table 4]

To check robustness, we examine the relationship of circuit diversity and the average net positive citations and secondary source citations to a particular district court judges' opinions as alternate measures of district judge opinion quality. We thus ran six regressions—with the two new dependent variables, and the three alternative measures of diversity. In five of the six regressions (unreported), we obtained the same results at the 1 percent level. In one of the six regressions, the coefficient was just shy of the 10 percent level.

Lastly, we re-estimate Models 1 through 3 of Table 4 using the average number of pages per opinion for a district court judge. Average number of pages may be rough proxy for quality or effort. In the models, the coefficient on Circuit Diversity and Circuit Dissent are positive and significant at the 5% and 10% levels respectively, while the coefficient on Circuit Independence is not significantly different from 0 (unreported). Some evidence exists, therefore, that district court judges respond to a more diverse circuit court review with not only higher quality but also longer opinions.

²² We do not report the coefficients for the Judge Controls in Table 4. None of the Judge Control coefficients were significantly different from zero with one exception: the coefficient on Prior Prosecutor is negative and significant at the 10% level.

This result can be given two interpretations. First, length is a proxy for quality and comprehensiveness. Second, greater length results because of greater focus on the facts. District judges have at least some discretion to choose between deciding a case on the basis of facts or on law. Appellate review of interpretations of the facts is more deferential, leading to a higher affirmance rate. Thus, district judges in diverse circuits might write more fact-intensive and hence longer opinions in order to minimize the risk of reversal (cf. Schanzenbach & Tiller 2007).

4.4. Gender and Race

Other types of circuit court judge diversity may affect the behavior of district court judges. It is sometimes suggested that women and racial minorities bring different perspectives to the bench, which may improve overall decisionmaking. However, if gender and racial diversity bring new perspectives, it might also reduce the predictability of appellate court decisionmaking. Accordingly, we examine the effect of gender and racial diversity on district court publication rates and the quality of the opinions authored by district court judges.

We define *Circuit Female* to equal the ratio of female judge to all judges for the circuit in question. We test to see if district judges are more likely to publish opinions or write higher quality opinions when faced with a higher likelihood of facing a circuit panel consisting of one or more female circuit court judges. We estimate the following ordinary least squares model with errors clustered by district court reported as Model 1 (Publication Rate) and Model 3 (Positive Citations) in Table 5.

$$\text{Publication Rate}_i = \alpha + \beta_{1i}\text{Circuit Female}_i + \sum \beta_{ki}\text{Judge Controls}_{ki} + \varepsilon_i$$

$$\text{Positive Citations}_i = \alpha + \beta_{1i}\text{Circuit Female}_i + \sum \beta_{ki}\text{Judge Controls}_{ki} + \varepsilon_i$$

In both Models 1 and 3 the coefficient on Circuit Female is not significantly different from zero. We thus find no evidence that the prospect of review by a female circuit court judge affects the behavior of district court judges.

[Table 5]

We define *Circuit Minority* to equal the ratio of minority judges to all judges for the circuit in question. We test to see if judges are more likely to publish opinions or write higher quality opinions when faced with a higher likelihood of facing a circuit panel consisting of one or more female circuit court judges. We re-estimate the two models above replacing Circuit Female with Circuit Minority and report the results Model 2 (Publication Rate) and Model 4 (Positive Citations) in Table 5. Model 2 of Table 5 shows that district judges are more likely to publish when the circuit is racially diverse, significant at the 5 percent level. However, district judges are not more likely to publish high quality opinions.

Our tests therefore do not reveal much evidence that variation in the gender and racial composition of the reviewing circuit court affects the publication rates of district judges or the quality of the published opinions authored by district judges. These results are not particularly surprising, given that other work has shown that female judges and black judges do not usually decide cases differently from male and white judges.

5. Conclusion

Earlier studies suggest that federal district judges do not vote in an ideological fashion. A Democratic district judge is no more likely to vote in favor of labor rights than a Republican district judge. These results, however, do not indicate that the district judges rule in a politically neutral way. The studies of appellate judging, which do show political bias, together with the

high affirmance rate, provide an explanation: district judges, whatever their political orientation, decide cases in a politically biased way, albeit reflecting the political biases of the appellate judges rather than those of the district judges themselves. We provide empirical evidence in support of this explanation.

Given that they are supervised in this way by appellate judges, district judges exercise their discretion in other ways. Anecdotal evidence suggests that they care a great deal about case management: they try to decide cases quickly so that they do not fall behind. We suggest that district judges also care about their reputation—either because they hope for elevation or because they have an intrinsic concern about how others in the legal community regard them. This hypothesis is supported by another well-known piece of anecdotal evidence: district judges do not like to be reversed. Reversal adds to their workload, and looks bad.

Our evidence supports the view that district judges seek to write opinions that are more likely to be affirmed. The likelihood that a decision will be affirmed depends, in part, on the predictability of the circuit court. When the circuit court is politically uniform, its ideology is predictable and hence all decisions are easier. When the circuit court is diverse, the ideology of the review court depends on random selection of the panel, and thus all decisions are harder, in the sense that it is harder to predict how the court will react to them.

This phenomenon has three effects. First, district judges in diverse circuits publish fewer opinions as a proportion of their caseload. They prefer a lower publication rate with a lower reversal rate to a higher publication rate with numerous reversals. A lower publication rate results from district judges choosing not to publish opinions that are more likely to get reversed. Second, district judges in diverse circuits expend more effort on those opinions that they do publish. That is why their published opinions are longer, and why they end up being more

helpful for out-of-circuit judges, who cite them more frequently. Third, despite this extra effort, the affirmance rate is no higher than the rate in uniform circuits. The extra effort only enables district judges to (not quite) keep up with their luckier brethren in the more uniform circuits.

Our conclusions also have normative implications in light of recent work that emphasizes the value of political diversity in the circuit courts (Revesz 1997; Cross & Tiller 1998; Sunstein & Miles 2006). This work finds that judges on appellate panels often “polarize.” When three Republicans sit together, or three Democrats sit together, their decisions are more likely to run in the politically predictable direction than when the panel is diverse. Republican judges are more likely to vote in favor of employers, for example, while Democratic judges are more likely to vote in favor of workers. Various explanations have been proposed. Appellate judges prefer to vote in a way that advances their ideological preferences. When the panel is politically uniform, the judges polarize by talking themselves into a more extreme outcome. When the panel is politically diverse, the minority judge acts as a whistleblower who can reveal the weakness of the majority’s reasoning in a dissent. At the same time, the minority judge prefers not to expend the effort writing a separate opinion. The majority judges and the minority judge reach a bargain in which the majority accepts a less extreme outcome in return for the minority judge’s joining the opinion.

Some commentators have argued that these empirical results suggest that society does better when the circuit courts are politically diverse than when they are politically uniform. Diverse courts will have fewer uniform panels, with the result that polarization will be less often to occur, which, at a minimum, reduces the variance in judicial outcomes. We would add to this observation a further point: that when appellate courts are ideologically diverse, district judges have stronger incentives to put effort into their published opinions. The judges cannot assume

that their decisions will be affirmed because of their ideological direction. Higher-quality opinions by district judges are a good thing. But they are not costless. Judges who put more effort into writing published opinions may put less effort into case management and writing unpublished opinions, and so the overall effect on social welfare is ambiguous.

If one thinks that, on balance, district judges should devote more effort on published opinions, even if this means that they put less effort into case management, then one can improve judges' incentives by increasing the political diversity of appellate courts. For example, one might enable appellate judges to sit on panels outside their circuits—for example, a second circuit judge might on occasion sit on ninth circuit panels.

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Table 1: District Judges By Circuit

Circuit	Number of District Judges	Percent	Publications per Case	Affirmance Rate	Citations per Case
1	28	4.5	0.06	0.92	1.46
2	71	11.3	0.04	0.92	1.41
3	55	8.7	0.02	0.92	1.86
4	51	8.1	0.02	0.94	1.47
5	72	11.5	0.01	0.94	1.86
6	63	10.0	0.02	0.95	1.59
7	49	7.8	0.02	0.94	1.24
8	42	6.7	0.02	0.92	1.17
9	90	14.3	0.01	0.89	2.52
10	35	5.6	0.02	0.81	1.77
11	60	9.5	0.01	0.91	2.05
D.C.	13	2.1	0.11	0.91	2.51
Total	629	100.0			
Mean			0.02	0.91	1.76

Table 2: Publications Per Case

	Model 1	Model 2	Model 3
Circuit Quality	0.000897 (0.28)	0.000584 (0.19)	0.00193 (0.57)
Circuit Diversity	-0.0223 ⁺ (-1.74)		
Circuit Dissent		-0.113 ^{**} (-3.57)	
Circuit Independence			-0.0290 (-1.26)
Female	-0.000176 (-0.05)	0.000483 (0.16)	-0.000487 (-0.15)
Black	-0.00554 (-1.66)	-0.00452 (-1.34)	-0.00588 ⁺ (-1.72)
Other Race	0.0191 ⁺ (1.70)	0.0190 ⁺ (1.76)	0.0197 ⁺ (1.70)
Judge Experience	0.0000185 (0.08)	0.0000138 (0.06)	0.0000990 (0.42)
Prior Judge	0.00476 (1.21)	0.00622 (1.53)	0.00306 (0.78)
Prior Prosecutor	0.00300 (0.59)	0.00299 (0.55)	0.000129 (0.02)
Prior Private	0.000188 (0.05)	0.00133 (0.38)	-0.00180 (-0.51)
Chief Judge	0.00352 (1.06)	0.00352 (1.09)	0.00294 (0.88)
Top School	0.0149 ^{**} (2.83)	0.0158 ^{**} (3.21)	0.0166 ^{**} (2.75)
Judge Democrat	0.00342 (1.03)	0.00303 (0.91)	0.00386 (1.15)
Salient	-0.0181 [*] (-2.27)	-0.0188 ^{**} (-2.73)	-0.0190 ^{**} (-2.66)
Constant	0.0297 ⁺ (1.84)	0.0299 (1.46)	0.00776 (0.39)
<i>N</i>	533	533	533
<i>R</i> ²	0.081	0.115	0.068

t statistics in parentheses; ⁺ $p < 0.10$, ^{*} $p < 0.05$, ^{**} $p < 0.01$. Dependent variable is the Publication Rate. Standard errors are clustered by district court.

Table 3: Affirmance Rate

	Model 1	Model 2	Model 3
Circuit Quality	0.00138 (0.36)	0.00263 (0.70)	-0.000783 (-0.14)
Circuit Diversity	-0.104** (-3.67)		
Circuit Dissent		-0.105 (-1.39)	
Circuit Independence			0.148 (1.44)
Constant	0.969** (33.65)	0.905** (32.37)	0.920** (27.09)
<i>Judge Controls</i>	Yes	Yes	Yes
<i>N</i>	606	606	606
<i>R</i> ²	0.036	0.015	0.017

t statistics in parentheses; ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Dependent variable is the Affirmance Rate. Standard are errors clustered by district court. Judge Controls include Female, Black, Other Race, Judge Experience Prior Judge Prior Prosecutor, Prior Private, Chief Judge, Top School, Judge Democrat, and Salient.

Table 4: Positive Citations

	Model 1	Model 2	Model 3
Circuit Quality	-0.0280 (-0.40)	-0.0349 (-0.49)	-0.122 (-1.36)
Circuit Diversity	1.598** (3.56)		
Circuit Dissent		4.554** (2.78)	
Circuit Independence			2.641* (2.10)
Constant	0.861+ (1.81)	1.443** (3.39)	2.606** (3.90)
<i>Judge Controls</i>	Yes	Yes	Yes
<i>N</i>	606	606	606
<i>R</i> ²	0.033	0.033	0.017

t statistics in parentheses; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Dependent variable is Positive Citation. Standard errors are clustered by district court. Judge Controls include Female, Black, Other Race, Judge Experience Prior Judge Prior Prosecutor, Prior Private, Chief Judge, Top School, Judge Democrat, and Salient.

Table 5: Gender and Race

	Model 1	Model 2	Model 3	Model 4
	Publication Rate	Publication Rate	Positive Citation	Positive Citation
Circuit Female	0.0000252 (0.00)		0.345 (0.48)	
Circuit Minority		0.0822* (2.06)		0.802 (0.97)
Female	-0.000641 (-0.20)	-0.00119 (-0.36)	0.240 (1.12)	0.233 (1.09)
Black	-0.00557+ (-1.81)	-0.00522 (-1.65)	0.150 (0.72)	0.161 (0.77)
Other Race	0.0189 (1.55)	0.0165 (1.49)	0.210 (0.50)	0.183 (0.43)
Judge Experience	0.0000866 (0.35)	0.0000349 (0.14)	0.00279 (0.22)	0.00196 (0.16)
Prior Judge	0.00250 (0.59)	0.00360 (0.81)	-0.0580 (-0.23)	-0.0412 (-0.17)
Prior Prosecutor	0.000133 (0.02)	0.000472 (0.08)	-0.317 (-1.17)	-0.310 (-1.16)
Prior Private	-0.00193 (-0.53)	-0.00231 (-0.61)	-0.0286 (-0.11)	-0.0284 (-0.11)
Chief Judge	0.00305 (1.01)	0.00411 (1.35)	0.232 (1.00)	0.246 (1.07)
Top School	0.0165** (2.78)	0.0132* (2.35)	0.177 (0.75)	0.131 (0.56)
Judge Democrat	0.00343 (0.92)	0.00342 (0.93)	-0.0826 (-0.49)	-0.0893 (-0.53)
Salient	-0.0198** (-2.65)	-0.0231** (-3.04)	-0.449 (-0.94)	-0.465 (-0.98)
Constant	0.0204** (2.78)	0.0119+ (1.87)	1.672** (5.51)	1.669** (5.05)
<i>N</i>	533	533	606	606
<i>R</i> ²	0.064	0.104	0.009	0.010

t statistics in parentheses; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Standard errors are clustered by district court.

Appendix

Table A1: Variable Definitions and Summary Statistics

Variable	Definition	Source	Obs.	Min.	Max.	Mean
Female	Female judge	Kuersten (2009) ²³	629	0	1	0.22
Black	Black judge	Kuersten (2009)	629	0	1	0.11
Other race	Judge of other race	Kuersten (2009)	629	0	1	0.05
Judge exp.	Number of years on bench	Westlaw judicial biographies	629	0	36	10.74
Prior judge	Was a judge prior to appointment	Federal Judicial Center, www.fjc.gov	629	0	1	0.42
Prior pros.	Was a prosecutor prior to appointment	Federal Judicial Center, www.fjc.gov	629	0	1	0.09
Prior priv.	Was private attorney prior to appointment	Federal Judicial Center, www.fjc.gov	629	0	1	0.42
Chief judge	Was chief judge for 2001, 2002, or both	Westlaw judicial biographies	636	0	1	0.33
Top school	Graduated from Harvard, Yale, or Stanford	Westlaw judicial biographies	629	0	1	0.14
Judge dem.	Judge was appointed by Democratic president	Westlaw judicial biographies	629	0	1	0.52
Salient docket	Fraction of cases involving church and state, campaign finance, federalism, first amendment, and other constitutional rights	Westlaw district court cases	606	0	1	0.13
Circuit quality	Out-of-circuit citations to majority opinions of appellate judges in circuit	Choi & Gulati (2004)	629	5.29	3.05	7.29
Circuit divers.	Equality of Republican and Democratic appellate judges in circuit	Choi & Gulati (2004)	629	0.40	1	0.70
Circuit diss.	Ratio of dissents to majority appellate opinions in circuit	Choi & Gulati (2004)	629	0.03	0.26	0.14
Circuit indep.	See text, <i>supra</i>	Choi & Gulati (2004)	629	-0.21	0.09	-0.06
Circuit female	Percentage of female appellate judges in circuit	Choi & Gulati (2004)	638	0.23	0	0.43
Circuit minority	Percentage of minority appellate judges in circuit	Choi & Gulati (2004)	638	0.12	0	0.25
Publications/case	Published opinions divided by total filings	Westlaw district court cases; AOUSC	556	0	0.34	0.02
Positive citations	Out-of-circuit citations to published opinions	Westlaw district court cases	606	1.76	0	23.47
Affirmance rate	Number of affirmances ²⁴ of published opinions divided by number of published opinions	Westlaw district court cases	606	0.91	0	1
Pages	Number of pages per opinion	Westlaw district court cases	606	2.67	40	11.31

²³ We use the judge background dataset (often called the Auburn dataset).

²⁴ More precisely, non-overruled opinions which includes non-appealed opinions.

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