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BUREAUCRATIZATION AND BALKANIZATION: THE ORIGINS AND EFFECTS OF DECISION-MAKING NORMS IN THE FEDERAL APPELLATE COURTS

Stefanie A. Lindquist *

"[The] thirteen federal courts of appeals function at times as separate sovereignties." —Judge Joseph F. Weis, Jr.¹

"The constant struggle of the modern intermediate appellate court is to maintain the values of appeal in the face of overloaded dockets." —Professor John B. Oakley²

The United States Courts of Appeals perform a critical function within the federal judicial system by providing litigants with an appeal as of right from decisions rendered in district courts and administrative agencies. Moreover, they also serve as policy makers in the federal system as the "vast bulk of relevant precedents governing most federal court litigation comes not from the Supreme Court, but rather from the United States Courts of Appeals."³ Indeed, given the Supreme Court's limited docket, the circuit courts constitute the court of last resort in the federal system for the vast majority of appeals. The circuit courts' effective performance of these functions thus constitutes an essential element in support of the rule of law. It is no surprise then that

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^{1.} Joseph F. Weis, Jr., Disconnecting the Overloaded Circuits—A Plug for a Unified Court of Appeals, 39 ST. LOUIS U. L.J. 455, 458 (1995).

^{2.} John B. Oakley, The Screening of Appeals: The Ninth Circuit's Experience in the Eighties and Innovations for the Nineties, 1991 BYU L. REV. 859, 871.

^{3.} Maxwell L. Stearns, *Appellate Courts Inside and Out*, 101 MICH. L. REV. 1764, 1764 (2003) (reviewing JONATHAN MATTHEW COHEN, INSIDE APPELLATE COURTS: THE IMPACT OF COURT ORGANIZATION ON JUDICIAL DECISION MAKING IN THE UNITED STATES COURTS OF APPEALS (2002)).

much academic and political attention has focused in recent years on whether burgeoning caseloads have compromised the administration of justice within these courts, and more specifically, on whether the Ninth Circuit has become "too large" to administer justice effectively across the West Coast.⁴

The question whether the Ninth Circuit should be split has. in many ways, crystallized policy makers' concerns over the internal functioning of the circuit courts. Those who advocate the division of the Ninth Circuit claim that the circuit's heavy caseloads diminish the quality of justice available to litigants. As John Eastman recently testified before the Senate, "Now with 28 active judgeships, there are simply too many cases and too many judges in the Ninth Circuit to effectively administer justice in an efficient and cohesive manner."⁵ One of the primary claims is that the relatively large number of active judgeships (twenty-eight in the Ninth Circuit compared to six to seventeen in the other circuits) reduces collegiality. Eastman argues that this reduction in collegial relations among circuit judges undermines their willingness to engage in good faith deliberations over case outcomes.⁶ Advocates of a Ninth Circuit split thus claim that litigants on the West Coast are not being treated equally to those who bring appeals in other, smaller circuit courts.7

6. See id.; see also Harry T. Edwards, The Effects of Collegiality on Judicial Decision Making, 151 U. PA. L. REV. 1639, 1640-41 (2003) (arguing that "collegiality mitigates judges' ideological preferences and enables [them] to find common ground and reach better decisions").

^{4.} See JONATHAN MATTHEW COHEN, INSIDE APPELLATE COURTS: THE IMPACT OF COURT ORGANIZATION ON JUDICIAL DECISION MAKING IN THE UNITED STATES COURTS OF APPEALS 10, 181, 219 (2002) (explaining that increasing caseloads in the Ninth Circuit may cause judges "to change the way that they decide cases . . . mov[ing] the currently applied appellate judicial process farther from the ideal of judges working individually yet collegially to produce just results"); see also Carl Tobias, A Divisional Arrangement for the Federal Appeals Courts, 43 ARIZ. L. REV. 633 (2001) (arguing that Congress should approve additional study of the structural arrangement of the appellate courts and let the Ninth Circuit continue its experimentation).

^{5.} Examining the Proposal to Restructure the Ninth Circuit: Hearing Before the S. Comm. on the Judiciary, 109th Cong. (2006) (statement of Dr. John Eastman, Chapman Univ. School of Law), available at http://judiciary.Senate.gov/print_testimony.cfm?id=2071&wit_id=5757.

^{7.} See Legal Affairs Debate Club, Should the Ninth Circuit Be Divided?, http://www.legalaffairs.org/webexclusive/debateclub_9th1104.msp (last visited Feb. 12, 2007); cf. William M. Richman & William L. Reynolds, *Elitism, Expediency, and the New Certiorari: Requiem for the Learned Hand Tradition*, 81 CORNELL L. REV. 273, 274-77 (1996) (claiming that an increase in the caseload for federal circuit courts has led to shortcuts in decision making and the unequal treatment of litigants).

Problems with the Ninth Circuit are viewed by others as simply part of a larger issue involving the entire intermediate level of the federal judiciary. According to these observers, the federal judiciary faces a crisis in case volume that threatens traditional norms associated with appellate case processing.⁸ Because federal judges are generally reluctant to increase the number of Article III judgeships.⁹ the federal judiciary has opted for other mechanisms to manage growing caseloads so as to avoid increasing the number of authorized judgeships in each circuit.¹⁰ These caseload burdens have caused judges to implement reforms that deviate from the traditional or classic model of appellate adjudication, whereby judges directly participate in appellate review by reading briefs, listening to oral argument, deliberating over the outcome, and writing reasoned opinions that are published and thus considered precedent.¹¹ Instead, caseload management techniques have resulted in the delegation of decision-making processes to clerks and staff, the elimination of oral argument in most cases, and the production of unpublished opinions or judgment orders.¹² As a consequence, only a small portion of cases appealed to the circuits receive the form of traditional appellate justice that conforms to the classic model. This development is seen as undermining the quality of the work produced by the circuits and as affecting the degree to which all litigants are treated equally.

^{8.} See, e.g., Chad M. Oldfather, Remedying Judicial Inactivism: Opinions as Informational Regulation, 58 FLA. L. REV. 743, 768–79 (2006) (discussing the manner in which burgeoning caseloads have undermined appellate judges' abilities to adhere to the classic form of "adjudicative duty"); see also RICHARD A. POSNER, THE FEDERAL COURTS: CHALLENGE AND REFORM 74–75, 185 (2d ed. 1996) (arguing that an increase in the workload in federal courts has resulted in a decrease in quality, which is evident from factors such as the fall in the reversal rate and the increase in court delay).

^{9.} See Richman & Reynolds, supra note 7, at 299–301 (remarking that appellate judgeships would need to increase by "more than half...[of] the current number of circuit court judgeships" to meet the demand of a growing caseload and that the judiciary has various arguments for not creating additional judgeships).

^{10.} Lauren K. Robel, Caseload and Judging: Judicial Adaptations to Caseload, 1990 BYU L. REV. 3, 3-4 (noting that the federal judiciary would rather make their own improvements, such as rationing cases, than increase the number of judgeships).

^{11.} See Jeffrey O. Cooper & Douglas A. Berman, Passive Virtues and Casual Vices in the Federal Courts of Appeals, 66 BROOK. L. REV. 685, 690 (2001) (outlining the traditional steps in the process of appellate adjudication).

^{12.} For further discussion of these adaptations to caseload growth, see THOMAS E. BAKER, RATIONING JUSTICE ON APPEAL: THE PROBLEMS OF THE U.S. COURTS OF APPEALS 139–47 (West Publ'g Co. 1994) which discusses the increased responsibilities on both staff attorneys and court clerks, and POSNER, *supra* note 8, at 160–75, in which Judge Posner claims that the curtailment in oral arguments has contributed to the rise of the number of unpublished opinions.

Because different cases receive different levels of scrutiny from judges, some claim it creates the impression that "important cases (usually measured by monetary value) and powerful litigants receive greater judicial attention than less important cases and weaker litigants."¹³ Critics believe that for those litigants receiving less attention from the judges themselves, justice may appear to have become "bureaucratized" in the sense that case outcomes are rendered by the institution as a "black box" rather than by individual judges deliberating together to adjudicate disputes in response to direct input from the parties.¹⁴ As one judge has remarked, "all appellate opinions were once the product of judges; today most are the product of an institution."¹⁵

At the same time that differentiation in the processing of individual appeals has occurred within the circuits, adaptations to caseload growth have produced substantial variations in terms of the norms governing the appellate process across the circuits. This variation in decision-making processes has been criticized as reflecting the "balkanization of appellate justice"¹⁶ in the federal appeals courts as the varied practices reflect the extent to which decision-making norms have evolved differently across the circuits. As Michael Solimine has observed, "[o]ver time, circuits appear to implicitly develop cultures that manifest themselves in various ways."¹⁷

15. Howard T. Markey, On the Present Deterioration of the Federal Appellate Process: Never Another Learned Hand, 33 S.D. L. REV. 371, 377 (1988).

16. See Gregory C. Sisk, The Balkanization of Appellate Justice: The Proliferation of Local Rules in the Federal Circuits, 68 U. COLO. L. REV. 1, 35 (1997) ("Such directives do not legitimately reflect genuinely local exigencies and instead clutter appellate practice with additional technicalities while generating conflicts between the circuits."); see also Mitu Gulati & C.M.A. McCauliff, On Not Making Law, 61 LAW AND CONTEMP. PROBS. 157, 197 (1998) (noting the "extreme disparities" in norms and lawmaking behavior across the circuits).

17. Michael E. Solimine, Judicial Stratification and the Reputations of the United States Courts of Appeals, 32 FLA. ST. U. L. REV. 1331, 1352 (2005).

^{13.} Richman & Reynolds, *supra* note 7, at 275. Of course, the caseload expansion could also lead to reduced attention to complex cases as well, given the increased time commitment for those appeals.

^{14.} See, e.g., Oakley, supra note 2, at 874-75 ("In order to achieve efficiency and consistency across the great mass of decisions that bureaucracies are charged with, internal norms may develop by which presumptions replace analysis in the determination of which cases are routine and appropriate for low-cost bureautic processing."). See generally Owen M. Fiss, The Bureaucratization of the Judiciary, 92 YALE L.J. 1442, 1456 (1983) ("The proliferation of staff and subjudges and the delegation of power to them weaken the judge's individual sense of responsibility.").

The evolution and maintenance of institutional norms has recently attracted the attention of scholars, including those who study the courts. While some norms are formal in nature, others are the product of informal agreement among participants.¹⁸ For example, Gregory Caldeira and Christopher Zorn argue that the proclivity of Supreme Court Justices to dissent and concur is a function of informal consensual norms that are influenced by the behavior of the Chief Justice.¹⁹ Michael Solimine and Rafael Gely have similarly argued that the Court's agenda-setting process is shaped by informal norms or agreements among the Justices.²⁰

Such internal or "cultural" norms are the product of institutional equilibria among participants that produce stable rules of behavior.²¹ Although norms reflect institutional equilibria, they may nevertheless evolve over time as the result of external shocks or internal changes.²² For example, new participants in institutional processes may disagree with the prevailing norm or external influences may disrupt the pay-offs associated with the existing normative structure.²³ Leadership can also alter institutional equilibria. In the context of the circuit courts, many of the adaptations to caseload growth involve the application of informal norms to accommodate the external shocks to the system caused by burgeoning workloads. To be sure, formal rules also govern many of these adaptations, including guidelines for when opinions should be published or oral argument granted. But the application and interpretation of these guidelines are shaped profoundly by the participating judges' views and behavior regarding appropriate or adequate appellate process.²⁴ Thus a circuit's informal norms are likely to add much to our understanding of the

20. Solimine & Gely, supra note 18, at 1440.

24. See, e.g., Oakley, supra note 2, at 862 (noting that Appellate Rule 34(a), regarding oral argument, allows wide discretion among appeals courts).

^{18.} See Michael E. Solimine & Rafael Gely, The Supreme Court and the DIG: An Empirical and Institutional Analysis, 2005 WIS. L. REV. 1421, 1440 (discussing the institutionalization of the Supreme Court and writs of certiorari disguised as improvidently granted).

^{19.} See Gregory A. Caldeira & Christopher J.W. Zorn, Of Time and Consensual Norms in the Supreme Court, 42 AM. J. POL. SCI. 874, 878–79 (1998).

^{21.} Caldeira & Zorn, supra note 19, at 876.

^{22.} See id.

^{23.} See generally JACK KNIGHT, INSTITUTIONS AND SOCIAL CONFLICT passim (1992) (explaining the history of social norms and how they play out in society and institutions); Robert Axelrod, An Evolutionary Approach to Norms, 80 AM. POL. SCI. REV. 1095 (1986) (analyzing social norms and how they have evolved in general).

judicial process in the appellate courts. And because the circuits are differentiated on a number of institutional variables, including such factors as court size, membership change, preferences of judicial personnel (including concerns over reputation), caseload pressures, and docket composition, varied norms have arisen across the circuits that shape the nature of appellate review.

This differentiation (or "balkanization") in circuits' decisionmaking norms animates this study. I address the following questions: (1) How substantial are differences among the circuits in terms of the norms governing the processing of their caseloads?; (2) How do the circuits compare on measures reflecting the scope and efficiency of appellate review?; (3) What explains the differences in decision-making norms across the circuits?; and (4) How do these informal norms affect consensus on the courts of appeals?

Using data measuring different circuits' decision-making norms and institutional structures. I analyze the nature and extent of these variations in an effort to explain their origins and effects. In what follows, Part I highlights some of the most important procedural and other institutional variations across the courts of appeals, using data archived by the Administrative Office of the United States Courts and the Federal Judicial Center. for all appeals decided by the regional courts of appeals between 1983 and 2005.²⁵ Using these data, in Part II, I construct a comparison of circuit court performance that places the circuits within a two-dimensional space reflecting the degree to which they dispose of cases efficiently and the level of individualized attention cases receive within a circuit. In order to explain why the circuits vary in these dimensions, in Part III, I construct multivariate models of four decision-making practices that reflect the influence of circuit-level norms (oral argument rates, reversal rates, opinion publication rates, and disposition times) for the years 1983–2005. Finally, in Part IV, I explore the implications of

^{25.} All data are derived from the Federal Judicial Center Integrated Data Base (Appeals) (ICPSR #8429), from *Federal Court Management Statistics*, published annually by the Administrative Office of the United States Courts, or from the Annual Reports of the U.S. Administrative Office of the Courts, also published annually. *See* U.S. Courts, Statistical Reports, http://www.uscourts.gov/library/statisticalreports.html (last visited Feb. 12, 2007). References to years for all analyses refer to the statistical year used by the Administrative Office (July 1 to June 30 for years 1983–1991; and October 1 to September 30 for years 1992–2005).

these institutional variations for collegial decision-making by assessing their impact on dissent rates across the courts of appeals.

These quantitative analyses shed light on the manner in which circuit norms are interrelated and how variations in these norms are correlated with certain institutional characteristics. First, the dimensional analysis suggests that circuits can be categorized in terms of the scope of appellate review available to litigants, and in terms of their efficiency. The two qualities, however, are not mutually exclusive. As for specific characteristics, the regression models support some of the conventional wisdom regarding the administration of justice in various circuit courts, but sometimes only to a very limited degree. For example, circuit size is negatively associated with oral argument, reversal, and publication rates, and positively associated with disposition time and dissent rates.²⁶ Yet these associations, while statistically significant, are not substantively large. Therefore, it does appear that larger circuits do pose some problems for the efficiency and quality of appellate justice, but given the limited substantive impact of circuit size in these models, the problem is not severe. Other variables, such as active judge participation, affect oral argument, reversal rates, and disposition time.²⁷ But again, the substantive impact of the variable measuring active judge participation, while statistically significant, is not substantively large. And more interestingly, once other factors are controlled, caseload does not have an impressive impact on circuit norms. In fact, the variable measuring merits terminations per active judgeship is statistically significant in only two models: opinion publication and oral argument rates. In both models, however, the impact of average workload is substantively modest. Workload does not appear to influence a circuit's dissent or reversal rates, nor does it affect disposition time.

In contrast to these more modest findings, two variables do appear to have a somewhat more important impact on circuit court norms: (1) ideological variation among judges on a circuit, and (2) docket composition. Where the policy preferences of sitting judges vary widely, reversal rates increase, cases take more time to resolve, and dissent rates increase. Not surprisingly, then, divergent ideological predispositions affect consensual norms as well

^{26.} See infra Parts IV.B-E and V.

^{27.} See infra Part IV.C.

as litigation outcomes and lengthen the time for judges to resolve appeals. Docket composition is also very important to circuit norms and behaviors. Where courts' dockets are dominated by "easier" cases—such as criminal appeals and prisoner petitions oral argument, publication, and reversal rates decline. This latter finding is not surprising and is noncontroversial; the proportion of criminal and prisoner cases was added to the models primarily as a control variable.

In total, these findings suggest several conclusions. First, the fact that workload pressures are not related to reversal rates, dissent rates, or to processing delay suggests that caseload adaptations adopted by the circuits "work." In particular, the substantive choice to affirm, reverse, or dissent is not affected by workload, nor is the median time to final disposition of a circuit's caseload. This is good news for litigants if it suggests that overworked circuits do not provide a less hospitable environment for appellants seeking careful substantive review of erroneous lower court judgments. Second, the findings indicate that the importance of circuit size may be overstated by those claiming that some circuits are too large to operate effectively. While circuit size is related to the norms studied here, the substantive impact of circuit size is fairly marginal.

Before proceeding, however, two caveats are in order. First, it is worth noting initially that this study involves variables that submit to quantification. Clearly, some norms are the product of evolutionary processes that are not quantifiable—such as those involving "tradition" or "culture." Yet empirical models of (quantifiable) circuit norms create an important baseline for evaluating these and other norms. Although the models presented here explain a substantial proportion of the variation across the circuits, they do not explain all of that variation. I comment more on this observation in the conclusion. Second, for the purposes of this study, I excluded the D.C. Circuit because of its extremely unique caseload and status as the "national administrative law court" or "mini-Supreme Court."²⁸ In particular, the D.C. Circuit's agency appeals are uniquely complex and burdensome, with multiple issues and participants. These cases set the D.C. Circuit apart from

^{28.} CHRISTOPHER P. BANKS, JUDICIAL POLITICS IN THE D.C. CIRCUIT COURT 1-2 (1999). The D.C. Circuit differs on other dimensions as well; it is not a multi-state circuit and the appointment of its judges is not subject to senatorial courtesy.

other circuits and thus undermine overall comparability on norms and behaviors.²⁹ As a consequence, the D.C. Circuit is an outlier in most analyses of circuit court decision making. I chose instead to focus on the more comparable multi-state courts of appeals.

I. CIRCUIT COURT VARIATIONS IN NORMS AND PRACTICES

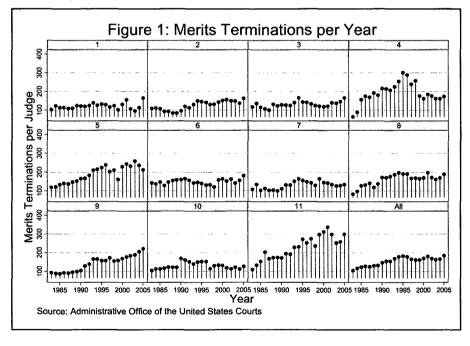
When Congress created the federal circuit courts in 1891, its objective was to relieve caseload burdens on Supreme Court justices and establish a system that would provide for the uniform application of federal law across the nation.³⁰ As a critical second tier in a federal court system organized under a shared statutory mandate, the federal circuit courts have many institutional characteristics in common. In particular, all circuit courts: (1) are staffed by Article III judges who enjoy life tenure, undiminishable and uniform salaries, and the same pension and retirement benefits; (2) must hear appeals as of right, with little or no control over their dockets; (3) are equally subject to the supervisory authority of the United States Supreme Court and to reversal by the high court; (4) exercise supervisory control over district court judges operating within their circuit; (5) follow similar governing principles in terms of the establishment of Circuit Councils and the selection of a chief judge; (6) enjoy representation in the Judicial Conference; (6) enforce the same Constitution, federal laws, and Supreme Court precedents: and (7) follow the same Rules of Appellate Procedure. These institutional similarities are so substantial as to suggest a fairly monolithic institution at the federal appellate level.

Yet the circuits differ on other dimensions. Among the most important differences, and a factor that has driven the caseload adaptations described above, is circuit caseload. Judges across

^{29.} See Stefanie A. Lindquist, Carol Krafka, & John Shapard, Fed. Judicial Ctr., Assessing Caseload Burden in the U.S. Court of Appeals for the D.C. Circuit (1999).

^{30.} See, e.g., RUSSELL R. WHEELER & CYNTHIA HARRISON, FED. JUDICIAL CTR., CREATING THE FEDERAL JUDICIAL SYSTEM 18 (3d ed. 2005), available at http://www.fjc.gov/ (follow "federal Judicial History" hyperlink; then follow "Judicial Administration" hyperlink) (last visited Feb. 12, 2007); Mary Garvey Algero, A Step in the Right Direction: Reducing Intercircuit Conflicts by Strengthening the Value of Federal Appellate Court Decisions, 70 TENN. L. REV. 605, 611–12 (2003); Richard L. Marcus, Conflicts Among Circuits and Transfers Within the Federal Judicial System, 93 YALE L.J. 677, 686–87 (1984).

the circuits bear markedly divergent workloads, a fact that has generated some tension within the Judicial Conference and in Congress regarding judicial staffing determinations. Indeed, while Congress has increased the number of active judgeships in response to caseload pressures in individual courts, that measure has not translated into an equal distribution of cases per judge across the circuits. Figure 1 displays the workload burdens of the individual circuits in terms of the number of merits terminations per judge.³¹ The graphs reflect an average trend upward during the 1983-2005 period, with caseload burdens increasing from about 100 merits terminations per judge in 1983 to about twice that many in 2005. At the same time, however, there is considerable variation across the circuits. The Fifth, Eighth, Ninth, and Eleventh Circuits have witnessed substantial increases in caseload growth within the last twenty-two years, while the judicial workload burden at many of the other circuits has remained relatively constant.



31. Data from the Administrative Office of the Courts distinguishes merits terminations from procedural terminations, which involve dispositions based on default, settlement or jurisdictional defect, among other things. *See, e.g.*, Appellate Judicial Caseload Profile Report, http://www.uscourts.gov/cgi-bin/cmsa2005.pl (last visited Feb. 12, 2007) (demonstrating a sample of how the data distinguishes merits terminations from procedural terminations).

A. Elimination of Oral Argument

The circuits have formulated means to address their burgeoning caseloads but, as noted above, have adopted such mechanisms to varying degrees. The first such adaptation to caseload growth involves the elimination of oral argument for many or most appeals, a development that has caused concern among judges and commentators who consider the dialogue produced at oral argument as central to the adversary process.³² Judge Gilbert Merritt has observed, for example, that "[a]t its core, the adversary process is oral argument."³³ Oral argument also bolsters the court's legitimacy from the litigants' viewpoint by demonstrating that the judges have considered the parties' arguments and by providing lawyers with the opportunity to correct any misunderstandings. That is not to say that judges would benefit from oral argument in all cases: some cases are "easy" and thus oral argument would not change the result.³⁴ But the perception nevertheless exists that the circuits are denying oral argument even in those cases where it might affect the judges' conclusions.³⁵

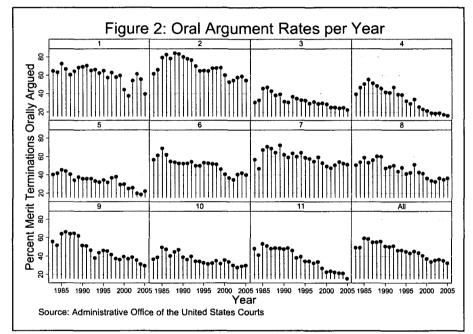
32. For a history of the demise of oral argument in the courts of appeals, see JOE S. CECIL & DONNA STIENSTRA, FED. JUDICIAL CTR., DECIDING CASES WITHOUT ARGUMENT: A DESCRIPTION OF PROCEDURES IN THE COURTS OF APPEALS (1985), and JOE S. CECIL & DONNA STIENSTRA, FED. JUDICIAL CTR., DECIDING CASES WITHOUT ARGUMENT: AN EXAMINATION OF FOUR COURTS OF APPEALS 35–36, 67–68, 90–93, 118–19 (1987) [hereinafter AN EXAMINATION] (discussing the Fifth, Ninth, Sixth, and Third Circuits, respectively).

33. Gilbert S. Merritt, The Decision Making Process in Federal Courts of Appeals, 51 OHIO ST. L.J. 1385, 1386 (1990) (asserting that oral arguments prompt judges to analyze cases more thoroughly than they would when relying on briefs and precedent alone); see also Stanley Mosk, In Defense of Oral Argument, 1 J. APP. PRAC. & PROCESS 25, 27 (1999) (stating that oral argument is critical to the interchange of ideas between judges and counsel and between judges themselves). But see Robert J. Martineau, The Value of Appellate Oral Argument: A Challenge to the Conventional Wisdom, 72 IOWA L. REV. 1 (1986) (arguing that the importance of appellate argument is overstated).

34. JUDITH A. MCKENNA, FED. JUDICIAL CTR., STRUCTURAL AND OTHER ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS: REPORT TO THE UNITED STATES CONGRESS AND THE JUDICIAL CONFERENCE OF THE UNITED STATES 45 (1993).

35. Cf. id. at 49-52 (discussing the role of judicial staff attorneys in influencing judges' decision-making process in cases not slated for oral argument); Oldfather, supra note 8, at 769-70 (stating that elimination of oral argument deprives parties of the judicial obligation to focus carefully on aspects of a case); David C. Vladeck & Mitu Gulati, Judicial Triage: Reflections on the Debate over Unpublished Opinions, 62 WASH. & LEE L. REV. 1667, 1675 (2005) (suggesting that the process of disposing of cases without oral argument may allow less obvious errors to be overlooked, thus leading to higher affirmance rates).

Although a national rule governs standards that the circuits must follow in reaching the decision to deny oral argument,³⁶ the rule apparently has no standardizing effect on oral argument rates across the circuits. In most circuits, cases are screened by staff to determine whether to grant oral argument or to decide the case on the basis of the briefs alone.³⁷ These screening techniques result in widely divergent practices concerning oral argument. Figure 2 presents in graphical form the percentage of merits terminations cases granted oral argument for each circuit, as well as the average for all circuits.



These graphs make clear that the average trend has been a substantial decrease in the rate of oral argument such that, by

^{36.} Federal Rule of Appellate Procedure 34 provides for oral argument in "every case" unless, as established through local rule, a panel of three judges finds that "(A) the appeal is frivolous; (B) the dispositive issue or issues have been authoritatively decided; or (C) the facts and legal arguments are adequately presented in the briefs and record, and the decisional process would not be significantly aided by oral argument." FED. R. APP. P. 34(a)(2).

^{37.} In their study, Cecil and Stienstra found that in the Tenth Circuit, the judges perform the screening function themselves. In the Second Circuit, all cases decided on the merits receive oral argument, except for cases appealed by incarcerated pro se litigants. In the Third Circuit, the judges screen counseled cases to determine the need for oral argument. See CECIL & STIENSTRA, AN EXAMINATION, supra note 32, at 15–16.

2005, less than forty percent of all appeals court cases were granted oral argument.³⁸ As the graphs also make clear, however, the circuits vary substantially in the extent to which they provide the opportunity for litigants to present oral arguments on their appeals.³⁹ The circuits most responsive to the litigants in this respect are the First, Second, and Seventh. In contrast and especially in more recent years, the Third, Fourth, Fifth, and Eleventh have dramatically reduced the rate at which they grant parties the right to argue their cases before the bench.

B. Unpublished Opinions

Another adaptation to caseload growth that has attracted much attention and controversy is the issuance of "unpublished opinions."⁴⁰ Unpublished opinions are those not chosen for publication in the Federal Reporter; in combination with no-citation rules regarding such decisions, they result in a body of nonprecedential law.⁴¹ The genesis of this practice can be found in the 1973 report of the Advisory Council for Appellate Justice, which urged courts to limit the number of published opinions and suggested that opinions be published only if they establish a new rule of law, involve a legal issue of public interest, criticize existing law, or resolve a conflict of authority.⁴²

^{38.} Although BAKER, *supra* note 12, at 111, suggests that "the court-time saved by eliminating oral argument is relatively small," it appears that more heavily burdened circuits have nevertheless responded to caseload pressures by eliminating oral argument.

^{39.} Even in the Second Circuit, which has the highest rates of oral argument, a substantial number of cases are not orally argued because of waiver by the parties or the unavailability of a party, which is often the case for pro se prisoner petitioners. Oakley, supra note 2, at 864.

^{40.} For a discussion of the varying and sometimes controversial approaches to unpublished opinions by the various circuits, see Bruce M. Wexler & F. Christopher Mizzo, *Unpublished Opinions Rising, But Do They Help?*, N.Y. L.J., Feb. 11, 2002, at 58–59.

^{41.} Some circuits, including the Second, Seventh, and Ninth, specifically prohibited citation to unpublished opinions while others discouraged such citation or only allow it under certain circumstances. See Dione Christopher Greene, Note, The Federal Courts of Appeals, Unpublished Decisions, and the "No-Citation Rule," 81 IND. L.J. 1503, 1509 & n.51 (2006). The Supreme Court of the United States has recently approved a rule that would allow litigants to cite unpublished opinions issued on or after January 1, 2007. FED. R. APP. P. 32.1.

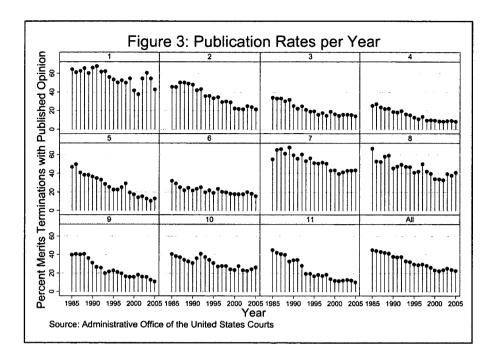
^{42.} For a discussion of this report, see DONNA STIENSTRA, FED. JUDICIAL CTR., UNPUBLISHED DISPOSITIONS: PROBLEMS OF ACCESS AND USE IN THE COURTS OF APPEALS 7-8 (1985).

Ultimately, each circuit was permitted to adopt its own rules regarding publication, resulting in varied publication practices.⁴³ Nevertheless, the Judicial Conference approved the rules with the hope that, over time, greater conformity in the practice would emerge.⁴⁴ Instead, the proportion of merits terminations decided without published opinion (and sometimes even by a simple oneword judgment order)⁴⁵ varies markedly among the circuits, again with a steady decrease for all circuits over the period. As revealed in Figure 3, the First, Seventh, and Eighth Circuits have all sustained a fairly stable and high rate of opinion publication in merits terminations. But the other circuits have curtailed their rate of opinion publication in recent years, some quite dramatically. As of 2005, the Third, Fourth, Fifth, Sixth, Ninth, and Eleventh Circuits all publish less than twenty percent of their opinions. Formal publication rules and informal norms regarding opinion publication have thus created substantial disparities among the circuits in terms of the availability and scope of precedential authority.

^{43.} See Stephen L. Wasby, Publication (Or Not) of Appellate Rulings: An Evaluation of Guidelines, 2 SETON HALL CIR. REV. 41, 44-46 (2005) [hereinafter Wasby, An Evaluation of Guidelines] (noting that formal guidelines "are not the whole story" and unstated norms are also influential in the choice of whether or not to publish). See generally Stephen L. Wasby, Unpublished Court of Apeals Decisions: A Hard Look at the Process, 14 S. CAL. INTERDISC. L.J. 67 (2004) (describing processes by which circuits choose whether to publish).

^{44.} Donald R. Songer, Danna Smith & Reginald S. Sheehan, Nonpublication in the Eleventh Circuit: An Empirical Analysis, 16 FLA. ST. U. L. REV. 963, 965 (1989) (citing STIENSTRA, supra note 42, at 8-9).

^{45.} The Third and Eighth Circuit have used one-word judgment orders extensively in the past, although the Third Circuit has recently abandoned the practice. See Gulati & McCauliff, supra note 16, at 162, 185, 209.



C. Active vs. Senior and Visiting Judges

The circuits also vary substantially with respect to the judicial personnel engaged in the decision-making process. Delays in the appointment and confirmation process often create staffing shortages on the courts of appeals. One means to address this problem is to seek assistance from senior judges as well as visiting circuit and district court judges, sometimes from other circuits. The decision to invite visiting judges rests with the chief judge.⁴⁶ Extensive reliance on visitors (including judges from other circuits and district court judges) is likely to alter the decision-making environment within the circuit. Research has demonstrated, for example, that judges sitting by designation are less likely to dissent.⁴⁷ Others argue that extensive use of senior and

^{46.} See Virginia A. Hettinger, Stefanie A. Lindquist & Wendy L. Martinek, The Role and Impact of Chief Judges on United States Courts of Appeals, 24 JUST. SYS. J. 91, 93 (2003).

^{47.} See VIRGINIA A. HETTINGER, STEFANIE A. LINDQUIST & WENDY L. MARTINEK, JUDGING ON A COLLEGIAL COURT: INFLUENCES ON FEDERAL APPELLATE DECISION MAKING 54–55, 66, 71–72 (2006) (citing the probability of dissent by a designated district court

visiting judges may "affect the cohesiveness, the continuity, and perhaps even the legitimacy of circuit court decision-making."⁴⁸ Of course, extensive vacancies are not a problem that can be fully addressed or resolved by the judges themselves. On the other hand, the judiciary has not supported an increase in authorized judgeships, thus exacerbating the problem when vacancies do arise.⁴⁹ And some chief judges actively avoid the use of visiting judges if possible.⁵⁰

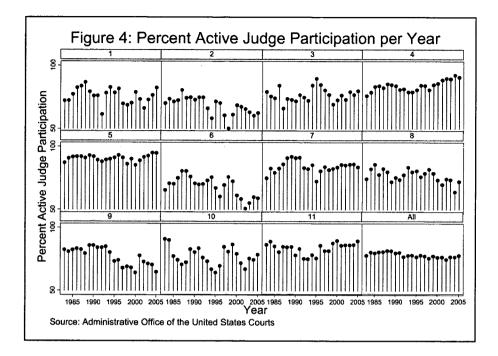
Figure 4 provides a graphical representation of the percentage of merits terminations decided by active judges (as opposed to senior, district or visiting judges) over the period 1983–2005. Although the average active judge participation has remained relatively constant over the period for all circuits, the graphs reflect some variation among the circuits in terms of the use of visiting or senior personnel. While the Fourth, Fifth, Seventh, and Eleventh Circuits have enjoyed fairly consistent involvement by active judges, the other circuits show far greater variation, with circuits in some years experiencing very low participation rates by active court members.

judge); James J. Brudney & Corey Ditslear, Designated Diffidence: District Court Judges on the Courts of Appeals, 35 LAW & SOC'Y REV. 565 (2001) (detailing a case study of National Labor Relations Board decisions and finding that district court judges seldom dissented.). See generally Richard B. Saphire & Michael E. Solimine, Diluting Justice on Appeal? An Examination of the Use of District Court Judges Sitting by Designation on the United States Courts of Appeals, 28 U. MICH. J.L. REFORM 351 (1995) (discussing in particular the need for collegiality on an appellate court and the influence this may have on a district court judge's independent decision-making process).

^{48.} Cooper & Berman, *supra* note 11, at 696; *see also* POSNER, *supra* note 8, at 135 (explaining that use of visiting judges may undermine uniformity in circuit law); Saphire & Solimine, *supra* note 47, at 371-75 (examining the Ninth Circuit, which has a high number of judges sitting by designation, in order to explore the theory that cases using designated judges have a high rate of en banc review).

^{49.} Richman & Reynolds, *supra* note 7, at 299 ("The Judicial Establishment has consistently lobbied *against* the single most obvious solution to the caseload glut—the creation of additional judgeships").

^{50.} Lynne Marek, *Exacting Easterbrook to Be Chief of Seventh Circuit*, NAT'L LAW J., Aug. 29, 2006, *available at* http://www.law.com/jsp/article.jsp?id=1156769031655. Judge Posner banned visiting judges while serving as chief judge from 1993 to 2000. New Chief Judge Frank Easterbrook believes that visiting judges produce more en banc reviews. Chief Judge Easterbrook, however, is considering asking district judges "to occasionally sit on a [Seventh] Circuit panel [to] giv[e] them a view from the appellate court," and expose them to the Seventh Circuit's appellate process. *Id*.



D. Lower Court Reversal

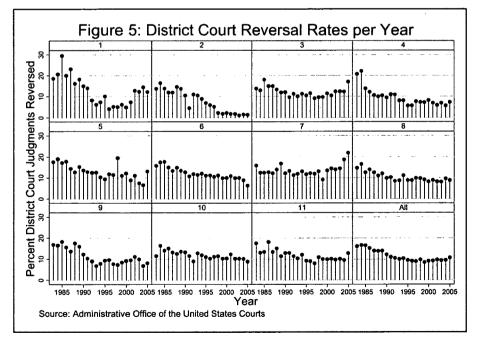
Caseload burdens may also place some pressure on the propensity of the circuit to reverse the lower court. It is certainly possible that where judges create shortcut mechanisms to the appellate process, it reduces the level of scrutiny brought to the review of district court judgments. As one study has noted, the reversal rate in the federal courts of appeals has declined precipitously since 1960,⁵¹ a result which could be consistent with the view that "with less time to look for error, judges consequently find less error."⁵² Although Judge Posner believes that one cause of lower reversal rates is changes in the proportion of "hard" cases

^{51.} See Chad M. Oldfather, Defining Judicial Inactivism: Models of Adjudication and the Duty to Decide, 94 GEO. L.J. 121, 135 n.42 (2005). Oldfather cites the 1960 Annual Report by the Director of the Administrative Office of the U.S. Courts, which found a 24.5 percent reversal rate in the federal courts of appeals among cases terminated on the merits. DIR. OF THE ADMIN. OFF. OF U.S. CTS., ANNUAL REPORT 210 tbl. B1 (1960). By contrast, the same office reported a 9.4 percent reversal rate in 2003. ADMIN. OFF. OF U.S. CTS., FEDERAL JUDICIAL CASELOAD STATISTICS 27 tbl. B-5 (2003), available at http://www.us courts.gov/caseload2003/tables/B05Mar03.pdf.

^{52.} Oldfather, supra note 51, at 136.

on the circuits' dockets, he has also noted that "the less time an appellate court spends on a case the more likely it is simply to affirm the district court or agency, affirmance being the easy way out."⁵³

Low reversal rates could suggest some level of affinity between the circuit and district benches, whether driven by ideological similarity, lenient standards of review, or cohesive circuit law. Differences in reversal rates could also be a function of circuit norms regarding the appropriate level of deference granted district court findings of fact. Data on reversal rates reflects the somewhat unique interplay between the individual circuits and their district courts, as the circuits vary in the rate at which they reverse the lower courts. Figure 5 presents data on reversal rates in merits terminations by circuit for the period analyzed. For all circuits, reversal rates have declined somewhat over time. Some circuits demonstrate a far more marked decline in reversal rates over time, however. In particular, in recent years the probability of reversal has decreased substantially in the First and Second Circuits.



The data in Figures 1 through 5 provides evidence that decision-making norms and constraints vary widely across the circuits. Of course, oral argument, opinion publication, active judge participation and district court reversal do not constitute the only activities influenced by informal circuit norms. Other variables, such as disposition time, are also influenced by judicial norms and expectations that are often unique to individual circuits. But these graphs and accompanying data highlight trends in some important indicators that illustrate how divergent circuit norms have evolved. This evidence clearly supports the argument that the circuits have "balkanized" in terms of the nature, scope, and character of the appellate decision-making process.

II. MEASURING CIRCUIT PERFORMANCE

The variations exhibited by the circuit courts, as graphically illustrated above, present an interesting portrait of the individual circuits and their decision-making practices. It also provides some basis for comparison on individual characteristics. But assessing differences, indicator by indicator, fails to provide a distilled view of circuit performance on these various measures. How do these various norms converge so as to shape the overall "character" of appellate review in the individual circuits? In this section, I utilize the measures described in the preceding section, along with some additional variables, to construct a dimensional analysis of the circuits that enables assessment of their overall performance relative to each other. One useful method for such a purpose is exploratory factor analysis, which allows the researcher to discover a pattern of relationships among several variables by exploring the existence of "latent structure" in the data. This data reduction technique enables the researcher to evaluate whether one or several underlying dimensions explain variations across multiple indicators. In so doing, the researcher can also produce an empirical typology involving observations in the data ⁵⁴

In order to explore the underlying dimensions associated with different case management techniques, I factor analyzed the mean values of the following variables for the five-year period

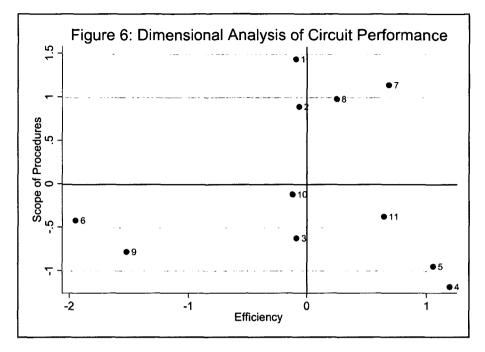
^{54.} See generally RUDOLPH JOSEPH RUMMEL, APPLIED FACTOR ANALYSIS (1988).

2001–2005: (1) merits terminations per judge, (2) the percentage of cases in which the district court was reversed, (3) the percentage of cases granted oral argument, (4) the percentage of merits terminations for which a published opinion was issued, and (5) the percentage of cases heard by active judges. These variables are discussed in Part I above. In addition to these, I added: (6) the median disposition time (in months) for cases in each circuit, (7) the number of vacant judge-months experienced by the circuit, and (8) the number of petitions for rehearing per judgeship in each circuit.⁵⁵ These variables all reflect circuit performance in connection with case processing while also accounting for workload and personnel limitations.

The factor analysis produced two factor scores with eigenvalues greater than 1.⁵⁶ The circuits' scores on these two factors are presented graphically in Figure 6. The factor graphed on the X-axis has high factor loadings for disposition time, participation by active judges, and vacant judge-months. I interpreted this dimension thus to reflect the efficiency with which the circuits dispose of their appeals. The second dimension, graphed on the Y-axis, had high factor loadings for oral argument and opinion publication rates, as well as the prevalence of petitions for rehearing. I interpreted this dimension to reflect the scope of procedures available to litigants as well as their general satisfaction with the litigation process.

^{55.} Descriptive statistics for each of these variables is set forth in the Data Appendix to this article.

^{56.} The factor scores were produced using rotated (orthogonal varimax) principle factor analysis in Stata 9.0. The eigenvalues for the two factors were 3.06 and 2.10 respectively.



The graph presented in Figure 6 reflects the relative positions of the circuits on the two dimensions measuring efficiency and scope of procedures. Circuits in the upper right quadrant may be viewed as performing well on both efficiency and procedural grounds. The Seventh Circuit in particular stands out in terms of its performance: it grants oral argument often, publishes its opinions frequently, and disposes of its appeals efficiently and quickly. The Eighth Circuit similarly performs well on both dimensions. The First and Second Circuit also score well on the procedural dimension, and slightly less well on the efficiency dimension.

The other circuits are arrayed at about the same point on the X-axis but vary greatly on the Y-axis. Indeed, circuits in the lower left quadrant may be viewed as exhibiting sub-optimal performance on both the efficiency and procedural dimensions. Here we find the Sixth and Ninth Circuits. The Fourth, Fifth and Eleventh Circuits are efficient but do not conform to the classic model of adjudication involving oral argument and opinion publication. The Tenth and the Third fall somewhere in the middle.

Factor analyzing measures associated with the circuits' case processing norms provide the basis for the circuits to be classified in terms of the ways in which these norms have affected their overall decision-making behavior. The placement of the circuits within the two dimensions identified by the factor analysis is consistent with the circuits' reputations regarding efficiency and effectiveness. The Second Circuit has long been regarded as a circuit that places a high value on oral argument. For many years, along with the D.C. Circuit, it enjoyed the most prestigious reputation with respect to the quality of its decision making.⁵⁷ The First Circuit also has a solid reputation "in some quarters."⁵⁸ But in recent years, the Seventh Circuit's "reputational stock has skyrocketed," largely due to the influence of Judges Posner and Easterbrook.⁵⁹ The Seventh Circuit's high-quality reputation may also result from solid management practices by its chief judges. as revealed by its high scores on both dimensions (efficiency and scope of procedures). On the other hand, the Ninth Circuit is often criticized on grounds that its size compromises the quality of justice available in that circuit. Figure 6 confirms that assessment. although the Sixth Circuit is even more problematic when it comes to efficient resolution of appeals. In short, the schematic in Figure 6 supports the conventional wisdom regarding circuits' reputations for quality dispute resolution.

III. SOURCES OF INSTITUTIONAL VARIATION

The data presented above demonstrate that the individual circuits are dissimilar in many respects. They differ on a number of institutional dimensions, including workload and decisionmaking norms and practices (such as oral argument and opinion publication). Moreover, results of the factor analysis enabled classification of the circuits in terms of their performance on these various measures. But what factors promote or hinder circuit performance? At some level, circuit performance is no doubt related to the intangible qualities of the judges who staff the circuits or to the chief judges who administer them. On the other hand, other more quantifiable factors may affect circuit performance. Some argue, for example, that increases in circuit size adversely affect

^{57.} Solimine, *supra* note 17, at 1350 (noting that for many years the Second and D.C. Circuits' reputations "towered over the rest").

^{58.} Id.

^{59.} Id.

the quality of decision-making processes in courts. This argument has led, in part, to the conclusion that the Ninth Circuit should be divided into two or three separate circuits.⁶⁰ In this section, therefore, I seek to identify those variables that best predict the quality of circuit performance. I model four indicators of circuit performance—oral argument rates, reversal rates, publication rates, and disposition times—in an effort to determine whether certain institutional characteristics clearly shape circuit norms, whether norms shape each other, or whether norms are instead the product of other, less tangible factors. To do so, I estimate cross-sectional time series models of these variables using data from the regional circuits from 1983 to 2005.⁶¹ In the following sections I describe the independent variables specified in the four models and then describe the estimation results.

A. Hypotheses Relating to Oral Argument Rates

Why do some circuits grant oral argument more often than others? Is this norm simply a function of workload, or do other institutional factors contribute to the norm? In constructing a model of oral argument rates, I hypothesize that several factors are likely to influence a court's propensity to grant oral argument. Caseload pressure is one obvious factor; where judges are pressed for time by heavy workload burdens, it seems reasonable to assume that they would be more likely to eliminate a procedural step in the adjudication process. In addition, circuit size may be a factor; judges from larger courts may find it more inconvenient to travel long distances to sit for oral argument. Circuits that employ visiting and district judges more often may increase use of oral argument to ensure that visiting judges are aware of the circuits' precedent and preferences and to provide district court judges with the experience of hearing oral argument. Finally, docket composition may affect a circuit's propensity to grant oral argument. In circuits where the docket is dominated by prisoner or criminal petitions-many of which involve meritless appeals that are nonetheless brought because a right to appeal exists—one would expect that oral argument would be less

^{60.} See, e.g., Diarmuid F. O'Scannlain, Should the Ninth Circuit Be Saved?, 15 J.L. & POL. 415, 417–18, 427–28 (1999) (arguing that a split of the Ninth Circuit is "inevitable").

^{61.} In the publication rate model, the data were available only for the years 1985-2005.

common. This simple model of oral argument rates thus incorporates four variables: (1) circuit size, (2) workload, measured as merits terminations per judge, (3) percent active judge participation, and (4) percent criminal or prisoner petitions on the docket. The source and measurement of these variables are set forth in the Data Appendix.

B. Hypotheses Relating to Reversal Rates

The model of circuit reversal rates includes the same variables as the model of oral argument, along with two additional variables. In the model of oral argument, I hypothesized that circuit size would be negatively related to the dependent variable. The expectation regarding the influence of circuit size is somewhat less clear with respect to reversal rates. Circuit size could be positively associated with reversal because, as circuits increase in size, it may become more difficult for the district court judges to predict appellate court preferences or identify clear rules from a large volume of precedents. On the other hand, larger circuits could produce lower reversal rates because the judges are less able themselves to discern the appropriate standard of review from a proliferation of precedents, potentially leading to less stringent scrutiny of the district court.⁶² The expected influence of high caseloads is more clear. Burdensome workloads should be associated with a reduction in the rate of reversal. Reversal of the district court takes time; unlike an affirmance, a reversal requires the appellate panel to carefully explain the rationale for reversal and the procedures that must be undertaken if remand is necessary. As for active judge participation, existing research has demonstrated that where a designated judge is the majority opinion writer, reversal is less likely.⁶³ Thus, I hypothesize that where panels are more often staffed by active as opposed to visiting judges, reversal rates will be higher. On the other hand, where a court's docket is dominated by prisoner and criminal appeals, many of which are meritless, I expect lower reversal rates.

^{62.} For a discussion of this in connection with a model of panel voting behavior, see Hettinger, Lindquist & Martinek, *supra* note 46, at 106–07.

^{63.} See id. at 110 (suggesting two possible explanations: that a designated judge may identify more with the district court judge, or that the chief judge may take extra care in assigning cases to a panel, including a designated judge so as to not assign reversals to a designated judge).

In addition to these variables. I have included two additional factors that may influence reversal rates across the appeals courts. Judges' ideologies affect their decisions in the appeals courts: the evidence is clear in most decision-making contexts.⁶⁴ With respect to reversal, however, the evidence is mixed. In the most recent evaluation of this issue, Hettinger, Martinek, and I found that differences between the ideology of the district court judge and the reviewing panel did not affect the likelihood of reversal.⁶⁵ For purposes of the aggregate circuit-level data analyzed in this paper, it would be difficult to construct measures to reflect ideological differences between district and circuit court judges. Instead, I have included a variable reflecting ideological diversity of the appeals court. Where the circuit itself is divided ideologically, it is reasonable to assume that greater divisiveness also will characterize the circuit's relationship with the district courts below. Finally, the model includes a variable reflecting the rate at which the circuit grants oral argument on the supposition that where a circuit grants oral argument frequently, the judges will be more likely to detect reversible error because they are exposed to a greater depth of argument and information regarding meritorious appeals.

The model of reversal rates thus incorporates six variables: (1) circuit size, (2) workload, measured as merits terminations per judge, (3) percent active judge participation, (4) percent criminal or prisoner petitions on the docket, (5) ideological variation among the circuit judges, and (6) oral argument rate. The source and measurement of these variables are set forth in the Data Appendix.

C. Hypotheses Relating to Opinion Publication

The model of opinion publication rates is specified with the same variables as the model of oral argument rates, but with the

^{64.} See HETTINGER, LINDQUIST & MARTINEK, supra note 47, at 42 ("[A] judge's conception of legal error may well be structured by her attitudes or policy preferences."); CASS R. SUNSTEIN, DAVID SCHKADE, LISA M. ELLMAN & ANDRES SAWICKI, ARE JUDGES POLITICAL? AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY 128 (2006) ("As a circuit court becomes more dominated by judges appointed by presidents of one political party, the circuit's voting patterns are likely to shift accordingly.").

^{65.} See HETTINGER, LINDQUIST & MARTINEK, supra note 47, at 46 ("[T]he context of decision making on the U.S. Courts of Appeals makes it unlikely that attitudinal factors alone can account for circuit judges' observed behavior.").

addition of several other variables that are theoretically related to opinion publication. First, as with oral argument, I hypothesize that court size will be negatively related to rates of opinion publication on grounds that judges on larger courts may be more reluctant to generate a proliferation of precedents in the form of published opinions. In the Ninth Circuit, for example, twenty-eight judges could produce a prodigious quantity of precedents among them. In order to ensure consistency in circuit law, judges on larger circuits may be more likely to resist publication unless the opinion serves to alter existing legal doctrine or announce a new rule in a case of first impression. As Judge Wald has observed, "[e]scalating caseloads . . . produce a glut of published precedent which the judge should but cannot always know."⁶⁶ In addition, I expect that a high proportion of criminal and prisoner petitions on a circuit's docket will be negatively related to opinion publication, as these constitute "easy" cases less likely to result in innovations in circuit law. Workload also should be negatively related to opinion publication. It is reasonable to assume that overworked judges have less time to engage in the careful crafting process required for a published opinion.⁶⁷ And the larger the percentage of cases disposed of by active judges, the more frequently I expect opinions to be published, simply because a circuit is probably more likely to publish opinions drafted by active judges than by visiting judges.

In addition to these variables, I add four other factors that could influence the rate at which a circuit's judges choose to publish their opinions. I first hypothesize that increasing ideological disparity among judges on a circuit court is likely to produce lower publication rates, as it is possible that judges in the ideological minority may attempt to "hide" unpublished opinions that diverge from the dominant preferences of judges within the circuit.⁶⁸ Scholars have debated whether publication rules provide

^{66.} Patricia M. Wald, Some Thoughts on Judging as Gleaned From One Hundred Years of the Harvard Law Review and Other Great Books, 100 HARV. L. REV. 887, 904 (1987).

^{67.} See POSNER, supra note 8, at 169 ("Unpublished opinions are prepared less carefully because the judges put less time into them; they put less time into them not because they are lazy but because they are trying to use their time as productively as possible.").

^{68.} Cf. Deborah Jones Merritt & James J. Brudney, Stalking Secret Law: What Predicts Publication in the United States Courts of Appeals, 54 VAND. L. REV. 71, 103 (2001) ("[J]udges who share common backgrounds or traits could tacitly agree to suppress unpalatable opinions by leaving them unpublished.").

judges with the opportunity to act strategically with respect to the development of circuit precedent.⁶⁹ Where judges on a circuit share a relatively uniform ideological perspective, no minority of judges would have the incentive to limit the impact of precedent because they disagree with the direction of circuit law. If, however, wide variation exists in the ideological predispositions of judges on the circuit, such incentives might exist. In addition to ideological diversity, reversal and dissent rates also should be positively related to opinion publication. The circuits typically use reversal of the district court and the presence of a dissenting opinion as criteria in making the decision to publish an opinion.⁷⁰ Finally, where a circuit decides cases frequently en banc, it reveals a general propensity for the circuit to engage in more "publicized" decision making, which might then be associated with a propensity to publish as well.

The model of opinion publication therefore includes the following variables: (1) circuit size, (2) workload, measured as merits terminations per judge, (3) percent active judge participation, (4) percent criminal or prisoner petitions on the docket, (5) ideological variation on the circuit, (6) reversal rate per year, (7) dissent rate per year, and (8) the number of en banc hearings each year. The source and measurement of these variables are set forth in the Data Appendix.

D. Hypotheses Relating to Disposition Times

As for disposition time, I expect that court size, ideological variation, en banc review, dissent rate, reversal rate, oral argument rate, publication rate, and workload will be positively related to the speed with which circuit courts dispose of appeals. Larger circuits may face more imposing logistical obstacles to the resolution of cases as judges attempt to hear cases and reach agreement with colleagues whose chambers are geographically dispersed. In addition, circuits staffed by judges with widely opposing ideological viewpoints also may experience more difficulty in achieving consensus in the opinion-writing process. The other variables simply involve additional steps in the decision-making process that may increase disposition time. For example, it takes

^{69.} See id. at 97. Note that judges even recognize this possibility. Id. at 97 n.84.

^{70.} Id. at 76-78.

longer: (1) to hear oral argument than to decide a case based on the briefs alone, (2) to write a published opinion than to issue an unpublished opinion or order, and (3) to reverse than to affirm the district court.⁷¹ En banc proceedings likely add to case disposition time as well, as organizing en banc proceedings causes a disruption in a court's normal hearing schedule. Finally, I expect judges with heavier workloads to take longer to dispose of appeals.

On the other hand, I expect the percentage of active judge participations will be negatively related to disposition time, as the process of negotiating with judges sitting by designation—who are likely unfamiliar with circuit precedent and norms—is likely to increase case processing time.⁷² Finally, where a circuit's docket includes a large percentage of "easy" criminal and prisoner appeals, I expect disposition time to be reduced.⁷³

^{71.} See Thomas B. Marvell & Carlisle E. Moody, The Effectiveness of Measures to Increase Appellate Court Efficiency and Decision Output, 21 U. MICH. J.L. REFORM 415, 438–40 (1988).

^{72.} An alternative hypothesis, however, is that district court or visiting judges may actually expedite decision making because they are more likely to defer to the active judges in the panel. I thank Mitu Gulati for this insight.

^{73.} See Wasby, An Evaluation of Guidelines, supra note 43, at 93 ("[V]ery high proportion of unpublished dispositions are criminal appeals or habeas corpus petitions from state convictions.").

Table 1: Multivariate Model of Oral Argument Rates 1983–2005 United States Courts of Appeals (Circuits 1–11)

Variable	Coefficient	Standard Error	p value
Circuit Size (-)	374	.145	.005
Merits per judge (-)	087	.013	.000
Active Judge (-)	171	.056	.001
Crim/Prisoner (-)	-25.00	6.75	.000
Constant	85.29	5.55	.000

N = 253, R^2 = .70, ρ = .765.

Note: Statistical significance evaluated using a one-tailed test where directionality of coefficient is hypothesized a priori. Coefficients for year dummy variables omitted from table. Model estimated using panel corrected standard errors and assuming common autocorrelation (AR1).

Table 2: Multivariate Model of Reversal Rates 1983–2005 United States Courts of Appeals (Circuits 1–11)

Variable	Coefficient	Standard Error	p value
Circuit Size (+/-)	049	.026	.034
Ideological Spread (+)	2.84	1.28	.014
Active Judge (+)	.116	.022	.000
Oral Argument Rate (+)	0007	.013	.479
Merits per judge (-)	006	.005	.122
Crim/Prisoner (-)	-9.46	3.89	.005
Constant	9.20	2.66	.001

 $N = 253, R^2 = .51.$

Note: Statistical significance evaluated using a one-tailed test where directionality of coefficient is hypothesized a priori. Coefficients for year dummy variables omitted from table. Model estimated using panel corrected standard errors.

Table 3: Multivariate Model of Publication Rates 1983–2005 United States Courts of Appeals (Circuits 1–11)

Variable	Coefficient	Standard Error	p value
En Bancs (+)	025	.069	.354
Reversal Rate (+)	.433	.123	.000
Circuit Size (-)	-1.14	.124	.000
Ideological Spread (+/-)	160	4.16	.485
Active Judge (+)	.022	.053	.336
Merits per judge (-)	084	.012	.000
Dissent Rate (+)	.180	.335	.295
Crim/Prisoner (-)	-26.55	6.69	.000
Constant	59.63	6.13	.000

 $N = 231, R^2 = .70, \rho = .734.$

Note: Statistical significance evaluated using a one-tailed test where directionality of coefficient is hypothesized a priori. Coefficients for year dummy variables omitted from table. Model estimated using panel corrected standard errors and assuming common autocorrelation (AR1).

Table 4: Multivariate Model of Disposition Times1983–2005

United States Courts of Appeals (Circuits 1-11)

Variable	Coefficient	Standard Error	p value
Reversal Rate (+)	003	.027	.450
Circuit Size (+)	.173	.038	.000
Ideological Spread (+)	1.69	.979	.041
Active Judge (-)	024	.012	.030
Merits per judge (+)	.002	.003	.241
Dissent Rate (+)	.005	.074	.473
Crim/Prisoner (-)	.062	1.48	.434
Oral Argument Rate (+)	.031	.019	.047
Publication Rate (+)	006	.022	.385
En Bancs (+)	.017	.013	.104
Constant	8.07	2.08	.000

 $N = 231, R^2 = .62, \rho = .814.$

Note: Statistical significance evaluated using a one-tailed test where directionality of coefficient is hypothesized a priori. Coefficients for year dummy variables omitted from table. Model estimated using panel corrected standard errors and assuming common autocorrelation (AR1).

IV. ANALYSIS

A. Model Results

The results of these models of oral argument rates, reversal rates, publication rates, and disposition times are presented in Tables 1 through 4. These dependent variables were modeled using a pooled cross-sectional time-series design with data from the years 1983–2005. The models were estimated using Prais-Winsten regression assuming that the disturbances are hetero-scedastic and contemporaneously correlated across panels, and allowing for panel-specific first-order autocorrelation in the residuals.⁷⁴ Year dummy variables were included in the models to control for temporal effects as well.⁷⁵

B. Oral Argument

The model of oral argument produced results consistent with theoretical expectations. First, circuit size is statistically significant and negatively signed as expected. Even after controlling for caseload, larger circuits are less likely to grant oral argument. For every one-judge increase in a circuit's size, the percentage rate of oral argument decreases by .374 percent. Substantively, this variable has a meaningful impact only when one considers change in the dependent variable over widely ranging values of

^{74.} Nathaniel Beck & Jonathan N. Katz, What to Do (and Not to Do) with Time-Series Cross-Section Data, 89 AM. POL. SCI. REV. 634, 637, 645 (1995) (suggesting this approach for studies in comparative politics).

Time series cross sectional ("TSCS") models are difficult to specify because of es-75. timation problems caused by the combination of data measured over both space (panel units) and time. See James A. Stimson, Regression in Space and Time: A Statistical Essay, 29 AM, J. POL. SCI. 914-47 (1985). This combination makes use of ordinary least squares ("OLS") regression inappropriate because OLS produces inefficient and biased parameter estimates in the face of heteroscedasticity within cross sections (across time units), autocorrelation across time units (within cross sections), and spatial correlation among cross sections-all of which are often present in TSCS data. Panel corrected standard errors account for heteroscedasticity and spatial autocorrelation. See Beck & Katz, supra note 74, at 634-47. In addition, diagnostics (xterial in Stata) indicated that, with the exception of the reversal model, the models produced first-order autocorrelated error, hence, they were estimated using the Prais-Winsten transformation assuming a common ρ as recommended by Beck and Katz. To ensure the results were robust to alternative estimation techniques, the models were also estimated using a generalized least squares random effects estimator (where the Hausman test indicated it was appropriate), a fixed effects estimator, as well as Prais-Winsten regression with a lagged dependent variable. For the most part, the techniques returned very similar results to those reported in the tables, with the results reported among the most conservative.

circuit size. For example, as circuit size moves from twelve judges to twenty-seven judges, it reduces the rate of oral argument by more than five percent. Given that the rate of oral argument is as low as fifteen percent in recent years in some circuits, and on average in 2005 was only thirty-two percent, the substantive impact of circuit size is thus modest but not inconsequential. Moreover, the heavier the workload faced by appellate judges, the less likely they are to grant oral argument frequently. Furthermore, where dockets are comprised of a high proportion of prisoner and criminal petitions, oral argument rates also decline—and decline substantially. For an increase in the proportion of criminal/prisoner petitions on the docket from .3 to .4, for example, oral argument declines by 2.5%. Since the circuits vary substantially on this variable (with a range of .24 to .66 across the time period studied), docket composition is critical in explaining different norms related to oral argument. Finally, the greater the active judge participation, the less frequent oral argument. For every onepercent increase in active judge participation, oral argument rates decrease by .17 percent. As the percentage of active judge participation increases from sixty to ninety percent, the rate of oral argument decreases by about five percent. Again, this does not seem like a large impact until one considers that in recent years, the rate of oral argument is already very low on average. Perhaps circuits operate on the assumption that when visitors are deciding appeals, oral argument is more useful and also necessary to enhance the legitimacy of the decision-making process.⁷⁶

C. Reversal Rates

As in the model of oral argument, circuit size is negatively related to the rate of reversal. Initially, I did not provide a directional hypothesis for circuit size because theoretically, circuit size could be positively or negatively related to reversal rates.⁷⁷ Substantively, the impact of circuit size is modest: for every additional judgeship, reversal rates decrease by .049 percent. As a result, circuit size has a meaningful effect only over a wide range in its value. As a circuit increases in size from fifteen to twenty-five

^{76.} COHEN, *supra* note 4, at 197 (noting that visiting judges are unfamiliar with circuit procedures and norms, and, thus, may require assistance from active judges).

^{77.} See supra Part III.B.

judges, for example, reversal rates decrease by .49 percent. Although the causal mechanisms are not clear, it is possible that larger circuits experience more difficulty settling on appropriate standards of review or reaching consensus over proper grounds for reversal. On the other hand, circuits that enjoy greater participation by active judges are more likely to reverse. While similarly modest in substantive impact—the coefficient for this variable is small—the findings reinforce the conclusions reached in existing research that visiting judges are less likely to vote to reverse than active judges. Docket composition makes a difference as well; where criminal and prisoner petitions constitute a larger proportion of the docket, reversal is also less likely, probably because many of these appeals lack substantive merit. For every one-tenth increase in the proportion of criminal and prisoner cases on the docket, reversal rates decrease by .94 percent.

In contrast, workload is unrelated to reversal; since reversal takes more time than affirmance, it is perhaps surprising that circuits with heavy workloads do not have lower reversal rates. Finally, ideological variation on a circuit is positively associated with its reversal rate; as the measure of circuit ideology moves from one standard deviation below to one standard deviation above its mean, reversal rates increase by more than one percent.⁷⁸

D. Opinion Publication

The rate at which a circuit publishes its opinion is influenced by a number of factors. First, as expected, in circuits where reversal is more common, the judges publish opinions more often. This finding is consistent with formal rules governing publication.⁷⁹ And as expected, workload per judge and the percentage of criminal and prisoner appeals on the docket are negatively related to publication.

Circuit size is also negatively associated with opinion publica-

^{78.} The variable measuring ideological variations on a circuit ranges from .509 to 1.206 (less than 1). As a consequence, the coefficient on the ideology variable must be interpreted with some caution since understanding its impact requires some out-of-sample predictions. For that reason, I have estimated the impact of the variable given a change in one standard deviation above and below its mean.

^{79.} Greene, supra note 41, at 1507–08 (listing several indicia of when an opinion is likely to be published).

tion. This variable is statistically significant and the coefficient indicates that for every additional judge added to a circuit, publication rates decrease by a little more than one percent. Clearly, larger circuits publish their decisions less often, perhaps to avoid the cacophony of precedents that might result if publication were more common.

Other variables with expected relations to publication rates produce statistically insignificant results in the model. Circuits with higher dissent rates do not necessarily publish more opinions. Nor do ideological variation or active judge participation affect publication rates.

E. Disposition Time

In the model of disposition time, four variables reached acceptable levels of statistical significance, and one variable was significant in one-tailed tests at the .10 level. Court size is positively and significantly related to disposition time; larger courts take longer to dispose of appeals, probably due to logistical impediments not faced in smaller circuits. In the Ninth Circuit (with twenty-eight authorized judgeships), for example, judges may have to travel long distances to hear appeals given the large geographical region incorporated in that circuit, a problem not faced by the six judges in the geographically compact First Circuit. These scheduling or logistical difficulties may lead to increased delays in the decision-making process. Substantively, for every ten additional judges in a circuit, median disposition time increases by somewhat more than one month. Oral argument rate is also related to disposition time, presumably because it takes longer to decide cases with oral argument than simply on the briefs, but the impact of the oral argument variable is modest. For every one percent increase in oral argument rate, disposition time is increased by .03 months. Another variable that reflects additional logistical hurdles in the decision-making process-en banc decisions—is also positively associated with disposition time, albeit at a more lenient level of statistical significance. Where a circuit grants more en banc review, it slows the average time for all appeals to be disposed.

Judicial ideology also appears to influence case disposition time. Where circuits are staffed by judges with widely divergent ideological orientations, those circuits experience increased delays in the disposition of appeals. When the ideology variable is increased from one standard deviation below to one standard deviation above the mean, it increases the median disposition time by about two-thirds of one month. One might speculate about why this is so. Where individual judges' views of law and policy converge within a narrow ideological range, they are likely to dispose of appeals more quickly because there is less need to accommodate opposing viewpoints in the opinion. Thus, ideological dissimilarity likely increases the complexity of the decisionmaking process. However, as the percentage of active judge participation increases, disposition time is reduced. This finding is consistent with reports that visiting judges take longer to dispose of their appellate work.⁸⁰

Other variables that one would expect to be related to disposition time were not, particularly reversal and publication rates. Since both add additional complications in the case processing sequence, it is reasonable to assume that they would increase the time required to dispose of appeals. Interestingly, they are not related to disposition time when other factors are controlled. Nor does an increased workload appear to affect the time required for judges to dispose of appeals.

V. VARIATION IN DISSENT RATES

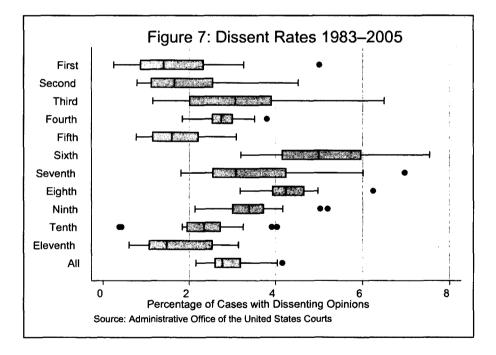
In the section above, I explored the determinants or predictors of circuit-level variations in adjudicative norms. In this section, I assess the effects of those institutional variations on another form of judicial behavior that is also shaped by informal norms: dissent. Traditionally, scholars have viewed dissent as one of the most interesting and salient forms of judicial behavior.⁸¹ Interest in dissenting behavior stems from the assumption that the existence of dissent evidences discretionary decision-making opportunities.⁸² Scholars have viewed the public expression of dissent

^{80.} See COHEN, supra note 4, at 197 (noting that visiting judges take longer to write opinions and dispose of their caseload).

^{81.} See, e.g., Sheldon Goldman & Charles M. Lamb, Prologue to JUDICIAL CONFLICT AND CONSENSUS 1-5 (1986).

^{82.} See DONALD R. SONGER, REGINALD S. SHEEHAN & SUSAN B. HAIRE, CONTINUITY AND CHANGE ON THE UNITED STATES COURTS OF APPEALS 104-05 (4th ed. 2003) (explaining that the existence of disagreement among some judges indicates that all the judges who participated in the case exercised discretion).

as an indicator that alternative decisional outcomes are available to the judges. As a consequence, nonunanimous decision-making in collegial courts has been the frequent focus of research conducted by judicial scholars.⁸³ Moreover, dissent rates have important institutional implications. To the extent that policy-makers value the stability of precedent and the legitimacy of judicial decisions, higher rates of dissent may undermine these institutional assets. Thus, if the "balkanization" or "bureaucratization" of decision-making on the courts of appeals results in higher rates of dissent, critics may be justified in expressing some concern over the impact of these adaptive trends on case processing in the courts of appeals.⁸⁴ As the box plots in Figure 7 demonstrate, dissent rates do vary significantly across the circuits.



83. See, e.g., Steven A. Peterson, Dissent in American Courts, 43 J. POL. 412 (1981) (reviewing and synthesizing the literature of legal thinkers on dissent).

^{84.} That having been said, dissent in the U.S. Courts of Appeals is extremely low when compared to dissent in other appellate courts, including the United States Supreme Court. See LEE EPSTEIN ET AL., THE SUPREME COURT COMPENDIUM: DATA, DECISIONS & DEVELOPMENTS 191-218 (2d ed. 1996) (various tables with dissent rates over time).

To assess the influence of institutional variations on dissensus in the courts of appeals, therefore, I specified a model of dissent rate as a function of independent variables reflecting the institutional characteristics or norms discussed above. Most of these variables have predictable relationships to dissent rates. First, court size may be positively related to dissent rate, as judges on larger courts are likely to experience diminished collegiality and thus may be less sensitive to maintaining relationships with other judges.⁸⁵ At least one study has found that court size is related to patterns of dissent, with larger courts experiencing higher dissent rates.⁸⁶ I also hypothesize that as the ideological make-up of a circuit becomes more diverse, the percentage of cases with dissenting opinions will increase. This hypothesis finds an obvious foundation in attitudinal theories of judicial behavior: judges with more divergent political predispositions will be more likely to disagree on case outcomes.

Staffing considerations may be related to dissenting behavior in other ways as well. Existing research suggests that judges sitting by designation are less likely to dissent.⁸⁷ As a corollary to this finding, I hypothesize that in circuits where active judges participate in a higher percentage of cases, the dissent rate will also be higher. En banc decisions reflect a lack of consensus between individual panels and the entire circuit, and thus the frequency of en bancs may be positively related to dissent rates. Indeed, frequent en banc hearings may reflect a high level of disagreement among judges on the circuit as a whole.⁸⁸ High rates of district court reversals indicate the presence of nonconsensual decision making hierarchically, and thus I hypothesize that high rates of reversal will be associated with high rates of dissent as well.⁸⁹ Studies have also found that dissent more fre-

89. See Donald R. Songer, Consensual and Nonconsensual Decisions in Unanimous Opinions of the United States Court of Appeals, 26 AM. J. POL. SCI. 225, 237 (1982)

^{85.} See David A. Skeel, Jr., The Unanimity Norm in Delaware Corporate Law, 83 VA. L. REV. 127, 134-35 (1997) (finding that court size may be a factor in dissent rate, but is not dispositive).

^{86.} Henry R. Glick & George W. Pruet, Jr., Dissent in State Supreme Courts: Patterns and Correlates of Conflict, in JUDICIAL CONFLICT AND CONSENSUS 199, 207 (Sheldon Goldman & Charles M. Lamb eds., 1986).

^{87.} See Saphire & Solimine, supra note 47, at 368–70 (finding that district court judges sitting by designation dissent in one-to-two percent of cases, compared to over three percent for circuit judges).

^{88.} See Tracey E. George, The Dynamics and Determinants of the Decision to Grant En Banc Review, 74 WASH. L. REV. 213, 253–54 (1999).

quently accompanies decisions that reverse rather than affirm the lower court.⁹⁰ Finally, I hypothesize that circuits that hear oral argument in a greater percentage of cases will experience higher rates of dissent, as judges may be more likely to formulate independent opinions as they become more informed about a case. The alternative hypothesis here, of course, is that the process of oral argument may persuade judges to iron out their differences.

In contrast, circuits with larger percentages of criminal and prisoner cases should have lower dissent rates, as these cases are less demanding and complex and thus less likely to generate dissents. Workload should also be negatively related to dissenting behavior, as overworked judges have less time to write separate opinions.

Table 5: Multivariate Model of Dissent Rates1983–2005

Variable	Coefficient	Standard Error	p value
Reversal Rate (+)	.018	.023	.218
Circuit Size (+)	.029	.018	.051
Ideological Spread (+)	3.51	.666	.000
Active Judge (+)	012	.011	.134
En Bancs (+)	.006	.012	.314
Oral Argument Rate (+)	.021	.009	.010
Merits per judge (-)	001	.002	.250
Crim/Prisoner (-)	.894	1.33	.251
Constant	955	1.38	.491

United States Courts of Appeals (Circuits 1-11)

N = 253, R^2 = .36, ρ = .504.

Note: Statistical significance evaluated using a one-tailed test where directionality of coefficient is hypothesized a priori. Coefficients for year dummy variables omitted from table. Model estimated using panel corrected standard errors and assuming common autocorrelation (AR1).

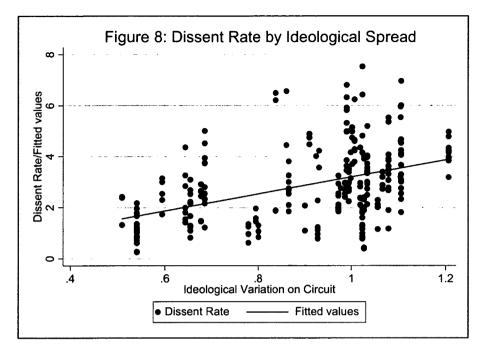
The results of the model are presented in Table 5. As the table indicates, several of the variables serve as significant predictors of dissent rates for the years included in the analysis. As ex-

^{(&}quot;[R]eversals involve intercourt conflict....").

^{90.} See Virginia A. Hettinger, Stefanie A. Lindquist & Wendy L. Martinek, Separate Opinion Writing on the United States Courts of Appeals, 31 AM. POL. RES. 215, 236 (2003).

pected, court size is positively related to dissent rate, as is the measure of ideological spread. Thus, we can expect higher rates of dissenting behavior on larger courts and on courts where judges' ideological predispositions are more diverse. Oral argument also appears to enhance judges' propensity to dissent. On the other hand, workload is not related to dissent rates,⁹¹ nor is docket composition.

In interpreting the coefficients in the model of dissent, it is important to keep in mind that in general, dissent rates in the circuit courts are relatively modest, varying from a high rate of 7.53 percent to a low of .25 percent in the years analyzed. Thus a variable that produces even a half percentage point change in the dissent rate is meaningful in light of the dependent variable's limited range. Consider the variable reflecting ideological variation among the circuit judges, for example. Moving from its minimum to maximum value, this variable contributes 2.5 percentage points to the dependent variable. Increasing a circuit's rate of oral argument by ten percentage points increases its dissent rate by .21 percent. Increasing a circuit's size by ten judges increases its dissent rate by .29 percent.



Thus, consensus within a circuit is clearly influenced by a number of relevant variables. But the most important of these is ideological disagreement. When panels are staffed with judges of divergent policy preferences, dissent is more likely. This bivariate relationship is exhibited graphically in Figure 8. The other statistically significant variables also affect dissent rates after controlling for ideological variation, but they do not have the same important substantive impact. This finding comes as no surprise perhaps, but it has far reaching implications. Dissent can certainly play an important role in the development of legal doctrine, and it forms an important outlet for judges who view the majority's decision as unjust. Yet high levels of dissensus may also be viewed as an indicator of the instability or unpredictability of precedent.⁹² Ideological polarization within the judiciary therefore produces conditions that may undermine institutional values associated with the rule of law.

^{92.} See Arthur D. Hellman, Precedent, Predictability, and Federal Appellate Structure, 60 U. PITT. L. REV. 1029, 1044 (1999) ("The presence of a dissent tell [sic] us that the case would have been decided differently by one federal judge. But to use that dissent as a proxy for unpredictability, we must posit that there is at least one other judge who would take the same position and, further, that such a judge might have sat on the panel that heard the case. Are those assumptions sound? I think they are.").

VI. CONCLUSION: NORMS AND THEIR IMPACT

Empirical studies of appellate courts suggest that institutional norms, rules, and procedures are often significantly related to judges' and litigants' behavioral patterns.⁹³ Studies of institutional variations across state courts, including selection method, opinion assignment procedures, and the existence of an intermediate appellate court, for example, have been shown to affect litigation and dissent rates in those courts.⁹⁴ Similarly, studies of judicial productivity in state court systems have found that institutional variations such as caseload, opinion publication, and oral argument practices influenced judicial productivity (as measured by decisions per judge).⁹⁵ In the federal appeals courts, Songer explored the relationship between other circuit-level norms, including reversal of the district court, and dissent rates on the courts of appeals.⁹⁶ In a comprehensive study of dissenting behavior by individual judges in the federal appeals courts. Hettinger. Martinek, and I found that panel composition and certain background characteristics affected judges' propensity to dissent. Similarly, Harrington and Ward studied the influence of institutional characteristics and environmental influences on litigation rates in the federal courts of appeals, finding that circuits that tended to dispose of cases without a hearing and that rarely overturned lower court rulings experienced higher rates of appeal.⁹⁷ Taken in combination, this research indicates that further exploration into the nature and influence of institutional variations across the circuit courts may yield insights into the dynamics of

^{93.} See supra text accompanying notes 60–73.

^{94.} See generally F. Andrew Hanssen, The Effect of Judicial Institutions on the Uncertainty and the Rate of Litigation: The Election versus Appointment of State Judges, 28 J. LEGAL STUD. 205 (1999) (discussing how the legal process is affected by the trade-off between judicial accountability and judicial independence).

^{95.} See Marvell & Moody, supra note 71, at 415 ("Output per judge increased, on average, from fifty-three to eighty-eight decisions in the 1974–1984 period. . . .").

^{96.} See Donald R. Songer, Factors Affecting Variation in Rates of Dissent in the U.S. Courts of Appeals, in JUDICIAL CONFLICT AND CONSENSUS 117, 128-30 (Sheldon Goldman & Charles M. Lamb eds., 1986); see also Sheldon Goldman, Voting Behavior on the United States Courts of Appeals Revisited, 69 AM. POL. SCI. REV. 491, 491 (1975) (exploring "facets of judicial behavior on the appeals courts with particular reference to the attitudinal and the backgrounds-behavior research problems").

^{97.} Christine B. Harrington & Daniel S. Ward, 9 Patterns of Appellate Litigation, 1945–1990, in CONTEMPLATING COURTS 206, 224 (Lee Epstein ed., 1995) ("[T]he more [government] cases a circuit disposes of without a full hearing, the fewer cases come to it the following term. The opposite is the case for private civil appeals.").

judicial decision-making and the development of norms within those institutions.

In this article, I have explored the extent and consequences of institutional variation across the United States Courts of Appeals for the evolution of varied decision-making norms in the circuits. These norms clearly influence the administration of justice in the federal appellate courts, but they are far more elusive to describe and explain than are formalized norms.⁹⁸ This article reflects an effort to explain what factors influence the development of norms across the federal appellate courts, and how those norms are interrelated. In this sense, it takes seriously the idea that "broad cultural themes . . . translate into relatively steadfast normative rules and rituals of how action is to be taken."⁹⁹ The results of these analyses are summarized in Table 6.

^{98.} COHEN, supra note 4, at 169 (noting that informal cultural norms are more "elusive" than formal and structural aspects of judicial institutions).

^{99.} Id. at 171.

Independent Variable	Oral Argument Rates	Reversal Rates	Publication Rates	Disposition Times	Dissent Rate
Circuit Size	Negative	Negative	Negative	Positive	Positive
Active Judge Participation	Negative	Positive	n.s	Negative	n.s
Merits Terminations per Judge	Negative	n.s	Negative	n.s	n.s
Criminal/Prisoner	Negative	Negative	Negative	n.s	n.s
Ideological Spread	**	Positive	n.s	Positive	Positive
Oral Argument Rate	**	n.s	**	Positive	Positive
Reversal Rate	**	**	Positive	n.s	n.s
En Bancs	**	**	n.s	Positive [†]	n.s
Publication Rate	**	**	**	n.s	**
Dissent Rate	**	**	n.s	n.s	**

Table 6: Comparison of Influence of Independent Variables in Models of Circuit Norms and Characteristics

Note: n.s. = not statistically significant, ** = not included in the model, Negative = Independent variable negatively related to dependent variable, Positive = Independent variable positively related to dependent variable. \dagger Significant at more lenient ten percent level (p \leq .1).

Although these courts share many institutional characteristics. they also differ on a number of dimensions that have implications for the administration of justice in the federal appellate system. Based on the descriptive statistics presented in Part II, it seems clear that a judge on the Ninth or Eleventh Circuit, for example, experiences a substantially different set of constraints than does a judge on the First or Tenth Circuit. Among other things, judges in different circuits experience different workload burdens, decide a somewhat different mix of cases, have different levels of interaction with the litigants, and create different outputs in the form of published versus unpublished opinions. From the litigants' perspective, these courts must represent significantly different forums as well in terms of their accessibility and responsiveness. In some circuits, the litigants are more likely to receive procedural advantages in the form of oral argument opportunities and enhanced judicial scrutiny of their appeals.

Several of these intercircuit variations also appear to affect judicial behavior and outputs. In the regression models of oral argument, reversal rate, publication rate, disposition time, and dissent rate, several findings were consistent.¹⁰⁰ First, court size affects the nature of the judicial decision-making process, but only to a limited degree. Larger courts grant oral argument and issue published opinions in a smaller percentage of cases, reverse less often as a percentage of all cases, experience higher dissent rates, and take longer to dispose of their caseload. The finding that larger courts publish opinions in a smaller percentage of appeals may reflect judges' calculations concerning the proliferation of precedent; in larger courts, judges may be more reluctant to publish opinions unless they state a new legal principle or otherwise provide additional guidance on circuit law. The higher dissent rate in larger courts may be explained by the decreased collegiality experienced by judges on these courts. Where judges have less interaction with their colleagues, they may feel freer to dissent from a colleague's majority opinion. Moreover, rational choice theories of collective action and coordination suggest that individuals in larger groups have greater incentives to free ride, as they assume that their individual contribution is unnecessary for the good of the whole. In the judicial context, these theories might suggest that judges on larger courts will be less concerned about the coherence and stability of circuit law, and thus may be more likely to dissent in accordance with their personal policy preferences.¹⁰¹ As for disposition time, logistical obstacles may lead to slower appeals processing in larger circuits as well.

Yet given the modest substantive impact of the circuit size variable in all of the models, these findings must be interpreted with some caution. Circuit size has an effect, but its impact constitutes only a small marginal influence once other factors are controlled. It is doubtful, for example, that these findings support any particular policy regarding optimal circuit size—such as those involving partitioning of large circuits into smaller units.

The ideological makeup of a circuit was also found to be a significant factor in the three models. Ideological diversity increases dissent rates, increases disposition time, and increases reversal rates. Although the relationship between dissensus and ideology

^{100.} See supra tbl.6.

^{101.} See Erin O'Hara, Social Constraint or Implicit Collusion?: Toward a Game Theoretic Analysis of Stare Decisis, 24 SETON HALL L. REV. 736, 738 (1993) (noting author's assumption that appellate judges are primarily motivated by a desire to impose their "normative views" on society).

has been well explored in the literature on the courts of appeals, the relationship between ideology and case processing variables has not.¹⁰² The findings presented here suggest that ideological diversity may significantly alter the decision-making environment by affecting the efficiency of that process as well as the form case outcomes take. Policy preferences thus stand out as a critical variable in explaining the development of certain circuit norms.

Judicial workload also affects the nature of the decisionmaking process in some important ways, but once other factors are controlled, it appears that the influence of workload is fairly minimal. In particular, workload increases negatively impact oral argument and opinion publication rates. Yet neither dissent, reversal rates, nor disposition time is affected by judicial workload. This contradicts the conventional wisdom that dissents take additional time to produce and that judges' inclination to dissent will be diminished by heavy workloads. Perhaps the fact that circuit judges on average employ three law clerks reduces the likelihood that workload will undermine a judge's willingness to dissent. As noted in the introduction, this finding also suggests that caseload adaptations have assisted judges in disposing of their appeals in a timely manner. On the other hand, although its effect is modest in both cases, heavier caseloads do adversely influence the circuits' abilities to provide the more traditional form of appellate review (including oral argument) and to expend the time necessary to produce publishable opinions. Indeed, like other people, judges value their leisure time.¹⁰³ Writing a publishable opinion takes additional time that overworked judges may not be willing to sacrifice. Moreover, docket composition serves as an important control in these models that is also related to workload considerations. To the extent that certain types of cases are "easier" or more routine, it comes as no surprise that for judges whose dockets are dominated by these cases, it reduces the need for oral argument or opinion publication, and depresses reversal rates.

In general, these results demonstrate that the administration of justice may be particularly sensitive to some institutional constraints, while remarkably resistant to others. Some of these fac-

^{102.} See, e.g., Songer, supra note 96, at 117 (stating that the majority of research on courts has limited its analysis to decisions containing dissent).

^{103.} See RICHARD A. POSNER, OVERCOMING LAW 109, 136–37 (1995) (analyzing judicial behavior of appellate judges with secure tenure).

tors are not within the judiciary's control, including workload and docket composition. Only Congress can influence these particular factors. In that sense, Congress is clearly as responsible for the quality of the administration of justice as are the courts of appeals themselves, even though it is often the judges who are criticized for balkanizing the federal courts through changes to case processing procedures.¹⁰⁴ For example, when Congress fails to fill vacancies on the courts of appeals promptly, it may have repercussions beyond forcing the courts to rely more heavily on senior or visiting judges. It may also affect the nature of precedent produced by the courts of appeals, since active judges are more likely to publish their opinions. As for an ideologically polarized judiciary, this variable is subject to the vagaries of the appointment process and the willingness of presidents to appoint, and Congress to confirm, judges with more extreme ideological predispositions at either end of the spectrum.

Finally, because this research presents an initial examination of the influence of these institutional characteristics on judicial behavior, these findings raise a whole range of research questions that may be addressed in the future. First, additional dependent variables reflecting both litigant and judicial behavior can be modeled to shed new light on the relationship between institutions and outcomes in the courts of appeals. For example, rates of appeal, both from the district court to the courts of appeals, and from the courts of appeals to the Supreme Court, may be affected by these institutional characteristics, as has been shown to some extent by Harrington and Ward.¹⁰⁵ The circuits also demonstrate variation in the extent to which litigants' petitions for rehearing and rehearing en banc, and litigants' strategic calculations regarding whether to file such petitions may be affected by their perceptions of a circuit's institutional accessibility. Relatedly, there appears to be significant variation in the percentage of counseled versus pro se appeals across the circuits, which could have an impact on circuit norms as well.¹⁰⁶ As for judicial behav-

^{104.} See Carl Tobias, The New Certiorari and a National Study of the Appeals Courts, 81 CORNELL L. REV. 1264, 1270 (1996) (stating that Congress has created or substantially effected changes in case processing norms in appellate courts).

^{105.} See Harrington & Ward, supra note 97, at 222 (identifying three institutional characteristics that may affect the flow of appeals to circuit appellate courts).

^{106.} See Arthur D. Hellman, Assessing Judgeship Needs in the Federal Courts of Appeals: Policy Changes and Process Concerns, 5 J. APP. PRAC. & PROCESS 239, 244–48 (2003).

ior, it would be useful to work backward to assess why some circuits adopted certain types of adaptations to caseload growth and others did not, and what intracircuit dynamics resulted in the particular and sometimes unique adaptations made by individual circuits. Statistical models may be useful here, but in addition, interviews with judges and careful historical and archival research may also shed light on these questions. Ultimately, the courts of appeals provide scholars with a wonderful laboratory to explore the nature of institutional change and development in response to environmental and structural constraints.

Variable	Mean	Min – Max	Std. Dev.
Circuit Size	13.26	4 - 28	5.31
En Bancs	7.32	0 – 31	5.46
Reversal Rate	11.43	1.5 - 29.4	4.01
Disposition Time	10.62	5.7 - 16.8	2.58
Petition for Rehearing	47.9	9 - 145	27.24
Dissent Rate	2.90	.25 - 7.53	1.46
Oral Argument Rate	45.83	15.4 - 84.1	14.96
Ideological Variation	.913	.509 - 1.206	.188
Active Judge Participation	78.47	50.2 - 95.2	8.71
Proportion Prisoner/Crim.	.45	.24 – .66	.086
Merits per Judge	154.60	65.4 - 336.91	47.3

Data Appendix

N = 253. Disposition time measured in median months to disposition; circuit size variable obtained from Federal Judicial Center website; ideological variation measured using scores developed by Michael Giles, Virginia Hettinger and Todd Pepper. See Michael W. Giles, Virginia A. Hettinger & Todd Peppers, Picking Federal Judges: A Note on Policy and Partisan Selection Agendas, 54 POL. RES. Q. 623 (2001). Measure reflects range of these scores for active judges in each circuit by year; all other variables obtained from reports of the Administrative Office of the United States Courts, including the Annual Report of the Director and Federal Court Management Statistics.