

A RULE OF FOUR? FIVE? OR THREE? DEFENSIVE DENIALS ON THE SUPREME COURT

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ABSTRACT

The use of “defensive denials” is openly acknowledged by Supreme Court justices, but how often are justices able to block review of a case when they predict they would be on the losing side on the merits? This analysis uses a decision-theoretic model to explore how the Rule of Four, as well as other submajority and supermajority rules, shape the opportunities for defensive denials. It is extremely difficult to design institutional arrangements that constrain strategic behavior. However, given what we know about the Supreme Court’s agenda-setting behavior, regardless of the rules that the Court employs, our model suggests that successful strategic voting is mathematically impossible most of the time. Employing a Rule of Four at the “cert” stage and using a simple majority rule at the merits stage limits opportunities for defensive denials almost 90% of the time. If the justices used a simple majority rule at both stages of Supreme Court decision-making, defensive denials would be even rarer.

TABLE OF CONTENTS

I. Introduction.....	108
II. The Rule of Four as an Attempt to Limit Strategic Voting	110
III. A Rule of Four? Three? Or Five?	112
IV. A Decision-Theoretic Model of Defensive Denials	114
A. Assumptions	118
B. Results: Opportunities for Defensive Denials	122
V. Discussion	124

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I. INTRODUCTION

Supreme Court clerks have remarked that, “Justices would be fairly stupid to take a case knowing [they] would lose.”¹ The justices themselves have admitted that a lower court decision may be “outrageously wrong,” yet they would refuse to grant review based on their calculations of how the case would be decided on the merits.² In a 2021 interview with Joan Biskupic for CNN, Justice Stephen Breyer said, “Can I promise you that I’ve never thought of what the outcome eventually will be? No, I can’t promise you that.”³ Unlike decisions on the merits, in which a majority of justices are needed to determine the outcome, cases are formally granted review, or *certiorari*, based on the Rule of Four, in which only four justices’ votes are needed for a case to be granted full review.⁴ Justices and clerks openly talk about *defensive denials*, strategic votes to block the acceptance of a case for review when they would disagree with the outcome on the merits.⁵ But how often can justices actually do this successfully? More specifically, what is the impact of the institutional rules of the Supreme Court, namely the use of the Rule of Four at the certiorari stage and a simple majority rule at the merit stage? Can this institutional arrangement prevent strategic voting more than other voting rules, such as using a simple majority rule at both stages of decision-making? How often are defensive denials even possible?

This analysis uses a decision-theoretic model to explore the impact of submajority and supermajority rules on opportunities for a specific type of strategic voting on the Supreme Court.⁶ A decision-theoretic model can be a useful complement to empirical testing because measuring strategic behavior can be quite challenging, even when we

¹ H.W. PERRY, JR., *DECIDING TO DECIDE: AGENDA SETTING IN THE UNITED STATES SUPREME COURT* 205 (1991).

² See Saul Brenner & John F. Krol, *Strategies in Certiorari Voting on the United States Supreme Court*, 51 J. POL. 828, 829 (1989).

³ Joan Biskupic, *The Secret Supreme Court: Late Nights, Courtesy Votes and the Unwritten 6-Vote Rule*, CNN: POL., <https://www.cnn.com/2021/10/17/politics/supreme-court-conference-rules-breyer/index.html> [<https://perma.cc/37K8-SXJA>] (Oct. 17, 2021, 1:08 PM).

⁴ See Ira P. Robbins, *Justice by the Numbers: The Supreme Court and the Rule of Four—Or is it Five?*, 36 SUFFOLK U. L. REV. 1, 12–13, 15 (2002).

⁵ See Udi Sommer, *Beyond Defensive Denials: Evidence from the Blackmun Files of a Broader Scope of Strategic Certiorari*, 31 JUST. SYS. J. 316, 319 (2010).

⁶ See discussion *infra* Part IV. See also, e.g., Álvaro Bustos & Tonja Jacobi, *Judicial Choice Among Cases for Certiorari*, 27 SUP. CT. ECON. REV. 117, 118 (2019); Aaron L. Nielson & Paul Stancil, *Gaming Certiorari*, 170 U. PA. L. REV. 1129, 1133–34 (2022).

have actual cert votes and merit votes.⁷ In addition to strategic calculations, a justice may vote to deny cert for a variety of reasons, such as the case was a bad vehicle, was frivolous, or the issue needs more “percolation.”⁸ Moreover, votes can be a function of both strategic and non-strategic considerations.⁹ Justices almost never explain why they have denied cert: these decisions are not made in public.¹⁰ Ironically, it is the secrecy of this process that creates ideal conditions for strategic voting.¹¹ But even when we have empirical data on the justices’ votes, we still have no idea why they voted to grant or deny a case review: strategic behavior *has to be inferred*. Thus, a decision-theoretic model can help us explore the institutional contexts that shape—and possibly constrain—strategic voting.

In fact, it is extremely difficult to devise rules that provide incentives for voters to truthfully reveal their preferences and vote sincerely. In other words, there are very few institutional arrangements that can constrain strategic voting.¹² As it turns out,

⁷ See Bethany Blackstone & Paul M. Collins, Jr., *Strategy and the Decision to Dissent on the U.S. Courts of Appeals*, 35 JUST. SYS. J. 239, 240–41, 243 (2014); see also Bustos & Jacobi, *supra* note 6, at 118.

⁸ See PERRY, JR., *supra* note 1, at 218, 222, 234; Saul Brenner, *Granting Certiorari by the United States Supreme Court: An Overview of the Social Science Studies*, 92 L. LIBR. J. 193, 200 (2000); see also LAWRENCE BAUM, THE PUZZLE OF JUDICIAL BEHAVIOR 78–79, 81 (2000); Gregory Caldeira & John Wright, *Organized Interests and Agenda Setting in the US Supreme Court*, 82 AM. POL. SCI. REV. 1109, 1115 (1988); DORIS MARIE PROVINE, CASE SELECTION IN THE UNITED STATES SUPREME COURT 29, 37 (1980); Doris Marie Provine, *Deciding What to Decide: How the Supreme Court Sets its Agenda*, in JUDICIAL POLITICS: READINGS FROM JUDICATURE 393, 393 (Elliot Slotnick ed., 1977); Joseph Tanenhaus, Marvin Schick, Matthew Muraskin & Daniel Rosen, *The Supreme Court’s Certiorari Jurisdiction: Cue Theory*, in 4 JUDICIAL DECISION-MAKING 111, 113 (Glendon Schubert ed., 1963).

⁹ See Sara C. Benesh, Saul Brenner & Harold J. Spaeth, *Aggressive Grants by Affirm-Minded Justices*, 30 AM. POL. RSCH. 219, 220 (2002); Nielson & Stancil, *supra* note 6, at 1139; see also Ryan C. Black & Ryan J. Owens, *Agenda Setting in the Supreme Court: The Collision of Policy and Jurisprudence*, 71 J. POL. 1062, 1063 (2009); Bustos & Jacobi, *supra* note 6, at 119; Patrick M. Yingling, *Judicial Conventions: An Examination of the U.S. Supreme Court’s Rule of Four*, 38 DUBLIN U. L.J. 477, 484 (2015); UDI SOMMER, SUPREME COURT AGENDA SETTING: STRATEGIC BEHAVIOR DURING CASE SELECTION 30–38 (2014).

¹⁰ See PERRY, JR., *supra* note 1, at 37–38.

¹¹ See Kenneth W. Moffett, Forrest Maltzman, Karen Miranda & Charles R. Shipan, *Strategic Behavior and Variation in the Supreme Court’s Caseload Over Time*, 37 JUST. SYS. J. 20, 24, 27 (2016); Nielson & Stancil, *supra* note 6, at 1144.

¹² See Allan Gibbard, *Manipulation of Voting Schemes: A General Result*, 41 ECONOMETRICA 587, 588 (1973); Tim Groseclose & Keith Krehbiel, *On the Pervasiveness of Sophisticated Sincerity*, in POLITICAL ECONOMY: INSTITUTIONS, COMPETITION, AND REPRESENTATION 247, 272–73 (William Barnett, Normal Schofield & Melvin Hinich eds., 1993); Richard D. McKelvey & Richard G. Niemi, *A Multistage Game Representation of Sophisticated Voting for Binary Procedures*, 18 J. ECON. THEORY 1, 1 (1978). See generally PETER C. ORDESHOOK, GAME THEORY AND POLITICAL THEORY: AN INTRODUCTION 258 (1986); Mark Allen Satterthwaite, *Strategy-Proofness and Arrow’s Conditions: Existence and Correspondence Theorems for Voting Procedures and Social Welfare Functions*, 10 J. ECON. THEORY 187

given what we know about the justices' agenda-setting behavior, our model suggests that the actual frequency of successful defensive denials is quite limited regardless of the voting rules that the Court adopts.¹³ For example, the Rule of Four limits opportunities for defensive denials almost 90% of the time.¹⁴ However, our model shows that there are even fewer opportunities to defensively deny a case if the justices used a simple majority rule at both stages of Supreme Court decision making; under this institutional arrangement, defensive denials would be extremely rare.¹⁵

II. THE RULE OF FOUR AS AN ATTEMPT TO LIMIT STRATEGIC VOTING

One justification for using the Rule of Four is that it limits strategic voting and democratizes the Court's agenda.¹⁶ According to Justice William Brennan:

A minority of the Justices has the power to grant a petition for certiorari over the objection of five Justices. The reason for the "antimajoritarianism" is evident: in the context of a preliminary 5-to-4 vote to deny, 5 give the 4 an opportunity to change at least one mind.¹⁷

A "substantial minority" should be able to get a case accepted with the hope that a fifth justice would join them on the merits.¹⁸ The rule prevents the majority "from controlling their docket, essentially shutting out the minority from even discussing a case."¹⁹ Thus, as Justice John Paul Stevens explained, the Rule of Four "gives each member of the Court a stronger voice in determining the makeup of the Court's docket."²⁰ In an internal memo to the conference, Chief Justice William Rehnquist and Justice Brennan argued that:

(1975); Kevin Scott, *Shaping the Supreme Court's Federal Certiorari Docket*, 27 JUST. SYS. J. 191 (2006).

¹³ See *infra* Section IV.B.

¹⁴ See *infra* Table 1.

¹⁵ See *infra* Section IV.B.

¹⁶ See Richard L. Revesz & Pamela S. Karlan, *Nonmajority Rules and the Supreme Court*, 136 U. PA. L. REV. 1067, 1100–01 (1988).

¹⁷ *Straight v. Wainwright*, 476 U.S. 1132, 1134 (1986) (Brennan, J., dissenting).

¹⁸ PERRY, JR., *supra* note 1, at 211; see Revesz & Karlan, *supra* note 16, at 1085.

¹⁹ Richard J. Hunter, Jr., John H. Shannon & Hector R. Lozada, *A Primer on the United States Supreme Court: An Indispensable Party in Creating a Legal Cannon*, 10 GLOB. J. POL. SCI. & ADMIN. 11, 15 (2022).

²⁰ John Paul Stevens, *The Life Span of a Judge-Made Rule*, 58 N.Y.U. L. REV. 1, 21 (1983).

Given the limited time and attention we necessarily devote to petitions for certiorari, one may vote to deny for a variety of unarticulated reasons; under those circumstances, there is relatively little to be lost, and a great deal to be gained, by permitting four who feel strongly that a case should be heard to have it placed on the calendar for argument.²¹

This suggests that the logic behind the Rule of Four is to provide individual justices with more power over the Court's agenda; because a majority is not required for a case to be granted review, each justice has relatively more control over which cases the Court will hear. In this way, the Rule of Four "emphasize[s] the independence of the cert and the merits vote."²²

It has also been suggested that the use of a submajority rule at the agenda-setting stage makes the Court more democratic because it makes "agenda access relatively easy."²³ As Justice Stevens explained, requiring only four justices' votes "increases the likelihood that an unpopular litigant, or an unpopular issue, will be heard in the country's court of last resort."²⁴ Thus, the Rule of Four increases the likelihood of participation, particularly by those most likely to be discriminated against by a majority. It "allows greater flexibility in the types of cases which the Court will review."²⁵ Given all of this, we might expect the Court to develop institutional practices, such as the Rule of Four, to limit strategic voting.

There is evidence that justices do engage in "aggressive grants." Justices who are on the winning side on the merits have higher grant rates than justices who are on the losing side.²⁶ The use of defensive denials, however, has been a bit harder to pin down empirically. We know from interviews with justices and clerks on the Burger Court

²¹ Memorandum from Justice William J. Brennan & Chief Justice William Rehnquist to the Conference (June 25, 1984) (on file with the Collections of the Manuscript Division, Library of Congress, Washington, D.C., and with author).

²² SAUL BRENNER & JOSEPH WHITMEYER, STRATEGY ON THE UNITED STATES SUPREME COURT 141 (2009).

²³ PERRY, JR., *supra* note 1, at 211.

²⁴ Stevens, *supra* note 20, at 21.

²⁵ Robert L. Knauss, Comment, *Recent Decision*, 56 MICH. L. REV. 118, 121 (1957).

²⁶ Benesh et al., *supra* note 9, at 221–22; Robert Boucher & Jeffrey Segal, *Supreme Court Justices as Strategic Decision Makers: Aggressive Grants and Defensive Denials on the Vinson Court*, 51 J. POLS. 824, 827 (1995); Brenner & Krol, *supra* note 2, at 833. *See, e.g.*, Saul Brenner, *The New Certiorari Game* 41 J. POL. 649, 649–50 (1979); THOMAS H. HAMMOND, CHRIS W. BONNEAU & REGINALD S. SHEEHAN, STRATEGIC BEHAVIOR AND POLICY CHOICE ON THE U.S. SUPREME COURT 226 (2005); GLENDON A. SCHUBERT, QUANTITATIVE ANALYSIS OF JUDICIAL BEHAVIOR 228–29 (1959); Glendon Schubert, *Policy Without Law: An Extension of the Certiorari Game*, 14 STAN. L. REV. 284, 318 (1962); SOMMER, *supra* note 9, at 39.

that defensive denials were openly acknowledged in all chambers.²⁷ Udi Sommer, in an analysis of Justice Harry Blackmun's papers in forty-six cases, found evidence that his clerks recommended a defensive denial eight times, or in 17% of these cases.²⁸ Justice Thurgood Marshall's papers indicate that, during the 1989 and 1990 terms, his law clerks frequently recommended that he deny cert because he would be on the losing side on the merits.²⁹ For some justices, the acknowledgment of defensive denials was quite common.³⁰

Freely talking about defensive denials, however, does not necessarily reflect how often they are used—and used successfully—by the justices. Combining a formal model and empirical data, Gregory Caldeira, John Wright, and Christopher Zorn identified eighteen possible instances of defensive denials during the 1982 term.³¹ However, there were 1,891 cases that were on the Court's docket that year, suggesting that this kind of strategic behavior happened less than 1% of the time.³² In fact, the vast majority of cases are denied review—and denied review unanimously—suggesting that defensive denials rarely happen.³³ Even if justices do cast their cert votes strategically, it is not clear how often this will actually work. Although justices and their clerks may “unabashedly” talk about strategically denying cases,³⁴ the actual success of defensive denials is a different issue altogether.³⁵

III. A RULE OF FOUR? THREE? OR FIVE?

While the history of the Court's jurisdiction is well documented,³⁶ the adoption of the Rule of Four appears to be shrouded in some mystery. Apparently, “[r]esearch has yielded no evidence of its

²⁷ See PERRY, JR., *supra* note 1, at 198–99.

²⁸ Udi Sommer, *Beyond Defensive Denials: Evidence from the Blackmun Files of a Broader Scope of Strategic Certiorari*, 31 JUST. SYS. J. 316, 317, 332–33 (2010).

²⁹ See Gregory A. Caldeira, John R. Wright & Christopher J. W. Zorn, *Sophisticated Voting and Gate-Keeping in the Supreme Court*, 15 J.L. ECON. & ORG. 549, 552 & n.2 (1999).

³⁰ See PERRY, JR., *supra* note 1, at 198–99; *see also* Caldeira & Wright, *supra* note 8, at 1112, 1115.

³¹ Caldeira et al., *supra* note 29, at 570.

³² *See id.* at 559–60.

³³ See BRENNER & WHITMEYER, *supra* note 22, at 45–46; Saul Brenner, Joseph M. Whitmeyer & Harold J. Spaeth, *The Outcome-Prediction Strategy in Cases Denied Certiorari by the U.S. Supreme Court*, 130 PUB. CHOICE 225, 232–33 (2007).

³⁴ See PERRY, JR., *supra* note 1, at 205–06.

³⁵ See HAMMOND ET AL., *supra* note 26, at 233.

³⁶ *See, e.g.*, SOMMER, *supra* note 9, at 13–23.

origins or early history.”³⁷ Moreover, the Rule of Four has not been a “hard and fast” rule.³⁸ For example, during the 1924 hearings, Justice Willis Van Devanter stated, “we proceed upon the theory that when as many as four members of the court, and even three in some instances, are impressed with the propriety of our taking the case the petition [sic] should be granted.”³⁹ In 1937, during the controversy over President Franklin Delano Roosevelt’s “Court-Packing Plan,” Chief Justice Charles Evans Hughes explained, “even if two or three of the Justices are strongly of the opinion that certiorari should be allowed, frequently the other Justices will acquiesce in their view.”⁴⁰ The docket books from the Vinson and Warren Courts show that a small proportion of cases were granted review with only three votes.⁴¹ In the early 1970s, Chief Justice Warren Burger and others began the practice of the “Join-3” vote.⁴² During the mid-1980s, Join-3 votes became quite prevalent.⁴³ Under this modification of the Rule of Four, a Join-3 vote is a vote to provide a fourth vote as long as three others vote to grant review, “but is otherwise considered as voting to deny.”⁴⁴ A Join-3 has been described by one justice as a “timid vote to grant.”⁴⁵ During the 1984 and 1985 terms, 17% of the decided cases were granted review based on a Join-3 vote.⁴⁶

While the Rule of Four is used overwhelmingly when the justices are making non-dispositive decisions, the Rule of Five is used in habeas corpus petitions and stays of execution.⁴⁷ Justices have, on more than one occasion, discussed eliminating the Rule of Four altogether and requiring a Rule of Five, particularly as a means to

³⁷ Joan Maisel Leiman, *The Rule of Four*, 57 COLUM. L. REV. 975, 981 (1957); see also Scott Dodson, *Supreme Court Rulemaking: The Making of the Supreme Court Rules*, 7 JUDGES’ BOOK 95, 95 (2023); Robbins, *supra* note 4, at 12.

³⁸ See Lyle Denniston, Is the “Rule of Four” Fully Intact?, Address at Yale Law School Panel Discussion (Sept. 18, 2009), https://law.yale.edu/sites/default/files/documents/pdf/Clinics/Lyle_Denniston.pdf [<https://perma.cc/7ZF4-4VC5>]; James F. Fagan, Jr., *When Does Four of a Kind Beat a Full House? The Rise, Fall and Replacement of the Rule of Four*, 25 NEW ENG. L. REV. 1101, 1115 (1991); DAVID M. O’BRIEN, STORM CENTER: THE SUPREME COURT IN AMERICAN POLITICS 191–92 (1st. ed. 1986); Robbins, *supra* note 4, at 12; Yingling, *supra* note 9, at 480.

³⁹ Revesz & Karlan, *supra* note 16, at 1070 (footnote omitted).

⁴⁰ *Id.* (footnote omitted).

⁴¹ Saul Brenner, Access to the United States Supreme Court: The Rule of Four or the Rule of Five?, 21 S.E. POL. REV. 841, 845 (1993).

⁴² David M. O’Brien, *Join-3 Votes, the Rule of Four, the Cert Pool, and the Supreme Court’s Shrinking Plenary Docket*, 13 J.L. & POL. 779, 784 (1997).

⁴³ *Id.* at 798–99; PERRY, JR., *supra* note 1, at 49, 166–69.

⁴⁴ O’Brien, *supra* note 42, at 784.

⁴⁵ PERRY, JR., *supra* note 1, at 167.

⁴⁶ This data was collected from the docket sheets available in the Papers of Justice William J. Brennan, Library of Congress, Washington, D.C., Part I, Boxes 666–69, 695–98.

⁴⁷ Biskupic, *supra* note 3; Fagan, Jr., *supra* note 38, at 1111–12; Robbins, *supra* note 4, at 1–30.

reduce the Court's docket size.⁴⁸ In the 1980s, Justice Stevens argued that, "we may find it necessary to acknowledge that the Rule of Four is a luxury we can no longer afford."⁴⁹ Using a Rule of Five would allow the Court "time to pursue the really significant cases with adequate reflection and in sufficient depth."⁵⁰ Justice Stevens assumed that requiring five votes to grant cert would reduce the number of cases granted review.⁵¹

All of this suggests that there has been at least some consideration of varying the number of justices required to grant review, particularly depending on the type of petition. Although we may never know precisely why or how the Rule of Four was devised, using a decision-theoretic model, we can assess its impact—and the impact of other rules—on the opportunities for strategic voting. The choice of institutional rules can have a dramatic effect on policy outcomes.⁵² The focus of this analysis is to assess how submajority rules impact strategic voting in comparison to majority and supermajority rules. More specifically, although we may never know precisely why or how the Rule of Four was devised, using a decision-theoretic model, we can assess its impact on the opportunities for strategic voting. Does the Rule of Four make it harder for justices to engage in defensive denials compared to other voting rules?

IV. A DECISION-THEORETIC MODEL OF DEFENSIVE DENIALS

To explore the role of institutional rules on the potential use of defensive denials in Supreme Court case selection, we use a model based on a two-stage conception of Supreme Court decision-making, building on the work of Caldeira, Wright, and Zorn.⁵³ In our model, at the first stage, the cert stage, justices select the cases they wish to

⁴⁸ See R. Christopher Perry & John L. Carmichael, Jr., *Have Four Vote Certiorari Cases Been Unimportant? Qualitative and Quantitative Tests of Justice Stevens' Argument*, 16 CUMB. L. REV. 419, 419–24 (1986); Letter from Lewis F. Powell, Jr., Assoc. Justice, U.S. Sup. Ct., to Colleagues (Sept. 8, 1985) (on file with the Powell Archives, Boxes 660–61, Washington & Lee University School of Law, and with author); Revesz & Karlan, *supra* note 16, at 1099–109.

⁴⁹ Stevens, *supra* note 20, at 21.

⁵⁰ SOMMER, *supra* note 9, at 27.

⁵¹ See Stevens, *supra* note 20, at 16–17.

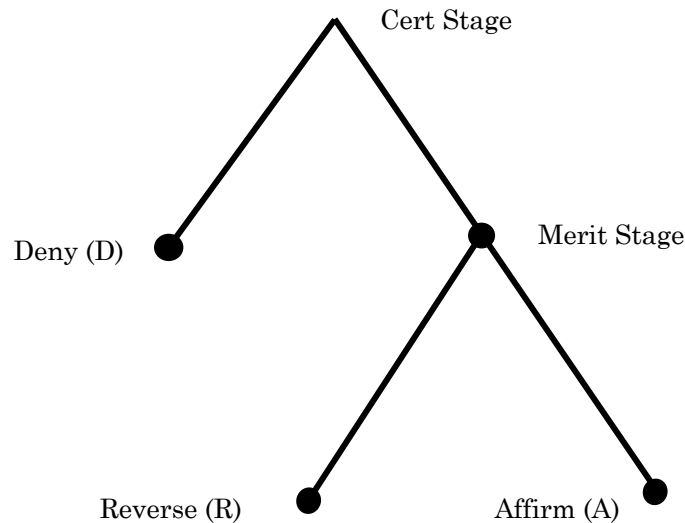
⁵² See, e.g., Rafael Gely & Pablo Spiller, *A Rational Choice Theory of Supreme Court Statutory Decisions with Applications to the State Farm and Grove City Cases*, 6 J.L. ECON. & ORG. 263, 267 (1990); Revesz & Karlan, *supra* note 16, at 1131; Edward Schwartz & Warren Schwartz, *Decisionmaking by Juries Under Unanimity and Supermajority Voting Rules*, 80 GEO L.J. 775, 777 (1992); Pablo Spiller & Matthew Spitzer, *Where is the Sin in Sincere? Sophisticated Manipulation of Sincere Judicial Voters (With Applications to Other Voting Environments)*, 11 J.L. ECON. & ORG. 32, 33 (1995); Craig Volden, *Sophisticated Voting in Supermajoritarian Settings*, 60 J. POL. 149, 151 (1998).

⁵³ Caldeira et al., *supra* note 29, at 553.

review by declining or granting writs of certiorari.⁵⁴ Once cert is granted, it is at the second stage, the merit stage, that justices decide the substantive issues of the case based on a simple majority rule, and then they reverse or affirm the lower court's decision.

Figure 1

Two-stage Agenda Tree Model of Supreme Court Decision Making



This is, admittedly, a simplified version of the actual process. The two-stage model we use ignores, for example, the cert pool and the role of clerks.⁵⁵ However, there is evidence that when clerks write

⁵⁴ Cases can also come to the Court under “writs of appeal.” These are cases that the Court is obligated to hear by statute. In 1988, Congress virtually eliminated these kinds of cases, and there is evidence that even these cases were treated with a great deal of discretion. PERRY, JR., *supra* note 1, at 303; Sommer, *supra* note 28, at 328 & n.23.

⁵⁵ For further discussion on the cert pool and the impact of clerks on the selection process, see Ryan C. Black & Christina L. Boyd, *The Role of Law Clerks in the U.S. Supreme Court’s Agenda-Setting Process*, 40 AM. POL. RSCH. 147, 148 (2012); William D. Blake, Hans J. Hacker & Shon R. Hopwood, *Seasonal Affective Disorder: Clerk Training and the Success of Supreme Court Certiorari Petitions*, 49 L. & SOC’Y REV. 973, 974 (2015); Gregory A. Caldeira & John R. Wright, *The Discuss List: Agenda Building in the Supreme Court*, 24 L. & SOC’Y REV. 807, 809 (1990); Christopher D. Kromphardt, *US Supreme Court Law Clerks as Information Sources*, 3 J.L. & CTS. 277, 278 (2015); O’Brien, *supra* note 42, at 807–08; Barbara Palmer, *The “Bermuda Triangle?” The Cert Pool and Its Influence Over the Supreme Court’s Agenda*, 18 CONST. COMMENT. 105, 105 (2001); SOMMER, *supra* note 9, at 23; ARTEMUS WARD & DAVID L. WEIDEN,

cert memos and mark them up for their justices, they also think strategically; clerks often recommend defensive denials.⁵⁶ We also do not account for the initial conference vote on the merits after oral arguments. For example, justices often change their minds on the merits of the case after reading the circulated opinion drafts.⁵⁷ But we use a simplified model here because the focus of our analysis is to explore the impact of different institutional arrangements on justices' cert votes.⁵⁸

In our model, for each case that comes to the Supreme Court, justices have three outcomes to choose from:

Deny cert, denoted by D

Affirm on the merits, denoted by A

Reverse on the merits, denoted by R

For each case, a justice has a *preference order* for these three outcomes. For example, the notation $R > D > A$ is used to indicate that for a particular case, a justice prefers reverse (R) as her first choice, deny (D) as her second choice, and affirm (A) as her last choice. Given these three outcomes, for any case, there are six possible preference orderings that any number (N) of the justices can choose from:

$D > A > R$ $D > R > A$

$A > D > R$ $R > D > A$

$A > R > D$ $R > A > D$

N_{DAR} denotes the number of justices with the preference order of $D > A > R$, and N_{DRA} denotes the number of justices with $D > R > A$, and so on. Because there are nine justices, $N_{DAR} + N_{DRA} + N_{ADR} + N_{ARD} + N_{RDA} + N_{RAD} = 9$. A *preference distribution* is the specific combination of the six preference orderings of the justices for a particular case. For example:

SORCERERS' APPRENTICES: 100 YEARS OF LAW CLERKS AT THE UNITED STATES SUPREME COURT 110 (2006).

⁵⁶ See Sommer, *supra* note 28, at 323.

⁵⁷ See, e.g., Benesh et al., *supra* note 9, at 224; Boucher & Segal, *supra* note 26, at 826; Brenner, *supra* note 26, at 652; Brenner & Krol, *supra* note 2, at 830.

⁵⁸ On the importance of institutional factors, see Moffet et al., *supra* note 11, at 27.

$$N_{\text{DAR}} = 9, \text{ and } N_{\text{DRA}}, N_{\text{ADR}}, N_{\text{ARD}}, N_{\text{RDA}}, \text{ and } N_{\text{RAD}} = 0.$$

Or alternatively:

$$N_{\text{DAR}} = 2, N_{\text{DRA}} = 2, N_{\text{ADR}} = 4, N_{\text{ARD}} = 0, N_{\text{RDA}} = 0, \text{ and } N_{\text{RAD}} = 1.$$

How many of these preference distributions allow for successful defensive denials under a Rule of Four? Is this less than if the Court used a Rule of Five to grant cert? Mathematically, is the Rule of Four more or less restrictive?

In our model, sincere voting occurs when a justice simply votes for his most favored outcome at each successive stage. For example, at the cert stage, if his most preferred outcome is D, he votes to deny, but if his most preferred alternative is R or A, he votes to grant. If cert is granted, the justice then votes for his preferred alternative between R and A at the merit stage. Strategic voting occurs when justices misrepresent their preferences at the cert stage to obtain the most preferred preference possible based on their calculation of the outcome on the merits.⁵⁹ Taking into account the preference distribution of all of the justices, an individual justice begins by calculating the outcome of the case on the merits. In other words, a justice is “forward-looking”—before she votes at the cert stage, she first assesses what will happen at the merit stage.⁶⁰ Will she be on the winning side or the losing side? She then works backwards, up the decision tree, and votes at the cert stage to achieve her preferred outcome. Depending on the particular preference distribution of all the justices, she may not be able to achieve her first choice at the merit stage. Consequently, she may vote for the outcome she prefers second at the cert stage, misrepresenting her preferences to minimize her losses at the merit stage.⁶¹ For example, if she has the sincere preference ordering $R > D > A$ but predicts that the outcome on the merits will be affirmed (her least preferred outcome), she may vote to deny (her second choice) rather than be on the losing side.

⁵⁹ Evan Caminker, *Sincere and Strategic Voting Norms on Multimember Courts*, 97 MICH. L. REV. 2297, 2300 (1999); ROBIN FARQUHARSON, *THEORY OF VOTING* 17–19 (1969).

⁶⁰ See Benesh et al., *supra* note 9, at 220; see also BAUM, *supra* note 8, at 46; Black & Owens, *supra* note 9, at 1063; Sommer, *supra* note 28, at 319; Ryan J. Owens, Justin Wedeking & Patrick C. Wohlfarth, *How the Supreme Court Alters Opinion Language to Evade Congressional Review*, 1 J.L. & CTS. 35, 38 (2013).

⁶¹ See David Austen-Smith, *Sophisticated Sincerity: Voting over Endogenous Agendas*, 81 AM. POL. SCI. REV. 1323, 1328 (1987); see also Groseclose & Krehbiel, *supra* note 12, at 247; FORREST MALTZMAN, JAMES F. SPRIGGS II & PAUL J. WAHLBECK, *CRAFTING LAW ON THE SUPREME COURT: THE COLLEGIAL GAME* 19 (2000); McKelvey & Niemi, *supra* note 12, at 1; Spiller & Spitzer, *supra* note 52, at 42.

A. Assumptions

We assume that the justices' preferences are independent of one another; that is, the probability of one justice having a particular preference order does not affect the probability of another justice having a particular preference order. We acknowledge that some justices' preferences are highly correlated; for example, during the 2016 term, Justice Ruth Bader Ginsburg voted with Justice Sonia Sotomayor in 83.8% of the cases decided by full opinion,⁶² suggesting that the two of them probably also had similar preference orders in most of these cases. However, justices arrive at their preferences on their own; Justice Ginsburg's preference order in any given case was a function of her individual experiences, judicial philosophy, and ideology. While Justices Ginsburg and Sotomayor may have had the same preferences, they come to each case having made up their own minds.⁶³ Our model is constructed by envisioning a random pair of justices at some arbitrary point in the Court's history. Justices selected in this way can be regarded as having independent voting preferences. At times, the selected pair may vote together, and at other times, the selected pair may vote in opposition to one another. This analysis is, therefore, not dependent on a particular natural court or a particular combination of justices. One of the strengths of our model is that it explores the impact of the variation in institutional rules, regardless of the ideological composition of the Court.

For simplicity, we also assume that justices have perfect information, meaning that each justice can predict what the outcome on the merits will be. While justices' preferences are independent, their votes are very predictable, particularly within specific issue areas.⁶⁴ While Justice Ginsburg would have made up her own mind about how she wanted a particular case to be decided, she also had a good idea of what Justice Sotomayor would do. Although this can be a heroic assumption for many decision-making models, the particular institutional arrangements of the Supreme Court may make this

⁶² *The Supreme Court – The Statistics*, 131 HARV. L. REV. STAT. 403, 405 (2017).

⁶³ See PERRY, JR., *supra* note 1, at 207.

⁶⁴ See Lawrence Baum, *Linking Issues to Ideology in the Supreme Court: The Takings Clause*, 1 J.L. & CTS. 89, 90, 97 (2013); Black & Owens, *supra* note 9, at 1063; Brenner, *supra* note 26, at 650; Benjamin E. Lauderdale & Tom S. Clark, *The Supreme Court's Many Median Justices*, 106 AM. POL. SCI. REV. 847, 865 (2012); Douglas Rice, *The Impact of Supreme Court Activity on the Judicial Agenda*, 48 L. & SOC'Y REV. 63, 81–82 (2014); Jeffery A. Segal, *Predicting Supreme Court Cases Probabilistically: The Search and Seizure Cases, 1962-1981*, 78 AM. POL. SCI. REV. 891, 896 (1984); JEFFERY A. SEGAL & HAROLD J. SPAETH, *THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED* 175–77 (2002).

assumption less problematic.⁶⁵ While justices do make mistakes in their strategic calculations,⁶⁶ in fact, justices may have perfect information, if not much of the time, at least some of the time. Indeed, sophisticated voting is possible when decision-makers have even probabilistic knowledge of their colleagues' preferences.⁶⁷ We concede that voting outcomes with incomplete information can be quite different than the outcomes with complete information.⁶⁸ There is evidence that when justices are less confident about the positions of their colleagues, they are more likely to deny cert.⁶⁹ The intent of this analysis, however, is to provide a model of decision-making within which the voting rules can be manipulated in order to understand the impact of those rules on strategic behavior.

While we will never know for certain which of the six preference orders a particular justice has for a particular case, based on prior research on the Court's agenda-setting behavior and empirical data on the Court's docket, we can make some reasonable assumptions regarding the frequency of each of the six preference distributions. The Court frequently receives over 7,000 petitions for review every year.⁷⁰ As a means of streamlining the process and managing the deluge, the chief justice creates the "discuss list," a list of cases thought to be worthy of discussion at the conference.⁷¹ This list is circulated among all the justices, and any justice can add a case to this list.⁷² Each term, about 20–30% of cert petitions make it to the

⁶⁵ See Caldeira et al., *supra* note 29, at 550; William N. Eskridge, Jr., *Reneging on History? Playing the Court/Congress/President Civil Rights Game*, 79 CALIF. L. REV. 613, 665–66 (1991); HAMMOND ET AL., *supra* note 26, at 18–19; Edward P. Schwartz, *Policy, Precedent, and Power: A Positive Theory of Supreme Court Decision-Making*, 8 J.L. ECON. & ORG. 219, 229–30 (1992).

⁶⁶ SOMMER, *supra* note 9, at 112.

⁶⁷ See Randall L. Calvert & Richard F. Fenno, Jr., *Strategy and Sophisticated Voting in the Senate*, 56 J. POL. 349, 351 (1994); Charles M. Cameron, Jeffrey A. Segal & Donald Songer, *Strategic Auditing in a Political Hierarchy: An Informational Model of the Supreme Court's Certiorari Decisions*, 94 AM. POL. SCI. REV. 101, 109 (2000); James R. Rogers, *Information and Judicial Review: A Signaling Game of Legislative-Judicial Interaction*, 45 AM. J. POL. SCI. 84, 86–87, 91 (2001); Georg Vanberg, *Legislative-Judicial Relations: A Game-Theoretic Approach to Constitutional Review*, 45 AM. J. POL. SCI. 346, 348 (2001).

⁶⁸ Peter C. Ordeshook & Thomas R. Palfrey, *Agendas, Strategic Voting, and Signaling with Incomplete Information*, 32 AM. J. POL. SCI. 441, 442–43 (1988); SOMMER, *supra* note 9, at 112.

⁶⁹ Moffet et al., *supra* note 11, at 20.

⁷⁰ Lee Epstein, *Information on Case Selection*, BLACKMUN ARCHIVE, <http://blackmun.wustl.edu/caseSelection.html> [<https://perma.cc/SFJ2-48WV>]; Moffet et al., *supra* note 11, at 22; SOMMER, *supra* note 9, at 24–25.

⁷¹ Epstein, *supra* note 70.

⁷² Ryan C. Black & Christina L. Boyd, *Selecting the Select Few: The Discuss List and the U.S. Supreme Court's Agenda-Setting Process*, 94 SOC. SCI. Q. 1124, 1126 (2013); see also Caldeira & Wright, *supra* note 55, at 811. H.W. Perry, Jr. explored whether the discuss list was being used in any kind of strategic way, particularly by the Chief Justice. While the clerks for Chief Justice Burger suggested that Justice Burger did try to be strategic, other clerks and justices

discuss list.⁷³ The rest end up on the “dead list,” the list of cases that the justices are not going to decide.⁷⁴ Justices have long complained that a large proportion of cert petitions are “frivolous,” which is why most cases end up on the dead list;⁷⁵ “there are a large number of cases considered so unworthy that there is no need for deliberation by the collective body.”⁷⁶ This suggests that the most frequent preference orders by far are D>A>R and D>R>A; these two preference orders indicate that regardless of the outcome, the justice does not think that the case is worthy of the Court’s time. Given the proportion of cases that are deadlisted, we assume that these two preference orders occur 75% of the time.

The least likely preference orders are most likely A>R>D and R>A>D. These two preference orders suggest that the justice would rather have the case heard and decided regardless of the outcome than for it to be denied cert.⁷⁷ These might be best described as *cases of public importance*.⁷⁸ While “importance” is clearly subjective, these are cases that most people would agree demand the Court’s attention.⁷⁹ Examples include *Brown v. Board of Education*,⁸⁰ *Roe v. Wade*,⁸¹ *Bush v. Gore*,⁸² and *Obergefell v. Hodges*.⁸³ These cases are relatively rare, but one measure of the importance of a case is the number of amicus briefs filed at the cert stage.⁸⁴ Caldeira and Wright found that during the 1982 term, 1% of the cases that made it to the discuss list had four or more amicus briefs supporting cert.⁸⁵ Consequently, we assume that these two preference orders occur 1% of the time.

refuted this assertion. See PERRY, JR., *supra* note 1, at 85–89. Given that the discuss list appears to serve a largely administrative role in the decision-making process, we left this step out of our model.

⁷³ Caldeira & Wright, *supra* note 55, at 820; Epstein, *supra* note 70.

⁷⁴ See Caldeira & Wright, *supra* note 55, at 810, 812.

⁷⁵ See *id.* at 813; Arthur D. Hellman, *Case Selection in the Burger Court: A Preliminary Inquiry*, 60 NOTRE DAME L. REV. 947, 960–70 (1985); see also PERRY, JR., *supra* note 1, at 34–35.

⁷⁶ PERRY, JR., *supra* note 1, at 89.

⁷⁷ Here, our model differs from Caldeira et al., *supra* note 29, at 553–54. They assumed that the justices’ preferences were single-peaked, and therefore, they eliminated the two preference orderings we label as A > R > D and R > A > D.

⁷⁸ See PERRY, JR., *supra* note 1, at 253–60.

⁷⁹ See *id.* at 253–54; see also Ryan C. Black & Ryan J. Owens, *Join-3 Votes and Supreme Court Agenda Setting* 6–8 (June 8, 2009), <http://dx.doi.org/10.2139/ssrn.1568389> [<https://perma.cc/9ZGL-LWHM>]; Caldeira & Wright, *supra* note 55, at 815, 818–19.

⁸⁰ *Brown v. Bd. of Educ.*, 347 U.S. 483 (1954).

⁸¹ *Roe v. Wade*, 410 U.S. 113 (1973).

⁸² *Bush v. Gore*, 531 U.S. 98 (2000).

⁸³ *Obergefell v. Hodges*, 576 U.S. 644 (2015).

⁸⁴ See Caldeira & Wright, *supra* note 8, at 1110–12.

⁸⁵ Caldeira & Wright, *supra* note 55, at 824.

This leaves 24% for A>D>R and R>D>A. Most cert petitions on the discuss list would fit into this category. Regardless of why they ended up on the discuss list, these are cases in which the justices are pursuing their policy preferences.⁸⁶

We acknowledge that our probabilities can be debated, but they are, at least in part, based on empirical data from the Court's docket, so our proportions have some face validity. We also did several tests of robustness. Table 1 presents the results with the assumptions noted above: 75% frivolous, 1% important, and 24% policy driven. We recalculated our probabilities five more times, with the proportion of important cases incrementally increasing and the policy driven cases decreasing. The overall pattern in the results stayed the same, suggesting that our results are robust. The full results of our tests of robustness are available in Appendix A.

Because there are nine justices, $N_{DAR} + N_{DRA} + N_{ADR} + N_{ARD} + N_{RDA} + N_{RAD} = 9$. In addition, N_{DAR} , N_{DRA} , N_{ADR} , N_{ARD} , N_{RDA} , and N_{RAD} are all ≥ 0 and ≤ 9 . With a Rule of Four at the cert stage and a Rule of Five at the merit stage, by definition, the following conditions must be true for defensive denials to be possible:

- (1) $N_{DRA} + N_{DAR} \leq 5$
- (2) $N_{DAR} + N_{ADR} + N_{ARD} \geq 5$ or $N_{DRA} + N_{RDA} + N_{RAD} \geq 5$
- (3) $N_{ADR} + N_{ARD} + N_{RAD} \leq 3$ or $N_{RDA} + N_{ARD} + N_{RAD} \leq 3$
- (4) $1 \leq N_{RDA} \leq 4$ or $1 \leq N_{ADR} \leq 4$

A generalization of the four conditions for defensive denials under the Rule of X is:

- (1) $N_{DRA} + N_{DAR} \leq 9 - X_{Rule}$
- (2) $N_{DAR} + N_{ADR} + N_{ARD} \geq 5$ or $N_{DRA} + N_{RDA} + N_{RAD} \geq 5$
- (3) $N_{ADR} + N_{ARD} + N_{RAD} \leq X_{Rule} - 1$ or $N_{RDA} + N_{ARD} + N_{RAD} \leq X_{Rule} - 1$
- (4) $1 \leq N_{RDA} \leq 4$ or $1 \leq N_{ADR} \leq 4$

⁸⁶ See Black & Owens, *supra* note 9, at 1063; HAMMOND ET AL., *supra* note 26, at 227; Jan Palmer, *An Econometric Analysis of the U.S. Supreme Court's Certiorari Decisions*, 39 PUB. CHOICE 387, 396 (1982).

X_{Rule} refers to the number of justices required to grant review and can range from one to nine. The number of justices required to win at the merit stage is held constant at five. For example, if the Court were to use a Rule of Two, this would correspond to $X_{\text{Rule}} = 2$, and the following conditions would be required for strategic voting to be possible:

$$(1) N_{\text{DRA}} + N_{\text{DAR}} \leq 7$$

$$(2) N_{\text{DAR}} + N_{\text{ADR}} + N_{\text{ARD}} \geq 5 \quad \text{or} \quad N_{\text{DRA}} + N_{\text{RDA}} + N_{\text{RAD}} \geq 5$$

$$(3) N_{\text{ADR}} + N_{\text{ARD}} + N_{\text{RAD}} \leq 1 \quad \text{or} \quad N_{\text{RDA}} + N_{\text{ARD}} + N_{\text{RAD}} \leq 1$$

$$(4) 1 \leq N_{\text{RDA}} \leq 4 \quad \text{or} \quad 1 \leq N_{\text{ADR}} \leq 4$$

B. Results: Opportunities for Defensive Denials

Table 1 shows that under the existing rules, a Rule of Four at the cert stage and a simple majority rule at the merit stage, successful defensive denials can only happen 12.7% of the time.⁸⁷

⁸⁷ All of our *Stata* calculations were confirmed by also running the models in MATLAB.

Table 1**Preference Distributions that Allow for Strategic Voting
(assuming 75% DAR/ARD, 1% ARD/RAD, 24% ADR/ARD)**

	Percent
Rule of 1	11.6%
Rule of 2	25.1%
Rule of 3	23.7%
Rule of 4	12.7%
Rule of 5	4.3%
Rule of 6	0.9%
Rule of 7	0.1%
Rule of 8	0.0%
Rule of 9	0.0%

For example, one of the preference distributions that allows defensive denials is when:

$$N_{RDA} = 1 \text{ (1 justice prefers } R > D > A)$$

$$N_{ADR} = 3 \text{ (3 justices prefer } A > D > R)$$

$$N_{DRA} = 1 \text{ (1 justice prefers } D > R > A)$$

$$N_{DAR} = 4 \text{ (4 justices prefer } D > A > R).$$

If all justices were to vote sincerely, the outcome on the merits would be a 7-2 vote to affirm; there are four votes to grant the case (the one N_{RDA} justice plus who prefers reverse over deny and the three N_{ADR} justices who prefer affirm over deny), and then seven justices who prefer affirm over reverse on the merits (the four N_{DAR} justices plus the three N_{ADR} justices). The lone N_{RDA} justice, however, has an opportunity to defensively deny the case. If he predicts that the case will be affirmed on the merits, his least favorite preference, he can vote his second choice, deny. Then, there would be only three votes to grant the case at the cert stage, and thus, he successfully blocks a decision on the merits when there would have been an overwhelming

majority against him. Under the Rule of Four, this kind of strategic voting is mathematically possible only about 10% of the time, suggesting that there are relatively few opportunities and that this institutional arrangement does substantially limit defensive denials.

As Table 1 shows, all of the submajority rules create the most opportunities for strategic voting by far. The Rule of Two allows for the most opportunities, 25.1%. But, we know that the Court never uses this rule. The Rule of Three, however, is a close second at 23.7%, allowing for defensive denials about one-fourth of the time, twice as often as a Rule of Four.

All of the supermajority rules (Rules of Six, Seven, Eight, and Nine) make defensive denials virtually impossible. More importantly, if the Court used a simple majority rule at both the cert stage and merit stage of decision-making, opportunities for defensive denials would become extremely rare. Compared to the Rule of Four, under a Rule of Five, the probability of a defensive denial dramatically declines to only 4.3%. If strategic voting is considered “undemocratic” or detrimental to the setting of the Court’s agenda, this suggests that using majority rules at both stages would substantially limit opportunities for defensive denials.

Overall, regardless of the rule, defensive denials are relatively limited, which in and of itself is remarkable, given the difficulty of designing institutional rules that curtail strategic voting. Even under the most relaxed rule, defensive denials are only possible 25% of the time. But if the justification of the Rule of Four is to limit this kind of strategic voting, the justices would be better off using a majority rule at both stages.

V. DISCUSSION

We concede that our analysis has substantial limitations. First, we are using a simplified model of Supreme Court decision-making. However, our purpose is not to provide a detailed description of all the steps in the process, but to explore the impact of different institutional arrangements on the justices’ ability to engage in strategic behavior: what happens when we change one of the rules? Second, while we would argue that our assumptions are reasonable, we concede that the less accurate they are, the more they could affect our results. Third, the frequency of defensive denials should vary

with the ideological composition of the Court.⁸⁸ Under a Rule of Four, a Court with six conservative justices, for example, will be able to select cases and decide them as they see fit regardless of how often the three liberal justices attempt to defensively deny them.⁸⁹ However, one of the strengths of our model is that it is not dependent on the composition of the Court.

The primary difficulty in assessing the frequency of this kind of strategic behavior is that even if we have the justices' actual cert votes and merit votes, strategic behavior has to be inferred. For example, regardless of a particular justice's ideology, if we know he voted to deny, but the case was granted, and then he voted to affirm, we cannot always tell whether the justice's preference order was $D > A > R$, which suggests that the justice thought the case was frivolous, or $A > D > R$, which suggests a defensive denial.⁹⁰ Moreover, in cases denied review, which is the vast majority of cases, there is no vote on the merits. And while we can probably make an educated guess based on a justice's past behavior, we have no way of knowing for sure if the justice's preference order was $D > A > R$, $D > R > A$, $A > D > R$, or $R > D > A$.⁹¹ Moreover, despite justices openly acknowledging that strategic behavior occurs, it is usually only effective if it is kept secret.⁹² The power of our model lies in its ability to explore judicial behavior when empirical data is unavailable.

A decision-theoretic model is also particularly useful because we can manipulate and compare voting rules. While quantitative and qualitative methods can give us insight into how often strategic behavior might occur, our approach explores how often it *could* occur given a set of institutional constraints. It is extremely difficult to devise institutional arrangements that limit strategic voting, but what we have shown here is that, for the most part, successful defensive denials are quite limited, regardless of which institutional rules the Court uses. But by using the Rule of Four, defensive denials are only mathematically possible about 10% of the time.

⁸⁸ See Black & Owens, *supra* note 9, at 1063; David R. Stras, *The Supreme Court's Declining Plenary Docket: A Membership-Based Explanation*, 27 CONST. COMMENT. 151, 152 (2010); see also BAUM, *supra* note 8, at 111–13; Moffet et al., *supra* note 11, at 25.

⁸⁹ Caldeira et al., *supra* note 29, at 567.

⁹⁰ See BAUM, *supra* note 8, at 102; Benesh et al., *supra* note 9, at 224; Denniston, *supra* note 38; see also Palmer, *supra* note 86, at 391.

⁹¹ See Brenner et al., *supra* note 33, at 226; PERRY, JR., *supra* note 1, at 204–05.

⁹² See Nielson & Stancil, *supra* note 6, at 1144.

Appendix A.
Robustness Tests: Results with Alternative Probabilities

	75/5/20	75/10/15	75/15/10	75/20/5	75/24/1
	Percent	Percent	Percent	Percent	Percent
Rule of 1	9.1%	6.3%	3.9%	1.8%	0.3%
Rule of 2	20.3%	14.7%	9.5%	4.5%	0.9%
Rule of 3	20.0%	15.1%	10.1%	5.1%	1.0%
Rule of 4	11.1%	8.8%	6.2%	3.3%	0.7%
Rule of 5	3.9%	3.2%	2.4%	1.3%	0.3%
Rule of 6	0.9%	0.8%	0.6%	0.3%	0.1%
Rule of 7	0.1%	0.1%	0.1%	0.1%	0.0%
Rule of 8	0.0%	0.0%	0.0%	0.0%	0.0%
Rule of 9	0.0%	0.0%	0.0%	0.0%	0.0%

The results we present in Table 1 and discuss in the article reflect what we know empirically about the Court's docket, with the proportion of cases considered "frivolous" set at 75%, important cases at 1% (preference orderings $A>R>D$ and $R>A>D$), and opportunities to pursue policy preferences at 24% (preference orderings $A>D>R$ and $R>D>A$). To test the robustness of our equations, we varied the probabilities, increasing the proportion of those deemed "important" and decreasing those that reflect opportunities to pursue policy preferences. We kept frivolous cases constant at 75%, since this is the assumption we are the most confident about. The results we present in Table 1 (75%, 1%, and 24%) are virtually identical to the results for 75%, 5%, and 20%. In general, as the proportion of important cases increases, defensive denials decrease. But, this is what we should expect, given the proportion of preference orderings that suggest strategic behavior ($A>D>R$ and $R>D>A$) are declining. More importantly, the pattern in the results remains the same. Opportunities for defensive denials are substantially lower when comparing the use of a Rule of Four to a Rule of Five. Supermajority rules make defensive denials virtually mathematically impossible. Given these results, we feel our model is relatively robust.