ARTICLES

Measuring How Stock Ownership Affects Which Judges and Justices Hear Cases

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Under the federal judicial recusal rules, judges and justices who directly own stock in companies must recuse themselves in cases involving those companies. However, there has been little effort to measure the impact of these recusals on the pool of judges and justices that hear cases involving publicly traded corporations. Our empirical analysis finds that a surprisingly high rate of direct stock ownership partly shapes the group of judges and justices that decide these cases, resulting in judges that are more likely to be male, African-American, younger, with fewer personal assets, appointed by a Republican president, and more likely to be a former law professor. Since these corporations are important repeat-player litigants, this phenomenon raises important concerns about the federal judicial process. We propose and discuss several policies that might address this issue including requiring divestment, the use of financial derivatives to perfectly hedge the judge's equity position, the use of blind trusts, changing the recusal rules, equalizing the treatment of mutual funds and individual shares, and increasing transparency.

TABLE OF CONTENTS

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> "October. This is one of the peculiarly dangerous months to speculate in stocks in. The others are July, January, September, April, November, May, March, June, December, August, and February."[1]

INTRODUCTION

We call attention to a curious phenomenon—some litigants' cases are more likely to be heard by a particular set of judges and justices who differ substantially across a range of dimensions from the remainder of the federal bench. The identity of this group of litigants may come as some surprise: General Electric, IBM, Exxon—large publicly held corporations. Yet cases involving these litigants are heard by judges and justices who are different than those of other litigants. This is troubling as a matter of basic fairness in the federal judicial process and raises the possibility of strategic joinder or other gamesmanship.

The mechanism that results in this phenomenon is quite simple—the judicial recusal statutes require that judges who have a direct financial interest in the outcome of a case must recuse themselves.[2] Yet the extent to which this appears to affect the pool of judges that hear the cases of large publicly held corporations (and potentially shape the resulting law) has been underappreciated.[3]

Our Article is organized as follows. First, we briefly review the existing law of federal judicial recusal and review the special provisions that allow a judge to divest himself of that financial interest in order to participate in the case.[4]

We then turn to our empirical analysis and find that judges' stock holdings are highly concentrated in large public companies. For example, we find 1 in 4 federal appellate judges hold stock in General Electric (GE). As a result, nearly 1 in 4 federal judges would be required to recuse themselves from one of the

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1. MARK TWAIN, PUDD'NHEAD WILSON AND THOSE EXTRAORDINARY TWINS 96 (Modern Library 2002) (1894).

2. Federal judges occasionally fail to recuse themselves even when required. *See* Reity O'Brien et al., *Federal Judges Plead Guilty: Juris Imprudence: Litigants Reeling After Judges Admit Conflicts of Interest*, CENTER FOR PUB. INTEGRITY (Apr. 28, 2014, 12:01 AM), http://www.publicintegrity.org/2014/04/28/14630/federal-judges-plead-guilty (finding 24 cases in the past three years in which judges owned stock in a company in which they issued ruling); Joe Stephens, *Ethics Lapses by Federal Judges Persist, Review Finds*, WASH. POST (Apr. 18, 2006), http://www.washingtonpost.com/wp-dyn/content/article/2006/04/17/AR2006041701296.html (noting that in 2003, federal appeals court judges issued rulings on at least seven lawsuits while they or their spouses owned stock in a company involved in the case or had other financial ties to a party in dispute; interviewed judges noted confusion about subsidiaries or spouse's assets).

3. As explained in the next section, recusal can occur for a variety of different reasons. We focus on recusal as a result of stock ownership because it occurs relatively frequently and has the potential to shape the pool of judges that hear these important cases.

4. Throughout this Article, we will use the terms "disqualification" and "recusal" interchangeably. *See* CHARLES GARDNER GEYH, JUDICIAL DISQUALIFICATION: AN ANALYSIS OF FEDERAL LAW 2 (2d ed. 2010) ("[S]ome use 'disqualification' and 'recusal' interchangeably, while others distinguish between the two, using 'recusal' to mean withdrawal on the judge's own initiative, and 'disqualification' to mean withdrawal on the motion of a party.").

numerous cases in which GE is a litigant.[5]

Next, we examine the extent to which large publicly traded companies are involved in litigation. Unsurprisingly, we find that the same large publicly traded companies often owned by federal judges are frequently involved in litigation before the federal courts.

We then link patterns of ownership to the judges who preside over this litigation. We find that an increase in the number of publicly traded companies' shares held directly by a given judge reduces the likelihood that that judge will sit on a case involving any publicly traded corporate defendant. The results show that judicial recusals are shaping the group of judges and justices that hears cases involving corporate defendants.

We also examine the relationship between judge characteristics and the number of companies found in the judge's stock portfolio. We find that women and senior status judges are more likely to hold individual shares in publicly traded companies, while African-American judges are less likely to hold shares. We also find that several of these characteristics are associated with a change in the likelihood a judge hears a case involving a publicly traded company (lower for senior status judges and higher for judges who have previously been law professors). This also suggests that judicial recusals meaningfully affect the judges who preside over these important cases.

These findings are somewhat surprising because it is appears relatively easy for a federal judge or justice to avoid the need to recuse in most cases. Since 2006, federal judges have been provided with the benefit of a special statute that allows them to divest themselves of stocks that would otherwise require recusal while deferring capital gains taxes that would otherwise be due. And there are numerous financial instruments that provide close financial substitutes to owning individual equities.[6]

Policymakers may wish to require or strongly encourage federal judges to divest themselves of individual stocks to avoid judicial recusals either as a condition of confirmation or case-by-case. We also propose that Congress permit or perhaps require "perfect hedging"—the use of financial derivatives to make a judge financially indifferent to the ways in which her decision might affect the value of a stock. This would permit judges and justices who are unable (because they do not control the stock) or unwilling to divest to accomplish the financial equivalent for the pendency of the case.

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5. We chose to analyze recusals in the federal appellate courts rather than district courts because they are courts of last resort for litigants who are denied certiorari by the Supreme Court. Further research into recusals at the district court level would be useful, particularly since district courts are responsible for the critical fact-finding function.

6. It is unclear why federal judges do not avail themselves more frequently of these means to avoid recusals, though it is possible that it is because they do not have direct control over these stocks because a family member is the owner.

I. OVERVIEW OF RECUSAL AUTHORITY

Historically, recusal on the basis of financial interest is long established. In England, "a judge was disqualified for direct pecuniary interest and for nothing else."[7] In the United States, the Supreme Court held in *Tumey v. Ohio* that the Due Process Clause is violated in a criminal case when a judge or justice has "the slightest pecuniary interest" in the outcome.[8] However, the relevant statute only required recusal if the financial interest was "substantial,"[9] and federal judges often did not recuse themselves despite owning shares in a corporate litigant.[10] Congress clarified the issue with the 1974 passage of 28 U.S.C § 455, which created a clear prohibition on the ownership of a litigant's stock, and which we will discuss below.[11]

Today, four primary sources of law and guidance govern federal judicial recusals.[12] First, 28 U.S.C. § 455 applies to all federal judges. Second, 28 U.S.C. § 144 applies only to district court judges. Third, for the Supreme Court, a 1993 "Statement of Recusal Policy" addresses Justices' obligations under 28 U.S.C. § 455. Fourth, the Code of Conduct for United States Judges governs the ethical conduct of lower federal court judges, but not Supreme Court Justices, and generally mirrors § 455.[13]After discussing § 455 and § 144, we will discuss the Supreme Court's policy on judicial recusals and finally discuss means by which judges can cure the underlying conflict of interest.

A. DISQUALIFICATION UNDER § 455

Section 455 is the core federal statute governing disqualification and applies to all federal judges and justices. Because the statute's provisions are self-executing, judges can disqualify themselves. Although the statute itself does not specify a procedure for a party to challenge a judge's impartiality under § 455, such a practice has developed when a judge does not disqualify himself or

7. John P. Frank, *Disqualification of Judges*, 56 YALE L.J. 605, 609 (1947).

8. 273 U.S. 510, 524 (1927).

9. Act of June 25, 1948, ch. 646, 62 Stat. 869, 908.

10. *See, e.g.*, Kinnear-Weed Corp. v. Humble Oil & Ref. Co., 404 F.2d 437, 440 (5th Cir. 1968) (appellate court did not disqualify judge who held 100 of 36,000,000 shares in litigant); Lampert v. Hollis Music, Inc., 105 F. Supp. 3, 5–6 (E.D.N.Y. 1952) (judge's ownership of 20 of 13,881,016 shares did not require recusal).

11. *See* Union Carbide Corp. v. U.S. Cutting Serv., Inc., 782 F.2d 710, 714 (7th Cir. 1986) ("The purpose of [§ 455](b) is to establish an absolute prohibition against a judge's knowingly presiding in a case in which he has a financial interest, either in his own or a spouse's (or minor child's) name. Before the statute was passed judges did not recuse themselves in such cases unless the interest was so large that a reasonable person might think it could influence the judge's decision. This standard was too nebulous—not least from the judge's standpoint—and Congress replaced it by a flat prohibition.").

12. Additionally, there is also a "little-used disqualification statute," 28 U.S.C. § 47 (2012), which provides that "[n]o judge shall hear or determine an appeal from the decision of a case or issue tried by him." GEYH, *supra* note 4, at 95.

13. The Judicial Conference's Committee on Codes of Conduct renders advisory opinions interpreting the Code. When relevant, therefore, we address those advisory opinions that provide clarity with respect to a judge's ethical obligations under the Code, as also codified under § 455.

herself.[14]

The statute has two central provisions. The first, appearing in subsection (a), is a broad catchall disqualification rule that requires a judge to disqualify himself whenever "his impartiality might reasonably be questioned."[15] Although a judge can do this without prompting, a party may also move for disqualification under § 455. The allegedly conflicted judge will hear the motion[16] and may investigate the grounds in support of the motion.[17] After full disclosure of the potential conflict on the record, the parties may agree to waive any objection to a conflict arising solely under the catchall provision, and thus allow the matter to proceed before the assigned judge.[18]

The second provision, appearing in subsection (b), describes five specific circumstances that also require disqualification.[19] The parties may not waive any objection to these conflicts.[20]

The five categories are:

(1) Bias/Personal Knowledge: if the judge "has a personal bias or prejudice concerning a party, or personal knowledge of disputed evidentiary facts concerning the proceeding";[21]

(2) Prior Representation or Involvement: if the judge, while in private practice, "served as [a] lawyer in the matter in controversy," or if one of the judge's former partners or associates "served during such association as a lawyer concerning the matter," or if "the judge or such lawyer has been a material witness concerning it";[22]

(3) Prior Governmental Representation: for judges who have previously served the government, the judge may not participate in any matter in which he

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14. Debra Lyn Bassett, *Judicial Disqualification in the Federal Appellate Courts*, 87 IOWA L. REV. 1213, 1234 (2002) ("[A] party also may invoke § 455 through motion in the trial court, assignment of error on appeal, interlocutory appeal, or by extraordinary writ."). The standard for these procedures varies to some degree by circuit due to § 455's silence with respect to its enforcement mechanism. *See id.* at 1237–38 & n.125.

15. 28 U.S.C. § 455(a) (2012).

16. *See* GEYH, *supra* note 4, at 79 ("The weight of authority indicates that it is proper, indeed the norm, for the challenged judge to rule on a disqualification motion pursuant to § 455.").

17. *See, e.g.*, United States v. Morrison, 153 F.3d 34, 48 n.4 (2d Cir. 1998) ("[I]t was not irregular for [the judge] to ascertain her husband's and friend's possible involvement with the defendant simply by asking them, in a reasonable effort to confirm that [the defendant's] incredible claims were indeed not factual.").

18. 28 U.S.C. § 455(e) (2012). This waiver procedure is only possible in conflicts involving district court judges because there is no procedure for disclosure and waiver at either the courts of appeals or the Supreme Court. Indeed, at the appellate level, the conflicts rules are not only self-executing, but almost exclusively self–enforced because the only review mechanism is filing a motion for extraordinary relief or a petition for writ of certiorari in the Supreme Court. Thus, only one judge will review a disqualification motion: that judge himself or herself.

19. *Id.* § 455(b). One interpretation of subsection (b) is as containing a nonexhaustive list of circumstances in which a judge's "impartiality might reasonably be questioned," as predetermined by Congress standing in a "reasonable" person's shoes. *See* GEYH, *supra* note 4, at 11.

20. 28 U.S.C. § 455(e) (2012).

21. *Id.* § 455(b)(1).

22. *Id.* § 455(b)(2).

or she "participated as counsel, adviser or material witness concerning the proceeding or expressed an opinion concerning the merits of the particular case in controversy";[23]

(4) Financial or Other Interest: if the judge knows that he or she, or a member of his or her household, "has a financial interest in the subject matter in controversy or in a party to the proceeding, or any other interest that could be substantially affected by the outcome of the proceeding";[24]

(5) Family Connection to Case: if the judge's "spouse, or a person within the third degree of relationship to either of them, or the spouse of such a person" is (a) "a party to the proceeding, or an officer, director, or trustee of a party"; (b) "acting as a lawyer in the proceeding"; (c) "known by the judge to have an interest that could be substantially affected by the outcome of the proceeding"; or (d) is "to the judge's knowledge likely to be a material witness in the proceeding."[25]

To meet these obligations, the statute requires the judge to "inform himself about his personal and fiduciary financial interests, and make a reasonable effort to inform himself about the personal financial interests of his spouse and minor children residing in his household."[26]

With respect to financial conflicts of interest, the statute defines "financial interest" as "ownership of a legal or equitable interest, however small, or a relationship as director, adviser, or other active participant in the affairs of a party."[27]

Notably, it does not matter whether a judge has $10 worth of stock in a company or $1,000,000 worth; if the judge owns a "legal or equitable interest" in the party, he or she must disqualify himself or herself.[28] Although federal disclosures do not list the specific value of a judge's holdings, they do provide broad categories. The vast majority of judicial holdings in individual equities are valued at less than $15,000 with earnings per year valued at less than $1,000. By way of comparison, these earnings are typically less than the honorarium paid to justices by law schools for lectures. However, the statute expressly excludes ownership interests held through a mutual fund, unless the

23. *Id.* § 455(b)(3). The Code of Conduct for United States Judges expressly commands disqualification when the judge has previously participated in a case while serving in a previous judicial position. No similar, explicit provision exists in § 455. This type of disqualification may occur when a sitting judge is appointed to the Supreme Court and must disqualify himself or herself from all cases in which he or she may have participated during his or her tenure on a lower federal court or when a district court judge is appointed to the court of appeals.

24. *Id.* § 455(b)(4).

25. *Id.* § 455(b)(5).

26. *Id.* § 455(c).

27. *Id.* § 455(d)(4).

28. Outside of the federal system, only the State of New Jersey has disqualification rules as restrictive as the financial interest provision in § 455, where any *de minimis* interest triggers mandatory disqualification. *See* STANDING COMM. ON JUDICIAL INDEPENDENCE, AM. BAR ASS'N, DRAFT REPORT OF THE JUDICIAL DISQUALIFICATION PROJECT 25 & n.101 (2008).

judge himself participates in the management of the fund.[29]

This leads to the divergent treatment of financially identical situations. Suppose Judge A invests $100,000 of his retirement savings into the Vanguard 500 Index Fund, which tracks the Standard and Poor's 500. Approximately 3% of this fund's assets are invested in Apple,[30] leading the judge to effectively hold about $3,000 worth of Apple stock. Judge B (or her financial advisor) simply purchased $3,000 of Apple stock for Judge B's portfolio, as part of a broadly diversified portfolio managed on Judge B's behalf. Judge B would be required to recuse herself from a case in which Apple was a litigant whearas Judge A would not.

Besides mutual funds, there are also three other exceptions in the statute. First, holding an office in "an educational, religious, charitable, fraternal, or civic organization" is not a "financial interest."[31] Second, holding a proprietary interest as a "policyholder in a mutual insurance company," "a depositor in a mutual savings association," or the like is not typically a "financial interest," unless "the outcome of the proceeding could substantially affect the value of the interest."[32] Finally, ownership of a government bond or security is also not a "financial interest," unless "the outcome of the proceeding could substantially affect the value of the securities."[33]

These rules also apply to subsidiaries. Interpreting the materially similar provision in its Code of Conduct, the Judicial Conference of the United States advised that "the owner of stock in a parent corporation has a financial interest in a controlled subsidiary."[34] However, "if the judge owns stock in the subsidiary rather than the parent corporation, and the parent corporation appears as a party in a proceeding, the judge must recuse only if the interest in the subsidiary could be substantially affected by the proceeding."[35]

A financial interest in a party that files an amicus brief "is not per se a disqualification," unless the interest in the amicus would be substantially affected by the outcome of the case, or one might otherwise reasonably question a judge's impartiality based on the interest.[36]

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29. 28 U.S.C. § 455(d)(4)(i) (2012) ("Ownership in a mutual or common investment fund that holds securities is not a 'financial interest' in such securities unless the judge participates in the management of the fund.").

30. *Vanguard 500 Index Fund; Admiral*, MARKETWATCH, http://www.marketwatch.com/investing/fund/VFIAX/holdings (last visited Aug. 28, 2014) (noting that Apple Inc. made up 3.05% of Vanguard 500 Index Fund total net assets).

31. 28 U.S.C. § 455(d)(4)(ii) (2012).

32. *Id.* § 455(d)(4)(iii).

33. *Id.* § 455(d)(4)(iv).

34. COMM. ON CODES OF CONDUCT, JUDICIAL CONFERENCE OF THE U.S., GUIDE TO JUDICIARY POLICY: ADVISORY OPINION NO. 57: DISQUALIFICATION BASED ON STOCK OWNERSHIP IN PARENT CORPORATION OF A PARTY OR CONTROLLED SUBSIDIARY OF A PARTY (2009).

35. *Id.*

36. COMM. ON CODES OF CONDUCT, JUDICIAL CONFERENCE OF THE U.S., GUIDE TO JUDICIARY POLICY: ADVISORY OPINION NO. 63: DISQUALIFICATION BASED ON INTEREST IN AMICUS THAT IS A CORPORATION (2009).

B. DISQUALIFICATION UNDER § 144

Whereas § 455 is self-executing and broadly prohibits all federal judges from hearing any matter in which their impartiality "might reasonably be questioned," 28 U.S.C. § 144 reaches only cases involving actual bias or prejudice and governs only district court judges.[37] Also, unlike a motion under § 455, proceedings under § 144 are brought before a different district court judge.

To bring a disqualification challenge under § 144, the party must "state the facts and the reasons for the belief that bias or prejudice exists" in an affidavit in support of the motion, and must file the motion "not less than ten days before the beginning of the term at which the proceeding is to be heard," absent good cause for a delay.[38] Counsel must certify that he or she makes the motion in good faith.[39] A facially sufficient affidavit triggers disqualification, and the district court must assign another judge to hear the proceeding, including resolution of the disqualification motion.[40] In theory, a § 144 motion could operate as something akin to a peremptory disqualification.[41] However, courts have been "exacting" when it comes to enforcing § 144's affidavit requirement.[42] In contrast, § 455 carries with it neither an affidavit requirement nor an express deadline for the disqualification motion.

For these reasons, § 455 has largely subsumed § 144.[43] Indeed, the Supreme Court recognized that § 144 "seems to be properly invocable only when § 455(a) can be invoked anyway."[44] Parties rarely invoke § 144 without also invoking § 455, in seeming recognition that the latter "is the more modern and complete recusal statute."[45]

C. THE SUPREME COURT

Section 455 applies on its face to "[a]ny justice . . . of the United States."[46] But despite the fact that § 455 may appear to apply, most members of the Court have concluded that they are not rigidly bound by its restrictions. In 1993, Chief Justice Rehnquist issued a memorandum describing his views on his obligations

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37. *See* 28 U.S.C. § 144 (2012) ("Whenever a party to any proceeding in a district court makes and files a timely and sufficient affidavit that the judge before whom the matter is pending has a personal bias or prejudice either against him or in favor of any adverse party, such judge shall proceed no further therein, but another judge shall be assigned to hear such proceeding.").

38. *Id.*

39. *Id.*

40. *See id.*

41. *See* GEYH, *supra* note 4, at 83 ("Such an interpretation would render § 144 akin to peremptory disqualification procedures adopted by judicial systems in a number of western states—and the legislative history of § 144 lends some support for this interpretation.").

42. *Id.* ("The federal courts have indeed held that under § 144 a judge must step aside upon the filing of a facially sufficient affidavit; but they have been exacting in their interpretations of what a facially sufficient affidavit requires and of the procedural prerequisites to application of the statute.").

43. *Id.* at 84.

44. Liteky v. United States, 510 U.S. 540, 548 (1994).

45. *In re* Martinez-Catala, 129 F.3d 213, 220 (1st Cir. 1997).

46. 28 U.S.C. § 455(a) (2012).

under § 455, and most Justices have adopted it.[47]

This memorandum, entitled "Statement of Recusal Policy," largely details the Justices' view on two circumstances which might otherwise ordinarily suggest grounds for disqualification: when a relative of a Justice "has participated in" a pending case during "an earlier stage of the litigation" or when the relative "is a partner in a firm appearing before" the Court.[48] The Justices do not believe either circumstance "automatically trigger[s]" disqualification.[49] To avoid "needless recusal[s] [which] deprive[] litigants of the nine Justices to which they are entitled," the Justices concluded they would disqualify themselves only when: (1) a relative has served as lead counsel below, or (2) the "amount of the relative's compensation could be substantially affected by the outcome" of the case.[50] Accordingly, the Justices encouraged law firms employing their relatives to provide the Court "written assurance that income from Supreme Court litigation is, on a permanent basis, excluded from [their] relatives' partnership shares."[51]

The specific contents of the memorandum may be less significant than its implication. As Professor Bassett has noted, "In the Statement of Recusal Policy, the Justices re-emphasized their negative view of recusal in cases where actual bias is not at issue."[52] The Justices eschew § 455(a)'s "appl[ication of] an objective reasonable person standard," in favor of "the Justices' own sense of what to them would constitute a reasonable basis upon which to question a judge's impartiality."[53]

D. DIVESTITURE OF FINANCIAL INTERESTS TO ENABLE PARTICIPATION IN A CASE

As noted above, § 455(b)'s financial interest disqualification rule is strict:

> The conflicts enumerated in § 455(b) require automatic disqualification—even if the judge believes he or she is capable of impartial judgment; even if he or she believes that a reasonable person would not question his or her impartiality; and even if the parties are willing to waive any objections.[54]

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47. Memorandum from William H. Rehnquist, Chief Justice, Supreme Court of the U.S. (Nov. 1, 1993), *available at* http://www.eppc.org/docLib/20110106_RecusalPolicy23.pdf [hereinafter Rehnquist Memorandum]. Including the Chief Justice, six other Justices signed the memorandum: Justice Stevens, Justice O'Connor, Justice Scalia, Justice Kennedy, Justice Thomas, and Justice Ginsburg. *Id.* After Chief Justice Roberts' appointment in 2005, he too issued a memorandum stating his intention to follow the 1993 memorandum's guidance. *See* Lyle Denniston, *Roberts' Recusal Policy*, SCOTUSBLOG (Sept. 30, 2005, 4:54 PM), http://www.scotusblog.com/2005/09/roberts-recusal-policy.

48. Rehnquist Memorandum, *supra* note 47 (emphasis omitted).

49. *Id.* (emphasis omitted).

50. *Id.*

51. *Id.*

52. Debra Lyn Bassett, *Recusal and the Supreme Court*, 56 HASTINGS L.J. 657, 681 (2005) (internal quotation marks omitted).

53. *Id.* (quoting Sherrilyn A. Ifill, *Do Appearances Matter?: Judicial Impartiality and the Supreme Court in* Bush v. Gore, 61 MD. L. REV. 606, 626 (2002)) (internal quotation marks omitted).

54. GEYH, *supra* note 4, at 63.

To aid a judge in determining whether he or she has a financial interest in a particular matter, various procedural rules require corporate parties to file a statement identifying any parent corporation or publicly held corporation that owns 10% or more of its stock.[55] The clerk's office (or a judge) can screen cases for disqualifying financial interests ideally prior to judicial assignment.

To avoid disqualification, a judge (or their spouse or minor child residing in the household) may "divest[] himself or herself of the interest that provides the grounds for the disqualification."[56] The Judicial Conference of the United States has concluded that the divestiture provision applies regardless of how much time a judge has spent on a particular case.[57]

To encourage judges' use of the divestiture process in § 455(f), in 2006 Congress extended to federal judicial officers (and their covered family members) an existing tax provision which deferred capital gains taxes for certain transactions undertaken to avoid financial conflicts of interests.[58] Until 2006, the statute benefitted only executive branch employees and their relatives. The statute allows judges and justices and their immediate family members to remedy financial conflicts by divesting those assets without any immediate tax consequences.

Under 26 U.S.C. § 1043, "a judicial officer" and "any spouse or minor or dependent child whose ownership of any property is attributable under any statute, regulation, rule, [or] judicial canon" to the judge may elect to defer capital gains taxes on securities sold pursuant to § 455(f)'s divestiture provision.[59] To do so, the seller must use the gains to purchase "permitted property"—for example, mutual funds or federal government bonds—"during the 60-day period beginning on the date of such sale."[60]

Further, "[i]f gain from the sale of any property is not recognized" because it has been reinvested in "permitted property," then "such gain shall be applied to

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55. *See* FED. R. CIV. P. 7.1; FED. R. CRIM. P. 12.4; FED. R. APP. P. 26.1.

56. 28 U.S.C. § 455(f) (2012).

57. COMM. ON CODES OF CONDUCT, JUDICIAL CONFERENCE OF THE U.S., GUIDE TO JUDICIARY POLICY: ADVISORY OPINION NO. 69: REMOVAL OF DISQUALIFICATION BY DISPOSAL OF INTEREST (2009) [hereinafter ADVISORY OPINION NO. 69] ("The Committee believes that this provision applies to cases in which a judge has already expended a substantial amount of time, cases in which a judge has expended no time, and those in between."). The Code of Conduct is in some tension with the plain language of § 455(f). In practice, courts appear to approve the more flexible divestiture process as set forth in the Code. *See In re* Certain Underwriter, 294 F.3d 297, 304 (2d Cir. 2002) (applauding "a district judge with a minor interest in a class action lawsuit [which was] discovered after assignment, who [then] quickly divested herself of the conflicting interest").

58. *See* Tax Relief and Health Care Act of 2006, Pub. L. No. 109-432, § 418, 120 Stat. 2922, 2966–67 (codified as amended at 26 U.S.C. § 1043 (2012)). Chief Justice Roberts, himself a corporate stockholder, "urged Congress to pass [the legislation] in his capacity as head of the Judicial Conference." Tony Mauro, *Issue of "Strategic Recusals" Arises in Key Supreme Court Case*, NAT'L L.J. (Aug. 20, 2007), http://www.nationallawjournal.com/id=900005489058/Issue-of-Strategic-Recusals-Arises-in-Key-Supreme-Court-Case?slreturn=20150023175413.

59. 26 U.S.C. § 1043 (2012). The provision applies equally to transactions involving a trust, if a covered judicial officer or family member is a beneficiary of the trust. *Id.* § 1043(b)(5).

60. *Id.* § 1043(a), (b)(3).

reduce (in the order acquired) the basis for determining gain or loss of any permitted property which is purchased by the taxpayer during the 60-day period."[61] The provision has the effect of delaying the incurrence of capital gains taxes until this "permitted property" is ultimately sold.

To invoke § 1043(a), the judge or judge's relative must make the sale "pursuant to a certificate of divestiture."[62] The Judicial Conference of the United States may issue this certificate, which must identify the divested property and "state[] that divestiture of [that] specific property is reasonably necessary to comply with any Federal conflict of interest statute, regulation, rule, judicial canon, or executive order (including 18 U.S.C. § 208), or requested by a congressional committee as a condition of confirmation."[63] However, justices have not always taken advantage of this statute.[64]

To summarize the key provisions, § 455 requires that judges recuse themselves from cases involving litigants in which a judge owns a direct financial stake, unless that stake is owned by a mutual fund. Judges are permitted to cure the conflict of interest by divesting themselves of the relevant shares and are permitted to defer the capital gains tax that would otherwise be due in such a case. We now turn to measuring the effect of these provisions.

II. THE EFFECT OF RECUSAL

On occasion, the effect of recusals can be dramatic. For example, in *Comer v. Murphy Oil USA*, recusals effectively reversed an appellate ruling.[65] In that case, the plaintiffs argued that oil companies were partly liable for Hurricane Katrina-related damages based on a theory that global warming caused by defendants exacerbated the damage that Katrina caused.[66] The plaintiff's case was dismissed in the district court.[67] The plaintiffs appealed and won, at least at first: a panel of the Fifth Circuit reversed the district court's ruling to dismiss the case.[68] The Fifth Circuit voted to rehear the case en banc, and vacated the panel's judgment in anticipation of the en banc hearing.[69] However, the court determined it was without a quorum of judges to hear the case en banc due to

61. *Id.* § 1043(c).

62. *Id.* § 1043(a).

63. *Id.* § 1043(b)(2).

64. *See* Brent Kendall, *New Law Fails to Compel Justices to Sell Stock and Avoid Conflict of Interest*, DAILY J. (Mar. 7, 2008), http://www.taxproblemattorneyblog.com/Daily%20Journal%20Article.pdf (citing several cases subsequent to 2006 extension of law in which Supreme Court Justice recusals may have led to indecision; quoting Professor Arthur Hellman: "It's a very serious situation when even a single important case is not decided by the court because of stock ownership by one of the justices . . . . It's hard to believe that their portfolios are so exquisitely balanced that there's any one stock they must have.").

65. 607 F.3d 1049 (5th Cir. 2010) (dismissing appeal).

66. Comer v. Murphy Oil USA, 585 F.3d 855, 859 (5th Cir. 2009).

67. Comer v. Murphy Oil USA, Inc., No. 1:05-CV-436-LG-RHW, 2007 WL 6942285, at *1 (S.D. Miss. Aug. 30, 2007).

68. *Comer*, 585 F.3d at 880.

69. Comer v. Murphy Oil USA, 598 F.3d 208, 210 (5th Cir. 2010).

numerous financial recusals among its active judges.[70] Without a quorum to act on the case, the court ordered the clerk to dismiss the appeal. This left the district court's decision intact, and had the effect of reversing the panel decision as if the plaintiffs had never won an appeal.[71]

However, the *Comer* case was unusual. More commonly, judicial recusals subtly shape the pool of judges and justices that hear cases involving corporate litigants and have the potential to shape the law that results.

Unfortunately, there has been little effort to measure judicial disqualifications or their effects. Neither the Administrative Office of the United States Courts, nor the Judicial Conference appears to track the number and nature of judicial disqualifications. Because § 455 is self-executing, and requires judges to disqualify themselves, sometimes before assignment, there may be no record in the docket of a disqualification.[72] And no law requires a judge or a justice to explain why he or she decides to disqualify himself or herself in a particular case.[73] Save for particularly high profile disqualification disputes—for example, Justice Scalia's refusal to disqualify himself in *Cheney v. U.S. District Court*[74]—judges and justices' self–initiated disqualifications go largely unnoticed and unrecorded.

In the next sections, we discuss recusals and their effect at the Supreme Court and in the United States courts of appeals. At the Supreme Court, our analysis was aided by the fact that Justices normally indicate when they recuse themselves from consideration of a case. In contrast, the lack of transparency in the courts of appeals required us to infer recusals from the pattern of cases heard by

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70. *Comer*, 607 F.3d at 1054, *mandamus denied*, 131 S. Ct. 902 (2011) (mem.). Judge Elrod was the judge who disqualified herself after the initial en banc vote. Curiously, no obvious reason for her recusal is reflected on her financial disclosure forms. Meanwhile, Judge Clement, who never disqualified herself, owned stock in BP and Chevron until November of 2009. *See* Edith B. Clement, Financial Disclosure Report for Calendar Year 2009, *available at* http://www.judicialwatch.org/wp-content/uploads/2014/10/Clement_Edith_B-2009.pdf. The panel issued its decision in *Comer* in October of 2009, 585 F.3d 855, and the en banc vote occurred in early 2010, 598 F.3d 208.

71. *Cf.* Kendall, *supra* note 64 (noting cases in which recusals may have had an effect at the Supreme Court).

72. This may have implications for the kinds of strategic behavior that are possible. If a party is considering joining a corporation in order to disqualify a particular judge, that party must do so without knowledge that this particular judge would be assigned to the case.

73. The Committee on the Codes of Conduct does advise, however:

> [S]hould a judge decide to continue to participate in a matter following disposal of a disqualifying interest, the facts giving rise to the disqualification, the judge's disposal of the disqualifying interest, and the public interest in continued participation of the judge should generally be disclosed to the parties and on the record in the case.

ADVISORY OPINION NO. 69, *supra* note 57. The justices are not bound by the Committee's advice, nor do they always follow it.

74. 542 U.S. 367 (2004). In this case, the Sierra Club had asked Justice Scalia not to participate in a case involving Vice President Cheney because they had gone on a duck hunting trip together in Louisiana while the case was pending in the United States Supreme Court. Justice Scalia's refusal to recuse himself led to newspaper editorials calling for him to reconsider. *See* Steve Twomey, *Scalia Angrily Defends His Duck Hunt with Cheney*, N.Y. TIMES (Mar. 18, 2014), http://www.nytimes.com/2004/03/18/politics/18CND-SCAL.html.

individual judges. In both courts, however, we found that recusals shape the group of judges and justices that hear these cases.

A. SUPREME COURT

Because the Supreme Court is the Supreme Court, and because there are ordinarily no replacements for a disqualified Justice, recusals are cause for particular concern. While at the court of appeals or district court, a case can usually be heard by other judges, there are (currently) no substitute Justices.[75] As a result, recusals have the potential to have a significant impact.[76] And, in the last ten years, at least three Justices have held disqualifying interests in every session of the Court. For example, in 2010 Justice Alito held interests in three Forbes 100 companies directly, Justice Breyer held interests in thirty-three companies, and Chief Justice Roberts held interests in fourteen.[77]

On the other hand, it is theoretically possible that concern about recusals on the Supreme Court are overstated. First, there is little overlap in the holdings of the Justices, and several Justices hold only smaller companies (Scalia and Souter did own stock at various points in our sample but did not hold companies in the Forbes 100). Moreover, the Court has issued a "Statement of Recusal Policy," which, if followed, would allow a Justice to sell shares and remain on the case or decide that the conflict was minimal enough not to warrant recusal. Given the relatively small number of cases heard by the Court and the willingness of some Justices to sell their shares rather than allow the case to be heard by a reduced panel, it is possible that recusals do not much affect the Court. We therefore turn to an empirical analysis of this question.

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75. Senator Patrick Leahy, apparently upon the suggestion of retired Justice Stevens, proposed legislation to permit retired Supreme Court Justices to sit on the Court by designation when an active Justice has recused. *Leahy Proposes Bill to Allow Retired Justices to Sit on Court by Designation*, PATRICK LEAHY U.S. SENATOR FOR VERMONT (Sept. 29, 2010), http://www.leahy.senate.gov/press/leahy-proposes-bill-to-allow-retired-justices-to-sit-on-court-by-designation. For discussion of the proposal, see generally Steven M. Klepper, *The Practical Implications of Recusal of Supreme Court Justices: A Response to Professor Swisher*, 72 MD. L. REV. ENDNOTES 13 (2013); Lisa T. McElroy & Michael C. Dorf, *Coming off the Bench: Legal and Policy Implications of Proposals to Allow Retired Justices to Sit by Designation on the Supreme Court*, 61 DUKE L.J. 81 (2011); Rebekah Saidman-Krauss, Comment, *A Second Sitting: Assessing the Constitutionality and Desirability of Allowing Retired Supreme Court Justices to Fill Recusal-Based Vacancies on the Bench*, 116 PENN ST. L. REV. 253 (2011).

76. For example, in *United States v. Aluminum Co. of Am.*, four Justices recused themselves, depriving the Court of a quorum. 320 U.S. 708, 708 (1943). Congress enacted a special statute, authorizing the Second Circuit to sit as the court of last resort in the case. United States v. Aluminum Co. of Am., 148 F.2d 416, 421 (2d Cir. 1945).

77. Interestingly, the Justices' holdings rarely overlap. Thus while Justice Alito held Exxon stock in 2010, no other Justice holds Exxon. *See* Samuel A. Alito, Financial Disclosure Report for Calendar Year 2010, *available at* http://www.judicialwatch.org/wp-content/uploads/2013/11/Samuel-A-Alito-Financial-Disclosure-Report-for-2010.pdf.

1. Data and Sample Construction

Our data on stock holdings for both Justices on the Supreme Court and judges on the U.S. courts of appeals come from their annual financial disclosures.[78] All judges and justices are required to submit an annual disclosure of their finances in May.[79] The disclosures cover all investments and trusts of "spouse[s] and dependent children."[80] Moreover they must disclose all holdings, not merely those stocks from which they receive income during the year.[81] These disclosures cover the entire preceding year and do not distinguish between particular months.[82] For this reason it is impossible to determine from these data if a judge sold the financial interest in order to remain on the case, a fact discussed further in our analysis of appellate courts.

Six Supreme Court Justices appear to have had direct equity holdings during our study period and would thus be covered by § 455(d)(4).[83] These are Chief Justice Roberts, and Justices O'Connor, Scalia, Souter,[84] Breyer,[85] and Alito. All other holdings disclosed on the forms for Supreme Court Justices are mutual funds or bonds. Using Westlaw's database of rulings on petitions for writs of certiorari, we searched for the phrase "Justice X took no part in the consideration or decision of this petition," the standard language used in the case of a disqualification. Using the data on Justices' holdings, we cross-checked the parties to a petition with the Justices' companies (and their parent companies). We then assumed that if the Justice held stock in one of the litigants and recused, it was for financial reasons.[86]

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78. These disclosures are posted by Judicial Watch on their website. JUDICIAL WATCH, http://www.judicialwatch.org (last visited Apr. 1, 2015).

79. COMM. ON FIN. DISCLOSURE, ADMIN. OFFICE OF THE U.S. COURTS, FILING INSTRUCTIONS FOR JUDICIAL OFFICERS AND EMPLOYEES 1 (2010), *available at* https://www.judicialwatch.org/files/documents/2011/2010-judicialfinancialdisclosureinstructions.pdf (offering detailed guidance on financial disclosure obligations pursuant to the Ethics in Government Act of 1978 for judicial officers and employees).

80. *Id.* at 5.

81. *See generally id.* at 34–60.

82. *See id.* at 34–35. Even if a judge, or his or her spouse, inherits stocks which are immediately sold, they must be listed in this disclosure.

83. *See supra* notes 27–28 and accompanying text.

84. Justice Souter's holdings, primarily in Northeastern banks, do not appear to have generated any conflicts of interest simply because none of the banks appear to have filed a petition for writ of certiorari during our sample period. For this reason his are not shown in Figure 1.

85. Justice Breyer has by far the largest number of companies in his holdings. He is also the leader in disqualifications, although many of these appear to be due to his brother who is a district court judge. In a handful of cases, we cannot determine if the disqualification is due to his financial holdings or due to his brother having played some part in the case. We count these as financial disqualifications for the purposes of Figure 1.

86. For example in *Silverstein v. Penguin Putnam, Inc*., 543 U.S. 1039 (2004), we find that "Justice BREYER took no part in the consideration or decision of this petition." Since Justice Breyer's financial disclosures indicate that he owned shares in Pearson (the parent of Penguin Putnam), we assume he was disqualified for financial reasons. The same would be true in *Larimer v. Int'l Business Machines Corp*., 543 U.S. 984 (2004), due to his ownership of IBM. By contrast in *Producer Coalition v. FERC*, 540 U.S. 1141 (2004), another case in which Justice Breyer did not participate, we could find no financial

2. Recusals Due to Financial Interest

Figure 1 presents the number of certiorari petition disqualifications calculated using our method discussed above.

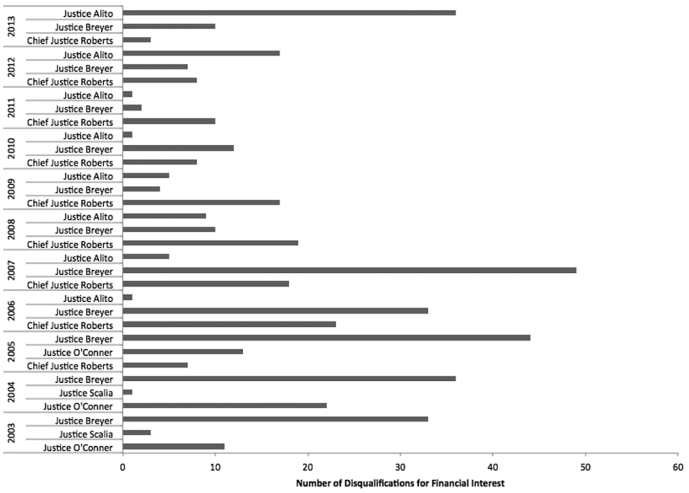

Figure 1: Disqualification of Supreme Court Justices for Apparent Financial Interest on Petitions for Writs of Certiorari (2003–2013)

In each Term, the number of petitions for certiorari that is reviewed by less than nine Justices is significant, ranging between thirteen and seventy-two. Since there are between 8,000 and 9,000 petitions for review per year, of which between 2,500 and 3,600 are civil cases that are more likely to have corporate litigants, the overall percentage of certiorari review cases in which a Justice recuses him or herself is relatively small, approximately 1–2%. But of cases involving a corporate litigant, the percentage rises to 3–5%. And of cases involving a Forbes 100 company, 10% of petitions for certiorari resulted in a recusal.

This might even understate the importance of these disqualifications, especially to the party seeking certiorari. To receive review, a petitioner must convince four Justices, regardless of how many are disqualified. In this way each recusal reduces the ability to get review since the petitioner must convince a larger fraction of the remaining panel.[87] As Professor Lubet has noted, this can actually lead to the counterintuitive result that in some cases a recusal can aid the party that results in the Justice's

connection between Justice Breyer and the Producer Coalition since available documents suggest that energy companies in Justice Breyer's holdings were not involved in the case.

87. *See* Steven Lubet, *Disqualification of Supreme Court Justices: The Certiorari Conundrum*, 80 MINN. L. REV. 657, 662–65 (1996) (discussing process involved in determining which petitions result in certiorari being granted).

recusal.[88] Suppose, for example, Corporation A prevailed against Corporation B in the court of appeals, and Corporation B is seeking certiorari in the Supreme Court. If a Justice owns a share of Corporation A and recuses, it will be at least as difficult for Corporation B to obtain certiorari than if the Justice did not recuse, despite the fact that the recusal was justified to avoid the conflict of interest and ostensibly to protect the interests of Corporation B.

It is even theoretically possible that a corporate litigant could acquire a corporation whose shares are owned by one or more Justices in order to shape the pool of Justices that hear the case.

Table 1: Number of Certiorari Petitions 2003–2010[89]

Company	Number Cert. Petitions	Company	Number Cert. Petitions
Philip Morris International	114	United Parcel Service	26
AT&T	85	Abbott Laboratories	24
Ford Motor	69	Eli Lilly & Co.	23
Exxon	66	Travelers Cos.	23
Pfizer	58	Apache	22
American International Group	57	Southern Co.	20
Microsoft	50	eBay	19
Allstate	44	Citigroup	18
General Motors	43	Halliburton	18
Dow Chemical	42	Intel	18
Merck & Co.	38	Lockheed Martin	18
Bank of America	37	Coca-Cola	17
Medtronic	37	Honeywell International	17
Wal-Mart Stores	36	Wells Fargo	17
Verizon Communications	35	Duke Energy	16
Union Pacific	31	Prudential Financial	16
Chevron	30	Walgreen	16
Apple	29	IBM	15
Cigna	28	3M	14
JPMorgan Chase	27	American Express	13

Table 1 presents the companies that are most frequently party to petitions for certiorari. As is clear from the table, the top forty companies are, unsurprisingly, also some of the largest and most widely publicly traded corporations. For this reason it seems likely that, whatever the composition of the Court, these

88. *See id.* It is possible that the remaining Justices attempt to compensate for this by reviewing petitions for certiorari with extra scrutiny in cases in which one or more Justices have disqualified themselves.

89. Number of written responses to petition for a writ of certiorari found in Westlaw 2003–2010.

companies are likely to be included in future Justices' portfolios (if they own individual stocks) just as they are featured in the current Justices' holdings.

It will likely be more difficult for a litigant suing one of these companies, or one of these companies itself, to obtain certiorari simply because of these recusals.

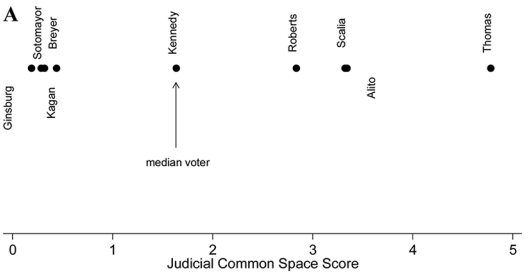

Figure 2A: Swing Voter on Supreme Court 2012

For some intuition of how such disqualifications can alter the makeup of the Court, consider the following hypothetical cases. In Figure 2A, we plot the "Martin-Quinn ideology scores" for all of the Justices in a case involving no recusals.[90] In 2012, the median voter in this case, unsurprisingly, would be Kennedy.

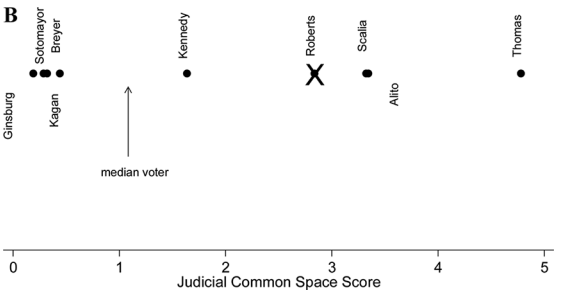

Figure 2B: Median Voter in Hypothetical Case Against Pfizer (Roberts)

Now consider a case involving Pfizer. Since Pfizer stock was owned only by Chief Justice Roberts, the hypothetical case would have been decided by the remaining eight Justices. While we do not know exactly what the outcome

90. *See* Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999*, 10 POL. ANALYSIS 134, 146 tbl.1 (2002) (Martin and Quinn provide a methodology for estimating the ideal points of Supreme Court Justices based on voting behavior and anchoring assumptions. In the case of the scores used to construct Figure 2, the anchor point is Justice Thomas. Thus, these scores, unlike the Judicial Common Scores used below, estimate how close other Justices are in their voting to Justice Thomas.); *see also* Joshua B. Fischman & David S. Law, *What Is Judicial Ideology, and How Should We Measure It?*, 29 WASH. U. J.L. & POL'Y 133, 162–64, 185–89 (2009) (discussing advantages and limitations of Martin-Quinn score).

would be, the ideological location of the swing vote has obviously moved to the left.

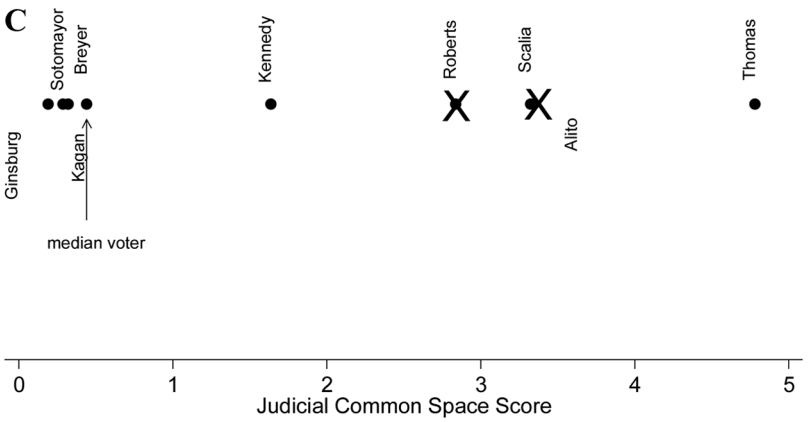

Figure 2C: Median Voter in Hypothetical Case Against Pfizer (Roberts) & Bristol-Myers Squibb (Alito)

More definitive is our second hypothetical in Figure 2C. In this case, Pfizer and Bristol-Myers Squibb are both parties to the case. Because Justice Alito owns Bristol-Myers Squibb shares, he is now disqualified and the case is decided by the remaining seven Justices.[91] In this case the median voter theorem has a more definitive prediction: Justice Breyer is the deciding vote. It seems clear that with nine Justices and no replacement, judicial recusal has a substantial possibility of altering the makeup of the panel of Justices that hear a case.[92]

B. THE IMPACT OF DISQUALIFICATION IN THE UNITED STATES COURTS OF APPEALS

In this section, we analyze whether recusals are systematically affecting the judges in the courts of appeals. The policy issues are similar to those in the Supreme Court, particularly since the courts of appeals serve as the court of last resort for the vast majority of litigants who are unable to obtain certiorari.

The main obstacle to measuring the effect of recusals in the courts of appeals is the lack of transparency. There is no record of recusal decisions unless parties have appealed a judge's decision not to recuse to either the appellate (in the case

91. In fact, Chief Justice Roberts has sold shares to avoid a seven-member Court. In *Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc.*, 552 U.S. 148 (2008), and *Credit Suisse Sec. (USA) LLC v. Billing*, 551 U.S. 264 (2007), the Chief Justice took no part in the decision to grant certiorari, but reentered the first case when Justice Breyer was disqualified due to his shares in Scientific-Atlanta and the second when Justice Kennedy was disqualified due to a family connection.

92. See Fischman & Law, *supra* note 90, for a thorough discussion of the behavioral assumptions behind the Martin-Quinn methodology and other measures of ideology.

of trial courts) or the Supreme Court (in the case of appellate courts).[93] Hence, unlike the Supreme Court, there is not usually any observable indication as to whether a court of appeals judge disqualified himself or herself in a particular case. However, by observing which judges sit on which cases and comparing that to a judge's financial holdings, we can infer the effect of recusal on the composition of judges that hear these important cases. To summarize, we assume that deviations from the cases that we would expect a judge to sit on and those that the judge actually sits on are attributable to recusal where that judge owns individual stocks. Although this assumption may not be correct in any particular case (an individual judge may not be on a particular case for any number of reasons, including chance), it is an accurate way of measuring the effect of recusals in the aggregate.

1. Data and Sample Construction

We collected data on the available financial holdings of all federal judges on the U.S. courts of appeals (both active and senior).[94] The disclosures are available from 2003 to 2010. We were able to find data on 290 judges during this period. By our calculations, 308 judges served on the courts of appeals during this period (both active and senior).[95] We have data on all eleven circuit courts of appeals, the Federal Circuit, and the D.C. Circuit.

Our data on judges' backgrounds come from The Judicial Research Initiative (JuRI) at the University of South Carolina.[96] The data contain information on all federal judges until 2004. We then hand-collected additional variables (senior status and years served in judicial positions) and updated the data to 2010 using the judges' backgrounds from official biographies provided by the federal courts. This data has been used in studies by political scientists to estimate the impact of background on judicial voting: most commonly whether judges appointed by Democratic or Republican presidents have different voting behavior. In our context, we use it to control any differences in assignment patterns that may exist despite the courts' efforts to randomly assign judges to panels.

The data on appeals come from the Westlaw database of published and unpublished opinions during our study period. These data contain information on the panel of judges that heard the case, information on the type of case, and

93. *See* Sande L. Buhai, *Federal Judicial Disqualification: A Behavioral and Quantitative Analysis*, 90 OR. L. REV. 69, 98–103 (2011) (providing data on the outcome of appeals to higher courts when a district court judge refuses to recuse himself or herself from a case).

94. These disclosures are posted by Judicial Watch on their website. JUDICIAL WATCH, http://www.judicialwatch.org (last visited Apr. 1, 2015).

95. For ten judges the data was in some way unusable (either blacked out or did not provide enough detail to determine ownership). We are uncertain as to why the remaining eight judges are not represented in the data available from Judicial Watch.

96. *Attributes of U.S. Federal Judges Database*, JUD. RES. INITIATIVE U.S.C., http://artsandsciences.sc.edu/poli/juri/attributes.htm (last visited Jan. 23, 2015).

the date of the decision.[97]

2. Stock Ownership by Judges on United States Courts of Appeals

First, we look at the rate of stock ownership by judges on the courts of appeals. Our analysis of the disclosure data shows that 62% of judges on the courts of appeals directly owned stock in 2010.[98] This does not include mutual fund ownership, which would not result in disqualification. Fifty-seven percent owned individual stocks listed in S&P 500 companies. Fifty-three percent directly owned stock in one of the Forbes 100 companies. These figures indicate that judges, like most investors, tend to concentrate their direct holdings in large corporations.[99]

Table 2 lists the sixty most commonly held companies in the sample and confirms the above-mentioned concentration of holdings in large firms. The table is constructed by first defining "judge-year" as representing one year of service on the bench for a judge. We then sum the number of judge-years each company is held in the sample. Thus for GE, a whopping 31% of the judge-years indicate ownership. In other words, a case involving GE would require 31% of the potential judges to disqualify themselves from hearing the case or divest themselves of GE stock. Another one in five judges in our sample would have to disqualify themselves from a case involving Exxon, and even the least

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97. According to Westlaw:

> The database contains reported and unreported documents from federal appellate courts. A document is a case (a decision or order) decided by the courts. It also includes "quick opinions" (cases available online prior to West advance sheets and which do not contain editorial enhancements), and opinions that are not scheduled to be reported. The database includes many unpublished/unreported decisions. The database includes TABLE decisions-some of which include the actual opinion and others which are simply a document indicating the title, date, disposition and fact it is a table decision. So there are many TABLE decisions where the text is not online.
>
> . . . .
>
> I do not believe there are any U.S. Court of Appeals decisions that are not on Westlaw in some format, unless there would be some type of court order sealing it or ordering it not be made public. I would guess this would be a very rare situation.

E-mail from Diane E. Yonga, Westlaw Reference Attorney, Thomson Reuters, to James M. Anderson, Senior Behavioral Scientist, RAND Corporation (May 14, 2014, 15:28 EDT) (on file with author). Other researchers have noted uneven availability of district court judgments. *See generally* Brian N. Lizotte, *Publish or Perish: The Electronic Availability of Summary Judgments by Eight District Courts*, 2007 WIS. L. REV. 107 (discussing uneven electronic availability of district court judgments).

98. The disclosure data include both stocks owned directly by judges and disqualifying stocks owned by trusts, spouses, and children.

99. *See generally* John R. Graham & Alok Kumar, *Do Dividend Clienteles Exist? Evidence on Dividend Preferences of Retail Investors*, 61 J. FIN. 1305, 1305 (2006) ("Retail investor stock holdings indicate a preference for dividend yield that increases with age . . . ."). Larger companies are more likely to pay dividends than smaller stocks. Given the age profile of most judges, their holdings are consistent with the evidence that older and more risk-averse investors would invest more heavily in companies paying dividends.

Table 2: Stocks Held by Appellate Judges and Supreme Court Justices 2003–2010[100]

Company	Percent of Judges Owning Company	Company	Percent of Judges Owning Company
GE	31.38%	Berkshire Hathaway	8.62%
AT&T	21.72%	Nokia	8.62%
Pfizer	21.03%	American International Group	8.28%
Exxon	20.34%	Bell South	8.28%
Intel	20.34%	Medco Health Solutions	8.28%
CitiGroup	18.28%	Amgen	7.93%
Microsoft	18.28%	Boeing	7.93%
Cisco	17.93%	DuPont de Nemours & Co.	7.59%
Johnson & Johnson	16.55%	Emerson Electric	7.59%
Bank of America	16.21%	ConocoPhillips	7.24%
IBM	15.52%	Medtronic	7.24%
Procter & Gamble	15.52%	Motorola, Inc.	6.90%
Coca-Cola	14.83%	Schlumberger	6.90%
Merck	14.83%	Walt Disney Co.	6.90%
Comcast	14.14%	Ford Motor Company	6.55%
PepsiCo Inc.	14.14%	SBC Communications	6.55%
Home Depot	13.45%	Wyeth	6.55%
JP Morgan	12.76%	EMC	6.21%
Chevron	12.41%	McDonalds	6.21%
Verizon	12.41%	Qualcomm Inc.	6.21%
Lucent Technologies	11.72%	Avaya	5.86%
BP	11.03%	Honeywell	5.86%
Wells Fargo	10.69%	Idearc	5.86%
Abbott Laboratories	10.34%	Kimberly Clark	5.86%
Hewlett Packard	10.00%	Royal Dutch Shell	5.86%
Dell Inc.	9.66%	Spectra Energy	5.86%
Wal-Mart Stores	9.66%	Zimmer Holdings	5.86%
Bristol-Myers Squibb	8.97%	Agere Systems Inc.	5.52%
Duke Energy	8.97%	AOL	5.52%

frequently held of the top sixty corporations are still held by almost 10% of the judges.[101]

100. These disclosures are posted by Judicial Watch on their website. JUDICIAL WATCH, http://www.judicialwatch.org (last visited Apr. 1, 2015).

101. To the extent that judges have substantial turnover in their portfolios, this will overstate ownership in any given year. However, judicial holds tend to be fairly constant. For example, within any given year we find that 25–28% of the potential judges hold GE stock.

Table 3 provides the breakdown of stock ownership by circuit. Not surprisingly, there is considerable overlap with Table 2. Interestingly judges, like many

Table 3: Rankings of Companies by Circuit[102]

	Rank of companies in judges within the circuit's portfolio, (1) most held to (9) 9th most commonly held								
Circuit	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1st	GE	Exxon	PepsiCo Inc.	Procter & Gamble	Home Depot	Intel	Johnson & Johnson	Medtronic	Pfizer
2nd	Exxon	IBM	AT&T	GE	B of A	Cisco	Citigroup	Berkshire Hathaway	Microsoft
3rd	GE	Exxon	Cisco	Johnson & Johnson	Merck	Comcast	Pfizer	Intel	PepsiCo Inc.
4th	GE	DuPont de Nemours	Duke Energy	Pfizer	Johnson & Johnson	Exxon	Intel	Procter & Gamble	Merck
5th	Exxon	GE	AT&T	Procter & Gamble	BP	Citigroup	Verizon	B of A	JP Morgan
6th	Exxon	Chevron	GE	JP Morgan	IBM	Bristol Myers Squibb	Zimmer Holdings	AT&T	Procter & Gamble
7th	GE	Intel	Pfizer	Cisco	Johnson & Johnson	Microsoft	Medtronic	AT&T	Merck
8th	Wal-Mart	GE	Intel	Alltel	Exxon	Pfizer	Cisco	El Paso	Microsoft
9th	Microsoft	GE	AT&T	Intel	Coca-Cola	Cisco	Citigroup	Verizon	Procter & Gamble
10th	Berkshire Hathaway	GE	Microsoft	AT&T	Hewlett Packard	EUGBX	AMOBX	Johnson & Johnson	B of A
11th	Coca-Cola	Home Depot	GE	Microsoft	B of A	Amgen	Johnson & Johnson	Hewlett Packard	Pfizer
DC	Citigroup	AT&T	GE	Procter & Gamble	B of A	Agere Sys.	IBM	El Paso	Bell South
Federal	GE	B of A	Intel	Walt Disney Co.	Motorola	Exxon	SBC Communications	American Express	AT&T
Supreme	Procter & Gamble	Nokia	Sial	Nestle	Amgen	Applied Analysis	Pfizer	Cisco	Colgate Palmolive

investors, tend to invest in locally headquartered companies.[103] For example, in Table 3, the most frequently owned company in the Eighth Circuit is Wal-Mart (headquartered in Bentonville, Arkansas); in the Fifth Circuit, ExxonMobil (Irving, Texas); in the Eleventh Circuit, Coca-Cola (Atlanta, Georgia); and in the Ninth Circuit, Microsoft (Redmond, Washington). There is a well-known local bias effect for all investors, in that investors tend to hold a greater proportion of equities in local companies.[104]

102. These disclosures are posted by Judicial Watch on their website. JUDICIAL WATCH, http://www.judicialwatch.org (last visited Apr. 1, 2015).

103. The home country bias and its costs to investors have been well documented. *See, e.g.*, Kenneth R. French & James M. Poterba, *Japanese and U.S. Cross-Border Common Stock Investments*, 4 J. JAPANESE & INT'L ECONOMIES 476 (1990). For evidence on a home state bias within the United States, see generally Sascha O. Becker & Mathias Hoffmann, *Intra- and International Risk-Sharing in the Short Run and the Long Run*, 50 EUR. ECON. REV. 777 (2006).

104. *See generally* Mark S. Seasholes & Ning Zhu, *Individual Investors and Local Bias*, 65 J. FIN. 1987 (2010). One explanation for this is that investors are employees of the company and hence might

On average, judges own 3.84 stocks in Forbes 100 companies, and 4.45 stocks in Russell 3000 companies, but these figures mask wide variation in the size of judicial holdings. Figure 3 shows a histogram of judicial ownership from

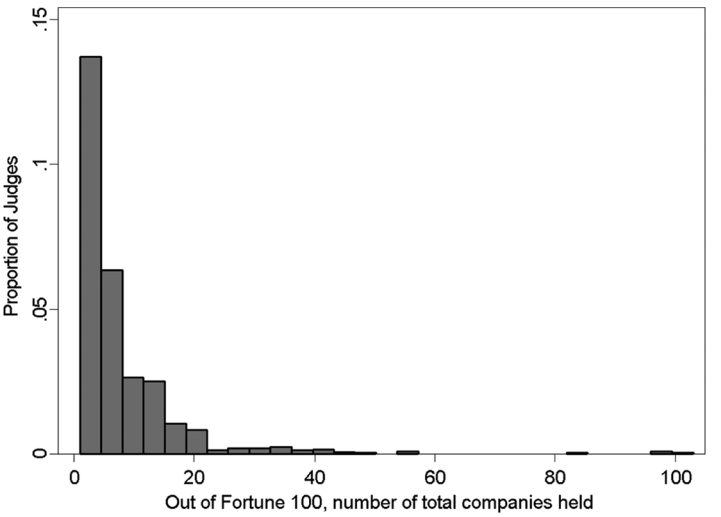

Figure 3: Distribution of Ownership for Appellate Court Judges

2003 to 2010 for the Forbes 100. The figure shows that although overall judges on average hold 4 stocks, this average is reduced by judges who hold no stock. If we limit the analysis to judges holding any stock (that is, one or more companies are held directly), the average rises to 8 stocks. Moreover, several judges have much larger holdings.

This pattern of ownership is notable for several reasons. First, given their comparatively high income, it is not surprising that judges hold more equities than the general population.[105] Second, completely apart from the complications of recusals, the financial literature has long suggested that for most investors, a diversified mutual fund provides a better reduction of volatility risk than is achievable by most individual investors.[106] The fact that a judge could both probably achieve better returns and not have to worry about recusals would seem a powerful argument in favor of owning mutual funds rather than indi-

have inside information on the value of the companies in question. This seems unlikely in the case of judges who typically have not been employees of local companies.

105. *See* O'Brien et al., *supra* note 2 (noting sharp contrast between 59% of federal appellate judiciary that owns individual stocks in comparison with 15% of American public).

106. William N. Goetzmann & Alok Kumar, *Equity Portfolio Diversification*, 12 REV. FIN. 433, 460–61 (2008) (finding that US individual investors hold underdiversified portfolios and could have improved their investment returns by using index mutual funds).

vidual shares.[107] Finally, the fact that stock-owning judges hold only eight stocks on average is somewhat suprising as that number provides relatively little diversification. One might expect individual stock-owning judges to own a large enough portfolio to provide more diversification.[108] But this low number is consistent with recent financial research showing underdiversification among most U.S. investors.[109]

Perhaps, the relatively small number of individual stocks owned by judges that we observe is simply the result of judges slowly liquidating positions of individual stocks and replacing them with mutual funds over time. To determine if this is the case, we examined the ownership patterns of shareholding judges by analyzing sales and purchases of Forbes 100 stocks. We treated any stock added to the judge's financial statement after 2003 or their first year on the bench as a purchase, and any stock removed as a sale. For judges who owned any stock during the sample period between 2003 and 2010 (or their tenure if they left the bench before 2010), the average number of sales is 3.4 stocks. However, the average judge buys 3.8 stocks during the relevant period.

In short, it does not appear that judges are joining the bench with individual stocks and then liquidating them as conflicts arise. In fact, judicial holdings appear fairly stable with sales about equaling acquisitions. Of course we do not know what precipitated the sales (conflict of interest or financial reasons), and we do not know what caused the "purchase," as our method would include both a newly purchased stock acquired as an investment and an inheritance of stock as a "purchase."[110]

Although these data show that judges do have significant direct equity holdings, this does not necessarily mean that they must frequently recuse. First, it is (theoretically) possible that the companies owned by judges (shown in Table 2) are not frequently in litigation. It is also possible that judges take

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107. On the other hand, it is possible that tax considerations may make individual stock ownership more attractive. Under the federal tax code, heirs receive a stepped-up basis at the death of the original owner. *See* 26 U.S.C. § 1014(a) (2012). So neither the estate nor the heirs will have to pay capital gains taxes on the appreciation of individual stocks in the judge's estate that occurs over the period of ownership by the judge. While this provision is also applicable to mutual funds, mutual fund ownership does not provide as much control over the realization of capital gains as ownership of individual stocks because the mutual fund manager will likely realize at least some capital gains depending on the manager's strategy.

108. *See generally* Meir Statman, *How Many Stocks Make a Diversified Portfolio?*, 22 J. FIN. & QUANTITATIVE ANALYSIS 353 (1987) (arguing that at least thirty stocks are needed to sufficiently reduce idiosyncratic risk).

109. *See* Brad M. Barber & Terrance Odean, *Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors*, 55 J. FIN. 773, 796 (2000) (noting that a typical individual investor holds portfolio with only four stocks); Goetzmann & Kumar, *supra* note 106 (noting substantial welfare costs of underdiversification of U.S. investing public).

110. Our analysis thus far is also consistent with the possibility that judges are simply selling their stock when conflicts arise. Although we cannot observe this directly, if judges are selling in response to conflicts then our test in the next section, in which we estimate the impact of judicial holdings on the likelihood of hearing a case involving a corporate litigant, would find no effect of stock holdings on the likelihood of hearing a corporate case.

advantage of the statutory provision that allows them to sell their shares, defer capital gains tax, and continue on a case if there is a financial conflict of interest. We therefore consider these possibilities below.

3. Frequency of Litigation Among Corporations Owned by Judges

Table 4 shows the breakdown of forty companies among the Forbes 100 that most frequently appear as litigants in the U.S. courts of appeals. Unsurprisingly, it is clear that many of the same companies held in judges' portfolios are also regularly appearing before the U.S. courts of appeals. In Table 4 we bold the companies held by 5% or more of the judges at some point in the sample period.

Table 4: Companies Involved in Appeals (Top 40)[111]

Company	Cases	Company	Cases
American International Group	401	Caterpillar	22
Honeywell International	104	Dow Chemical	22
Allstate	93	**DuPont de Nemours**	22
Ford Motor	93	FedEx	22
United Parcel Service	88	**Exxon**	21
Wal-Mart Stores	86	**Walt Disney**	20
Travelers Cos.	60	**AT&T**	19
General Motors	58	Halliburton	19
Boeing	56	**Pfizer**	19
Prudential Financial	55	**Johnson & Johnson**	18
Verizon Communications	45	**Abbott Laboratories**	16
Home Depot	43	Apple	16
Union Pacific	41	**Chevron**	16
Bank of America	38	Cigna	16
IBM	38	**Citigroup**	13
Hess	33	Deere & Co.	13
Coca-Cola	32	Merck & Co.	12
Target	28	**Comcast**	11
Wells Fargo	27	Exelon	10
Lockheed Martin	24	**Intel**	10

Although the data in Table 4 suggest that federal appellate court judges are regularly facing financial conflicts of interest, two questions remain. First, do the rules allowing for judges to sell a company's shares if a conflict develops mitigate the impact of these potential conflicts? Second, given that there are approximately 180 federal appellate judges (280 if senior judges are included)

111. Number of decisions found in Westlaw 2003–2010. Bold indicates stock held by 5% or more of the sample judges.

in any given year, are these conflicts frequent enough that they meaningfully affect the panels of judges who hear appeals?

4. Impact of Share Ownership on Likelihood of Hearing Case

Our goal is to measure the effect of financial-interest recusals on the group of judges that hears cases involving these corporate litigants. Ideally, we would like to know whether each federal judge owned an interest in a particular litigant that led to recusal. Unfortunately, these data are unavailable. We only have annual information about the ownership interests of federal judges and do not know if the disqualifying interest was eliminated prior to the case being heard, either simply by unrelated sale or by deliberate effort to avoid recusal after being assigned the case.

To sidestep these limitations in the available data, we look at the pattern of judges that hear cases involving large corporate litigants over time. If recusals are occurring, we will observe them in the pattern of judges that sit on the panels hearing these cases, and we can link that to the patterns of stocks owned by the judges.[112] We estimate the impact of stock ownership on the likelihood of a judge hearing any case involving a publicly traded company. More precisely, we estimate the impact of owning stock in an additional company on the probability a judge hears a case. Specifically, using several indices of publicly traded companies (Forbes 100, Bloomberg's List of the 1000 largest companies,[113] and the Russell 3000), we construct a measure of the total number of companies a judge owns in that index, and then estimate the probability that a judge hears a case involving one of those companies.[114] Although it would be ideal to know if a judge was disqualified from a panel due to stock ownership, our

112. In theory if we see that Judge X owns stock in company Y and never appears to sit on a case involving company Y, we might infer that Judge X is recusing him or herself from sitting on these cases based on his or her financial interest. The problem with this strategy is that it is a very low-powered test. Even with the high rates of ownership and involvement in litigation that we observe for a few companies in the Forbes 100, we would need far more than the 290 judges over 10 years to determine if ownership in those companies was affecting the panel of judges that heard their cases. Put differently, we do not have enough observations to determine if the judges hearing cases involving Exxon or GE are affected by ownership of Exxon or GE relative to random assignment. In part, this is because the combination of ownership and being assigned to a panel is relatively rare even for commonly held stocks. In addition, our matching strategy sometimes misses subsidiaries and cases in which the officer but not the corporation is named. This matching failure would add further noise to the data, noise that is mitigated by the aggregation strategy we adopt.

113. The Forbes 100 and Russell 3000 are well-known stock indices of publicly traded companies. Both lists include only companies traded on U.S. exchanges. Bloomberg also compiles a list of the 1000 largest companies traded on any exchange. Because a handful of judges own companies not traded on U.S. exchanges (typically European companies), and these companies are occasionally involved in U.S. litigation, we also estimate the model with this index.

114. The frequency of judicial recusal is actually due to two independent phenomena: the frequency with which judges hold a company's stock and the frequency with which that company ends up before the judge's court. So, for example, a judge holding GE stock makes it more difficult to put together a panel to hear a case against GE, since one in three judges already hold GE stock. But GE is not in the top forty corporate litigants appearing before the appellate bench. Thus, GE stock ownership may in practice have very little impact on recusals. By contrast Exxon, owned by one in five judges, appears

method allows us to estimate the impact of stock ownership without having to know whether a judge actually held stock in a particular company at the time of the case.[115] Our sample consists of all published and unpublished cases in Westlaw between 2003 and 2010. During that period, we have 54,526 cases in which there is a written opinion, and we can identify which judges heard the case.[116]

5. Measuring Companies

We first identify litigants that are corporations and determine whether they are publicly traded.[117] To identify corporations, we use three widely used indices of corporations: the Forbes 100, Bloomberg 1000, and Russell 3000.[118] These indices are then matched by name to the parties in our sample of Westlaw cases.[119]

For the judges, we identify which companies in these indices are held by individual judges.

We thus have (1) a sample of cases involving one of the corporations in an index, and (2) the total number of companies in that index held by each judge.

In Panel A of Table 5, we show the summary statistics for (1) the likelihood that a judge hears a particular case, and (2) the likelihood that an index company is involved in litigation in the courts of appeals in our sample of cases.

To construct the likelihood that a judge hears a case, we take all judges—senior status or active—in the circuit and count them as eligible to hear the case. We then take the number of panels for that circuit and year and examine the average number of times a judge who is eligible sits on any panel. Thus we find that any particular judge has approximately an 8% chance of hearing any particular case.

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far more frequently in appellate litigation. Thus, we might think that litigation in the federal courts would be impacted to a greater extent by judges' Exxon ownership.

This observation might have policy implications. For example, one might suggest prohibiting stock ownership only for companies frequently involved in litigation. In practice, balancing the frequency of ownership with the frequency of being party to litigation would be extremely difficult for any stock-specific ownership policy. For this reason, the relevant policy question may not be whether a specific company is getting an altered panel, but whether stock ownership overall reduces the likelihood of a judge hearing cases involving a corporate litigant.

115. Another obstacle is that corporate names do not always match with the names listed in the indices.

116. This is less than the total filings during that period. This suggests that Westlaw's coverage of appellate court decisions may not be complete. Perhaps this is due to the fact that not all cases have an opinion of any kind. Absent a published or unpublished opinion in Westlaw, we do not know which judges heard the case and hence cannot include it in our sample.

117. The most straightforward approach would have been to manually review all 54,000 cases and identify litigants that were publicly traded corporations. However, due to resource constraints, we pursued an alternative strategy.

118. *See supra* note 117.

119. The precise name that corporations are labeled in captions of cases is not standardized, so litigants may be referred to by a range of variations on a name. It is therefore possible that we may have missed some cases involving corporate litigants due to misspellings or other misalignments between case names and corporate names.

Table 5: Summary Statistics

Panel A: All Cases	Mean	SD	Min.	Max.
Cases				
Probability judge hears case	0.08277	0.27553	0.0	1
Probability a case involves any corporate litigants	0.00602	0.07738	0.0	1
Probability a case involves any Russell 3000 litigants	0.00241	0.04900	0.0	1
Probability a case involves any Forbes 100 litigants	0.00108	0.03279	0.0	1

Cases against corporate litigants are rare, with only 0.6% of all cases having an identified corporate litigant. Not surprisingly, Forbes 100 companies are rarer still, being involved in only 0.1% of all cases in our sample. Companies in the broader Russell 3000 index are slightly more common, being found in 0.2% of all cases in our sample.

This leads us to an important question of how to interpret the results. For the overall caseload of the U.S. courts of appeals, the average effect of disqualification is extremely small. There are a large number of judges, and even if stock ownership is fairly common, the joint probability of randomly selecting a judge who has a conflict of interest in any given case is small. Moreover, even companies that regularly come before the U.S. courts of appeals are not a large portion of the overall caseload. Consider a simple calculation: the joint probability that a specific judge hears a case that involves any corporate litigant. If we assume random assignment, the probability is 0.05%.[120]

Even more unlikely is the probability that this case involves a specific corporate litigant. Consider Honeywell International, the second most frequent company involved in appeals. During the sample period, 5.86% of courts of appeals judges owned Honeywell stock, and Honeywell was involved in 104 decisions of 54,526 total decisions—a tiny 0.2% of total decisions.

Combined with our above calculation, this suggests that there is only a 0.0009% chance of a conflict of interest in a randomly selected case.[121] The reader might well wonder whether this is worth concern.[122]

Yet this is perhaps the wrong way to view the problem. When litigation does arise for a company, Honeywell in our example, nearly 6% of the judges are disqualified from hearing any appeal. The same pattern would be true for litigants who regularly sue publicly traded corporations. Thus, even if recusal has a small effect overall, it may have a much larger effect for publicly traded corporations and their adversaries in litigation. This effect is further increased by the fact that corporations and their adversaries are more likely to appear in the circuit in which they are headquartered, and judges in these circuits are more likely to hold local stock, and therefore the effect

120. That is 0.08277 (the probability of any case) * 0.00602 (the probability of a corporate litigant).

121. That is 0.08277 * 0.0586 * 0.0019.

122. We are extremely grateful to Justin Simeone for providing us this calculation and the accompanying framing of the issue.

of recusals is larger than Table 2 implies.

In Panel B of Table 5 we show the breakdown of judges in our sample's

Table 5: Summary Statistics

Panel B: Judicial Holdings	Mean	SD	Min.	Max.
Forbes 100 companies held	2.95291	5.64968	0.0	45
Bloomberg 1000 companies held	4.23609	9.67584	0.0	116
Russell 3000 companies held	3.39713	7.27997	0.0	62
Private companies held	0.00243	0.04921	0.0	1
Observations	2758917			

holdings of companies on each of the respective lists. So, for example, we see that courts of appeals judges hold a mean of 2.95 companies in the Forbes 100.

Our estimation sample for each regression is restricted to all cases involving at least one corporate litigant as defined by the relevant indices.[123]

6. Estimation Strategy

We now turn to our estimation strategy. We want to estimate the impact of the number of index companies held by the judge on the probability the judge hears a case involving one of these companies. Our hypothesis is that an increase in ownership in index companies will reduce the probability that a judge hears a case involving such a litigant.[124]

Our model is estimated by:

$$\Pr(\textit{Index Company Litigant}_{ic}) = \beta \textit{ownership}_{it} + \delta X_{it} + \eta Z_c + \alpha_s + \gamma_t + \varepsilon_{it}$$

where $\textit{Index Company Litigant}_{ic}$ is a case, c, involving a litigant listed on the relevant index (heard in year t) that could be heard by judge i.

We assume that all judges who served on the bench during the year the case was heard were eligible to hear the case regardless of senior status. Thus, a judge on the U.S. Court of Appeals for the Ninth Circuit in 2004 is eligible to hear any case before that Court that year.[125]

123. This is a fraction of all cases but reduces the noise inherent in our inability to identify all corporate litigants due to an inability to match corporate names or because a subsidiary or officer rather than the corporation itself was named. In order to ensure that this decision does not affect our results, we reestimated the model using all 54,000 cases, and the results are reported in Appendix Table 1. Although the marginal effects are quite small, we find effects that are similar in sign to the results in our primary estimation and statistically significant.

124. An alternative is to estimate the model using maximum likelihood methods. Given the large number of fixed effects we have chosen to estimate the model using OLS rather than a logit or probit model. In our case, the results are substantively identical, and so for ease of exposition, we present the linear model.

125. En banc review is extremely rare in our sample. En banc review is also handled differently across circuits than in the Ninth Circuit which, given its size, has two versions of en banc review. We

The independent variables are $ownership_{it}$, the number of companies on the relevant index held by the judge in year t; X_{it}, the judge-specific characteristics, some of which vary through time; Z_c, the case-specific controls, specifically the type of case; α_s, the Circuit, s, fixed effects; γ_t, the year fixed effects; and ε_t, the robust standard errors clustered on the judge.

The case type data come from Westlaw and provides a broad classification of the subject matter of the case.[126]

Our judge controls include the judge's current age, the judge's tenure on the appellate court, whether the judge has senior status, whether the judge is female, and whether the judge was previously a federal circuit court judge and the years the judge spent in that position (if any). We include these controls because they may determine which judges are assigned to a case and because they may also be correlated with stock ownership.

In order to minimize the risk of omitted variables, we created a control group. The idea behind a control group in non-experimental studies is to estimate the effect on a sample that is not affected by the treatment (in our case, disqualification policy). There may be unobserved characteristics of judges that are correlated both with stock ownership and a decreased likelihood that a judge hears a case involving an index company. Our failure to consider these characteristics in the regression could lead to an inaccurate estimation. For example, suppose judges acquire more stocks as they get older, but also become less willing to hear complex cases involving large corporations as litigants.[127] If we did not control for the judge's willingness to hear complex cases, we might falsely attribute a decrease in the probability of hearing a case involving an index company to stock ownership.

To address this risk of omitting a relevant variable, we examine the impact of the judge's direct stock holdings in publicly traded companies, as measured by our three indices, on the chance of hearing a case involving a privately held company.[128] The logic behind our measure is that litigation involving these companies should be in many ways similar to litigation involving publicly

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treat the handful of en banc cases as different cases with each judge listed as having heard the case given that disqualification due to ownership would still apply.

126. Because we confine our analysis to cases involving corporations, we have very few criminal cases in our sample. And as including them would only increase the sample size dramatically while providing no additional power to our test, we exclude them from our analysis. The other categories are antitrust, bankruptcy, business organization cases, commercial law, copyrights, e-commerce, energy and utilities, environmental law, finance and banking, government contracts, health, insurance, intellectual property, labor and employment, patents, products liability, securities regulation, general torts, and trademark cases.

127. Judges who have taken senior status can decline to hear categories of cases in some districts. Albert Yoon, *As You Like It: Senior Federal Judges and the Political Economy of Judicial Tenure*, 2 J. EMPIRICAL LEGAL STUD. 495, 499 (2005).

128. We identify privately held corporations by using a separate Bloomberg list of the 1000 largest privately held companies. Confusingly, these lists are generically known as the Bloomberg list of [type of companies], and thus the Bloomberg list of the largest 1000 companies has no overlap with the Bloomberg list of the 1000 largest privately held companies. To avoid confusion, we refer to the

traded companies (that is, equally complex and time consuming).[129] Yet almost no judges hold private companies; 0.00243% of the judge-years involve companies on the list, which translates into approximately two judges per year who hold stock directly in non-publicly traded companies. By contrast, 2.83% of litigants are privately held companies.

Judges who own stocks might be less likely to hear cases involving corporations for a reason other than disqualification. Therefore, we subtract the estimated impact of ownership (as captured by the particular index of public companies) on the probability a judge sits on a panel involving a privately held company. Our estimate is:

$$\beta_{public} ownership_{it} - \beta_{private} ownership_{it}$$

where $ownership_{it}$ is the judge's ownership of publicly traded companies measured by the relevant index.

D. RESULTS

The model is estimated using a linear probability model. The results are presented in Table 6.

In Panel A of Table 6 we present the results of the estimation. The Forbes 100 index results are provided in the first column. We find that having one additional company from the Forbes 100 in a judge's portfolio reduces the likelihood that a judge hears a case involving any of the Forbes 100 index companies by 0.3%, about one third of a percentage point.

So first, it is clear that stock ownership is affecting the cases heard by judges and that recusals are regularly occurring. Litigants are potentially faced with different judges than they would otherwise receive absent the recusals.

But how important is this effect? In order to provide some context, we explain how likely it is for any individual judge to sit on any given panel. Our results are estimated using the sample of cases involving any company from the specific index. Thus, the Forbes 100 sample involves all cases with a litigant in the Forbes 100. In Appendix Table 1, we estimate the model on the full sample. The impacts are much larger when we conditionally restrict the sample to cases involving litigants from the relevant index, and much smaller for the full sample as discussed above.

Bloomberg 1000 largest publicly traded companies as the "Bloomberg 1000," and the Bloomberg 1000 largest privately held companies simply as "Privately Held."

129. We have no independent way to verify this assumption from data on litigation; however, the private companies are of similar size to the publicly traded companies by construction. The index used to generate the companies is designed to capture the largest private companies. Although not as large as the Forbes 100, they appear to be similar to the firms in the Russell 3000.

Table 6: Impact of Judicial Holdings on Probability of Judge Hearing Case

Panel A	Case Involves a Corporation Measured by:		
	Forbes 100	Russell 3000	Bloomberg 1000
Judicial Holdings			
Total companies owned in Forbes 100	**−0.003787*** (0.000363)**		
Total companies owned in Russell 3000		**−0.000904*** (0.000189)**	
Total companies owned in Bloomberg 1000			**−0.001224*** (0.000166)**
Observations	419,486	449,368	439,177
R-squared	0.142931	0.131019	0.137137
Number of Cases	1478	3345	2696
Probability of Hearing	0.119	0.115	0.121
Impact of Additional Company in Holdings	−0.0314	−0.00521	−0.0144
Coefficient on Private (Bloomberg list of Privately Held Companies)	−0.000487	−0.000215	−0.000390
Public-Private	**−0.00326**	**−0.000382**	**−0.00136**
SE	(0.000499)	(0.000331)	(0.000271)

Note: Estimated using a linear probability model. All specifications include the judge's age, years in current position, whether they are on senior status, female, and whether the judge was a federal judge prior to joining the appellate court and the years served in that position. In addition, each specification includes circuit, year, and case type fixed effects.

Robust standard errors clustered on judge in parentheses.

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

In our data, we find that any particular judge has about an 8% chance of hearing one of the cases in our sample involving a corporate litigant.[130] The number falls to 5% for senior status judges.

The number of courts of appeals judges in our sample is about 280 per year, including about 100 judges on senior status. Each court of appeals has between nine and forty-eight judges depending on its size. If all 280 judges could be randomly chosen to sit on a panel, the chance of any individual judge sitting on a particular three-judge panel would be approximately 1%.[131]

So, measured relative to either the 8% we observe or the 1% that we calculate by chance, our −0.3% change for each additional company owned by a judge is notable, though not particularly large.

130. Somewhat surprisingly, that is larger than would be predicted by pure chance. One possible reason for this is that many seats may not actually be filled and judges' selections are in part determined by how busy judges' dockets are at any given moment.

131. The probability is 1/280+1/279*(279/280)+1/278*(278/279), or about 1%. Because all circuits are not the same size and judges do not ordinarily sit on cases in another circuit, the probability is not exactly 4% for any particular judge.

However, if a judge were to hold multiple stocks, the impact could become substantial. As we noted above, the average stock holding judge owns approximately eight individual stocks.[132] This would reduce the chances of sitting on a case by 2.4% (.3*8). And a significant number of judges own many more stocks. For these judges, the effect on the chances of sitting on the case of a particular litigant would be quite substantial at least when we consider the sample of cases involving corporate litigants.

The results for other indices in Panel A of Table 6 are also statistically significant but have smaller marginal effects. This is not surprising because the broader indices have both less ownership among judges and appear less frequently in litigation. The marginal impact of an additional stock in the Russell 3000 is only about 15% as large as the Forbes 100, and the Bloomberg 1000 is only 47% as large.

Table 6: Impact of Judicial Holdings on Probability of Judge Hearing Case (No Controls)

Panel B	**Case Involves a Corporation Measured by:**		
	Forbes 100	**Russell 3000**	**Bloomberg 1000**
Judicial Holdings			
Total companies owned in Forbes 100	**−0.003787*** (0.000363)**		
Total companies owned in Russell 3000		**−0.000904*** (0.000189)**	
Total companies owned in Bloomberg 1000			**−0.001224*** (0.000166)**
Observations	419,486	449,368	439,177
R-squared	0.142931	0.131019	0.137137
Number of Cases	1478	3345	2696
Probability of Hearing	0.00708	0.0148	0.0124
Impact of Additional Company in Holdings	−0.535	−0.0611	−0.0990
Coefficient on Private (Bloomberg list of Privately Held Companies)	−0.000785	−0.000284	−0.000270
Public-Private	**−0.00300**	**−0.000620**	**−0.000954**
SE	0.000363	0.000189	0.000166

Note: Estimated using a linear probability model. All specifications include circuit, year, and case type fixed effects.

Robust standard errors clustered on judge in parentheses.

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

In Panel B of Table 6 we estimate the model without judge controls but with our fixed effects for circuit, year, and case type. The results are similar to the

132. Note this is conditional on owning any stock. If we consider all judges, we find that the average judge owns three Forbes 100 stocks.

estimates when we include judge characteristics such as age, years in current position, senior status, whether the judge has prior federal bench experience, and gender. One concern is that the same characteristics that determine ownership also determine the likelihood that a judge hears a corporate case. This does not appear to be driving our results.

Table 6: Impact of Judicial Holdings on Probability of Judge Hearing Cases Involving Private Companies

Panel C	Case Involves a Corporation Measured by:		
	Forbes 100	**Russell 3000**	**Bloomberg 1000**
Judicial Holdings			
Total companies owned in Forbes 100	0.000514 (0.000414)		
Total companies owned in Russell 3000		0.000428 (0.000324)	
Total companies owned in Bloomberg 1000			0.000166 (0.000280)
Observations	419,229	419,229	419,229
R-squared	0.128530	0.128532	0.128486
Number of Cases	3193	3193	3193

Note: Estimated using a linear probability model. All specifications include the judge's age, years in current position, whether they are on senior status, female, and whether the judge was a federal judge prior to joining the appellate court and the years served in that position. In addition, each specification includes circuit, year, and case type fixed effects.

Robust standard errors in parentheses.

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

We now consider the omitted variable question and turn to our control group. The results for this control group are presented in Panel C of Table 6. The impacts are mostly positive—more stock holdings results in an increased likelihood a judge hears a case—and insignificant. This is consistent with the idea that other unobserved characteristics that may be correlated with stock ownership and the likelihood of hearing a case are not driving the results, and the impact of stock ownership we observe is due to disqualification. Panel D of Table 6 provides further evidence of the effect. In this Panel we estimate the model using non-corporate civil cases. The impact of Forbes 100 companies and Russell 3000 companies are positive and significant. This suggests that judges who are not on panels due to stock ownership are more likely to be assigned to other cases.

Table 6: Impact of Judicial Holdings on Probability of Judge Hearing Non-Corporate Case

Panel D	Case Involves a Corporation Measured by:		
	Forbes 100	**Russell 3000**	**Bloomberg 1000**
Judicial Holdings			
Total companies owned in Forbes 100	**0.000189*** (0.000060)**		
Total companies owned in Russell 3000		**0.000373*** (0.000049)**	
Total companies owned in Bloomberg 1000			−0.000006 (0.000037)
Observations	918,745	918,745	918,745
R-squared	0.042305	0.042358	0.042294
Number of Cases	97864	97864	97864

Note: Estimated using a linear probability model. All specifications include the judge's age, years in current position, whether they are on senior status, female, and whether the judge was a federal judge prior to joining the appellate court and the years served in that position. In addition, each specification includes circuit, year, and case type fixed effects.

Robust standard errors in parentheses.

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

Finally, in Panel E of Table 6, we estimate the model using only non-senior judges. Although this reduces our sample size, the concern is that senior judges, who own more stock than other judges, are not randomly assigned and hence may differ from other judges for reasons beyond disqualification. We find larger impacts for Forbes 100 and Bloomberg 1000 ownership among non-senior judges. Russell 3000 holdings are not significant but remain negative. In short, at least for Forbes 100 and Bloomberg 1000 companies, the results do not appear to be driven by senior status judges.

E. DETERMINANTS OF STOCK OWNERSHIP

Thus far we have found that judges who own stocks are, perhaps not surprisingly, more likely to recuse themselves and are therefore less likely to hear cases involving corporate litigants.

A key question is whether this alters the panel of judges who hear the case in some systematic way. Do certain characteristics of the judge, such as gender, race, age, or ideology increase or decrease a judge's direct stock holdings? If these factors impact stock ownership, then federal recusals may be systematically altering the composition of panels hearing appeals.

Table 6: Impact of Judicial Holdings on Probability of Judge Hearing Case (Excluding Senior Judges)

Panel E	Case Involves a corporation measured by:		
	Forbes 100	**Russell 3000**	**Bloomberg 1000**
Judicial Holdings			
Total companies owned in Forbes 100	**−0.005844*** (0.001155)**		
Total companies owned in Russell 3000		−0.000357 (0.000666)	
Total companies owned in Bloomberg 1000			**−0.002214*** (0.000577)**
Observations	400,187	405,979	403,946
R-squared	0.190580	0.173813	0.185099
Number of Cases	1287	2803	2343

Note: Robust standard errors in parentheses.
*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

For example, one plausible hypothesis might be that judges appointed by Republican presidents are more likely to own stocks. Recusals might therefore lead to corporate litigants facing panels of judges with more judges appointed by Democratic presidents.

1. Data

We utilize several characteristics of judges in our analysis, such as the judge's age, years on the bench, and senior status, which are widely used as control variables in the literature.[133] In addition, we include controls for whether the judge is African-American and/or female. Both have been extensively studied in the political science literature, although the exact impact on case outcomes is a matter of some controversy.[134]

We also include several measures of ideology. The first is the party of the President who appointed the judge. This measure presumes that judges appointed by Republicans are on average more conservative than judges appointed

133. *See* Stephen J. Choi et al., *What Do Federal District Judges Want? An Analysis of Publications, Citations, and Reversals*, 28 J.L. ECON. & ORG. 518, 527–28, 535 n.29, 546 (2011).

134. *See* Christina L. Boyd et al., *Untangling the Causal Effects of Sex on Judging*, 54 AM. J. POL. SCI. 389, 389 (2010) (finding that female judges are more likely to find for the party alleging discrimination in sex discrimination suits). *See generally* Sue Davis et al., *Voting Behavior and Gender on the U.S. Courts of Appeals*, 77 JUDICATURE 129 (1993); Jennifer L. Peresie, Note, *Female Judges Matter: Gender and Collegial Decisionmaking in the Federal Appellate Courts*, 114 YALE L.J. 1759 (2005).

by Democrats. However, the limitations of this measure have led to the creation of a more sophisticated measure, still based on the appointment process rather than voting: the "Judicial Common Space Score."[135] The Judicial Common Space Score is a composite of the ideology of the appointing President and the nominating senators, as measured by the Pool-Rosenthal DNOMINATE measures.[136] The scores range from −1 (the most liberal) to 1 (the most conservative). This measure incorporates substantially more information than the party of the president and as such provides, at least theoretically, some finer measure of a judge's ideology.[137]

However, the empirical research on the impact of ideology measures is decidedly mixed, suggesting that either the ideology measures remain a poor proxy for the judge's underlying policy preferences, or the judge's ideology has a limited impact on their rulings.[138] Our solution to this issue is to include both the ideology measure and appointing party. Unsurprisingly, our ideology measure and the party of the appointing President are highly correlated. The average Democratic appointee has an ideology score of −.31 while the average Republican appointee has a score of .36. Thus it is difficult to disentangle the effect of appointment and ideology. By both measures (see Table 7 below), conservative judges are, perhaps surprisingly, *less* likely to directly hold stock.

We also include several measures of the judge's background prior to joining the bench. Specifically, we include controls for whether the judge was an officer or director at a publicly traded company, whether he or she had prior employment at a private law firm, and whether he or she was a law professor prior to

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135. See Fischman & Law, *supra* note 90, for a complete discussion of the issue.

136. *See, e.g.*, Lee Epstein et al., *The Judicial Common Space*, 23 J.L. ECON. & ORG. 303 (2007) (describing the Judicial Common Space Score and its relationship to previous measures based on voting such as the Martin-Quinn scores used above); Micheal W. Giles et al., Research Note, *Picking Federal Judges: A Note on Policy and Partisan Selection Agendas*, 54 POL. RES. Q. 623 (2001). For a discussion of the construction of DNOMINATE scores, see KEITH T. POOLE & HOWARD ROSENTHAL, CONGRESS: A POLITICAL-ECONOMIC HISTORY OF ROLL CALL VOTING 27–29 (1997).

137. Fischman and Law describe the construction of the Judicial Common Score:

> The Poole-Rosenthal scores locate Senators in a two-dimensional space on the basis of the positions that they take in roll call votes, but only the first of the two dimensions is salient for most purposes. The ideology scores of Presidents are then estimated along this same dimension based on the public positions that they take on bills before Congress. Using the Poole-Rosenthal scores, Professors Giles, Hettinger, and Peppers proceed to assign ideology scores to federal judges as follows. First, if a judge has a single home-state Senator of the same party as the appointing President, the judge's common space score is taken to be equal to that of the Senator. Second, if both home-state senators are of the same party as the President, then the judge's common space score is the average of the two Senators' scores. Third, if both home-state Senators are of the opposite party as the President, then the judge's common space score is equal to that of the President.

Fischman & Law, *supra* note 90, at 174 (footnotes omitted). Interestingly, they find little additional predictive power in Judicial Common Score measures over the presidential appointing party. *Id.* at 200-01.

138. *See generally* Orley Ashenfelter et al., *Politics and the Judiciary: The Influence of Judicial Background on Case Outcomes*, 24 J. LEGAL STUD. 257 (1995) (finding little correlation between ideological preferences and case outcomes).

Table 7: Summary Statistics on Judicial Characteristics

	No Stock	Stock	t-test
Judge Age	64.44	67.90	−3.456*** (0.512)
Years on Bench	14.72	16.90	−2.183*** (0.482)
Female	0.153	0.235	−0.0815*** (0.0189)
African-American	0.102	0.0628	0.0392** (0.0132)
Senior Status	0.231	0.415	−0.183*** (0.0221)
Republican Appointee	0.647	0.596	0.0514* (0.0233)
Judicial Common Score	0.124	0.0817	0.0419* (0.0175)
Officer at a Publicly Traded Company	0.0601	0.0154	0.0447*** (0.00918)
Prior Employment as a Law Partner	0.778	0.797	−0.0196 (0.0197)
Assets at Time of Confirmation ($100,000)	5.393	11.76	−6.366*** (1.114)
Prior Employment as a Law Professor	0.213	0.179	0.0342 (0.0191)

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

joining the bench. We also control for assets at the time of confirmation. Each of these measures are designed to capture the impact, either positive or negative, on the likelihood that a judge received stock as part of his or her compensation prior to joining the bench.

2. Results

In Table 7 we provide the descriptive statistics for our sample of characteristics. For our 257 judges, we find that the average judge who holds stock is older by 3.5 years, but has been on the bench for 2 years less than judges who do not own stock.

Judges who own stock are also more likely to be female, less likely to be African-American, and far more likely (over 18%) to be on senior status. Interestingly, and contrary to our introductory hypothesis, they are *less* likely to be appointed by a Republican president (5%) and are more liberal as measured by the Judicial Common Score. Surprisingly, stock ownership is far *less* likely

among judges who have worked as an officer at a publicly traded company. Stock ownership is far more common as the judge's assets at the time of confirmation increase.

We estimate the determinants of the number of companies directly held by a judge using a Poisson count model.[139] The judge characteristics include the judge's age; years as an appellate judge; whether the judge is female; whether the judge has senior status; whether the judge was appointed by a Republican president; the Judicial Common Score ideology measure;[140] whether the judge was an officer at a publicly traded company, a law partner, or a law professor prior to becoming a judge; and the judge's assets at the time of the confirmation hearing.

The results are presented in Table 8. Depending on the index we find that female judges hold 0.616 to 0.661 more companies, and judges on senior status hold between 1.047 and 1.098, more companies directly than other judges. African-American judges hold approximately 0.89 to 0.95 fewer individual stocks than other judges. The disclosure data include information on all potentially disqualifying stocks including those held by trusts, spouses, and children. Thus this effect is likely driven in part by these holdings.

We find that an extra $100,000 in assets at the time of confirmation increases the number of companies directly held by the judge, but only by about 10%. Thus each one million dollars in additional assets increases the judge's direct holdings by one company on average. Finally, we find that prior experience as a law professor reduces the number of directly held companies by 0.5 for the Forbes 100 and Russell 3000 indices.

Overall, how are the judges that hear the cases of corporate litigants different from judges that rule on other cases? Our results suggest that judicial recusals make the panels hearing cases involving corporate litigants more likely to have male judges, African-American judges, younger judges, judges with fewer personal assets, judges appointed by a Republican president, and judges that were former law professors.

F. JUDGE CHARACTERISTICS' IMPACT ON LIKELIHOOD OF HEARING A CORPORATE CASE

In this section we estimate the impact of these characteristics on the probability a judge hears a case involving a corporate litigant. Our hypothesis is that if judicial recusals are responsible for the impact of publicly traded company ownership on the likelihood a judge hears a case involving a publicly traded company, we should see judges with characteristics that increase company holdings decrease the likelihood that judges with these characteristics serve on

139. This model is used for "count data" which typically take on integer values such as 0, 1, 2, and so on. Unlike OLS, which assumes the data are normally distributed and hence can take on any value, positive or negative, the Poisson model assumes outcomes take on integer values. Given the large number of zeros, we also estimated the model to correct for zero inflation, but found the results nearly identical and so present the simpler model.

140. *See* Epstein et al., *supra* note 136.

Table 8: Estimated Impact of Judicial Characteristics on Total Number of Companies Held by Judge

	Total Number of Companies Measured by:		
	Forbes 100	**Bloomberg 1000**	**Russell 3000**
Judicial Characteristic			
Judge Age	−0.031 (0.025)	−0.037 (0.026)	**−0.047*** **(0.026)**
Years on Bench	0.014 (0.022)	0.015 (0.023)	0.021 (0.023)
Female (yes=1)	**0.661***** **(0.210)**	**0.648***** **(0.222)**	**0.616***** **(0.228)**
African-American	**−0.890*** **(0.459)**	**−0.952**** **(0.465)**	**−0.894** **(0.547)**
Senior Status (yes=1)	**1.047***** **(0.309)**	**1.053***** **(0.355)**	**1.098***** **(0.347)**
Republican Appointee (yes=1)	0.350 (0.494)	0.339 (0.511)	0.261 (0.555)
Ideology (conservative>0)	−0.487 (0.738)	−0.547 (0.751)	−0.527 (0.776)
Officer at a Publicly Traded Company	−0.809 (0.565)	−0.831 (0.595)	−0.655 (0.676)
Prior Employment as a Law Partner	0.577 (0.354)	0.547 (0.349)	0.502 (0.330)
Assets at time of Confirmation ($100,000)	**0.015***** **(0.004)**	**0.017***** **(0.003)**	**0.016***** **(0.004)**
Missing Assets in Data	0.032 (0.271)	0.051 (0.297)	0.058 (0.312)
Prior Employment as a Law Professor	**−0.524*** **(0.313)**	−0.528 (0.340)	**−0.557*** **(0.301)**
Missing Law Professor Background in Data	−0.077 (0.368)	−0.065 (0.398)	−0.160 (0.426)
Observations	1,649	1,649	1,649
Number of Judges	257	257	257

Note: Estimated using a Poisson count model. All specifications include whether the judge was a federal judge prior to joining the appellate court and the years served in that position, and circuit and year fixed effects.

Robust standard errors clustered on judge in parentheses.

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

corporate cases. This allows us to determine if there is some other factor driving disqualifications that happens to be correlated with ownership. If the characteristics that determine ownership are also associated with a decrease or increase in the likelihood a judge hears a case involving a publicly traded company, we have more confidence in our findings.

In Table 9, we repeat our estimate of the likelihood a particular judge hears a case involving a corporate litigant using personal characteristics instead of

Table 9: Impact of Judge Characteristics Without Ownership

	Case Involves a Corporation Measured by:		
	Forbes 100	**Bloomberg 1000**	**Russell 3000**
Judicial Characteristic			
Judge Age	**−0.002854*** (0.000790)**	**−0.000959* (0.000507)**	**−0.002180*** (0.000575)**
Years on Bench	0.000483 (0.000864)	**−0.003210*** (0.000576)**	**−0.001051* (0.000613)**
Female (yes=1)	0.011158 (0.010137)	**0.011383* (0.006506)**	−0.007826 (0.007576)
African-American	−0.003235 (0.021758)	0.014120 (0.015152)	0.004661 (0.016779)
Senior Status (yes=1)	**−0.035966*** (0.011170)**	**−0.047364*** (0.007425)**	**−0.040211*** (0.008424)**
Republican Appointee (yes=1)	−0.002714 (0.021837)	0.017825 (0.014497)	−0.022695 (0.016057)
Ideology (conservative>0)	−0.016399 (0.030964)	**−0.070355*** (0.020025)**	−0.002526 (0.022304)
Officer at a Publicly Traded Company	**0.042786** (0.020830)**	**0.057807*** (0.014189)**	0.018965 (0.014472)
Prior Employment as a Law Partner	−0.000800 (0.008498)	0.001169 (0.005875)	0.006559 (0.006524)
Assets at Time of Confirmation ($100,000)	0.000022 (0.000217)	−0.000066 (0.000134)	−0.000167 (0.000150)
Missing Assets in Data	−0.006954 (0.010324)	**0.015927** (0.007244)**	0.001787 (0.008000)
Prior Employment as a Law Professor	**0.044057*** (0.009338)**	**0.025856*** (0.006305)**	**0.020975*** (0.007131)**
Missing Law Professor Background in Data	0.046119 (0.037909)	−0.022173 (0.021382)	0.017640 (0.026973)
Observations	10,307	22,516	18,478
R-squared	0.049192	0.039962	0.041595
Number of Cases	1390	3055	2522

Note: Estimated using a linear probability model. All specifications include whether the judge was a federal judge prior to joining the appellate court and the years served in that position, and circuit, year, and case type fixed effects.

Robust standard errors in parentheses.

*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

including our measures of ownership. If judges were purely randomly assigned and assignments were unaffected by recusals, none of these characteristics would matter.[141]

141. It is unclear how widely random assignment is used. For example, a 2006 Sunstein study uses random assignment in its estimation of the impact of ideology on judging. CASS R. SUNSTEIN ET AL., ARE

In fact, we find that several characteristics impact the likelihood that a judge hears a case involving a corporate litigant in one of the indices. First, older judges are less likely to hear cases involving corporate litigants, as are judges with more years on the bench. Second, judges who have been officers at publicly traded companies are more likely to hear corporate cases. Third, more conservative judges are less likely to hear these cases involving corporations.[142] Fourth, we find that senior status, which increases stock ownership, decreases the likelihood that a judge hears a corporate case. Lastly, being a law professor before becoming a judge, which decreases stock ownership, increases the likelihood that a judge hears a corporate case.

These results suggest that part of the lack of random assignment with respect to personal characteristics is the result of judicial recusals.

However, it is also worth noting the limitations of our project. We made no effort to measure the effect of judicial recusal on actual case outcomes. It is possible that although the justices and judges that decide these cases may be different because of recusals, it has little or no effect on the outcome of the cases.[143] Further research in this area would certainly be useful.

III. POLICY IMPLICATIONS

The Supreme Court has long noted that the Due Process Clause requires a "fair trial in a fair tribunal" before a judge with no actual bias for or against any party or any particular interest in the outcome of the particular case.[144]

Although there has been considerable debate about judicial recusal in certain circumstances, recusal when the judge or justice owns an identifiable financial interest in one of the litigants has not historically been controversial. It has been thought that replacing a possibly biased judge or justice with one untainted by the interest is harmless and surely in the interests of justice. An unexamined premise of this procedure is that judges are typically fungible, and that Judge X can rule on a case just as well as Judge Y.

Our study, however, has shown that these rules have the effect of shaping the group of federal appellate judges and justices that rule on the cases of these

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JUDGES POLITICAL?: AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY (2006). In reestimation of the Sunstein study, Matthew Hall finds that in most circuits judges are randomly assigned; however, in the Second, Third, and Sixth Circuits, judges were not randomly assigned to panels. In addition, random assignment was not used in the Fourth Circuit before 2000, Fifth and Eighth Circuits before 2003, or Tenth Circuit before 1998. Matthew Hall, *Randomness Reconsidered: Modeling Random Judicial Assignment in the U.S. Courts of Appeals*, 7 J. EMPIRICAL LEGAL STUD. 574, 578–79 (2010).

142. Note that we find evidence that conservative judges actually hold less stock. There are several explanations for this potentially inconsistent finding. One is that due to multicollinearly between Republican appointee and ideology we simply cannot isolate the effect of appointment from ideology. A second is that our estimation strategy masks a more complex distribution of ownership in which more conservative judges hold stocks that are more likely to appear before the bench.

143. *Cf.* Ashenfelter et al., *supra* note 138, at 281 (finding that personal characteristics of judges (other than political affiliation) are not significant predictors of judicial decisions).

144. Withrow v. Larkin, 421 U.S. 35, 46 (1975) (internal quotation marks omitted); *see also, e.g.*, Aetna Life Ins. Co. v. Lavoie, 475 U.S. 813, 821–22 (1986); Tumey v. Ohio, 273 U.S. 510, 523 (1927).

corporate litigants to make them subtly different than those of other litigants. In a judicial system that is dedicated to the equal protection of the laws, this is troubling, particularly when it seems relatively easy for judges to avoid.

To be clear, we are not arguing that this phenomenon (at least as currently documented) violates the Constitution. The Equal Protection Clause has not historically been interpreted to encompass a right on the part of any litigant to a particular pool of judges or justices. The public interest in a judiciary that does not have a financial interest in the outcome of a case would surely satisfy the rational basis test and would therefore doom such a challenge. And it seems unlikely that the effect (at least as documented) violates the Due Process Clause. We observed an effect on the characteristics of judges that hear these cases, but we made no effort to measure the effect of these characteristics on the outcome of any cases. It is also unclear whether the effects we measured are likely to hurt or help corporate litigants or their adversaries. All of these factors would make a Due Process challenge unlikely to succeed.

But, of course, the Constitution prescribes only a floor—not a ceiling. Even if it does not violate the Constitution, it is nonetheless troubling that a particular group of litigants' cases are heard by a distinctive pool of judges and justices whose views and jurisprudence may be different than that of the larger pool of judges and justices.[145] It is plausible (though admittedly unproven empirically) that this effect could shape the development of the law over time for this important group of repeat-player litigants and their adversaries.[146]

Judicial recusals may also be encouraging the strategic joinder of particular corporate defendants in order to increase the likelihood that particular judges or justices are disqualified from hearing a case. For example, suppose litigant Taney recognizes that Judge X on the court of appeals (who owns the stock of company A) is likely to be hostile to his or her claims. If he or she can find a way to plausibly join company A to the action, he or she could strategically disqualify Judge X from ruling on the case. In many classes of cases, this kind of strategic joinder is unlikely or impossible, but in some (for example, asbestos class actions), it is at least superficially plausible.

Strategic joinder might even be a larger concern at the district court level. If the recusals are occurring upon the filing of the complaint, prior to the opportunity of improperly joined defendants to move for dismissal, litigants might be able to shape the pool of district court judges that hear their cases even more

145. Additional evidence for this hypothesis comes from the sheer effort that administrations expend in identifying, vetting, nominating, and confirming qualified individuals for Article III judgeships. If the pool of judges is not likely to affect the outcome of cases or the shape of the law, administrations would be unlikely to expend such effort and parties would be unlikely to fight over judicial nominations.

146. Oona Hathaway has argued that the law is path-dependent, and that apparently minor changes in legal decisions can have important long-term consequences. Oona A. Hathaway, *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. 601 (2001).

easily.[147]

We therefore consider possible reforms to address this issue.

A. REQUIRING DIVESTMENT AS A CONDITION FOR CONFIRMATION

First, the Senate might begin to require federal judges or justices to divest themselves of individual stocks as a condition to confirmation. Such a rule would not require legislation and has the virtue of being imposed only prospectively on incoming judges and justices. As noted above, the long-term financial disadvantages of substituting mutual funds for individual stocks are small.

However, one key disadvantage to such a practice would be that the capital gains that a prospective judge or justice might incur could be considerable if they liquidated their portfolio. Congress might therefore consider affording incoming federal judges and justices the benefit of deferred capital gains treatment currently afforded judges and justices when the sales are taken to avoid a conflict.

Nonetheless, this would not remedy situations in which a judge or justice (or spouse) is the beneficiary of a trust that he or she does not control.[148]

If a practice of requiring such divestment was thought to be too intrusive, this rule might be limited to either incoming Supreme Court Justices or incoming judges on the courts of appeals.

B. REQUIRING DIVESTMENT TO AVOID CONFLICT CASE-BY-CASE

Congress could also pass legislation to require federal judges to take advantage of divestment when possible.[149] As explained above, since 2006, federal judges can take advantage of a special provision, allowing them to defer capital gains tax if they sell the interest which would otherwise cause the recusal.[150] Congress could require judges to utilize this provision whenever possible. Such a law would probably be the most straightforward means of reducing the effects of judicial recusal that we chronicle in this Article.

It would, however, likely be deeply unpopular with federal judges who might resent being forced to reshape their portfolios by the happenstance of litigation that comes before them. And although many have argued that individual investors are better off with mutual funds, there is no perfect financial substitute to owning shares in a particular company.

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147. To be clear, we have no evidence that such behavior is occurring, but it would be interesting to investigate this in further research.

148. In some instances, a beneficiary might be able to transfer their interest in the trust. However, spendthrift provisions commonly found in trust instruments to protect the beneficiary from creditors often prevent the transfer of an interest in a trust.

149. Requiring recusal standards for Justices of the Supreme Court might raise separation of powers issues. *See* Louis J. Virelli III, *The (Un)Constitutionality of Supreme Court Recusal Standards*, 2011 WIS. L. REV. 1181.

150. We attempted to measure the effect of this provision by comparing our main outcome measures before and after 2006. We detected no significant difference between the pre- and post-2006 eras, but our measure was fairly crude.

It would also be ineffective in situations in which the judge herself does not control the relevant interest. For example, if the judge is a beneficiary of a trust that he or she does not control, or a judge's spouse owns the interest, such a rule would do nothing to reduce recusals.

C. PERFECT HEDGING

Financial derivatives could be used to eliminate the conflict of interest. As a matter of financial theory, it is possible to create a hedge for any given stock position. Such a hedge would neutralize the conflict of interest and make a judge financially indifferent as to whether the decision in the case harmed or hurt the company. This has the critical advantage of being a viable means of eliminating the conflict of interest even when the judge does not own or control the stock interest (because it is that of a trust that benefits the judge or justice (or spouse)).

In the case of a judge owning or benefitting from a stock, a judge could short an equal number of shares of the stock for the pendency of the litigation.[151]

Even without congressional action, the federal judiciary could create an institutional mechanism to facilitate these transactions and encourage federal judges to use this approach to avoid the need for recusal. Such an institution could (1) identify the stock interests creating the conflict of interest; (2) identify the necessary options to facilitate the transaction; and (3) certify to the litigants and the general public that the conflict of interest has been neutralized by the transaction. Alternatively, a nonprofit could take on these functions.

Although finding a market for such options might be difficult for thinly traded stocks, the vast majority of judges' individual stock ownership is in large actively traded companies for which a robust options market is likely to already exist.[152]

Congress could fund such an institution and cover the modest costs associated with the option purchases. More controversially, Congress could require judges and justices to acquire such hedges in order to avoid recusals.[153]

D. PERMIT THE USE OF BLIND TRUSTS FOR FEDERAL JUDGES

Currently, federal law prohibits the use of blind trusts by federal judges to address conflict of interest issues. Under 28 U.S.C. § 455(c), a federal judge or magistrate must "inform himself about his personal and fiduciary financial

151. Other perfect hedges are also possible. For example, if a judge owned stock in company XYZ, he or she could sell call options that could be exercised at the price of the stock at the date he or she was assigned to the case. These would neutralize any gains that might result from the stock going up. Simultaneously, he or she could purchase put options that would allow him or her to purchase the stock at the same price to neutralize the risk of the stock declining in value as a result of the decision.

152. This mechanism could also be used to eliminate conflicts of interest that result from indirect ownership of significant positions through mutual funds.

153. Because financial conflicts of interest are an issue throughout government, this approach might be taken in other contexts as well.

interests."[154] The House Judiciary Committee Report on this legislation noted that this duty "precludes use of a so-called blind trust."[155] Congress could pass legislation to allow a judge to transfer all individual stocks to a blind trust.

However, such an approach would have substantial disadvantages. First, it might not address the situation in which the judge is the beneficiary of a trust not controlled by him or her because the judge (or spouse) may not be able to transfer the interest in the trust.[156]

More importantly, it is not clear that blind trusts would fully address the underlying conflict of interest issues.[157] Judges will be aware of what assets went into the blind trust and, unless the portfolio is immediately liquidated, may have some idea of its contents.[158] Such trusts are also potentially expensive to manage.[159]

E. CHANGING THE DISQUALIFICATION RULES

Congress could also change the disqualification rules themselves so as not to require automatic recusal upon the ownership of any interest, but instead create some safe harbor, either by overall dollar amount or percentage of the judge's assets.[160] This might allow judges to own a diversified portfolio of individual stocks, and equalize the treatment of mutual funds and individual shares.

Historically, however, the judiciary has been concerned about the appearance of impartiality as well as its reality. A situation in which a judge's financial situation would be directly affected by his or her ruling on a case certainly would raise considerable questions about the appearance of fairness and would require a substantial revamping of the existing understanding of judicial ethics.

For many of the same reasons, it is also hard to imagine such a bill successfully passing Congress.

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154. 28 U.S.C. § 455(c) (2012). This provision only applies to federal judges and, as noted above, is not applicable to justices. *Id.* § 455(a).

155. H.R. REP. NO. 93-1453, at 6–7 (1974).

156. In situations in which the beneficiary does not control the trust, the beneficiary might be able to formally blind themselves to the contents of the trust without violating any of the terms of the trust agreement.

157. *See generally* Megan J. Ballard, *The Shortsightedness of Blind Trusts*, 56 KAN. L. REV. 43 (2007) (criticizing use of blind trusts and noting ways that conflicts of interest can endure); Len Costa, *A Wink and a Nod: A New Scandal Exposes the Problem with Blind Trusts*, LEGAL AFF. (Jan.–Feb. 2006), http://www.legalaffairs.org/issues/January-February-2006/toa_costa_janfeb06.msp (same). Ballard ultimately recommends disclosure and divestiture as superior to blind trusts. Ballard, *supra* at 64–67.

158. *See* Ballard, *supra* note 157, at 52.

159. Anne VanderMey & Nicolas Rapp, *Who Needs a Blind Trust?*, FORTUNE (Oct. 22, 2012, 4:55 PM), http://fortune.com/2012/10/22/who-needs-a-blind-trust (noting numerous limitations of blind trusts, including expense).

160. *Cf.* Seth E. Bloom, *Judicial Bias and Financial Interest as Grounds for Disqualification of Federal Judges*, 35 CASE W. RES. L. REV. 662, 700–05 (1985) (arguing that judges should be permitted to retain small financial interests in corporate litigants).

F. EQUALIZE THE TREATMENT OF MUTUAL FUNDS WITH INDIVIDUAL SHARES

Congress might also try to equalize the treatment of mutual funds and individual shares by eliminating the special exception for mutual funds. Although this regime would remedy the discordant treatment of individual shares and mutual funds, it would likely require more recusals and exacerbate the effect of recusals on cases involving corporate litigants.

G. INCREASED TRANSPARENCY

At the very least, it would be useful and easy for the courts of appeals to disclose occasions on which stock ownership has caused judges to recuse themselves or led to an alternative judge being assigned to a particular case. Relatedly, it would be helpful to know whether such interests were owned by the judge himself, the judge's minor children, the judge's spouse, or a trust benefitting the judge. Such information would aid researchers and policymakers in better understanding the frequency of recusals, and the extent to which they affect the judges who preside over the cases of publicly traded litigants.

As we noted above, it is not easy to measure the effect of judicial recusals, in part because the data are unavailable. Better data would greatly improve our ability to measure the effect of judicial recusals not just on the characteristics of judges who hear these cases, but also on actual case outcomes.

CONCLUSION

This Article chronicles a curious phenomenon—judicial recusals due to stock ownership shape the groups of judges and justices that rule on cases involving corporate litigants. Although recusals and disqualifications are often thought to increase the fairness of the judicial process, we show that they can also lead to a kind of biasing of the pool of judges that hear the cases of particular litigants.

In particular, we find that judicial stock holdings are concentrated in the largest publicly traded companies. Unsurprisingly, these large publicly traded companies also regularly appear as litigants before the courts of appeals and the Supreme Court and lead to regular recusals.

Although we cannot directly observe judicial recusals at the court of appeals level, we find that increasing judicial stock holdings reduces the likelihood a judge will hear a case involving a publicly traded company. For example, if a judge holds ten Forbes 100 companies, the probability of hearing a case involving any Forbes 100 companies drops by 3.7%.

Recusals make the panels hearing cases involving corporate litigants more likely to have male judges, African-American judges, younger judges, judges with fewer personal assets, judges appointed by a Republican President, and former law professors.

Our findings are all the more striking because it appears relatively easy for federal justices and judges to avoid having to recuse themselves in most cases. They can do so either by substituting mutual funds or by taking advantage of a special statute that allows them to sell the disqualifying stock while deferring

the capital gains tax that would otherwise be due.

Devising the best method to insulate public servants from the corrupting influence of financial interest is a topic of age-old debate. In *The Republic*, Plato called for the Guardians to eschew private property entirely because it was the chief temptation for men and women to sacrifice the public good to their private individual interests.[161] Such asceticism would surely be too much to require of federal judges and justices today.[162] But it is perhaps not too much to ask federal judges and justices to avoid the need for recusals by divesting themselves of such interests either as a condition for confirmation or as conflicts arise. At the very least, more transparency about the recusal process is warranted so that we can better measure its effects.

161. PLATO, THE REPUBLIC bk. V, 464c–d, at 179 (Desmond Lee trans., Penguin 2d ed. 2007) (c. 380 B.C.E.) ("[Lack of private property among Guardians] will make them even truer Guardians than before[.] They will prevent the dissension that starts when different people call different things their own, when each carts off to his own private house anything he can lay hands on for himself . . . .").

162. *See generally* James M. Anderson & Eric Helland, *How Much Should Judges Be Paid? An Empirical Study on the Effect of Judicial Pay on the State Bench*, 64 STAN. L. REV. 1277 (2012) (discussing two hundred-year-old history of debate over appropriate pay for judges).

Appendix Table 1: Full Sample of Cases

Panel A: All Cases			
	Probability a judge hears any case		
Judicial Holdings			
Total companies owned in Forbes 100	−0.001109*** (0.000037)		
Total companies owned in Bloomberg 1000		−0.000356*** (0.000022)	
Total companies owned in Russell 3000			−0.000519*** (0.000029)
Observations	2,758,917	2,758,917	2,758,917
R-squared	0.052221	0.051901	0.051930
Number of Cases	114099	114099	114099
Probability of Hearing	0.0828	0.0828	0.0828
Impact of Additional Company in Holdings	−0.0134	−0.00430	−0.00627

Note: Robust standard errors clustered on judge in parentheses.
*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

Panel B: Forbes 100 Cases			
	Probability a judge hears a case involving a Forbes 100 company		
Judicial Holdings			
Total companies owned in Forbes 100	−0.000038*** (0.000004)		
Total companies owned in Bloomberg 1000		−0.000016*** (0.000002)	
Total companies owned in Russell 3000			−0.000023*** (0.000003)
Observations	2,758,917	2,758,917	2,758,917
R-squared	0.007291	0.007272	0.007275
Number of Cases	114099	114099	114099
Probability of Hearing	0.00108	0.00108	0.00108
Impact of Additional Company in Holdings	−0.0358	−0.0149	−0.0210

Note: Robust standard errors clustered on judge in parentheses.
*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

Panel C: Russell 3000 Cases			
	Probability a judge hears a case involving a Russell 3000 company		
Judicial Holdings			
Total companies owned in Forbes 100	−0.000044*** (0.000006)		
Total companies owned in Bloomberg 1000		−0.000016*** (0.000004)	
Total companies owned in Russell 3000			−0.000023*** (0.000005)
Observations	2,758,917	2,758,917	2,758,917
R-squared	0.008814	0.008800	0.008802
Number of Cases	114099	114099	114099
Probability of Hearing	0.00241	0.00241	0.00241
Impact of Additional Company in Holdings	−0.0183	−0.00655	−0.00951

Note: Robust standard errors clustered on judge in parentheses.
*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.

Panel D: Bloomberg 1000 Cases			
	Probability a judge hears a case involving a Bloomberg 1000 company		
Judicial Holdings			
Total companies owned in Forbes 100	−0.000059*** (0.000005)		
Total companies owned in Bloomberg 1000		−0.000024*** (0.000003)	
Total companies owned in Russell 3000			−0.000035*** (0.000004)
Observations	2,758,917	2,758,917	2,758,917
R-squared	0.012959	0.012932	0.012938
Number of Cases	114099	114099	114099
Probability of Hearing	0.00197	0.00197	0.00197
Impact of Additional Company in Holdings	−0.0300	−0.0120	−0.0178

Note: Robust standard errors clustered on judge in parentheses.
*** indicates $p < 0.01$; ** indicates $p < 0.05$; * indicates $p < 0.1$.