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THE MYTH OF THE GENERALIST JUDGE

Edward K. Cheng*

Despite the frequent rhetoric celebrating the generalist judge, do judges really practice the generalist ideal? This Article empirically tests this question by examining opinion assignments in the federal courts of appeals from 1995-2005. It reveals that opinion specialization is a regular part of circuit court practice, and that a significant number of judges indeed specialize in specific subject areas. The Article then assesses the desirability of opinion specialization. Far from being a mere loophole in court operating procedures, opinion specialization turns out to be an important feature of judicial practice that could increase judicial expertise without incurring many of the costs commonly associated with specialized courts.

| INTRODUCTION | 520 |
|--|-----|
| I. EMPIRICAL STUDY OF OPINION ASSIGNMENT | 527 |
| A. Previous Work | 528 |
| B. Data and Methods | 530 |
| 1. Data sources | 530 |
| 2. Data reliability | 531 |
| 3. <i>Methods</i> | 532 |
| C. Results | 533 |
| D. Discussion | 540 |
| 1 Confidence in results | 540 |
| 2. Explanations | 543 |
| 3. Specialization trends | 544 |
| E. Limitations | 545 |
| L. Dimitations | |

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| 1. Data set limitations | 545 |
|---|-------|
| 2. Measuring "specialization" | 547 |
| 3. Chief judges | |
| II. ASSESSMENT | |
| A. General Assessment | 548 |
| B. Concerns About Specialized Courts | 550 |
| 1. Politicization | 551 |
| 2. <i>Myopia</i> | |
| 3. Loss of prestige | 554 |
| 4. Other concerns | 555 |
| C. Potential Problems | 556 |
| 1. Erratic expertise | 556 |
| 2. Excessive deference | |
| 3. <i>Bias</i> | 560 |
| CONCLUSION: OPINION SPECIALIZATION AS REFORM | |
| APPENDIX A: SUMMARY TABLES OF SPECIALIZATION | 563 |
| APPENDIX B: NATURE OF SUIT CODES | 569 |
| APPENDIX C: DEFINING SPECIALIZATION | 571 |
| INDEX OF FIGURES AND TABLES | |
| Figure 1.1. Subject-Matter Specialization, First Circuit, 1995-2005 | 534 |
| Figure 1.2. Subject-Matter Specialization, Second Circuit, 1995-2005 | |
| Figure 1.3. Subject-Matter Specialization, Third Circuit, 1995-2005 | |
| Figure 1.4. Subject-Matter Specialization, Fourth Circuit, 1995-2005 | 535 |
| Figure 1.5. Subject-Matter Specialization, Fifth Circuit, 1995-2005 | . 536 |
| Figure 1.6. Subject-Matter Specialization, Sixth Circuit, 1995-2005 | . 536 |
| Figure 1.7. Subject-Matter Specialization, Seventh Circuit, 1995-2005 | |
| Figure 1.8. Subject-Matter Specialization, Eighth Circuit, 1995-2005 | |
| Figure 1.9. Subject-Matter Specialization, Ninth Circuit, 1995-2005 | . 538 |
| Figure 1.10. Subject-Matter Specialization, Tenth Circuit, 1995-2005 | . 538 |
| Figure 1.11. Subject-Matter Specialization, Eleventh Circuit, 1995-2005 | . 539 |
| Figure 1.12. Subject-Matter Specialization, D.C. Circuit, 1995-2005 | . 539 |
| Figure 2. Agency Specialization, D.C. Circuit, 1995-2005 | . 540 |
| Figure 3. Frequency of Specialization (Positive and Negative) by Subject | |
| Table 1. Subject-Matter Specialization, Geographic Courts of Appeals, 1995-20 | 005 |
| | |
| Table 2. Agency Specialization, D.C. Circuit, 1995-2005 | |
| Figure 4. False Positive Rates for Simulated Seventh Circuit Case Distributions | s 572 |

INTRODUCTION

Legal culture, particularly in the federal courts, celebrates the generalist judge. Indeed, the most enthusiastic celebrants are often the judges themselves. Federal circuit judges, for example, frequently comment on the

^{1.} E.g., Bruce M. Selya, Arbitration Unbound?: The Legacy of McMahon, 62 Brook.

importance and desirability of being a generalist² and acknowledge the generalist's iconic status in the American legal tradition.³ In short, many federal judges would toast to Judge Diane Wood's assertion that "we need generalist judges more than ever for the United States federal courts."4

The corollary to a powerful generalist ideal is a deep-seated aversion to specialization. Outward support for specialization, if it exists at all, is confined

- 2. E.g., Richard A. Posner, Will the Federal Courts of Appeals Survive Until 1984? An Essay on Delegation and Specialization of the Judicial Function, 56 S. CAL, L. REV. 761. 777-89 (1983) (providing a substantial treatment of the subject in a section entitled "In Defense of the Generalist Appellate Judge"); see also, e.g., Richard Arnold, Mr. Justice Brennan and the Little Case, 32 Loy. L.A. L. Rev. 663, 669 (1999) ("I personally hope that we don't get rid of [social security cases], because people ... like a social-security claimant need a place to go where they can be heard by a generalist judge who is not so routinized that these cases become just one more instance on an assembly line."): Guido Calabresi. The Current, Subtle—and Not So Subtle—Rejection of an Independent Judiciary, 4 U. PA. J. CONST. L. 637, 639 (2002) ("Judges are generalists who deal with a variety of matters and there are very good reasons why they should do so."); Deanell Reece Tacha, The Federal Courts in the 21st Century, 2 CHAP. L. REV. 7, 15 (1999) ("[T]he federal courts have been courts of generalist judges. I firmly believe they should remain so."); John M. Walker, Jr., Comments on Professionalism, 2 J. INST. FOR STUDY LEGAL ETHICS 111, 113-14 (1999) ("[J]udges should be generalists. Judges should be able to deal with all kinds of cases as we must do under the federal system. We ought to be able to handle different cases with equal skill. We ought to have the judgment to discern when good arguments are being made and when bad arguments are being made."); Robert H. Bork, Dealing with the Overload in Article III Courts, Address to the National Conference on the Causes of Popular Dissatisfaction with the Administration of Justice (Apr. 7-9, 1976), in 70 F.R.D. 231, 233-34 (1976) (describing the "virtues for which we have always prized federal courts: scholarship, a generalist view of the law, wisdom, mature and dispassionate reflection, and . . . careful and reasoned explanation of their decisions"), quoted in Malcolm Richard Wilkey, Judicial Activism, Congressional Abdication, and the Need for Constitutional Reform, 8 HARV. J.L. & PUB. POL'Y 503, 513 & n.33 (1985). The sentiment is naturally not confined to federal appellate judges. See, e.g., Paul S. Gillies, A Talk with Judge Martin, VT. B.J. & L. DIG., Mar. 1999, at 47, 50 (reporting an interview with retired Vermont Superior Court Judge Stephen B. Martin) ("Oh yes, I'm a generalist. I've always advocated for generalist judges, and I still do that. You don't have to be a rocket scientist to handle most of the litigation in our courts."); Simon Rifkind, A Special Court for Patent Litigation? The Danger of a Specialized Judiciary, 37 A.B.A. J. 425 (1951) (author is a former federal district court
- 3. Carl McGowan, Reflections on Rulemaking Review, 53 Tul. L. Rev. 681, 683 (1979) (acknowledging the "long tradition of generalist judges"); Deanell Reece Tacha, Refocusing the Twenty-First-Century Law School, 57 SMU L. REV. 1543, 1545 (2004) (remarking that the "garden-variety judge . . . in the American tradition is still a generalist").
- 4. Diane P. Wood, Generalist Judges in a Specialized World, 50 SMU L. REV. 1755, 1756 (1997); see also id. at 1763 (arguing that the federal system has "preserved certain essential values precisely because it has resisted the kind of professionalization and specialization that others have adopted").
- 5. E.g., Thomas E. Baker, Imagining the Alternative Futures of the U.S. Courts of Appeals, 28 GA. L. Rev. 913, 949 (1994) ("Ffor courts generally and for Article III courts particularly, specialization often is viewed with near or actual disdain."); Daniel J. Meador, A Challenge to Judicial Architecture: Modifying the Regional Design of the U.S. Courts of

L. REV. 1433, 1445 (1996) (describing most judges as "ayowed generalists, and damn proud of it").

to narrowly limited areas. Otherwise, judges resist specialization and distance themselves from its "spectre." The aversion occasionally even crosses over to outright hostility: one outspoken judge describes the Federal Circuit as comprised of "little green men" and "people wearing propeller hats."

The structure of the federal courts reflects this distaste for specialization accordingly. The system is comprised overwhelmingly of courts of general jurisdiction, with the Federal Circuit and a few other courts as the only exceptions. Proposals over the years advocating for additional specialized courts have been consistently ignored, whether in scientific evidence, tax, immigration, administrative agency review, aparents, and or other areas. On

- 6. Daniel J. Meador, An Appellate Court Dilemma and a Solution Through Subject Matter Organization, 16 U. MICH. J.L. REFORM 471, 482 (1983) (describing specialization as a "spectre"); see also Saul Brenner, Issue Specialization as a Variable in Opinion Assignment on the U.S. Supreme Court, 46 J. Pol. 1217, 1218 (1984) (citing DAVID W. ROHDE & HAROLD J. SPAETH, SUPREME COURT DECISION MAKING 173 (1976)) (reporting that Chief Justice Warren denied assigning opinions based on expertise); S. Jay Plager, The United States Courts of Appeals, the Federal Circuit, and the Non-Regional Subject Matter Concept: Reflections on the Search for a Model, 39 Am. U. L. REV. 853, 860-61, 863 (1990) (distinguishing the Federal Circuit from a specialized court).
- 7. O.I. Corp. v. Tekmar Co., No. 95-CV-113 (S.D. Tex. June 17, 1996) (Kent, J.), quoted in R. Polk Wagner & Lee Petherbridge, Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance, 152 U. PA. L. REV. 1105, 1109-10 n.12 (2004) (citing Victoria Slind-Flor, The Markman Prophecies, IP WORLDWIDE, Mar. 13, 2002, at 28, 30).
- 8. See generally 13 CHARLES ALAN WRIGHT ET AL., FEDERAL PRACTICE AND PROCEDURE § 3508 (2d ed. 1984) (discussing the specialized courts in the federal system).
- 9. Cf. Ellen R. Jordan, Specialized Courts: A Choice?, 76 Nw. U. L. Rev. 745, 745-46 (1981) (discussing various specialized court proposals); Richard L. Revesz, Specialized Courts and the Administrative Lawmaking System, 138 U. Pa. L. Rev. 1111, 1116 (1990) (observing that specialized courts have been proposed not infrequently since the New Deal).
- 10. E.g., John W. Osborne, Judicial/Technical Assessment of Novel Scientific Evidence, 1990 U. ILL. L. REV. 497, 540-43 (proposing the use of scientifically versed judges to handle admissibility decisions); Edward V. Di Lello, Note, Fighting Fire with Firefighters: A Proposal for Expert Judges at the Trial Level, 93 COLUM. L. REV. 473, 473 (1993) (proposing a specialized magistrate judge to handle expert testimony); cf. James A. Martin, The Proposed "Science Court", 75 MICH. L. REV. 1058, 1058 (1977) (discussing a proposal for a "science court" that would adjudicate controversial scientific issues for the benefit of agencies and Congress).
- 11. Proposals have been made to consolidate tax appeals in a single specialized court. Meador, *supra* note 5, at 622-23 & n.53 (discussing proposals). At the trial level, tax litigants can currently choose between the generalist district courts or the United States Tax Court, with all appeals taken in the regional courts of appeals. Robert M. Howard, *Comparing the Decision Making of Specialized Courts and General Courts: An Exploration of Tax Decisions*, 26 JUST. SYS. J. 135, 137 (2005); *see also id.* at 138 tbl.1 (summarizing the attributes of the two options).
- 12. Meador, *supra* note 5, at 624 & n.59 (discussing proposals for a consolidated immigration appeals court).
 - 13. Revesz, supra note 9, at 1115 (discussing the desirability of having a specialized

Appeals, 56 U. CHI. L. REV. 603, 634 (1989) ("An aversion to specialized courts is deep seated in the American legal psyche.").

the rare occasions when such proposals are implemented, most specialized courts are denied Article III status and classified as legislative (Article I) courts, such as the bankruptcy courts, the United States Tax Court, ¹⁵ and the United States Claims Court. ¹⁶

Consistent with these attitudes, well-established rules and norms within the courts of general jurisdiction require the random assignment of cases to ensure that judges see all case types. ¹⁷ One notable former exception to random assignment in the district court context was the 1971 Bar Harbor Resolution, which allowed chief judges to reassign complex trials to specific judges. ¹⁸ In 1999, however, the Judicial Conference closed this loophole by rescinding the

court handle administrative agency review).

- 14. See, e.g., John B. Pegram, Should There Be a U.S. Trial Court with a Specialization in Patent Litigation?, 82 J. PAT. & TRADEMARK OFF. SOC'Y 765, 767 (2000); Gregory J. Wallace, Note, Toward Certainty and Uniformity in Patent Infringement Cases After Festo and Markman: A Proposal for a Specialized Patent Trial Court with a Rule of Greater Deference, 77 S. CAL. L. REV. 1383, 1410-11 (2004). But see H.R. 34, 110th Cong. (1st Sess. 2007) (seeking to establish a pilot program in which federal district judges could volunteer for and have cases assigned from a special patent pool).
- 15. See Deborah A. Geier, *The Tax Court, Article III, and the Proposal Advanced by the Federal Courts Study Committee: A Study in Applied Constitutional Theory*, 76 CORNELL L. REV. 985, 991-93 (1991) (recounting failed attempts to grant Article III status to the Tax Court).
- 16. See generally 13 WRIGHT ET AL., supra note 8, § 3528 (discussing the status of various courts and the history of the legislative court concept). Chief Justices Warren and Burger opposed granting Article III status to specialized courts. Geier, supra note 15, at 993 & n.46.
- 17. E.g., 1ST CIR. I.O.P. VII.D ("In accordance with long-standing practice, cases are assigned to panels on a random basis"); 3D CIR. I.O.P. 15.2 (discussing use of a "computer program to randomly select a panel" in death penalty cases, though "[t]he chief judge periodically may address any imbalance in the caseload"); 4TH CIR. I.O.P. 34.1 (discussing a "computer program designed to achieve total random selection"); 5TH CIR. R. 34 I.O.P. (discussing the separation between the assignment of judges to panels and the calendaring of cases); 7TH CIR. O.P. 6(b) (implicitly suggesting randomized assignment in discussion regarding assignment for successive appeals); 8TH CIR. I.O.P. I.D.1 ("The clerk's office uses software to form the hearing panels and randomly assign the cases. The judges do not participate in the case-assignment process."); 9TH CIR. O.P. E(4); PRACTITIONERS' GUIDE TO THE UNITED STATES COURT OF APPEALS FOR THE TENTH CIRCUIT, VIII.A, at 54 (6th rev. 2006) ("Assignments to hearing panels are made randomly under the clerk's supervision"); 11TH R. 34 I.O.P. 2(b) ("To insure complete objectivity in the assignment of judges and the calendaring of appeals, the two functions of judge assignment to panels and calendaring of appeals are intentionally separated."); UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT, HANDBOOK OF PRACTICE AND INTERNAL PROCEDURE, X.B, X.C, & X.D. at 46 (2007) (discussing use of calendaring program). But see PAUL D. CARRINGTON ET AL., JUSTICE ON APPEAL 174 (1976) ("The idea of assigning particular appellate judges to particular classes of appeals is not novel, but it has rarely been formally announced policy. We do know, for example, that in Judge Learned Hand's day the Second Circuit made frequent use of the practice.").
- 18. ROBERT A. AINSWORTH, JR., REPORT OF THE COMMITTEE ON COURT ADMINISTRATION, JUDICIAL CONFERENCE OF THE UNITED STATES 71-74 (1971), reaffirmed in REPORT OF THE PROCEEDINGS OF THE JUDICIAL CONFERENCE OF THE UNITED STATES 64 (1997).

resolution. The Judicial Conference found that it raised specialization concerns and was "inconsistent with the concept of judicial autonomy." ¹⁹

The romantic view of the generalist federal judge, however, is not without its costs. Obsession with the generalist deprives the federal judiciary of potential expertise, which could be extremely useful in cases involving complex doctrines and specialized knowledge. ²⁰ To be sure, expertise is not the be-all end-all of the ideal jurist, particularly when issues require value choices rather than technical accuracy, ²¹ but even if expert judges cannot necessarily ensure *right* answers, their decisions are more likely to fall within the subset of *better* answers owing to their greater experience and understanding of a field.

The loss of expertise also undermines efficiency, a goal that is difficult to dismiss in an era of crowded dockets and overworked jurists. Most current responses to the caseload crisis, including increasing the number of judgeships and staff positions, dispensing with oral argument, and using unpublished opinions, have now been stretched to the breaking point. Any further expansion of these mechanisms risks serious harm to both uniformity and

^{19.} COMM. ON COURT ADMIN. & CASE MGMT., JUDICIAL CONFERENCE OF THE U.S., REPORT OF THE PROCEEDINGS OF THE JUDICIAL CONFERENCE OF THE UNITED STATES (1999), available at http://www.uscourts.gov/judconf/99mar.html#22. Interestingly, one unenacted bill that would have statutorily required random assignment made provision for directed assignment in "technical case[s]" in which a judge had "significant experience with the subject matter at issue." Blind Justice Act of 1999, S. 1484, 106th Cong. (1999).

^{20.} See Henry J. Friendly, Reactions of a Lawyer—Newly Become Judge, 71 YALE L.J. 218, 223-24 (1961) ("What [disturbs] me are the occasions when the [nonexpert] judge is confronted with the necessity of leaping across the loom, particularly when he is confronted with a question for which accepted judicial techniques afford no satisfactory answer.").

^{21.} Cf. Posner, supra note 2, at 780, 782 ("We think of a specialist not just as someone who knows a lot about a subject, but as someone to whom we are willing to entrust important decisions about it that affect us.").

^{22.} See, e.g., Baker, supra note 5, at 918 (noting that caseload is a serious potential problem for the federal system); Plager, supra note 6, at 855-56 (same); Pamela Ann Rymer, How Big Is Too Big?, 15 J.L. & Pol. 383, 383 (1999) ("Appellate courts have been disproportionately affected [by caseload increases] because the number of circuit judges has not kept pace with the growth.").

^{23.} See, e.g., Myron H. Bright, The Power of the Spoken Word: In Defense of Oral Argument, 72 IOWA L. REV. 35, 39-40, 42 (1986) (describing the Eighth Circuit as increasingly dispensing with oral argument, but providing empirical evidence that oral argument can affect case outcomes); Rymer, supra note 22, at 384-85 (describing the problems of adding judgeships and splitting circuits); Melissa H. Weresh, The Unpublished, Non-Precedential Decision: An Uncomfortable Legality?, 3 J. APP. PRAC. & PROCESS 175, 175-76 (2001) (discussing the rise of unpublished opinions as a response to the caseload crisis and the subsequent criticism of them); see also Anastasoff v. United States, 223 F.3d 898, 905 (8th Cir. 2000) (declaring unconstitutional the Eighth Circuit's rule rendering unpublished opinions "nonprecedential"), vacated as moot, 235 F.3d 1054 (en banc).

^{24.} Martha J. Dragich, Once a Century: Time for a Structural Overhaul of the Federal Courts, 1996 Wis. L. Rev. 11, 46 (noting that adding judges is the easiest and possibly cheapest response to high caseloads, but raises concerns about fragmentation); Rochelle Cooper Dreyfuss, Specialized Adjudication, 1990 BYU L. Rev. 377, 377 (noting that increasing the number of judges is not useful because that would decrease uniformity, which

accountability.²⁵ Meanwhile, specialization options remain neglected and underutilized because of the generalist ideal.²⁶

The ideal of the generalist judge thus holds the federal courts captive. Rhetorically, it discourages judges from developing specialized expertise even on an informal basis. Doctrinally, it spawns rules and structures that prevent specialization, and, at the broadest conceptual level, it prevents federal court reformers from seriously considering specialized courts and other subject-matter-based schemes. Its powerful influence is all the more extraordinary given the extent to which specialization pervades nearly every other aspect of modern society. The medical and legal professions, which for years grappled with specialization, are today remarkably specialized, particularly at the most elite levels of practice. Reven state courts have increasingly turned to specialized courts or a subject-matter rotation system. Yet, the federal judiciary, the last bastion, remains steadfast and committed.

Is it really? Despite the rhetoric and the structural obstacles against specialization, do federal judges truly practice the generalist ideal? When presented with a chance to specialize, do they actually remain generalists?

would eventually lead to more lawsuits); Meador, *supra* note 6, at 473-74 (noting that increasing judgeships is expensive and creates uniformity problems); *see also* Plager, *supra* note 6, at 857 n.16 (reporting that a survey found that three-quarters of judges thought circuits should be capped at fifteen judgeships); Posner, *supra* note 2, at 762 (arguing that to preserve coherence in the decision-making process, a given circuit should have no more than nine judges).

- 25. See Dragich, supra note 24, at 32-33, 40 (arguing that "[i]nternal reforms" such as unpublished opinions, greater staff dependency, and foregoing oral argument have reduced judicial accountability); Meador, supra note 6, at 471-73 (expressing concern over delegation of the judicial role to staff attorneys and clerks).
- 26. Specialization is often proposed as a response to the caseload crisis. Dreyfuss, supra note 24, at 377; see also, e.g., David P. Currie & Frank I. Goodman, Judicial Review of Federal Administrative Action: Quest for the Optimum Forum, 75 COLUM. L. REV. 1, 63-65 (1975) (noting that specialization can relieve caseload pressures); Revesz, supra note 9, at 1120 (discussing how specialization can address caseload problems).
- 27. Cf. Loren A. Smith, Judicialization: The Twilight of Administrative Law, 1985 DUKE L.J. 427, 446-47 (describing a "mythology [that] tends to idealize the independent legal generalist in the black robes as one who always makes objective decisions 'on the record' in accordance with a strict protocol designed to ferret out the truth and arrive at a just result").
- 28. See generally ROSEMARY STEVENS, AMERICAN MEDICINE AND THE PUBLIC INTEREST: A HISTORY OF SPECIALIZATION (1998) (chronicling the rise of specialization in medicine and subsequent debates about the roles of generalists and specialists); Michael Ariens, Know the Law: A History of Legal Specialization, 45 S.C. L. Rev. 1003 (1994) (detailing the history of specialized legal practice).
- 29. See generally Rochelle C. Dreyfuss, Forums of the Future: The Role of Specialized Courts in Resolving Business Disputes, 61 BROOK. L. REV. 1 (1995) (discussing the use of specialized courts for corporate and commercial legal issues). Jeffrey Stempel has argued that given the success of specialized commercial courts, "[p]erhaps theoretical negativism about specialization is not only overstated but outright wrong in some important ways." Jeffrey W. Stempel, Two Cheers for Specialization, 61 BROOK, L. REV. 67, 71 (1995).

This Article sheds light on these questions by looking empirically at the process of opinion assignment in the federal courts of appeals. Opinion assignment is one of the few instances in which judges can still specialize in certain subject areas, and it thus provides a unique opportunity to observe judicial attitudes toward specialization. Part I analyzes a newly compiled data set on opinion assignments from 1995-2005. It reveals opinion specialization to be an unmistakable part of everyday judicial practice, suggesting that the generalist judge is largely a myth.

Part II examines how one should react to this discovery of specialization in the federal courts. Proponents of the generalist judge should be outraged, as it represents a subversion of long-cherished judicial values. Part II, however, approaches opinion specialization with an open mind and shows that it actually captures many of the benefits of specialized courts without incurring their costs. Opinion specialization is a desirable if not welcome development in federal judicial practice, one that can increase expertise while staving off problems such as politicization and tunnel vision.

Finally, the Conclusion offers opinion specialization as an exciting and more viable alternative to traditional proposals for specialized courts. For those seeking to increase specialization and expertise in the federal courts, opinion specialization is far easier to implement, because it can develop through gradual accretion and requires no formal restructuring of the federal system.

A final introductory note: It may be appropriate at this point to be more precise about the term "specialization," as it has been the matter of some academic controversy. Specifically, Daniel Meador has carefully distinguished subject-matter organization from specialization. The For example, as consistently noted by Judge Jay Plager, the Federal Circuit is technically not a specialized patent court, because it has other types of cases on its docket and is not exclusively limited to patent law. This precise distinction is concededly true, but the Federal Circuit is of course not a generalist court either. Ultimately, there are many points on the spectrum ranging from generalist to narrow specialist, but in common parlance, the operative dichotomy is between a true generalist court that hears all cases (or a close approximation) and everything else. With apologies to Professor Meador and Judge Plager, this Article

^{30.} Meador, supra note 5, at 613-14.

^{31.} Plager, supra note 6, at 854 n.1, 860; see also Rochelle Cooper Dreyfuss, The Federal Circuit: A Continuing Experiment in Specialization, 54 CASE W. RES. L. REV. 769, 770 (2004) ("The Federal Circuit is not specialized in the traditional sense. Its docket includes areas outside the field of patent law.").

^{32.} See, e.g., Ruth Bader Ginsburg, An Overview of Court Review for Constitutionality in the United States, 57 LA. L. REV. 1019, 1021 (1997) ("With some notable exceptions—as I just mentioned, the Federal Circuit and, to a lesser extent, the D.C. Circuit—federal courts are not specialized tribunals; typically, they are generalist courts, and none of their members sit, as continental judges do, in sections divided by subject matter."); Revesz, supra note 9, at 1111 (characterizing the Federal Circuit as "staffed by full-time, specialized judges").

therefore uses the term "specialized" to denote any court or judge that deviates from the generalist ideal.³³

I. EMPIRICAL STUDY OF OPINION ASSIGNMENT

One way of measuring judicial attitudes toward specialization is to observe how opinions are distributed among judges in the federal courts of appeals. Given the various structural impediments to specialization, including general dockets and random panel assignments, opinion assignment provides a rare instance in which judges can specialize in certain subjects. Within the confines of judicial norms about equal distribution of workload, ³⁴ the assigning judge may distribute opinions based on the panel members' special expertise or interest. ³⁵ Alternatively, on courts that operate by consensus, panel members may request or express preference for particular topics. Regardless of how it occurs, specialization will manifest itself in the resulting assignment patterns.

It is worthwhile to reemphasize that the generalist ideal should make such specialization taboo. Under the ideal, judges are not supposed to specialize, whether procedures permit it or not. Indeed, the internal operating procedures

The presiding judge of a panel is defined by statute to be the most senior active judge on the panel. 28 U.S.C. § 45(b) (2006) ("The chief judge shall have precedence and preside at any session of the court which he attends. Other circuit judges of the court in regular active service shall have precedence and preside according to the seniority of their commissions.").

^{33.} Professor Meador indeed contends that the distinction between generalists and specialists is not a useful one. Meador, *supra* note 5, at 634; *see also* Plager, *supra* note 6, at 860 ("Probably, the clearest lesson to be drawn both from the literature and from experience is that the term 'specialized' should be dropped from the discussion, since there is no agreement on what it means or on what it connotes."). Nevertheless, to the extent that all of the rhetoric surrounding the generalist judge rests on this dichotomy, it is nearly impossible to ignore.

^{34.} Cf. Sara C. Benesh et al., Equity in Supreme Court Opinion Assignment, 39 JURIMETRICS J. 377, 382-89 (1999) (showing equal workload distribution to be an extremely strong norm governing how many cases are assigned to each Supreme Court Justice); Harold J. Spaeth, Distributive Justice: Majority Opinion Assignments in the Burger Court, 67 JUDICATURE 299, 302, 304 (1984) (showing the same with respect to the Burger Court).

^{35.} Opinion assignment procedures appear to vary by circuit. Some courts give the presiding judge the authority to assign opinions, apparently even if the presiding judge is in dissent. 5TH CIR. R. 34 I.O.P.; 6TH CIR. I.O.P. 206; 7TH CIR. O.P. 9(h) (implicitly acknowledging presiding judge's power to assign opinions); 8TH CIR. I.O.P. IV.A; 9TH CIR. O.P. E(8); see also E-mail from Judge Richard Posner to Edward K. Cheng (May 15, 2007, 17:53:51 EDT) (on file with author) (noting that the Seventh Circuit allows the presiding judge to assign majority opinions even if he or she is in dissent). Other courts give assignment power to the next ranking panel member when the presiding judge is in dissent. 3D CIR. I.O.P. 4.2; PRACTITIONERS' GUIDE TO THE UNITED STATES COURT OF APPEALS FOR THE TENTH CIRCUIT, IX.A, at 66 (6th rev. 2006); 11TH CIR. R. 34 I.O.P. 15. In the Fourth Circuit, "[o]pinion assignments are made by the Chief Judge on the basis of recommendations from the presiding judge" 4TH CIR. I.O.P. 36.1. The Sixth Circuit apparently used to have this system, see J. WOODFORD HOWARD, JR., COURTS OF APPEALS IN THE FEDERAL JUDICIAL SYSTEM 247 (1981), but that is no longer the case.

for the Fifth and Eleventh Circuits emphatically declare: "Judges do not specialize. Assignments are made to equalize the workload of the entire session." ³⁶

STANFORD LAW REVIEW

Along these lines, this Part tests whether opinion assignment practice is consistent with the generalist rhetoric. It examines assignments in the United States Courts of Appeals from 1995-2005 to ascertain whether and how much de facto specialization occurs.

A. Previous Work

A review of the literature reveals only two previous studies on opinion specialization in the courts of appeals.³⁷ Both of these studies, however, examined court practices from nearly half a century ago. The earliest study, published by Burton Atkins, ³⁸ examined opinion assignments in selected courts of appeals over short periods (typically two or three years) during the late 1950s and 1960s.³⁹ Atkins concluded that circuit opinion assignments during that period were "not random" and that "judges tend[ed] to specialize in certain substantive areas."⁴⁰ For example, on the Second Circuit, Atkins found that Judge Hays wrote 56.2% of labor opinions in which he was in the majority, whereas Judge Waterman wrote none.⁴¹ Similarly, on the Fourth Circuit, Chief Judge Sobeloff wrote 54.1% of racial discrimination cases in which he was in the majority, whereas the next highest judge had a rate of 15%.⁴²

The second study, published by J. Woodford Howard in 1981, analyzed opinion assignments in the Second, Fifth, and D.C. Circuits from 1965-67. Overall, Howard found only weak opinion specialization, with no observable

^{36. 5}TH CIR. R. 34 I.O.P. (emphasis added); *accord* 11TH CIR. R. 36 I.O.P. 15 (nearly identical language).

^{37.} Naturally, casual observations or anecdotal accounts of judge specialization abound. See, e.g., MARVIN SCHICK, LEARNED HAND'S COURT 101 (1970) (discussing a disproportionate number of patent appeals going to Judge Hand and immigration appeals going to Judge Swan on the Second Circuit), cited in Burton M. Atkins, Opinion Assignments on the United States Courts of Appeals: The Question of Issue Specialization, 27 W. Pol. Q. 409, 414 (1974); cf., e.g., Brenner, supra note 6, at 1218 (discussing nonsystematic identification of specialists on the Supreme Court, including Justice Field in land law, Justice Powell in business fields, Justice Brennan in obscenity, and Justice Blackmun's section in Roe v. Wade due to his medical expertise).

^{38.} Atkins, *supra* note 37, at 413 (noting that the issue of opinion specialization had not been systematically investigated prior to the study).

^{39.} *Id.* at 414 n.12 (describing time periods in detail and noting that time spans were "selected on the basis of whether or not stable membership existed for at least one year, or long enough to accumulate about five hundred cases").

^{40.} *Id.* at 409. Atkins found clear issue specialization among the Second, Third, Fifth, Seventh, Tenth, and District of Columbia Circuits. *Id.* at 427.

^{41.} Id. at 416-17 & tbl.3.

^{42.} Id. at 418-19 & tbl.5.

^{43.} HOWARD, supra note 35, at xix, 226, 247-55.

specialization in the Second Circuit, 44 and only a few patches in the Fifth Circuit including civil rights, economic issues, and "marine personal injuries." 45 Perhaps more interestingly, despite the weak empirical evidence of specialization, some of the circuit judges Howard interviewed expressed positive attitudes toward opinion specialization. 46 For example, some judges defended it as "bringing their best minds forward, an intelligent allocation of resources in the appeals explosion," and "[o]thers regarded it as too fluid to compromise seriously the norm of appellate review by generalists." 47

The political science literature also has a well-developed thread on opinion assignment in the Supreme Court. In particular, studies over the years have found issue specialization on the Warren, ⁴⁸ Burger, ⁴⁹ and Rehnquist Courts. ⁵⁰ Supreme Court studies, however, have only limited value for the broader specialization debate. Few would dispute that the Supreme Court occupies a unique position in the federal system. Due to its discretionary review power, the Supreme Court handles only a small fraction of federal cases, and focuses on more policy-oriented, constitutional, and controversial cases. ⁵¹ More

^{44.} Id. at 250.

^{45.} Id. at 252-53.

^{46.} Id. at 234-35 (discussing judicial attitudes about "'assignment cooperation'" and noting that "[i]nformality, together with panel rotation and recognition that no one was a universal expert, left these judges untroubled by opinion specialization"). In addition to specialization for expertise, presiding judges in the Howard study also noted the use of specialization in diversity cases based on judges' familiarity with state law. Id. at 234.

^{47.} *Id.* at 235; see also id. (noting that judges "were highly sensitive to expertise, able to identify specialists in various fields, and self-conscious about their own").

^{48.} Brenner, supra note 6, at 1220-21 (finding that while no Warren Court Justice was a specialist in civil liberties generally (presumably because too much of the Court's core work was in that area), six of seventeen Justices were specialists in at least one civil liberties subfield); S. Sidney Ulmer, The Use of Power in the Supreme Court: The Opinion Assignments of Earl Warren, 1953-1960, 19 J. Pub. L. 49, 55-61 (1970) (analyzing opinion assignment in the Warren Court among cases of different subjects, significance and controversy).

^{49.} Saul Brenner & Harold J. Spaeth, *Issue Specialization in Majority Opinion Assignment on the Burger Court*, 39 W. Pol. Q. 520, 522, 524 (1986) (concluding that the Burger Court showed "evidence of issue specialization" and that twelve of thirteen Justices on the Burger Court were specialized in at least one area with Chief Justice Burger a specialist in eight areas, and Justice White in seven). Brenner and Spaeth suggest that the specialization may have been largely ideologically driven, although two instances—Blackmun in tax cases and Stevens in torts cases—may have been based on expertise. *Id.* at 524.

^{50.} Forrest Maltzman & Paul J. Wahlbeck, May It Please the Chief? Opinion Assignments in the Rehnquist Court, 40 Am. J. Pol. Sci. 421, 435 tbl.2 (1996) (finding expertise to be a large statistically significant factor in the assignment of a majority opinion to a Justice on the Rehnquist Court); id. at 437 (reporting that "an expert is more than twice as likely to be assigned a case than a justice who is not"). Other Chief Justices, including Hughes, Stone, and Vinson, apparently prohibited such issue specialization. JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED 379 (2002).

^{51.} This more political role alters how we might interpret instances of opinion

importantly, because the Supreme Court has no panel system—every Justice hears every case—over eighty percent of opinion assignments are made by the Chief Justice,⁵² resulting in an arguably more top-down assignment process. Opinion specialization in the Supreme Court is therefore more a function of the attitude of the Chief Justice than those of the Justices generally.⁵³

B. Data and Methods

1. Data sources

Two foundational data sets provided the data for this study. The first data set was the Federal Judicial Center's (FJC) well-known Federal Court Cases database publicly available from the Inter-university Consortium for Political and Social Research (ICPSR). The FJC data set is an excellent source because it contains all federal appellate cases and includes a great deal of information on each case. The primary problem with the FJC data set, however, is that it contains no information on judge assignments. The judge-specific data apparently exists in the system operated by the Administrative Office of the U.S. Courts, but the Judicial Conference has stripped it from publicly available data sets. 55

specialization. For example, Segal and Spaeth observe that ideological or strategic considerations may be the primary driver of issue specialization on the Supreme Court. In other words, any apparent "specialization" may merely be the result of attempts to "assign unattractive cases to one's ideological opponents" and to assign important cases to "colleagues who share a similar vision." SEGAL & SPAETH, supra note 50, at 378-80.

- 52. Maltzman & Wahlbeck, *supra* note 50, at 423 n.1 (noting that the "Chief Justice assigns approximately 80-85% of the Court's majority opinions").
- 53. Supreme Court assignments appear to be driven strongly by the Chief Justice. Assignments are made via memorandum and independently from conference, Benesh et al., supra note 34, at 378, 380-81 (describing assignment process), suggesting little input from the other Justices except in exceptional instances. See, e.g., id. at 379 n.11 (recounting Justice Marshall's request not to write in a case in which the winning attorney was a former clerk). As noted supra note 35, the Fourth Circuit vests opinion assignment authority in the Chief Judge based on the recommendation of the presiding judge, conceivably creating more top-down assignment there as well. 4TH CIR. I.O.P. 36.1. The Fourth Circuit, however, is the only circuit with this system and, anecdotally, the prerogative of the chief judge is rarely if ever exercised.
- 54. Fed. Judicial Ctr., Federal Court Cases: Integrated Data Base, 2005, ICPSR Study No. 4382 (2006); Fed. Judicial Ctr., Federal Court Cases: Integrated Data Base, 2004, ICPSR Study No. 4348 (2006); Fed. Judicial Ctr., Federal Court Cases: Integrated Data Base, 2003, ICPSR Study No. 4026 (2005); Fed. Judicial Ctr., Federal Court Cases: Integrated Data Base, 2002, ICPSR Study No. 4059 (2005); Fed. Judicial Ctr., Federal Court Cases: Integrated Data Base, 2001, ICPSR Study No. 3415 (2005); Fed. Judicial Ctr., Federal Court Cases: Integrated Data Base, 1970–2000, ICPSR Study No. 8429 (2005). All FJC data sets are available at http://www.icpsr.umich.edu.
 - 55. See, e.g., FED. JUDICIAL CTR., CODEBOOK FOR APPELLATE TERMINATIONS, 2005

To address this deficiency in judge-specific information, I merged the FJC data set with a database extract generously provided by Thomson West. Among other things, the West data set contained the case names, citations, docket numbers, and associated judicial authors for all opinions available on Westlaw. After I culled per curiam and other unsigned opinions, I matched the West data set to the FJC data set using docket numbers.

The combined data set included all opinions written between 1995 and 2005 in the United States Courts of Appeals for all circuits except the Federal Circuit. For purposes of analysis, I made a number of simplifying assumptions: First, because judges presumably express subject-matter preference by writing actual opinions, I treated case opinions involving multiple docket numbers as a single data point. Second, whenever a docket number was associated with multiple majority opinions (for example, because of rehearing, en banc review, or remand), I counted each unique judge only once. To illustrate, if Judge A wrote the majority opinion and an opinion on rehearing, and Judge B wrote the en banc decision, I credited Judges A and B with one opinion each. Since the original author often writes or is presumptively entitled to write an affirming en banc decision or an opinion on remand, this rule prevents double counting. Finally, I consolidated the subject-matter codes from the FJC data set to obtain more meaningful categories of workable size. ⁵⁶

2. Data reliability

Scholars have recently raised the issue of error in the FJC data set,⁵⁷ and the Westlaw extract was of unknown quality, so I manually checked a random sample⁵⁸ against the actual opinions to verify the accuracy of the combined

(noting that "[n]ormally all judge codes are blank on the public use files"). One would assume that if the judge-specific data were made publicly available, they would likely be highly accurate as well, since they are necessary for equitable workload distribution. Cf. Theodore Eisenberg & Margo Schlanger, The Reliability of the Administrative Office of the U.S. Courts Database: An Initial Empirical Analysis, 78 NOTRE DAME L. Rev. 1455, 1463 (2003) (making a similar argument regarding the nature-of-suit codes).

- 56. For the actual consolidation scheme, see Appendix B.
- 57. See Eisenberg & Schlanger, supra note 55, at 1460-62 (noting that the FJC data set "may be plenty accurate enough—or very far from it, depending on how errors are distributed and the research questions and design"); cf. Jennifer Connors Frasier, Caught in a Cycle of Neglect: The Accuracy of Bankruptcy Statistics, 101 COM. L.J. 307 (1996) (raising problems with bankruptcy statistics).
- 58. The appropriate sample size was calculated using the standard statistical formula for estimation of a proportion:

$$n = \pi(1-\pi)\left(\frac{z}{B}\right)^2$$

where n is sample size needed, π is an educated guess for the parameter being estimated (in this case, the error rate for the data set), B is the acceptable estimation error, and z is the z-statistic associated with B. ALAN AGRESTI & BARBARA FINLAY, STATISTICAL METHODS FOR

data set. For the purpose of matching judges with case subject matter, the accuracy rate of the data set was high (95%, margin of error = +/-4%). As might be expected, some of the subject-matter classifications were interpretative, since cases can involve multiple issues or change in character over time, but they were otherwise generally accurate, in line with previous research. Most errors involved attributing the opinion to the presiding judge rather than the authoring judge, possibly because of the way Westlaw extracts header information from the opinion text. To the extent that these errors are not correlated with subject matter (and there is no reason to believe that they are), they are acceptable. At worst, the errors bias the study toward a finding of no specialization.

3. Methods

To analyze the data, I created two-way contingency tables for each circuit showing the number of opinions written by each judge in the various subject-matter categories. I used an "OTHER" category to consolidate judges who wrote fewer than thirty case opinions during the period. These judges wrote too few opinions from which to draw inferences, and they were often temporary assignments who sat by designation, so they did not reflect long-term attitudes.

The number of opinions that judges write of course cannot be directly compared. Some subjects are more common than others. At the same time, particularly over a long time span, some judges write more opinions than others, whether because of ascension or retirement from the bench, a reduced caseload due to senior status, or greater prolificacy. To detect instances of specialization, observed frequencies must be compared with the number of expected opinions that a judge should write given the judge's overall caseload and the circuit's docket patterns (in the absence of specialization). I calculated expected frequencies using median polish, ⁶⁰ a well-established method for

THE SOCIAL SCIENCES 136-38 (1997). For a 95% confidence interval (B = .05, z = 1.96) and an anticipated error rate of 5%, the required sample size is 73. Ultimately, I used a sample of 100 cases.

^{59.} Eisenberg & Schlanger, *supra* note 55, at 1463-64 (noting that "subject matter... appears, from the limited research already done, to be highly accurate" and explaining that the accuracy may derive from having plaintiffs specify the nature-of-suit code).

^{60.} Specifically, median polish was applied to the log of the raw frequency counts. Thanks to Jeff Simonoff for this suggestion. See generally Jeffrey S. SIMONOFF, ANALYZING CATEGORICAL DATA 197-246 (2003); JOHN W. TUKEY, EXPLORATORY DATA ANALYSIS, 362-400 (1977); Frederick Mosteller & Anita Parunak, Identifying Extreme Cells in a Sizable Contingency Table: Probabilistic and Exploratory Approaches, in Exploring DATA TABLES, TRENDS AND SHAPES 189, 189-224 (David C. Hoaglin et al. eds., 1985). Median polish was implemented in STATA using the t2way5 module by Nicholas Cox. See Nicholas J. Cox, T2WAY5: Stata Module to Perform Tukey's Two-Way Analysis by Medians, available at http://ideas.repec.org/c/boc/bocode/s359001.html (last updated Nov. 11, 2008).

Due to the log transformation, zero counts present an obvious problem, since log(0) is undefined. To prevent these entries from dropping completely out of the analysis, all zero

detecting instances in which the observed frequencies deviate significantly from a random distribution. ⁶¹

C. Results

Figures 1.1 through 1.12 graphically summarize the most likely instances of specialization found in the analysis. Each horizontal line represents a particular subject matter, and each dot represents a single judge. The degree of specialization is measured using (Pearson) standardized residuals, a statistical measure for standardizing the differential between the observed number of opinions and the expected number of opinions. Residuals with an absolute value above three are typically thought to be of interest, ⁶² so all such instances are labeled with the judge's name. Conversely, the gray region denotes residuals between -3.0 and 3.0, instances in which specialization was not found. For clarity, Appendix A lists all of instances of specialization along with the observed and expected number of opinions.

There are two immediate caveats in reading the results in Figures 1.1 through 1.12. First, for ease of reading, the graphs cap residuals at +/-8, so a few instances of extreme specialization are truncated in the graphical display. Second, the data set unfortunately conflates judges within a circuit with the same last name. Examples include Judges Richard and Morris Arnold on the Eighth Circuit, and Judges William and Betty Fletcher on the Ninth. These observations are therefore invalid and were accordingly excluded. The list of excluded judges unfortunately includes several former academics, whom we might have expected to have specialization tendencies.

counts were replaced by one. This change has the effect of changing some of the residual values, but does not appreciably change the results (i.e., many of the judge-subject pairings identified remain the same, and the overall picture of specialization remains).

61. Median polish is particularly appropriate in this context because it is robust, and thus prevents large outliers—in this case, significant instances of specialization—from distorting the predictions. SIMONOFF, supra note 60, at 232-34. To determine whether the difference between the observed and expected frequencies were statistically significant required the use of (Pearson) standardized residuals. For each judge i and subject matter j, the (Pearson) standardized residuals (r_{ij}) is:

$$r_{ij} = \frac{n_{ij} - e_{ij}}{\sqrt{e_{ij}}}$$

where n_{ij} is the observed frequency and e_{ij} is the expected frequency determined via the median polish technique. *Id.* at 228-29.

- 62. *Id.* at 232. For a more detailed discussion of the properties of the standardized residuals and why a cutoff of 3.0 is appropriate, see Appendix C.
- 63. The full list of excluded judges is Judges Garza (5th), Wood (7th), Arnold (8th), Gibson (8th), Fletcher (9th), and Nelson (9th).
- 64. The cases written by these judges were of course included in calculating the total caseload of the relevant court.

Finally, the D.C. Circuit offers an additional way to assess specialization given its unusual and substantial docket of agency review cases. Figure 2 breaks down the D.C. Circuit opinions by agency reviewed.

Figure 1.1. Subject-Matter Specialization, First Circuit, 1995-2005

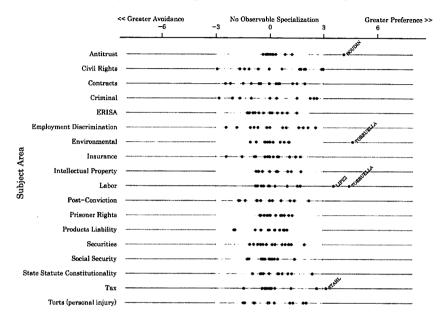


Figure 1.2. Subject-Matter Specialization, Second Circuit, 1995-2005

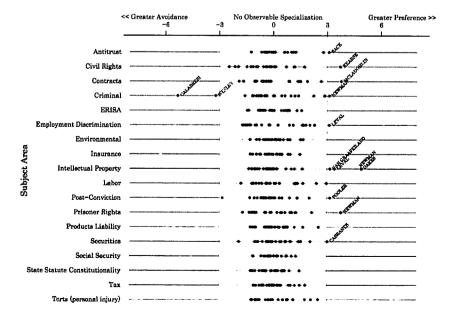


Figure 1.3. Subject-Matter Specialization, Third Circuit, 1995-2005

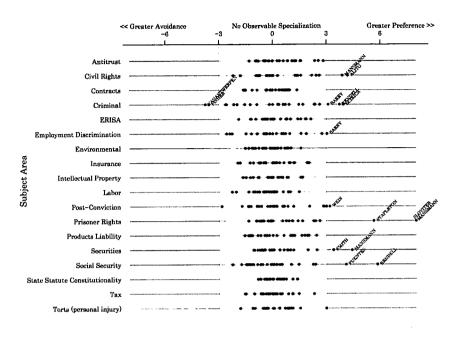


Figure 1.4. Subject-Matter Specialization, Fourth Circuit, 1995-2005

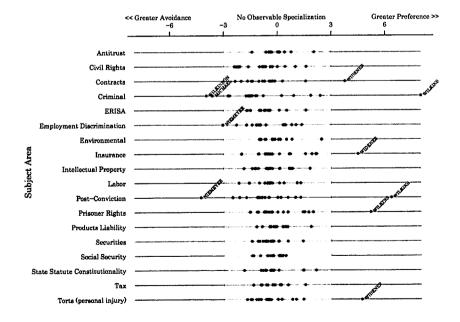


Figure 1.5. Subject-Matter Specialization, Fifth Circuit, 1995-2005

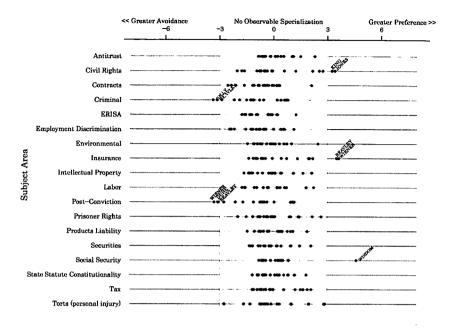


Figure 1.6. Subject-Matter Specialization, Sixth Circuit, 1995-2005

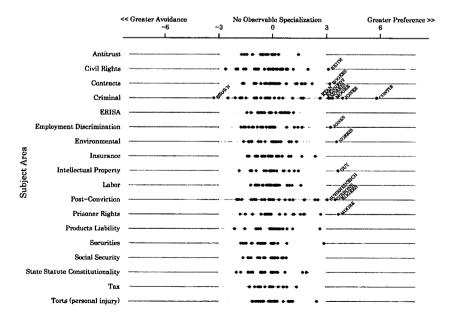


Figure 1.7. Subject-Matter Specialization, Seventh Circuit, 1995-2005

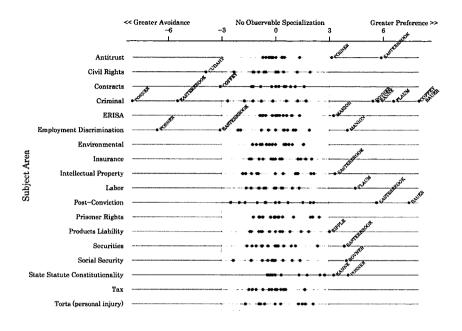


Figure 1.8. Subject-Matter Specialization, Eighth Circuit, 1995-2005

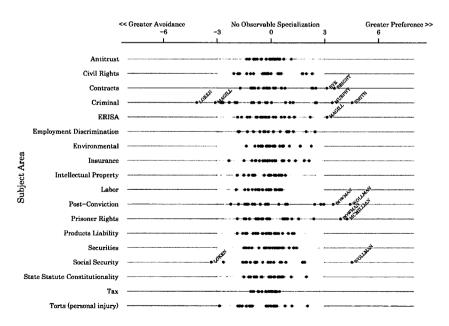


Figure 1.9. Subject-Matter Specialization, Ninth Circuit, 1995-2005

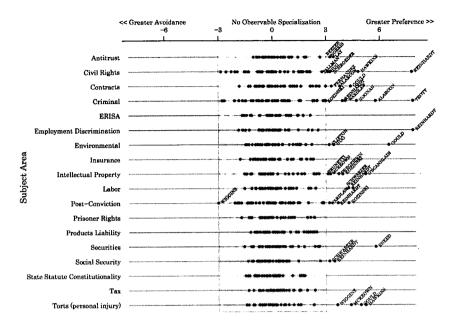


Figure 1.10. Subject-Matter Specialization, Tenth Circuit, 1995-2005

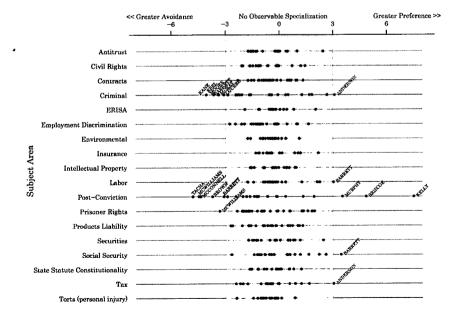


Figure 1.11. Subject-Matter Specialization, Eleventh Circuit, 1995-2005

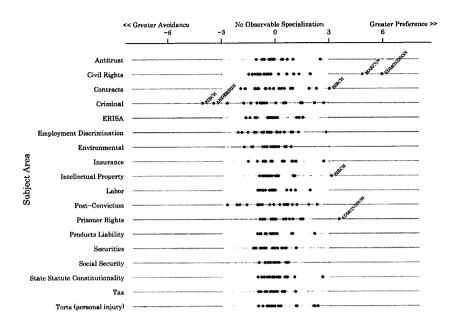


Figure 1.12. Subject-Matter Specialization, D.C. Circuit, 1995-2005

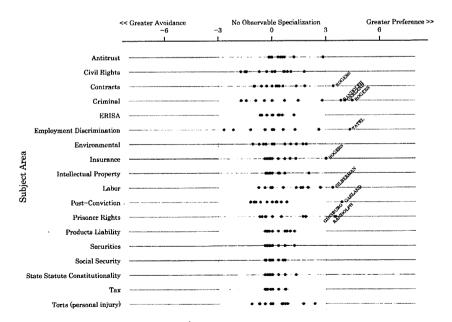
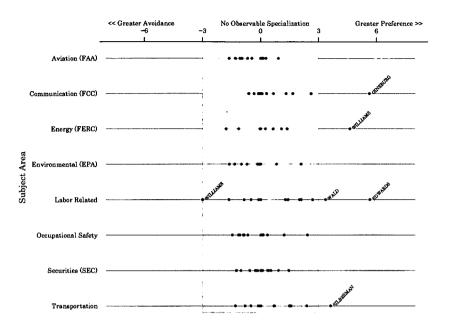


Figure 2. Agency Specialization, D.C. Circuit, 1995-2005



D. Discussion

The results strongly suggest that specialization is alive and well in the federal appellate judiciary. Opinion assignments are not randomly distributed, and in some instances the frequency in which certain judges write is wildly disproportionate to their colleagues. To be sure, no circuit judge appears to write in a few areas to the exclusion of all others, but that may be because random panel assignments prevent it. Notably, however, specialization manifests itself primarily in the positive direction. Judges take a disproportionate number of cases in their preferred subject areas; seldom do they shun unwanted ones. 65

1. Confidence in results

One important preliminary question is whether one might see these matters as purely a matter of chance. With so many judge-subject matter pairings, some

^{65.} Relatedly, finding many more extreme positive residuals than extreme negative ones does not necessarily raise statistical questions. Median polish makes predictions using medians, so the number of positive extremes need not be symmetric with the number of negative ones.

statistical outliers are inevitable. The usual statistical method for handling this contingency, however, is unfortunately unavailable in this case. ⁶⁶

Three reasons suggest that some nonrandom phenomenon is at work. First, we can get a sense of the frequency of statistical outliers through simulation methods. In other words, simulations can suggest what the case distribution of a given circuit might look like under random assignment. As detailed in Appendix C, residuals greater than 3.0 are rare: for example, for the Seventh Circuit under random assignment conditions, one would expect to see less than two residuals greater than 3.0. In the actual data set, the Seventh Circuit has twenty-four.

Second, when one looks from one court to another, the frequency of specialization varies considerably. The First and Eleventh Circuits have very few observed instances of specialization, whereas the Seventh, Ninth, and Tenth Circuits have several times as many. (Interestingly, the Eleventh Circuit is one of the circuits with the "judges do not specialize" admonition in its internal operating procedures.) If the observed specialization were merely an artifact of random fluctuations, the instances of specialization from one court to another would be roughly the same. ⁶⁷

Third, many of the specific instances of specialization make intuitive sense based on the judges' backgrounds. Although the influence of judicial background requires further statistical analysis, a preliminary review of the graphs shows that a judge's background often strikingly explains an observed preference. For example, Judge Michael Boudin of the First Circuit, a former Deputy Assistant U.S. Attorney General in the Antitrust Division of the Department of Justice, 69 writes a disproportionate number of antitrust cases (r = 4.12). Judge William Wilkins of the Fourth Circuit, who was chairman of the United States Sentencing Commission, writes an overwhelming number of criminal (r = 9.77), postconviction (r = 6.35) cases. Judge Frank Easterbrook of the Seventh Circuit, known for his academic work in antitrust

^{66.} Previous studies of opinion specialization have used the gamma statistical test to determine the expected number of outliers. See, e.g., Brenner & Spaeth, supra note 49, at 522-23 (comparing the number of outliers observed to the number that would occur by chance in a study of the Burger Court). No similar test, however, exists for the results in this study, because there is no known distribution for the median polish residuals. E-mail from Jeff Simonoff, Professor of Statistics and Robert Stansky Research Faculty Fellow, New York University, to Edward K. Cheng, Associate Professor of Law, Brooklyn Law School (Mar. 15, 2007, 21:25:06 EST) (on file with author).

^{67.} Thanks to Jeff Simonoff for this insight.

^{68.} The Atkins study also suggested some link between a judge's background and later specialization. *See* Atkins, *supra* note 37, at 418-19 & n.16 & tbl.5 (noting that Chief Judge Sobeloff of the Fourth Circuit handled more labor and criminal cases than his colleagues and describing his background in these areas).

^{69.} Federal Judicial Center, Judges of the United States Courts, Boudin, Michael, http://www.fjc.gov/servlet/tGetInfo?jid=218 (last visited Oct. 7, 2008).

^{70.} Federal Judicial Center, Judges of the United States Courts, Wilkins, William Walter, http://www.fjc.gov/servlet/tGetInfo?jid=2586 (last visited Oct. 7, 2008).

and corporate law,⁷¹ appears to specialize in antitrust (r = 5.88) and securities regulation (r = 3.83).⁷² Judge Richard Posner of the Seventh Circuit, also well known for his antitrust work (among other things),⁷³ similarly specializes in antitrust (r = 3.12). Judge Stephen Trott of the Ninth Circuit, a career state and federal prosecutor,⁷⁴ writes a disproportionate number of criminal cases (r = 7.85).

Similar instances occur in the D.C. Circuit—in fact, judicial background easily explains the three greatest instances of specialization there. Judge Harry Edwards, who was a labor law scholar⁷⁵ and "served as a neutral labor arbitrator under a number of major collective bargaining agreements during the 1970s,"⁷⁶ specializes in labor cases (r = 5.66). Judge Douglas Ginsburg, who specializes in Federal Communications Commission (FCC) cases (r = 5.63), is a long-time author of a casebook on telecommunications law, ⁷⁷ and Judge Stephen Williams, formerly an oil-and-gas-law professor, ⁷⁸ specializes in Federal Energy Regulatory Commission (FERC) cases (r = 4.62).

^{71.} See, e.g., Frank H. Easterbrook & Daniel R. Fischel, The Economic Structure of Corporate Law (1991); Richard A. Posner & Frank H. Easterbrook, Antitrust: Cases, Economic Notes, and Other Materials (2d ed. 1981); Frank H. Easterbrook, Allocating Antitrust Decisionmaking Tasks, 76 Geo. L.J. 305 (1987); Frank H. Easterbrook, Derivative Securities and Corporate Governance, 69 U. Chi. L. Rev. 733 (2002); Frank H. Easterbrook, Does Antitrust Have a Comparative Advantage?, 23 Harv. J.L. & Pub. Pol'y 5 (1999); Frank H. Easterbrook, Monopolization: Past, Present, Future, 61 Antitrust L.J. 99 (1992).

^{72.} Judge Easterbrook also appears to specialize in intellectual property (r = 3.33), which aligns with some of his writing in that field as well. See, e.g., Frank H. Easterbrook, Who Decides the Extent of Rights in Intellectual Property?, in EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 405 (Rochelle Cooper Dreyfus et al. eds., 2001).

^{73.} POSNER & EASTERBROOK, *supra* note 71; RICHARD A. POSNER, ANTITRUST LAW: AN ECONOMIC PERSPECTIVE (1976).

^{74.} Federal Judicial Center, Judges of the United States Courts, Trott, Stephen S., http://www.fjc.gov/servlet/tGetInfo?jid=2416 (last visited Oct. 8, 2008) (listing Judge Trott as former Chief of the Los Angeles County District Attorney's Office, and United States Attorney for the Central District of California).

^{75.} See, e.g., Harry T. Edwards, The Coming of Age of the Burger Court: Labor Law Decisions of the Supreme Court During the 1976 Term, 19 B.C. L. Rev. 1 (1977); Harry T. Edwards, The Emerging Duty to Bargain in the Public Sector, 71 MICH. L. Rev. 885 (1973).

^{76.} Biographies, The United States Court of Appeals for the District of Columbia Circuit—September 1993-August 1994, 63 GEO. WASH. L. REV. 914, 915 (1995).

^{77.} See, e.g., MICHAEL BOTEIN, REGULATION OF THE ELECTRONIC MASS MEDIA: LAW AND POLICY FOR RADIO, TELEVISION, CABLE AND THE NEW VIDEO TECHNOLOGIES, at v, xii (3d ed. 1998) (noting that Douglas Ginsburg is taking "what hopefully is only a temporary leave of absence" from serving as a coauthor of the casebook, which Ginsburg first published in 1979).

^{78.} See, e.g., RICHARD C. MAXWELL, STEPHEN F. WILLIAMS, PATRICK H. MARTIN & BRUCE M. KRAMER, CASES AND MATERIALS ON THE LAW OF OIL AND GAS (6th ed. 1992); Stephen F. Williams, *Implied Covenants in Oil and Gas Leases: Some General Principles*, 29 U. KAN. L. REV. 153 (1981).

One notable omission from this discussion may be Judge Guido Calabresi of the Second Circuit, who is famous for his academic work in torts. ⁷⁹ Judge Calabresi's residual for products liability does not make the conservative 3.0 cutoff (r = 2.53), but his is the highest residual for the category in the Second Circuit.

2. Explanations

What explains these specialization patterns? Most obviously, the preferences of individual judges may fuel the practice. Some judges may purposely specialize. Having no qualms about specialization—at least via this informal mechanism—judges actively seek opinions in areas in which they have expertise or interest. Alternatively, judges may unconsciously favor certain subjects. Since the distribution of opinions is largely ad hoc, subtle preferences or biases among the judges may accumulate over time and reveal themselves in a long-term study. Finally, judges may oppose specialization in theory, but caseload pressures are so substantial that they specialize out of necessity, because familiarity with a subject allows them to produce opinions more quickly. Under this third scenario, opinion specialization resembles other instances in which the judiciary has cleverly used loopholes in the federal court structure to cope with the caseload crisis. ⁸⁰

Internal court dynamics may also drive opinion specialization. Nonexperts may dislike writing in specialized fields because they are time-consuming, or because the specialists on panel will invariably badger them with revisions. Alternatively, colleagues may defer to a judge who has previously written a major precedent in a field either out of respect or to provide the latter with an opportunity to develop a coherent vision. These factors encourage nonexperts to push certain cases on perceived experts.

The real explanation is likely an amalgam of these explanations, although the observed trends suggest that the explanations involving individual preferences may exert greater influence. As the graphs suggest, some judges specialize while others do not, and the judges that do specialize tend to do so in a number of areas. If internal court dynamics were the driving force behind opinion specialization, one would likely see a more even distribution.

^{79.} See, e.g., Guido Calabresi & A. Douglas Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 HARV. L. REV. 1089 (1972).

^{80.} Albert Yoon, As You Like It: Senior Federal Judges and the Political Economy of Judicial Tenure, 2 J. EMPIRICAL LEGAL STUD. 495, 533-34 & fig.9 (2005) (reporting that judges often take senior status to create a vacancy, thereby increasing the number of judges that can handle the court's caseload). The decreasing availability of oral argument and the rise of unpublished opinions are further examples of this phenomenon. See supra note 23 and accompanying text.

3. Specialization trends

Unsurprisingly, some subjects seem to encourage specialization more than others, as further described in Figure 3. One interesting result is criminal law, in which a strikingly large number of judges specialize. While criminal law is not necessarily the archetypal candidate for specialization, the large number of judges with prosecutorial backgrounds may explain the result. Conversely, a significant number of judges also appear to avoid criminal cases, although whether this phenomenon is due to aversion, lack of interest, or deference to former prosecutors is unclear. One notable observation along these lines is that a number of prominent former academics—for example, Judges Calabresi (Second Circuit), Easterbrook (Seventh Circuit), and Posner (Seventh Circuit)—seem to avoid criminal law cases.⁸¹

The obvious candidates for specialization, more technical fields such as antitrust, tax, and securities regulation, exhibit relatively few instances. This result may seem initially puzzling, but perhaps only a select few on the federal bench have an interest or expertise in these fields. The instances of specialization are therefore predictably depressed. Additionally, because circuit dockets have comparatively fewer of these cases, expert judges may have fewer opportunities to volunteer for opinion assignments. The operation of specialists may be consequently too small to detect.

Some judges also seem to specialize more than others. However, developing an appropriate metric to cross-compare individual judges and determining whether factors such as prior academic experience, seniority, or prestige is linked to specialization is beyond the scope of this study.

| SUBJECT | POSITIVE | NEGATIVE | TOTAL |
|---------------------------|----------------|----------------|-------|
| | SPECIALIZATION | SPECIALIZATION | |
| Criminal | 28 | 21 | 49 |
| Postconviction | 17 | 10 | 27 |
| Civil Rights | 13 | 1 | 14 |
| Prisoner Rights | 11 | 1 | 12 |
| Intellectual Property | 12 | 0 | 12 |
| Contract | 10 | 1 | 11 |
| Social Security | 8 | 1 | 9 |
| Employment Discrimination | 6 | 3 | 9 |

Figure 3. Frequency of Specialization (Positive and Negative) by Subject

^{81.} This trend, however, is by no means universal. For example, Judge Karen Nelson Moore on the Sixth Circuit specializes in criminal law and is a former academic. *See* Federal Judicial Center, Judges of the United States Courts, Moore, Karen Nelson, http://www.fjc.gov/servlet/tGetInfo?jid=1677 (last visited Oct. 8, 2008).

| SUBJECT | POSITIVE | NEGATIVE | TOTAL |
|-------------------------|----------------|----------------|-------|
| | SPECIALIZATION | SPECIALIZATION | |
| Labor | 7 | 0 | 7 |
| Antitrust | 7 | 0 | 7 |
| Torts (personal injury) | 5 | 0 | 5 |
| Environmental | 5 | 0 | 5 |
| Securities Regulation | 5 | 0 | 5 |
| Insurance | 4 | 0 | 4 |
| Tax | 2 | 0 | 2 |
| ERISA | 2 | 0 | 2 |
| State Statute | 2 | 0 | 2 |
| Constitutionality | | | |
| Products Liability | 1 | 0 | 1 |

E. Limitations

The data set and statistical methods involved a number of assumptions and limitations that necessarily affect the interpretation of the results. These are discussed below.

1. Data set limitations

Perhaps the most significant limitation of the data set is that it contains only the judge who wrote the majority opinion in a case. Data on the other panel judges, and relatedly, data on concurring or dissenting opinions, were unavailable. The structure of the Westlaw database apparently made extracting the names of nonwriting panel members impossible. As a result of this limitation, I was not able to use opinion-assignment ratios (OARs) in this study. OAR, which is the ratio between the number of majority opinions

^{82.} Donald Songer has made publicly available a comprehensive data set on circuit cases from 1925 to 1988. Donald R. Songer, United States Courts of Appeals Database Phase 1, 1925–1988, ICPSR Study No. 2086 (2006), available at http://www.icpsr.umich.edu/cocoon/ICPSR/STUDY/02086.xml. The Songer data set provides a wealth of information for the cases, including the specific judges and voting patterns, and appears to have impressive levels of reliability. See Donald R. Songer, The United States Courts of Appeals Data Base: Codebook 9-10, 15-16, available at http://www.icpsr.umich.edu/cgi-

bin/bob/file?comp=none&study=2086&ds=0&file_id=654759. The Songer data set, however, necessarily involved sampling, specifically thirty cases for each circuit/year from 1961 to 1988, and that sample size is unfortunately insufficient to discern the specialization patterns explored in this paper. See id. at 8.

^{83.} Concededly, the study could have determined other panel members, concurrences, and dissents manually, but with a data set of almost 70,000 cases, the choice was between a large data set with a slightly suboptimal metric or a small data set with OARs.

written and the number of times the judge was in the majority, is the standard metric in the political science literature for calculating opinion specialization and would have been preferred.⁸⁴

The inability to use an OAR metric, however, should not significantly affect result validity. OAR's primary advantage rests on its ability to control for the number of times a judge had the opportunity to write in a given subject area. Median polish, however, addresses this concern for the most part by accounting for each subject matter's relative frequency in the circuit's docket and the caseload typically handled by the judge. 85 One area in which median polish falls short is with dissents (and concurrences). 86 A dissenting judge is by definition not in the majority and cannot write the majority opinion, and median polish cannot account for it. Fortunately, dissents are generally infrequent.⁸⁷ More importantly, the presence of dissents exerts only a downward pressure on the observed frequencies—a judge that consistently disagrees with his colleagues in a subject area will write fewer opinions. Thus, in interpreting the results, the dissent confounder is only a caveat with regard to negative preferences (i.e., instances in which a judge appears to avoid a particular topic), and the vast majority of preferences are in the positive direction.

Another limitation of the data set is that it does not separate published from unpublished opinions. 88 This limitation is unfortunate, because publication

^{84.} Ulmer, *supra* note 48, at 54 (constructing the OAR metric because of the need to control for the opportunities to write); *see also, e.g.*, Atkins, *supra*, note 37, at 414-15 (using OAR in circuit court study); Brenner & Spaeth, *supra* note 49, at 521 (noting that Supreme Court opinion assignment is usually studied using OARs); Elliot E. Slotnick, *Judicial Career Patterns and Majority Opinion Assignment on the Supreme Court*, 41 J. Pol. 640, 643 (1979) (using OAR in Supreme Court study).

^{85.} To be sure, the OAR metric incorporates opportunities using actual observed data, whereas median polish must use a statistical model to predict opportunities. However, the statistical model is a reliable proxy in this context. Because of the clear rules governing random panel assignment and because the data set is very large, the model is likely to predict with reasonable accuracy the number of cases in a subject area in which a judge will sit.

^{86.} Saul Brenner, Is Competence Related to Majority Opinion Assignment on the United States Supreme Court?, 15 CAP. U. L. REV. 35, 37 (1985) (noting that OAR is the favored metric because it controls for instances in which the judge is in the dissent).

^{87.} Daniel A. Farber, Do Theories of Statutory Interpretation Matter?: A Case Study, 94 Nw. U. L. Rev. 1409, 1430 n.120 (2000) (determining the general dissent rate in the circuit courts from 1985-1999 to be 3%). Dissent rates naturally vary by time period and circuit. See, e.g., DONALD R. SONGER ET AL., CONTINUITY AND CHANGE ON THE UNITED STATES COURTS OF APPEALS 105 tbl.5.1 (2000) (showing variation in average dissent rates over time, issue area, and circuit from 1925-1988); Harry T. Edwards, The Effects of Collegiality on Judicial Decision Making, 151 U. Pa. L. Rev. 1639, 1658 & n.65 (2003) (reporting that the D.C. Circuit's dissent rate for cases involving published opinions was 4.8% in 2001, 7.8% in 2000, and 8.9% in 1999); Farber, supra, at 1430 (reporting a 4.5% dissent rate in published opinions on the Seventh Circuit from 1985 to 1999).

^{88.} The publication status variable available in the FJC data set had missing values in over half of the entries and was thus insufficiently reliable for use in the study. Using citations was similarly ineffective, since unpublished opinions often have Federal Reporter

status gives some indication of opinion importance and would have made for a more nuanced specialization analysis.

2. Measuring "specialization"

Using opinion writing as a measure of specialization tendencies is a reasonable choice, but it cannot capture all of the underlying behavior. For example, the metric necessarily misses the influence that a nonwriting expert might have on the ultimate opinion, whether at conference or during the opinion writing process. ⁸⁹

The metric is also unable to discern specialization beyond coarse subject-matter classifications. As the agency specialization results from the D.C. Circuit demonstrate, specialization can occur along more subtle lines. For example, it can be fact-related, such as when a judge is more familiar with a particular industry or social issue. It can also be methodology-related—a judge with a quantitative background may disproportionately handle cases involving statistical evidence, even though those cases may cut across a wide range of legal subject areas. ⁹⁰ All of these varieties of specialization are hidden from the study.

Finally, the study implicitly assumes that judges specialize in certain areas due to expertise or intellectual interest. Based on the results showing some linkage between a judge's background and areas of specialization, this assumption too is a reasonable one. However, a formidable thread in political science suggests that at least at the Supreme Court level, opinion assignments may be less about expertise and more about maintaining majorities⁹¹ or aligning ideological leanings. Such strategic considerations are arguably less salient in the circuit context, because panels vary in composition, panels consist of only three judges, and assignment authority is dispersed among the judges rather than concentrated in a single Chief Justice. Indeed, in practice many circuits assign opinions collegially even though authority is formally vested in

table citations.

^{89.} See, e.g., Howard, supra note 35, at 248 (noting that opinion assignments are an imperfect measure because they "convey nothing about the contribution made by colleagues and clerks in the give and take of drafting opinions nor about the quality of performance"); Atkins, supra note 37, at 415 (distinguishing "manifest" specialization, in which the judge shows preference by writing, and "latent" specialization, in which the judge merely influences the writing panel member).

^{90.} Many thanks to Jennifer Mnookin for this insight.

^{91.} WALTER F. MURPHY, ELEMENTS OF JUDICIAL STRATEGY 84 (1964); Maltzman & Wahlbeck, supra note 50, at 422.

^{92.} SEGAL & SPAETH, *supra* note 50, at 378-80 (arguing that issue specialization on the Supreme Court may be driven only secondarily by expertise, and that a major reason for specialization is to align policy preferences).

^{93.} See supra note 53 (discussing opinion assignment dynamics on the Supreme Court and courts of appeals).

the presiding judge,⁹⁴ making the possibility of strategic ideological behavior even more remote. Nevertheless, these alternative models bear mention.

3. Chief judges

Beyond the broader caveats, the analysis also does not yet account for a judge's service as chief judge during the study period. In addition to having the most seniority—and thus the most formal control over opinion assignments—of any judge on the circuit during their terms, chief judges also often have greater administrative responsibilities and may disproportionately sign "housekeeping" opinions depending on circuit norms.

II. ASSESSMENT

The empirical results suggest that a number of federal circuit judges diverge from the generalist ideal and disproportionately write opinions in certain subjects. How should one react and respond to these findings? This Part provides a broader theoretical discussion about opinion specialization and asks whether it is a loophole to close or a development to embrace. Opinion specialization turns out to capture many of the benefits of specialization without incurring the drawbacks that have historically overshadowed and defeated proposals for specialized courts. The practice does, however, raise a number of important concerns, including that of substantive bias.

A. General Assessment

Supporters of the generalist ideal might be understandably concerned at the specialization seen among circuit judges. Federal judges are supposed to be generalists. The structure of the federal courts clearly values generalist judges, and the judges engaging in opinion specialization are effectively thumbing their noses at that fundamental value. Even if the behavior is unconscious, the empirical results reveal a weak point in judicial practice that requires reform. Either way, closing the loophole is the most straightforward response. If circuit judges lost their discretion regarding opinion assignments, then opinion specialization would disappear. Perhaps courts should randomize their opinion assignments just as they do panel assignments.

Prudence, however, cautions against such a knee-jerk reaction. Circuit judges are experienced and intelligent legal actors, and their practices are likely to reflect functional considerations. One therefore cannot so blithely write off their behavior as aberrational. Opinion specialization deserves a more considered and nuanced assessment. The vast majority of modern society is

^{94.} Anecdotally, on some circuits, the presiding judge, rather than having first pick, lets the others choose and then takes the remainder.

specialized, particularly in professional fields, and given that science, medicine, and even law are undeniably specialized, why the federal judiciary should be uniquely generalist is not at all clear. After all, the generalist ideal has its costs.

The most obvious benefit of opinion specialization is greater judicial expertise. Experts are likely to write better opinions. They are more familiar with the overall statutory or doctrinal scheme, enabling them to draft opinions that are more coherent and consistent with existing law, to avoid "accidental errors," and to develop creative solutions to difficult problems. In technical areas involving economic or scientific questions, specialists also have a greater command of the underlying nonlegal concepts and principles. This is not to say that intelligent generalist judges are incapable of writing consistent, accurate, and creative opinions, but specialists possess an enormous advantage, especially given the time constraints and workloads under which judges operate. The unfamiliar judge rarely has the luxury of developing the necessary background to handle highly complex or technical cases. ⁹⁸

Aside from pure accuracy (however defined), opinions written by expert judges may enjoy greater legitimacy, particularly in highly specialized fields. To the extent that the opinion makes difficult tradeoffs, affected parties may defer more to an expert's judgment under the assumption that the judge "understands" the stakes and the complexities of the field or industry.

Expert judges already well-versed and experienced in a legal subfield also should produce opinions more efficiently and thus be able to handle larger caseloads. If so, greater opinion specialization could alleviate some of the excess caseload problems facing the federal courts. ⁹⁹ Whether judges can actually capture such efficiency gains in practice, however, is an empirical

^{95.} Currie & Goodman, *supra* note 26, at 67 (arguing that judges with expertise are "less likely to make accidental errors").

^{96.} See HENRY J. FRIENDLY, FEDERAL JURISDICTION: A GENERAL VIEW 158 (1973) ("[A patent-specialized judge] is... likely to know a good deal more about radioactivity than someone like the writer, whose college specialty was European history and who avoided science courses because of lack of real comprehension.").

^{97.} Jordan, *supra* note 9, at 747 (arguing that some areas of law require specialists, since even a capable judge will have difficulty getting up to speed).

^{98.} Osborne, *supra* note 10, at 522-23 (arguing that the problem is not that untrained judges cannot comprehend scientific evidence, but rather that they do not have time to digest and develop the necessarily background); *see also id.* at 524 (expressing concern that judges unfamiliar with the subject matter in scientific cases are likely to rely on precedent rather than grappling with case specifics). As Judge Wyzanski once commented: "Few judges who have sat in [big antitrust] cases have attempted to digest the plethora of evidence, or indeed could do so and at the same time do justice to other litigation in their courts." United States v. Grinnell Corp., 236 F. Supp. 244, 247 (D.R.I. 1964), *quoted in* FRIENDLY, *supra* note 96, at 193.

^{99.} E.g., Revesz, supra note 9, at 1120 (discussing how specialization can address caseload problems, providing an alternative to increasing judgeships or the number of circuits, both of which would exacerbate uniformity problems).

question. 100 For example, it may turn out that expert judges view opinions in their fields as "labors of love," resulting in a net increase in the amount of time spent on them.

Specialization has the added potential of improving expertise among the judiciary by essentially feeding upon itself. While some judges join the bench with established expertise in certain fields, many develop expertise over time through repeated exposure and self-study. ¹⁰¹ A norm of specialization not only allows judges to concentrate these exposures but also provides added incentive to participate in judicial education programs or conduct independent research, as judges are assured larger long-term payoffs for their initiative. ¹⁰²

B. Concerns About Specialized Courts

Specialized courts have long promised the aforementioned advantages of expertise and efficacy, yet the federal courts with a few exceptions have consistently rejected specialized court proposals. Do the objections that defeated these proposals doom opinion specialization as well? As this Subpart details, opinion specialization remarkably avoids many of the pathologies commonly associated with specialized courts. ¹⁰³

The most important distinguishing feature of opinion specialization is that it is informal. Traditional specialization schemes assign judges to specialized courts or panels, exposing them to only limited types of cases. The resulting concentration makes specialized courts vulnerable to special interest capture and myopia. In contrast, opinion specialization takes place informally within an

^{100.} For example, Rochelle Dreyfuss's early study of the Federal Circuit was unable to show any clear efficiency gains in terms of lower case filings, but noted that filing numbers could be confounded by other phenomena and that efficiency gains might take more time to appear. Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 23-24 (1989).

^{101.} Isaac Unah, Specialized Courts of Appeals' Review of Bureaucratic Actions and the Politics of Protectionism, 50 Pol. Res. Q. 851, 858 (1997).

^{102.} Currie & Goodman, *supra* note 26, at 67 (noting that a judge "will invest more time and effort in learning [an] administrative field if he can expect the knowledge gained to prove useful later on"); *see* Edward K. Cheng, *Independent Judicial Research in the* Daubert *Age*, 56 DUKE L.J. 1263, 1272-75 (2007) (discussing the "educative" approach to helping judges handle scientific-admissibility determinations).

^{103.} See generally Dreyfuss, supra note 100, at 3 (discussing the drawbacks of specialization including political capture, the development of arcane doctrine, "tunnel vision," and the possibility of "ideological appointments"). To be sure, a number of commentators have decried such objections for lacking sufficient empirical support. E.g., Plager, supra note 6, at 858, 866; Unah, supra note 101, at 854 (arguing that the criticism of specialized courts as biased and suffering from "tunnel vision" is "empirically unproven"); see also Baker, supra note 5, at 953 (citing AM. BAR ASS'N, STANDING COMM. ON FED. JUDICIAL IMPROVEMENTS, THE UNITED STATES COURTS OF APPEALS: REEXAMINING STRUCTURE AND PROCESS AFTER A CENTURY OF GROWTH (1989)) (noting that the ABA Standing Committee on Federal Judicial Improvements in 1989 concluded that some of the concerns associated with specialization may be receding).

overarching system of generalist courts and random panel assignments. Judges are thus broadly exposed to different case types. They are also free to specialize as they please—both with regard to the particular subject areas and the degree of specialization. This flexibility permits judges to experiment with greater or less specialization depending on individual preferences, and fervent supporters of the generalist ideal need not specialize at all.

Daniel Meador has posited that a proper structure for the federal courts should "not require a federal judge to consider and decide only one, narrowly defined type of case." Opinion specialization follows that axiom to its great benefit, avoiding problems such as politicization and capture, tunnel version, and potentially dull and repetitive caseloads.

1. Politicization

The most common objection to specialized courts is their vulnerability to capture by special interests. ¹⁰⁵ Because specialized courts concentrate judicial power in a small subset of judges, ¹⁰⁶ interest groups become more invested in the appointment process, ¹⁰⁷ can target their resources more effectively, ¹⁰⁸ and

^{104.} Meador, supra note 5, at 615.

^{105.} E.g., Dreyfuss, supra note 24, at 379 (noting the capture problem with specialized courts). For example, the oft-cited whipping boy on the specialization issue, the Commerce Court, was established in 1910 to review the Interstate Commerce Commission's railroad decisions, but was abolished merely three years later after it was perceived as being captured by railroad interests. See, e.g., id. at 391-93 (discussing the Commerce Court and its capture problem). See generally George E. Dix, The Death of the Commerce Court: A Study in Institutional Weakness, 8 Am. J. LEGAL HIST. 238 (1964) (describing the history of the Commerce Court).

^{106.} Naturally, this argument does not mean that generalist courts are not subject to capture, see Stempel, supra note 29, at 99-100, 103-04, nor does it mean that interest groups always capture specialized courts, see Lawrence Baum, Judicial Specialization, Litigant Influence, and Substantive Policy: The Court of Customs and Patent Appeals, 11 LAW & SOC'Y REV. 823, 831 (1977) (noting that many groups are unable to influence judicial selection because they lack access to the relevant public officials), but relatively speaking, specialist courts are more vulnerable.

^{107.} Baum, supra note 106, at 827. In contrast, a given generalist appointment often has too small an impact on overall legal development to justify lobbying costs and the expenditure of political capital. Dreyfuss, supra note 29, at 21 ("Lobbying for appointments to a court of general jurisdiction, however, is not cost-effective."); Revesz, supra note 9, at 1148-49 (discussing the greater difficulty of capturing the selection of a generalist judge); see also id. at 1150 (noting that the Senate in establishing the Federal Circuit expressed the principle that a court should have "sufficiently mixed" subject matter "to prevent any special interest from dominating it").

^{108.} See Sarang Vijay Damle, Note, Specialize the Judge, Not the Court: A Lesson from the German Constitutional Court, 91 VA. L. Rev. 1267, 1283 (2005) (discussing how a specialized court consolidates and focuses the energy of interest groups toward appointments to that court); see also Baum, supra note 106, at 827 (same); Paul D. Carrington, Crowded Dockets and the Courts of Appeals: The Threat to the Function of Review and the National Law, 82 HARV. L. Rev. 542, 591 (1969) (same).

indeed are arguably more legitimately entitled to participate. ¹⁰⁹ Specialized courts are susceptible to other forms of politicization as well. The political branches of government can more effectively control specialized courts through monitoring, budgeting, and other forms of pressure. ¹¹⁰ Even within the court itself, the aggregation of experts with well-defined views creates a significant risk of forming factions. ¹¹¹ Warring camps in turn may develop more extreme views or generate conflicting sets of precedent. ¹¹²

Opinion specialization skirts many of these politicization problems by avoiding formal and exclusive concentrations of cases. New "generalist" appointees may not ultimately specialize in their former fields; they may develop interests in other areas; and their main influence is limited to when they are on panel, in the majority, and writing the opinion. Consequently, the incentives for interest group involvement in the appointments process remain muted. The retention of a system of regional circuits—often abolished under specialized court proposals—also helps maintain the judicial independence from the political branches because it diffuses judicial power and eliminates easy targets. Finally, specialized judges on otherwise generalist courts are less likely to polarize because nonspecialists are likely to have a moderating effect.

2. Myopia

Another significant concern surrounding specialized courts is "tunnel vision." Because specialized courts are isolated from the broader legal system, they are prone to developing arcane doctrines and procedures that do

^{109.} Baum, *supra* note 106, at 827 (raising the argument that if a group is highly affected by a particular court, it can legitimately claim some "role in the choice of court personnel"); Currie & Goodman, *supra* note 26, at 70-71 (quoting J. SAX, DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION 109 (1970)) (remarking that interest groups have more clout with specialized courts because political actors cannot ignore those who are surely to be affected by a given nomination).

^{110.} See RICHARD A. POSNER, THE FEDERAL COURTS: CHALLENGE AND REFORM 254 (1996) (commenting that political actors can focus attention on a specialized court); Posner, supra note 2, at 783 (arguing that specialized courts have less independence because their behavior can be "more effectively monitored and controlled" by political actors).

^{111.} See POSNER, supra note 110, at 251 (expressing the concern that specialists are often opinionated and that a specialized antitrust court would result in warring camps and a polarized court); see also Howard, supra note 11, at 145 (concluding that the Tax Court "seems to be both more expert and more ideological in its decision making than the [generalist] district court[s]"). But see POSNER, supra, at 252 (noting that the Texas Court of Criminal Appeals is specialized but has remained "fairly philosophically balanced" (internal quotation marks omitted) (quoting Chuck Miller et al., Annual Survey of Texas Law: Criminal Law, 48 SMU L. REV. 1077, 1092 (1995))).

^{112.} See, e.g., Wagner & Petherbridge, supra note 7, at 1170 (reporting the results of an empirical study suggesting that the Federal Circuit has a methodological rift and its jurisprudence has consequently become polarized).

^{113.} Damle, supra note 108, at 1281.

not cohere with the broader legal corpus¹¹⁴ and that create disadvantages for nonrepeat players. They also lose the benefits and insights of "cross-pollination," degrading the jurisprudential quality of their fields. Relatedly, some commentators worry that consistent exposure to the same parties may bias judges on a specialized court. 118

- 114. See, e.g., Revesz, supra note 9, at 1164 (warning that specialized courts often create "idiosyncratic procedures" and "interfere with the coherence of federal law"); Rifkind, supra note 2, at 425 (arguing that a specialized patent court will develop "a jargon of its own, thought-patterns that are unique, internal policies which it subserves and which are different from and sometimes at odds with the policies pursued by the general law"); see also Dreyfuss, supra note 100, at 68 (expressing concern that excessive specialization may result in "a return to something akin to the writ system"). But see Stempel, supra note 29, at 93 (arguing that there is "no dramatic evidence" that state specialized courts are too narrow or make incorrect decisions).
- 115. Dreyfuss, *supra* note 29, at 21-22. *But see* Dreyfuss, *supra* note 24, at 420-21 (discussing how specialization may benefit less sophisticated parties because a specialized court is less dependent on counsel for an understanding of the issues). Rochelle Dreyfuss also insightfully notes that isolated courts may be "blind to externalities"—since specialized courts only see certain parties regularly, they are likely to forget about the effects that their rulings may have on parties not represented. Dreyfuss, *supra* note 29, at 17.
- 116. See, e.g., Dreyfuss, supra note 24, at 379 (noting the cross-pollination problem with specialized courts); see also Currie & Goodman, supra note 26, at 69 (suggesting that Learned Hand in TJ Hooper may not have seen radios to be a necessary innovation had he been a specialist); Dreyfuss, supra note 29, at 17-18 (arguing that the Federal Circuit's specialization has allowed it to ignore the economic analyses found in fields like antitrust). But see Stempel, supra note 29, at 96 ("Simply because a judge sits on a specialized court does not mean that he or she is a narrow person with no interest in law or life generally.").
- 117. Rifkind, *supra* note 2, at 426 (arguing that specialization will result in the "decay" of a field of law because of the lack cross-pollination); *see also* Dreyfuss, *supra* note 24, at 381 (noting that specialized-court judges may write less persuasive opinions since there would essentially be no review).
- 118. E.g., Baum, supra note 106, at 827-28 (observing that if a group frequently appears before a court, then it will have a "relatively good opportunity to shape judges' perceptions and values"); Plager, supra note 6, at 858 ("[A] specialist court will be more likely to identify with the government's program since that is its specialty."); see also Dreyfuss, supra note 100, at 26 (noting that the Federal Circuit exhibits some bias toward patent holders); Posner, supra note 2, at 785 (expressing concern over whether a specialized court can "temper" government action when it is cut from the same cloth as a particular government program). The validity of this concern about repeat actors is unclear. For instance, bias is likely to develop when only one side is a repeat actor. Baum, supra note 106, at 832. Even when the repetition is one-sided, as in agency review, a specialized court's gain in expertise may quickly trump bias concerns. Unlike generalist courts, whose unfamiliarity with technical areas may cause them to be unduly deferential to agency expertise, specialist courts can better scrutinize agencies and are less dependent on them for information. See, e.g., Currie & Goodman, supra note 26, at 71 (noting that experts are more likely to "substitute their judgment for that of the agency," whereas generalists are more likely to defer); Howard, supra note 11, at 136 (discussing empirical work suggesting that specialized courts may show less deference to the agencies); Unah, supra note 101, at 858 (noting that the information advantage agencies have is reduced when there is a specialist court).

Opinion specialization escapes these concerns because judges continue to handle diversified dockets. Concededly, judges specializing in commercial law may pay comparatively less attention to developments in other fields, but they will still have consistent exposure to a wide variety of case types. Not only must they vote in other areas, but given the distribution of cases, they will likely have to write regularly in other areas as well.

3. Loss of prestige

Some opponents of specialization warn that specialized court judgeships are less desirable because they are more repetitive, technical, and boring. 119 Coupled with concerns about judicial pay, 120 specialization may lead to a shallower pool of candidates, particularly in less thrilling fields like social security. 121 This prestige concern is debatable, 122 but even assuming it arguendo, it should not afflict an opinion specialization scheme, again because judges see a variety of case types. In addition, to the extent that the prestige concern arises from the orphan status that specialized courts often have in the otherwise generalist federal system, 123 opinion specialization creates no such difficulty.

Indeed, greater opinion specialization may arguably increase the desirability of circuit judgeships. Although this phenomenon requires more detailed study, many of the specialist judges shown in Part I are well known and well respected in their respective specialties. To the extent judge specialization becomes a norm and new judges can expect greater renown in their fields of expertise, federal circuit judgeships may become even more coveted than they are already.

^{119.} See Posner, supra note 2, at 779 (raising "job satisfaction" concerns if judges are confined to specialized areas); see also Dreyfuss, supra note 24, at 381 (noting that specialized judgeships may be less prestigious because they would be more repetitive and boring).

^{120.} See Ann Althouse, Op-Ed, An Awkward Plea, N.Y. TIMES, Feb. 17, 2007, at A15.

^{121.} See Currie & Goodman, supra note 26, at 70 (noting concern about decreased judge quality because social security cases are boring).

^{122.} Stempel, *supra* note 29, at 80 (expressing skepticism that specialization will actually deplete the judicial talent pool).

^{123.} Cf. id. at 82 ("[T]he critical value in attracting top quality judges may not be due to the scope of the court's subject matter so much as it is the [Article III] stature of the court.").

^{124.} Naturally, there is a potential causality problem that needs further research: Do judges who informally specialize more readily establish reputations, or are judges who already have established eminent reputations more comfortable specializing?

4. Other concerns

Opinion specialization avoids other criticisms of specialized courts as well. For example, by preserving the current circuit system, it ensures continued respect for regional differences and allows controversial issues to percolate among the circuits, ¹²⁵ advantages lost under a system of exclusive specialized courts. ¹²⁶ It also avoids boundary problems that arise when a court's jurisdiction is defined by subject matter, particularly in complex cases involving multiple issues. ¹²⁷

Finally, opinion specialization results in no harm to the federal system's ability to handle fluctuating caseloads. Specialized courts are vulnerable to caseload variations given that they have limited areas of jurisdiction, easily leaving jurists swamped one year and idle the next. Under an opinion specialization regime, courts more easily absorb sudden influxes. By retaining an underlying generalist structure, courts can take advantage of averaging effects—the likelihood that peaks in some fields balance with troughs in others—and can distribute the workload among many more judges. At worst, an influx merely results in a few additional nonspecialist opinions.

The significant advantages offered by informal opinion specialization should in many ways be no surprise, as modern legal practice offers some proof of its potential for success. Much of the legal profession today, particularly in urban areas, is highly specialized, and nearly all of that specialization occurs informally. ¹²⁹ The 1970s saw a number of proposals for formal specialist certification, ¹³⁰ but the legal profession has essentially adopted "de facto

^{125.} See Revesz, supra note 9, at 1156-58 (arguing that intercircuit percolation is useful because it improves opinion quality, allows judges time to develop the issues with different facts, and creates natural experiments).

^{126.} See Dreyfuss, supra note 24, at 380 (noting that specialized courts would quash debate because of the absence of conflict); Dreyfuss, supra note 100, at 72 (implying that localization may be lost with a special centralized court); Posner, supra note 2, at 786 (noting that national specialized courts will not have regional diversity and will likely sit in Washington, D.C.); see also Currie & Goodman, supra note 26, at 69-70 (discussing the disadvantages of losing percolation).

^{127.} E.g., Dreyfuss, supra note 24, at 382 (discussing boundary problems); Posner, supra note 2, at 787 (same). While having overlapping jurisdictions would reduce boundary issues, it would invite forum shopping, Dreyfuss, supra note 29, at 20, though forum shopping has been accepted in the tax area, Geier, supra note 15, at 987 n.8 (describing the three options available to taxpayers).

^{128.} Posner, *supra* note 2, at 788 (observing the difficulty of specialized courts reacting to changes in the character of the docket).

^{129.} Specialization in the legal profession has not gone without lament. See generally Ariens, supra note 29 (providing a historical account of specialization in the law); Soia Mentschikoff & Irwin P. Stotzky, Law—The Last of the Universal Disciplines, 54 U. CIN. L. REV. 695, 698-99 (1986) (decrying the overly narrow view of the law found in law schools and the profession).

^{130.} See Note, Legal Specialization and Certification, 61 VA. L. Rev. 434, 445 (1975) (discussing proposals in 1975 to certify attorneys in various subspecialties).

specialization," which at least one commentator has noted as an advantageous compromise that captures many of the efficiency and expertise benefits of specialization without "overly fragmenting the profession or pressuring attorneys into specialization." ¹³¹

Opinion specialization also resembles a practice on the German Constitutional Court, in which an expert judge is preselected to sit on an otherwise nonexpert panel to decide a case. Serving as "rapporteur," this judge provides an expert perspective and is responsible for writing a detailed bench memorandum to sharpen the issues for the other judges. Sarang Damle has cleverly proposed importing the German rapporteur system to the federal courts of appeals as a method of increasing expertise in cases involving specialized knowledge. The German system, however, derives expertise primarily from the bench memorandum and requires a formal method for recognizing expertise and distributing case assignments. Nevertheless, it provides an intriguing comparative analogy to what is occurring informally in the federal courts of appeals.

C. Potential Problems

Opinion specialization offers the important advantages of expertise and efficiency over the generalist ideal, and it outshines court specialization through its informality and flexibility. It is not, however, a perfect solution and does have several potential drawbacks. Nevertheless, as the problems are not especially acute, the analysis suggests that opinion specialization provides an excellent compromise between the generalist ideal and specialized courts.

1. Erratic expertise

One major problem with opinion specialization is that expertise varies from one panel to the next. A panel may lack a relevant expert, or it may have

^{131.} Id. at 445, 449. See generally Lynn M. LoPucki, The De Facto Pattern of Lawyer Specialization (Disputes Processing Research Program, Institute for Legal Studies, University of Wisconsin-Madison Law School, Working Paper No. 9-10, 1990) (discussing specialization in the legal profession). Some fields and some states have developed specialty certification programs, John M. Brumbaugh & Tori Jo Wible, Certification from a National Perspective, Fla. B.J., Apr. 2003, at 30, 30-31, but these are still the exception, rather than the norm.

^{132.} Damle, *supra* note 108, at 1298-99.

^{133.} Id. (noting that the bench memorandum is called a "votum").

^{134.} *Id.* at 1300-09 (proposing a German rapporteur system for the federal courts of appeals); *see also id.* at 1300 (arguing that the German Constitutional Court framework "splits the difference between a wholly generalist court and a wholly specialist one").

^{135.} See id. at 1298-99; see also id. at 1303 (shying away from expert opinion writing, and suggesting rather that the detailed bench memorandum would be the primary help of the expert judge if this system were applied in the United States).

multiple cases in a subject area, requiring that a nonexpert write in order to maintain workload equity. Two serious ramifications arise from the inconsistent expertise: one relates to precedent, the other involves litigant fairness.

Legal precedent is time dependent, so nothing prevents a nonexpert from creating undesirable or erroneous precedent that then binds and hampers future adjudications. This risk is certainly a legitimate one, and indeed it already exists under the current generalist system. One has to imagine, however, that under a well-established and mature system of opinion specialization, judges will develop norms to avoid this problem. For example, nonexperts may hew more closely to existing precedent, take smaller steps, and write narrower holdings. ¹³⁶ Experts, by contrast, may push doctrine more freely and creatively and write broader opinions. These expert-generated opinions would then receive comparatively greater deference in later cases. ¹³⁷ Such judicial practice would in many ways mirror the use of unpublished and published opinions today. Because unpublished opinions have no precedential value, ¹³⁸ publication is a mechanism by which courts signal whether they are seeking to resolve only the case at hand or establishing broadly applicable precedent. ¹³⁹

^{136.} See, e.g., Howard, supra note 11, at 145 (reporting empirical data showing that generalized courts are more likely to rely on precedent in tax cases than specialized tax courts); cf. Friendly, supra note 20, at 223 ("The inevitable lack of expertise by judicial lawmakers does not seem to me unduly disturbing so long as the web is woven in small knots."). Howard notes in his study that specialized tax courts feel particularly free to impose their policy preferences because their specialized cases are rarely reviewed by higher courts. See Howard, supra note 11, at 146. This phenomenon is less likely to occur in the circuit court context because regardless of the expertise of the author, a circuit split will often generate Supreme Court review.

^{137.} Some commentators have criticized current circuit court opinions for having little precedential value because, in practice, future panels do not always sufficiently respect previous panel decisions, regardless of their status as binding precedent. E.g., Paul D. Carrington, The Obsolescence of the United States Courts of Appeals: Roscoe Pound's Structural Solution, 15 J.L. & Pol. 515, 518-20 (1999). Judge specialization may ameliorate this problem somewhat by giving expert-generated opinions increased legitimacy and persuasive power.

^{138.} Federal Rule of Appellate Procedure 32.1 allows parties to cite any unpublished opinion issued after January 1, 2007. However, circuit courts consider unpublished opinions as having no precedential value. *E.g.*, 1ST CIR. R. 32.1(a); 3D CIR. I.O.P. 5.1; 5TH CIR. R. 47.5.3 (defining all unpublished opinions issued after January 1, 1996 as nonprecedential); 6TH CIR. R. 206(c) (implicitly defining unpublished opinions as nonprecedential); 7TH CIR. R. 32.1; 8TH CIR. R. 32.1A; 9TH CIR. R. 36-3(a); 10TH Cir. R. 32.1(A); 11TH CIR. R. 36-2; D.C. CIR. R. 36(c)(2) ("[A] panel's decision to issue an unpublished disposition means that the panel sees no precedential value in that disposition.").

^{139.} But see, e.g., Dragich, supra note 24, at 33 (criticizing unpublished opinions for "creat[ing] a 'secret' body of law, and fail[ing] to provide guidance for future cases"). A number of circuits have promulgated local rules delineating the criteria for publication. E.g., 1ST CIR. R. 36.0(b)(1) ("In general, the court thinks it desirable that opinions be published and thus be available for citation. The policy may be overcome in some situations where an opinion does not articulate a new rule of law, modify an established rule, apply an established rule to novel facts or serve otherwise as a significant guide to future litigants.");

Even with the precedent problem solved, the problem of litigant fairness remains, for having some cases receive judicial expertise and others not seems clearly improper. Careful parsing of the right of appeal, however, addresses this objection. As Martha Dragich has noted, appellate courts serve two distinct functions in the federal system. ¹⁴⁰ First, they are courts of error. They check a district court's potential mistakes or caprice, and they ensure that the existing rules are followed and applied uniformly. Second, appellate courts serve a lawmaking function, whether through resolving statutory ambiguities, filling gaps in precedent, or developing pockets of common law.

An appellate litigant arguably only has a right to error correction, not to lawmaking. Parties can appeal as a matter of right to the circuit courts because some institution should rule on a litigant's assertion that the district court made an error, no matter how trivial that claim may be. In contrast, proper lawmaking requires the ability to select cases. ¹⁴¹ Since lawmaking often involves broader implications, complex balancing, and more creative solutions, an appellate court in lawmaking mode needs the ability to choose the time and case for making its pronouncements. The Supreme Court, with its purely discretionary docket, is the ideal example of a lawmaking appellate court.

Judicial practice under a mature opinion specialization regime would likely track this divide between error correction and lawmaking. For relatively straightforward cases, expert and nonexpert judges alike would be well positioned to handle the error correction role. Justice Cardozo once surmised that ninety percent of cases are essentially straightforward and require no great judicial leap. ¹⁴² These cases are thus unlikely to require significant appellate court attention, let alone detailed study by an expert judge. Expert judges would have some efficiency advantage, but all judges, owing to their general training in the law, could handle the cases more than competently.

For more complex cases with perhaps higher degrees of open texture, nonexperts would confine themselves to error correction or narrow holdings (if necessary). Nonexperts might even use nonprecedential, unpublished opinions to resolve those appeals. Expert judges conversely would perform most of the lawmaking function, since their greater familiarity with the field

⁴TH CIR. R. 36(a) (listing criteria for publication); 5TH CIR. R. 47.5.1 (same); 6TH CIR. R. 206(a) (same); 9TH CIR. R. 36-2 (same); D.C. CIR. R. 36(a)(2) (same).

^{140.} See Dragich, supra note 24, at 29 (distinguishing and discussing the two appellate functions).

^{141.} See id. at 29.

^{142.} Friendly, *supra* note 20, at 222-23. More recently, Judge Harry Edwards has commented that half of all appeals are "easy." Dragich, *supra* note 24, at 69 (quoting Judge Harry Edwards).

^{143.} Cf. Frank H. Easterbrook, Judicial Discretion in Statutory Interpretation, 57 OKLA. L. REV. 1, 8 n.22 (2004) (suggesting that "textualist methods" of interpretation may be better suited to generalists, while specialists can apply more "nuanced interpretive methods") (citing Frederick Schauer, Statutory Construction and the Coordinating Function of Plain Meaning, 1990 SUP. CT. REV. 231).

would give them the confidence to adopt broader holdings or reconceptualize areas when necessary. 144

To be sure, this speculative picture of opinion specialization's future is necessarily a bit of a caricature. Nonexperts will not always show restraint. They may feel comfortable enough with the field to make a broader pronouncement—for better or worse. Experts similarly will not always write broad opinions, preferring to allow the issues to percolate before issuing more sweeping decisions.

2. Excessive deference

The flip side of the erratic expertise problem is that experts may receive excessive deference from other panel members. One of the classic reasons for the right to appeal is to protect litigants from the potentially arbitrary or idiosyncratic decisions of a single trial court judge. ¹⁴⁵ Imbalances in expertise risk undermining the structural benefits of multijudge panels. Unlike a purely generalist or specialist court, in which judges are equally nonexpert or expert, a court practicing informal opinion specialization has only a few experts in any given subject area. If expert judges overpower their brethren, ¹⁴⁶ the judicial process would once again be subject to the idiosyncrasies of a single judge. ¹⁴⁷

A number of reasons, however, suggest that deference should not be too much of a problem. First, by forcing an expert judge to articulate persuasive reasons for a position, the panel system inherently checks arbitrary decision making. Second, seasoned and accomplished circuit judges are unlikely to defer blindly to colleagues with greater expertise, particularly when the nonexpert is often perfectly capable of understanding and analyzing the case.

^{144.} See Easterbrook, supra note 143, at 8 ("[S]pecialists are apt to make technical changes better than generalist judges who spend too much of their time handling cocaine cases."); Friendly, supra note 20, at 223-24 (expressing concerns about lack of expertise when a judge must make more wide-ranging decisions or "a question for which accepted judicial techniques afford no satisfactory answer").

^{145.} Carrington, *supra* note 137, at 516 (noting that one of the reasons why an intermediate federal court was created in 1891 was "to assure defeated litigants that the judicial power brought to bear on them was the work of more than a single perhaps idiosyncratic individual"); Dragich, *supra* note 24, at 40-41 (noting that a motivator for appellate process is that litigants should not be subject to the power of a single judge's idiosyncrasies).

^{146.} *Cf.* Carrington, *supra* note 108, at 591 (advocating for a system of rotating subject-matter panels because under the current system, a "judge who formerly was an experienced tax or utilities lawyer [has] an opportunity to overpower his less expert colleagues").

^{147.} *Cf.* Brenner & Spaeth, *supra* note 49, at 520 (commentating that one drawback of having issue specialists on the Supreme Court is that their greater influence may mean that decisions are not the "considered judgment of all members of the majority").

^{148.} See Damle, supra note 108, at 1304 (noting that the expert judge on a panel still needs a majority).

The problem with nonexperts is not that they are uncritical or ignorant of the legal issues involved, only that they lack the full breadth of knowledge possible. Finally, even if all else fails, the existence of two different courts provides an important counterbalance that combats caprice. In order to reverse the district court (without embarrassment), the appellate expert must reasonably address the arguments in the lower court opinion. This back-and-forth promotes reasoned deliberation and creates fodder for future debate and commentary.

Even if opinion specialization ultimately produced excessive deference, minor modifications in the panel assignment process could significantly address it. The most extreme and concerning form of deference arguably occurs when other panel members cursorily prepare for oral argument or conference anticipating that the expert judge will decide and write the decision. This dynamic of de facto abdication, however, is significantly disrupted if judges do not receive advance notice of panel composition. Without foreknowledge of the presence of an expert, a judge is more likely to prepare fully, develop independent conclusions, and provide a meaningful check on a more expert colleague. 150

3. Bias

The final concern is potentially more serious. Because opinion specialization is informal, specialists are in large part self-identified. This self-selection, however, may create unintended biases among the subset of judges who specialize in certain areas. For example, Subpart I.D.1 suggests a possible correlation between specializing in criminal law and being a former prosecutor. If judges without a criminal law background avoid writing criminal opinions, and former criminal defense attorneys seldom become judges because of political unpopularity, then in essence only former prosecutors will direct the future of federal criminal law. Regardless of one's political leanings, this lopsided situation is almost unquestionably undesirable.

The resulting biases can also be more subtle and less ideologically fraught. For example, if former transactional attorneys specialize in contracts more often than litigators, contract doctrine may begin to shift toward protecting drafters. This example is purely speculative, but the result is certainly plausible: Litigators might specialize less because they are exposed to more subject areas in practice. At the same time, transactional attorneys may tend to protect drafters because they identify more closely with them. Such potential effects are important to understand and will deserve further examination.

^{149.} Thanks to Liz Emens for this insight.

^{150.} Encouraging nonexpert judges to comprehensively prepare a case when it may ultimately be written by a more familiar and expert judge naturally creates inefficiencies. This tradeoff, however, is a familiar one that results whenever one seeks to increase redundancy or accountability.

^{151.} Thanks to Anita Bernstein for developing this idea.

CONCLUSION: OPINION SPECIALIZATION AS REFORM

This Article has looked critically at the generalist ideal that permeates the federal judiciary. Part I examined the generalist ideal in practice and showed that circuit judges often honor it in the breach. Although various structural constraints impede specialization, many circuit judges have embraced specialization through their opinion assignments, clearly showing preferences for some subjects over others. Part II evaluated opinion specialization, arguing that it is a desirable practice worthy of praise and further consideration. Not only does opinion specialization increase judicial expertise and efficiency, but it also does so without many of the costs that often attend specialized courts. Opinion specialization is thus a near perfect compromise.

Opinion specialization, however, can be pushed one step further. It is potentially much more than a quirky practice among a subset of judges, and indeed suggests a new avenue of reform for those who have long argued for specialized courts. For proponents of specialization, perhaps the crucial attribute of opinion specialization is that it is modest. It does not require a restructuring of the federal courts or a concerted decision by Congress. Instead, it can develop informally and incrementally through everyday judicial practice, a critical advantage whenever actors are wedded to the status quo. ¹⁵² Opinion specialization can exploit the institutional change that arises from the "drift" caused by everyday "situational pressures." Faced with enormous caseloads and increasingly complex cases in specialized areas, judges will opt for opinion specialization simply because it is a convenient and useful way for the judiciary to help itself.

As such, opinion specialization may be a far more realistic proposal for increasing specialization and expertise in the federal judiciary than the concededly more complete and sophisticated proposals for specialized courts that have arisen over the years. ¹⁵⁴ To be sure, opinion specialization does not

^{152.} Historically, proposals for specialized courts have languished in Congress, with even the creation of the Federal Circuit involving years of wrangling. Indeed, the Federal Courts Improvement Act of 1982, which established the Federal Circuit, "was the first major judicial reform of the federal appellate system since the Judges' Bill of 1925." Richard H. Seamon, *The Provenance of the Federal Courts Improvement Act of 1982*, 71 GEO. WASH. L. REV. 543, 554-58 (2003); see also Carrington, supra note 137, at 523-24 (providing an interesting chronology of the various boards and commissions that have attempted to propose structural reforms for the federal system).

^{153.} FRIENDLY, *supra* note 96, at 198 (internal quotation marks omitted) (quoting Hurst, *Legal Elements in United States Legal History*, in 5 PERSPECTIVES IN AMERICAN HISTORY 1, 30 (1971)).

^{154.} For example, perhaps most notably, Daniel Meador and Paul Carrington for decades have proposed restructuring the circuit courts by substantive legal areas. See, e.g., CARRINGTON ET AL., supra note 17, at 174-84, 204-07 (proposing the use of specialized dockets within a generalist appellate court); Carrington, supra note 108, at 587-90 (discussing a proposal to divide up circuits by substantive law, possibly on a rotating basis); Meador, supra note 6, at 475 (proposing an organization of circuit courts based on subject

capture the benefits of specialization as cleanly as specialized courts. Most notably, as discussed in Subpart II.C, opinion specialization does not guarantee an expert on every panel, and whenever nonexperts handle specialized cases, they incur expertise and efficiency costs. Nevertheless, the best ought not to be the enemy of the good. The radical overhaul of the federal courts required for a system of specialized courts makes the likelihood of such a system vanishingly small, ¹⁵⁵ whereas opinion specialization is already part of current judicial practice and can easily grow in popularity.

Ambitions for reform aside, the most important implication of opinion specialization may be that it reveals a heretofore unexplored tension in the federal judiciary. Circuit judges appear to be more conflicted on the issue of specialization than the frequent posturing might initially suggest. By exposing this fault line, this Article will hopefully encourage judges and commentators to reexamine their attitudes toward specialization. After all, archetypes like the generalist judge are powerful mental images that constrain the imagination. Dispelling the myth could therefore liberate jurists and reformers alike from their traditional boxes.

matter). Meador and Carrington avoid problems such as capture and myopia by employing a variety of creative mechanisms, including rotating assignments, unrelated subject bundles, and the like. See Carrington, supra note 108, at 591 (suggesting a rotational system in which judges would sit for fixed times in certain specialties to develop expertise but then move on); Meador, supra note 6, at 476 (describing the German appellate system, in which judges are assigned to sets of unrelated subject areas to prevent "narrow specialization").

^{155.} See FRIENDLY, supra note 96, at 198 (acknowledging that the implementation of specialized courts—even the view that Friendly supports—is unlikely to occur because of institutional inertia).

APPENDIX A: SUMMARY TABLES OF SPECIALIZATION

Table 1. Subject-Matter Specialization, Geographic Courts of Appeals, 1995-2005

| CIR. | Judge | SUBJECT AREA | OPINIONS | EXPECTED | STD'IZED |
|-------------|-----------------|--------------------|-------------|----------|----------|
| | | | WRITTEN | | Residual |
| | | | | | (R) |
| DC | Rogers | Criminal | 43 | 22 | 4.48 |
| DC | Tatel | Employment | 25 | 11 | 4.33 |
| D .0 | | Discrim. | 41 | 22 | 4.05 |
| DC | Garland | Criminal | 41 | 22 | 4.05 |
| DC | Garland | Postconviction | 9 | 3 | 3.88 |
| DC | Randolph | Criminal | 40 | 22 | 3.84 |
| DC | Randolph | Prisoner Rights | 7 | 2 | 3.54 |
| DC | Ginsburg | Prisoner Rights | 9 | 3 | 3.46 |
| DC | Rogers | Contract | 10 | 4 | 3.42 |
| DC | Silberman | Labor | 7 | 2 | 3.37 |
| 1 | Torruella | Environmental | 13 | 4 | 4.64 |
| 1 | Torruella | Labor | 27 | 12 . | 4.45 |
| 1 | Boudin | Antitrust | 10 | 3 | 4.12 |
| 1 | Lipez | Labor | 13 | 5 | 3.58 |
| 1 | Stahl | Tax | 6 | 2 | 3.18 |
| 2 | Calabresi | Criminal | 29 | 75 | -5.31 |
| 2 | Oakes | Intellectual Prop. | 14 | 4 | 4.93 |
| 2 | Newman | Intellectual Prop. | 19 | 7 | 4.90 |
| 2 | McLaughlin | Contract | 23 | 11 | 3.79 |
| 2 | Newman | Prisoner Rights | 18 | 8 | 3.78 |
| 2 | Kearse | Civil Rights | 49 | 29 | 3.74 |
| 2 | Leval | Intellectual Prop. | 15 | 6 | 3.42 |
| 2 | Wesley | Criminal | 3 | 16 | -3.22 |
| 2 | Pooler | Postconviction | 18 | 9 | 3.17 |
| 2 | Van Graafeiland | Intellectual Prop. | 7 | 2 | 3.16 |
| 2 | Leval | Employment | 22 | 11 | 3.12 |
| _ | | Discrim. | | | |
| 2 | Newman | Criminal | 70 | 48 | 3.12 |
| 2 | Sack | Antitrust | 6 | 2 | 3.10 |
| 2 | Cabranes | Securities | 14 | 6 | 3.02 |
| 3 | Mansmann | Prisoner Rights | 26 | 5 | 8.83 |
| 3 | Sloviter | Prisoner Rights | 42 | 13 | 8.09 |
| 3 | Rendell | Social Security | 34 | 13 | 5.83 |
| | | • | | | |

| CIR. | Judge | SUBJECT AREA | OPINIONS WRITTEN | EXPECTED | STD'IZED RESIDUAL |
|------|--------------------|----------------------------|---------------------|----------|----------------------|
| 3 | Stapleton | Duigon on Disabte | 25 | 9 | (R) |
| 3 | Mansmann | Prisoner Rights Securities | 25 10 | | 5.64 |
| | Alito | 2000000 | | 3 | 4.42 |
| 3 | | Civil Rights | 58 | 34 | 4.19 |
| | Fuentes Scirica | Social Security Criminal | 26 | 12 | 4.09 |
| 3 | | | 144 | 104 | 3.94 |
| | Mansmann | Civil Rights | 49 | 28 | 3.89 |
| 3 | Van Antwerpen | Criminal | 7 | 26 | -3.74 |
| 3 | Rendell | Criminal | 120 | 86 | 3.73 |
| 3 | Fisher | Criminal | 8 | 26 | -3.55 |
| 3 | Smith | Securities | 5 | 1 | 3.38 |
| 3 | Weis | Postconviction | 24 | 13 | 3.19 |
| . 3 | Barry | Criminal | 111 | 83 | 3.11 |
| 3 | Barry | Employment Discrim. | 36 | 22 | 3.04 |
| 4 | Wilkins | Criminal | 91 | 34 | 9.77 |
| 4 | Wilkins | Postconviction | 34 | 12 | 6.35 |
| 4 | Wilkins ' | Prisoner Rights | 12 | 3 | 5.20 |
| 4 | Widener | Torts | 13 | 4 | 4.71 |
| | | (nonproducts) | | | |
| 4 | Widener | Insurance | 10 | 3 | 4.49 |
| 4 | Niemeyer | Postconviction | 9 | 34 | -4.27 |
| 4 | Wilkinson | Criminal | 53 | 91 | -3.96 |
| 4 | Widener | Contract | 18 | 8 | 3.76 |
| 4 | Michael | Criminal | 21 | 45 | -3.62 |
| 4 | Niemeyer | Employment Discrim. | 12 | 28 | -3.05 |
| 5 | Wisdom | Social Security | 4 | 1 | 4.62 |
| 5 | Wiener | Insurance | 19 | 8 | 3.65 |
| 5 | Reavley | Insurance | 10 | 3 | 3.50 |
| 5 | Jones | Civil Rights | 35 | 20 | 3.40 |
| 5 | Jolly | Criminal | 52 | 83 | -3.38 |
| 5 | Wiener | Postconviction | 13 | 32 | -3.30 |
| 5 | King | Civil Rights | 30 | 17 | 3.25 |
| 5 | Reavley | Criminal | 11 | 27 | -3.14 |
| 5 | Duhe | Postconviction | 10 | 26 | -3.10 |
| 5 | Reavley | Postconviction | 2 | 13 | -3.06 |
| 6 | Contie | Criminal | 30 | 11 | 5.81 |
| 6 | Jones | Criminal | 40 | 22 | 3.92 |

| CIR. | JUDGE | SUBJECT AREA | OPINIONS | EXPECTED | STD'IZED |
|------|--------------|---------------------------------|----------|----------|----------|
| CIR. | TODOE | SUBJECT AREA | WRITTEN | EVLECTED | RESIDUAL |
| | | | | | (R) |
| 6 | Moore | Prisoner Rights | 19 | 8 | 3.70 |
| 6 | Guy | Intellectual Prop. | 5 | 1 | 3.67 |
| 6 | Norris | Environmental | 7 | 2 | 3.58 |
| 6 | Gibbons | Postconviction | 15 | 6 | 3.51 |
| 6 | Rogers | Postconviction | 15 | 6 | 3.51 |
| 6 | Moore | Criminal | 118 | 87 | 3.33 |
| 6 | Brown | Criminal | 2 | 14 | -3.28 |
| 6 | Jones | Employment Discrim. | 16 | . 7 | 3.23 |
| 6 | Norris | Criminal | 47 | 30 | 3.19 |
| 6 | Rogers | Contract | 8 | 3 | 3.18 |
| 6 | Kennedy | Criminal | 75 | 52 | 3.16 |
| 6 | Keith | Civil Rights | 19 | 9 | 3.10 |
| 6 | Ryan | Criminal | 66 | 45 | 3.09 |
| 6 | Suhrheinrich | Postconviction | 22 | 12 | 3.06 |
| 7 | Posner | Criminal | 122 | 344 | -11.95 |
| 7 | Bauer | Criminal | 212 | 111 | 9.63 |
| 7 | Coffey | Criminal | 168 | 90 | 8.16 |
| 7 | Bauer | Postconviction | 65 | 27 | 7.45 |
| 7 | Flaum | Criminal | 209 | 133 | 6.61 |
| 7 | Posner | Employment Discrim. | 75 | 158 | -6.61 |
| 7 | Easterbrook | Antitrust | 12 | 3 | 5.88 |
| 7 | Kanne | Criminal | 199 | 133 | 5.72 |
| 7 | Easterbrook | Postconviction | 87 | 48 | 5.66 |
| 7 | Easterbrook | Criminal | 122 | 199 | -5.47 |
| 7 | Rovner | Criminal | 170 | 112 | 5.43 |
| 7 | Flaum | Labor | 31 | 14 | 4.47 |
| 7 | Posner | State Statute Constitutionality | 13 | 4 | 4.07 |
| 7 | Manion | Employment Discrim. | 73 | 46 | 4.01 |
| 7 | Rovner | Social Security | 14 | 5 | 3.96 |
| 7 | Cudahy | Civil Rights | 12 | 35 | -3.89 |
| 7 | Easterbrook | Securities | 18 | 8 | 3.83 |
| 7 | Easterbrook | Intellectual Prop. | 19 | 9 | 3.33 |
| 7 | Kanne | State Statute Constitutionality | 6 | 2 | 3.27 |
| 7 | Manion | ERISA | 21 | 11 | 3.24 |

| CIR. | Judge | SUBJECT AREA | Opinions Written | EXPECTED | STD'IZED RESIDUAL (R) |
|------|-------------|------------------------|---------------------|----------|-----------------------------|
| 7 | Posner | Antitrust | 11 | 4 | 3.12 |
| 7 | Easterbrook | Employment Discrim. | 62 | 92 | -3.10 |
| 7 | Coffey | Contract | 6 | 20 | -3.09 |
| 7 | Ripple | Products Liability | 15 | 7 | 3.02 |
| 8 | Wollman | Social Security | 44 | 22 | 4.55 |
| 8 | Smith | Criminal | 99 | 63 | 4.55 |
| 8 | Wollman | Postconviction | 70 | 41 | 4.45 |
| 8 | McMillian | Prisoner Rights | 22 | 9 | 4.28 |
| 8 | Loken | Criminal | 148 | 208 | -4.13 |
| 8 | Bowman | Prisoner Rights | 22 | 10 | 3.90 |
| 8 | Bright | Contract | 13 | 5 | 3.55 |
| 8 | Bowman | Postconviction | 52 | 32 | 3.49 |
| 8 | Murphy | Criminal | 157 | 120 | 3.42 |
| 8 | Loken | Social Security | 8 | 24 | -3.30 |
| 8 | Magill | ERISA | 13 | 6 | 3.13 |
| 8 | Bye | Contract | 20 | 10 | 3.12 |
| 8 | Magill | Criminal | 52 | 80 | -3.10 |
| 9 | Reinhardt | Employment Discrim. | 29 | 8 | 7.85 |
| 9 | Trott | Criminal | 113 | 55 | 7.85 |
| 9 | Reinhardt | Civil Rights | 60 | 23 | 7.78 |
| 9 | Gould | Environmental | 17 | 4 | 6.50 |
| 9 | Alarcón | Criminal | 49 | 22 | 5.78 |
| 9 | Sneed | Securities | 8 | 1 | 5.77 |
| 9 | O'Scannlain | Intellectual Prop. | 22 | 8 | 5.20 |
| 9 | Hawkins | Torts (nonproducts) | 12 | 3 | 5.20 |
| 9 | Gould | Torts (nonproducts) | 12 | 3 | 4.92 |
| 9 | Hawkins | Civil Rights | 34 | 15 | 4.82 |
| 9 | Noonan | Criminal | 78 | 46 | 4.70 |
| 9 | Reinhardt | Labor | 14 | 4 | 4.48 |
| 9 | Gould | Contract | 12 | 4 | 4.37 |
| 9 | McKeown | Torts (nonproducts) | 11 | 3 | 4.36 |
| 9 | Kozinski | Postconviction | 30 | 14 | 4.26 |
| 9 | Schwarzer | Labor | 8 | 2 | 4.24 |

| CIR. | JUDGE | SUBJECT AREA | OPINIONS WRITTEN | EXPECTED | STD'IZED RESIDUAL (R) |
|------|------------|---------------------|---------------------|----------|-----------------------------|
| 9 | Wardlaw | Criminal | 33 | 16 | 4.08 |
| 9 | Reinhardt | Criminal | 77 | 49 | 3.93 |
| 9 | Kozinski | Intellectual Prop. | 9 | 3 | 3.93 |
| 9 | Alarcón | Contract | 8 | 2 | 3.79 |
| 9 | Pregerson | Intellectual Prop. | 14 | 5 | 3.70 |
| 9 | Reinhardt | Postconviction | 42 | 24 | 3.67 |
| 9 | Wiggins | Torts (nonproducts) | 8 | 2 | 3.61 |
| 9 | Reinhardt | Social Security | 9 | 3 | 3.46 |
| 9 | Lay | Antitrust | 4 | 1 | 3.44 |
| 9 | Hug | Environmental | 14 | 6 | 3.43 |
| 9 | Fernandez | Contract | 9 | 3 | 3.32 |
| 9 | Schroeder | Civil Rights | 51 | 32 | 3.26 |
| 9 | Norris | Antitrust | 3 | 1 | 3.25 |
| 9 | McKeown | Intellectual Prop. | 9 | 3 | 3.24 |
| 9 | Hug | Civil Rights | 39 | 23 | 3.23 |
| 9 | Beezer | Antitrust | 6 | 2 | 3.23 |
| 9 | Wardlaw | Postconviction | 17 | 8 | 3.18 |
| 9 | Schwarzer | Social Security | 5 | 1 | 3.18 |
| 9 | Clifton | Environmental | 5 | 1 | 3.18 |
| 9 | Brunetti | Intellectual Prop. | 9 | 3 | 3.10 |
| 9 | Tallman | Civil Rights | 20 | 10 | 3.10 |
| 9 | Wiggins | Postconviction | 2 | 13 | -3.02 |
| 9 | Kozinski | Criminal | 45 | 29 | 3.00 |
| 10 | Kelly | Postconviction | 201 | 119 | 7.50 |
| 10 | Briscoe | Postconviction | 143 | 96 | 4.84 |
| 10 | Tacha | Postconviction | 53 | 101 | -4.8 1 |
| 10 | McWilliams | Postconviction | 4 | 27 | -4.47 |
| 10 | McConnell | Postconviction | 6 | 30 | -4.37 |
| 10 | Kane | Criminal | 4 | 24 | -4.06 |
| 10 | Brown | Postconviction | 1 | 16 | -3.70 |
| 10 | Ebel | Criminal | 184 | 241 | -3.65 |
| 10 | Moore | Criminal | 6 | 24 | -3.65 |
| 10 | Barrett | Criminal | 21 | 46 | -3.64 |
| 10 | Murphy | Postconviction | 146 | 109 | 3.52 |
| 10 | Barrett | Social Security | 14 | 6 | 3.44 |
| 10 | McKay | Criminal | 91 | 129 | -3.36 |
| 10 | McWilliams | Prisoner Rights | 1 | 13 | -3.32 |

| CIR. | Judge | SUBJECT AREA | OPINIONS WRITTEN | EXPECTED | STD'IZED RESIDUAL (R) |
|------|-----------|----------------|---------------------|----------|-----------------------------|
| 10 | Barrett | Postconviction | 13 | 30 | -3.09 |
| 10 | Anderson | Criminal | 160 | 125 | 3.09 |
| 10 | Lucero | Criminal | 106 | 143 | -3.08 |
| 10 | Barrett | Labor | 7 | 2 | 3.02 |
| 10 | Anderson | Tax | 13 | 6 | 3.01 |
| 11 | Edmondson | Civil Rights | 42 | 17 | 5.96 |
| 11 | Marcus | Civil Rights | 36 | 16 | 4.87 |
| 11 | Birch | Criminal | 36 | 70 | -4.06 |

Table 2. Agency Specialization, D.C. Circuit, 1995-2005

| JUDGE | AGENCY | Opinions Written | EXPECTED | STANDARDIZED RESIDUAL (R) |
|-----------|--------|---------------------|----------|---------------------------|
| Edwards | Labor | 42 | 18 | 5.66 |
| Ginsburg | FCC | 43 | 19 | 5.63 |
| Williams | FERC | 37 | 18 | 4.62 |
| Silberman | Trans. | 8 | 2 | 3.61 |
| Wald | Labor | 16 | 7 | 3.35 |
| Williams | Labor | 5 | 18 | -3.00 |

APPENDIX B: NATURE OF SUIT CODES

| CATEGORY Antitrust 410 Antitrust 440 Other Civil Rights 441 Civil Rights Voting 443 Civil Rights Voting 443 Civil Rights Voting 443 Civil Rights Accommodations 444 Civil Rights Welfare Contracts 120 Marine Contract Actions 190 Other Contract Actions N/A 156 Employment Discrimination Environmental 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prisoner Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 550 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 366 Personal Injury—Product Liability 367 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Securities 850 Securities, Commodities, Exchange Social Security 860 Medicare | SUBJECT-MATTER | ADMINISTRATIVE OFFICE NATURE OF SUIT (NOS) |
|--|-----------------------|--|
| Antitrust 410 Antitrust Civil Rights 440 Other Civil Rights 441 Civil Rights Voting 443 Civil Rights Voting 443 Civil Rights Voting 444 Civil Rights Welfare Contracts 120 Marine Contract Actions 190 Other Contract Actions Criminal N/A ¹⁵⁶ Employment 442 Civil Rights Jobs Discrimination 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 345 Marine—Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 365 Personal Injury—Product Liability 365 Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Securities, Commodities, Exchange | | ` ′ |
| Civil Rights 440 Other Civil Rights 441 Civil Rights Voting 443 Civil Rights Voting 443 Civil Rights Welfare Contracts 120 Marine Contract Actions 190 Other Contract Actions Criminal N/A 156 Employment Discrimination Environmental ERISA 791 Employee Retirement Income Security Act Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor To Fair Labor Standards Act 720 Labor/Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction Postconviction Postconviction Prisoner Rights 550 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Vacate Sentence 530 Prison Petitions—Usate Sentence 530 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 346 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Personal Injury—Product Liability 369 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| 441 Civil Rights Voting 443 Civil Rights Accommodations 444 Civil Rights Welfare 120 Marine Contract Actions 190 Other Contract Actions 190 Other Contract Actions Criminal N/A 156 Employment 442 Civil Rights Jobs Employment 442 Civil Rights Jobs Environmental 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Vacate Sentence 530 Prisoner Petitions—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 345 Marine—Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Securities, Commodities, Exchange | | |
| 443 Civil Rights Accommodations 444 Civil Rights Welfare 120 Marine Contract Actions 190 Other Editorian Income Security Act 190 Other Copyright 190 | Civil ragins | |
| Contracts 120 Marine Contract Actions 190 Other Contract | | |
| Criminal N/A 156 Employment N/A 156 Employment Discrimination 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prisoner Petitions—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 345 Marine—Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 365 Persona | | |
| Criminal N/A 156 Employment Discrimination Environmental 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Securities, Commodities, Exchange | Contracts | |
| Criminal N/A 156 Employment Justin 156 Employment Justin 156 Environmental 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Property Damage—Product Liability 365 Pecurities 160 Stockholders Suits 850 Securities, Commodities, Exchange | Contracts | 1 |
| Employment Discrimination Environmental ENISA FRISA 791 Employee Retirement Income Security Act Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Property Damage—Product Liability 360 Securities 360 Social Security | Criminal | |
| Discrimination Environmental 893 Environmental Matters ERISA 791 Employee Retirement Income Security Act Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Personal Injury—Product Liability 360 Securities 550 Securities, Commodities, Exchange | | 1 |
| ERISA 791 Employee Retirement Income Security Act Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 315 Airplane Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Property Damage—Product Liability 360 Social Securities, Commodities, Exchange | | 442 Civil Rights 3005 |
| Insurance 110 Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 365 Personal Injury—Product Liability | | 803 Environmental Matters |
| Insurance Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange | | - · · · · · · · · · · · · · · · · · · · |
| Intellectual Property 820 Copyright 830 Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange | | |
| Rado Patent 840 Trademark Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange | | |
| Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange | Interfectual Property | |
| Labor 710 Fair Labor Standards Act 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | 000000000000000000000000000000000000000 |
| 720 Labor/Management Relations Act 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Marine—Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange | * 1 | |
| 730 Labor Management Report & Disclosure 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Property Damage—Product Liability 385 Securities 380 Social Security | Labor | |
| 740 Railway Labor Act 790 Other Labor Litigation Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 369 Asbestos Personal Injury—Product Liability 360 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| Postconviction Fostconviction The prison of Petitions—Vacate Sentence The prison of Petitions—Habeas Corpus The prisoner Rights The prisoner Rights The prisoner Rights The prisoner Rights The prisoner—Prison Condition Products Liability The product Liability The p | | |
| Postconviction 510 Prisoner Petitions—Vacate Sentence 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 345 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability 385 Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security | | |
| 530 Prison Petitions—Habeas Corpus 535 Habeas Corpus—Death Penalty Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange | | —————————————————————————————————————— |
| Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security | Postconviction | |
| Prisoner Rights 550 Prisoner—Civil Rights 555 Prisoner—Prison Condition Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | • |
| Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| Products Liability 245 Tort Product Liability 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | Prisoner Rights | |
| 315 Airplane Product Liability 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| 345 Marine—Product Liability 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | Products Liability | |
| 355 Motor Vehicle Product Liability 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | · · · · · · · · · · · · · · · · · · · |
| 365 Personal Injury—Product Liability 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | 345 Marine—Product Liability |
| 368 Asbestos Personal Injury—Product Liability 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| 385 Property Damage—Product Liability Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| Securities 160 Stockholders Suits 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| 850 Securities, Commodities, Exchange Social Security 860 Social Security | | |
| Social Security 860 Social Security | Securities | 160 Stockholders Suits |
| · · · · · · · · · · · · · · · · · · · | | 850 Securities, Commodities, Exchange |
| 861 Medicare | Social Security | 860 Social Security |
| | | 861 Medicare |

^{156.} Criminal law cases were compiled using the -9 NOS code for noncivil appeals and checking for the presence of a criminal offense variable.

| SUBJECT-MATTER | ADMINISTRATIVE OFFICE NATURE OF SUIT (NOS) |
|-------------------------|--|
| CATEGORY | CODES |
| Social Security (con't) | 862 Black Lung |
| | 863 D.I.W.C./D.I.W.W. |
| | 864 S.S.I.D. |
| | 865 R.S.I. |
| State Statute | 950 Constitutionality of State Statutes |
| Constitutionality | |
| Tax | 870 Tax Suits |
| | 871 IRS 3rd Party Suits 26 USC 7609 |
| Torts (nonproducts) | 310 Airplane Personal Injury |
| | 330 Federal Employers Liability |
| | 340 Marine Personal Injury |
| | 350 Motor Vehicle Personal Injury |
| | 360 Other Personal Injury |
| | 362 Medical Malpractice |

APPENDIX C: DEFINING SPECIALIZATION

Given that the standardized residuals used in this study may be somewhat unfamiliar, this Appendix provides some additional insight on their properties. As mentioned in the text, the general rule of thumb is that residuals with an absolute value above three are thought to be of interest. Unfortunately, however, median polish residuals do not have a known distribution, so they cannot be directly likened, for example, to a Gaussian standard deviation, where a standard deviation of two has a p-value of 0.05.

In the absence of a convenient analytical distribution, simulations can often provide some intuitive sense of the statistics involved. Accordingly, I simulated the Seventh Circuit case distribution under true random assignment and studied what kinds of median polish residuals emerge under those conditions. In principle, if there is true random assignment, we should never find any instances of specialization, but random variation can occasionally result in false positives.

After running the simulation 10,000 times, we can get a sense of what the false positive rate is for a given specialization cutoff. Under the cutoff of 3.0 used in the study, the mean false positive rate was 0.0057. A more liberal cutoff of 2.5 results in a mean false positive rate of 0.014. (The graphs below, in Figure 4 on the next page, show the distribution of false positive rates over the 10,000 simulations run.) Both of these cutoffs yield false positive rates significantly lower than the two standard deviation rule (p = 0.05) conventionally used in the social sciences, suggesting that they are quite conservative measures of specialization. Thus, we can be quite confident that residuals of 3.0 or greater are indeed instances of specialization, and not merely chance occurrences.

Put differently, under purely random assignment, we would expect that the Seventh Circuit would have 1.75 residuals greater than 3.0. As Appendix A shows, however, the Seventh Circuit actually has twenty-four residuals greater than 3.0, making a compelling case for opinion specialization.

^{157.} Many thanks to Judge Posner for suggesting this supplemental discussion.

^{158.} See supra text accompanying note 62.

Figure 4. False Positive Rates for Simulated Seventh Circuit Case Distributions

