

EXAMINING FEDERAL DISTRICT JUDGES' REFERRALS TO MAGISTRATE JUDGES

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Magistrate judges contribute much to the handling of federal litigation,¹ yet they remain largely unstudied. While they are not appointed under Article III of the U.S. Constitution,² magistrate judges are

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¹ See, e.g., CHRISTOPHER E. SMITH, UNITED STATES MAGISTRATES IN THE FEDERAL COURTS: SUBORDINATE JUDGES 150 (1990) (“[T]he office of U.S. magistrate was created with the explicit intention of providing more resources for district courts. . . . By providing resources to the federal courts in the form of the myriad tasks that magistrates are authorized to perform, this lower tier of judicial officers contributes to the continued operation and survival of the federal judicial political system.”). See also Judith Resnik, “Uncle Sam Modernizes His Justice”: *Inventing the Federal District Courts of the Twentieth Century for the District of Columbia and the Nation*, 90 GEO. L.J. 607, 614-15 (2002) (“As of 2001, in six federal district courts, the number of magistrate judges was greater than the number of life-tenured judges. In another sixteen districts, their numbers were equal.” (footnotes omitted)).

² Article III provides:

The judicial power of the United States, shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish. The judges, both of the supreme and inferior

an integral part of the federal judiciary.³ They are appointed on the basis of merit,⁴ on a district-by-district basis by each district's federal district judges.⁵ They are empowered to act in both civil and criminal cases.⁶ In civil cases, in particular, magistrate judges can act with the full power of a federal district judge and try cases when the parties so consent.⁷ Even if the parties do not consent, a magistrate judge can, when called upon by a district judge, render binding rules on discovery motions,⁸ and issue a report and recommendation to aid the district judge in resolving a dispositive motion.⁹ The work done by magistrate judges aids tremendously in the processing of litigation through the federal judicial system.¹⁰ And there can be little doubt but that the work performed by magistrate judges alleviates the workload of the district judges, and thus improves the efficiency of the federal judicial system.¹¹

Despite their significant role in federal litigation, the extant literature largely ignores magistrate judges. Legal scholarship has investigated to some degree the jurisdictional basis for—and limits on—

courts, shall hold their offices during good behaviour, and shall, at stated times, receive for their services, a compensation, which shall not be diminished during their continuance in office.

U.S. CONST., art. III, § 1. In turn, Article II requires that federal judges be appointed by the President with the advice and consent of the Senate. *See id.*, art. II, § 2.

³ *See* Peretz v. United States, 501 U.S. 923, 928 (1993) (“Given the bloated dockets that district courts have now come to expect as ordinary, the role of the magistrate in today's federal judicial system is nothing less than indispensable.” (quoting *Government of V.I. v. Williams*, 892 F.2d 305, 308 (3d Cir. 1989)); PETER G. MCCABE, A GUIDE TO THE FEDERAL MAGISTRATE JUDGE SYSTEM 7 (2014) (“United States Magistrate Judges are appointed by the judges of the District Court and serve as an integral part of those courts.”)).

⁴ *See* 28 U.S.C. § 631(b) (directing that magistrate judges shall be “selected pursuant to standards and procedures promulgated by the Judicial Conference of the United States,” which “shall contain provision for public notice of all vacancies in magistrate judge positions and for the establishment by the district courts of merit selection panels, composed of residents of the individual judicial districts, to assist the courts in identifying and recommending persons who are best qualified to fill such positions”). For greater and more detailed discussion, see *infra* Part II.

⁵ 28 U.S.C. § 631(a) (“The judges of each United States district court . . . shall appoint United States magistrate judges in such numbers and to serve at such locations within the judicial districts as the Judicial Conference may determine under this chapter.”).

⁶ *See generally* 28 U.S.C. § 631(a), (b).

⁷ *See* 28 U.S.C. § 631(c).

⁸ *See* 28 U.S.C. § 631(b)(1)(A).

⁹ *See* 28 U.S.C. § 631(b)(1)(B), (C).

¹⁰ *See, e.g.,* Judith Resnik, *Rereading "The Federal Courts:" Revising the Domain of Federal Courts Jurisprudence at the End of the Twentieth Century*, 47 VAND. L. REV. 1021, 1026 (1994) (“Although relatively invisible, bankruptcy and magistrate judges do a vast amount of federal adjudication. . . . Magistrate judges preside over some 500,000 judicial proceedings, including social security “appeals,” habeas petitions, evidentiary hearings, pretrial conferences, and more than 5000 civil trials, heard on the consent of the parties.” (footnotes omitted)); Linda J. Silberman, *Judicial Adjuncts Revisited: The Proliferation of Ad Hoc Procedure*, 137 U. PA. L. REV. 2131, 2140-41 (1989) (“I recognize the important and valuable role magistrates have in processing the heavy civil litigation caseload.”); Steven Puro & Roger Goldman, *U.S. Magistrates: Changing Dimensions of First-Echelon Federal Judicial Officers*, in THE POLITICS OF JUDICIAL REFORM 137, 145 (Philip L. Dubois ed., 1982) (concluding that magistrate judges make a “significant contribution to federal judicial operations”).

¹¹ *See, e.g.,* Spaniol, *supra* note [check], at 373-74 (providing empirical support for the proposition that “assistance from the magistrates has freed the district judges for other matters, since in the premagistrate era, [the duties that magistrates now were performing] were handled almost exclusively by district judges”); McCabe, *supra* note [check], at 356 (“Statistics document the success of the magistrates system in increasing judicial efficiency. No new federal judgeships were created between 1970 and October 1978. Nevertheless, since 1971, the district courts have been able to increase substantially their caseload disposition rate . . . , ‘thanks in large measure to the increased use and output of United States magistrates.’” (footnotes omitted) (quoting S Rep. No. 95-344, 95th Cong., 1st Sess. 8 (1977))).

actions by magistrate judges,¹² but has otherwise in general not seen fit to examine how in theory magistrate judges should be used, or in practice how they are used.¹³ And the void in the political science and economics literature is even greater, with magistrate judges receiving scant attention at all.¹⁴

This paper seeks to fill that void by examining the deployment of magistrate judge resources by district judges. Congress authorized the appointment of magistrate judges in order to help reduce the workload of district judges and generally to improve the efficiency of the federal trial courts.¹⁵

The paper proceeds as follows. Part I provides a brief overview of magistrate judges, including the history of the office, and the selection and powers of magistrate judges. Part II argues that the appointment of magistrate judges will in reality live up to the statute's directive of merit-based selection.

Part III models as decision trees the choice by district judges of whether or not to refer various matters (including discovery and pretrial supervision, and dispositive motions) to magistrate judges. It develops a couple of testable hypotheses.

I. OVERVIEW OF MAGISTRATE JUDGES

In this Part, I first provide a brief overview of how the office of what is now known as “magistrate judge” as an aid to Article III federal trial judges has evolved over the years. I then summarize the current features of the office. In particular, I discuss the law governing the selection and powers of magistrate judges.

¹² See, e.g., Linda J. Silberman, *Masters and Magistrates Part II: The American Analogue*, 50 N.Y.U. L. REV. 1297, 1304-21 (1975) (portion of article co-authored with Jerry Simon Chasen, dealing with the constitutional limits of magistrate powers); Richard A. Posner, *Coping with the Caseload: A Comment on Magistrates and Masters*, 137 U. PA. L. REV. 2215, 2216-17 (1989) (“The big problem I see with magistrates, though it is in a limited (but growing and important) phase of their work, is a constitutional one. . . . I believe . . . that the use of magistrates to preside over jury trials in which the final judgment is appealable directly to the court of appeals violates Article III.” (footnotes omitted)); Mark S. Kende, *The Constitutionality of New Contempt Powers for Federal Magistrate-Judges*, 53 HASTINGS L.J. 567 (2002); see also Magistrate Judges Division of the Administrative Office of the U.S. Courts, *A Constitutional Analysis of Magistrate Judge Authority*, 150 F.R.D. 247 (1993).

¹³ For exceptions, see, for example, R. Lawrence Dessem, *The Role of the Federal Magistrate Judge in Civil Justice Reform*, 67 ST. JOHN'S L. REV. 799 (1993); see also Silberman, *supra* note [check], at 2141 (expressing concern that the increased role of magistrates in handling discovery may decrease incentives to rein in discovery).

¹⁴ For exceptions, see Steven Puro, Roger L. Goldman & Alice M. Padawer-Singer, *The Evolving Role of U.S. Magistrates in the District Courts*, 64 JUDICATURE 436 (1981); Puro & Goldman, *supra* note [check]; CARROLL SERON, *THE ROLES OF MAGISTRATES IN FEDERAL DISTRICT COURTS* (1983) (publication prepared for and published by the Federal Judicial Center); SMITH, *supra* note [check]; Christine L. Boyd & Jacqueline Sievert, *Unaccountable Justice? The Decision Making of Magistrate Judges in the Federal District Courts*, 34 JUSTICE SYS. J. 249 (2013).

¹⁵ Almost from the country's founding, Congress has seen fit to empower certain individuals to assist federal trial judges. See Act of March 2, 1793, ch. 22, § 4, 1 Stat. 334 (empowering “any person having authority from a circuit court to take bail”). In 1817, Congress expanded these assistants' jurisdiction and dubbed them “United States Commissioners.” See Act of March 1, 1817, ch. 30, 3 Stat. 350. An 1898 act directed that district courts, not circuit courts, would henceforth appoint commissioners, and also regulated the compensation of commissioners through fees. See Act of May 28, 1989, ch. 252 §§ 19, 21, 29 Stat. 184, [check].

The Federal Magistrates Act of 1968, 82 Stat. 1107 (Oct. 17, 1968), abolished the office of United States Commissioner, and established in its place—within the federal judiciary—the office of “United States Magistrate.” See *Mathews v. Weber*, 423 U.S. 261, 266 (1976); Joseph F. Spaniol, Jr., *The Federal Magistrates Act: History and Development*, 1974 ARIZ. ST. L.J. 565, 565. The Act granted magistrates jurisdiction broader than that that had been enjoyed by commissioners. See Spaniol, *supra*, at 565.

A. A Brief History of the Office of “Magistrate Judge”

Almost from the country’s founding, Congress has seen fit to empower certain individuals to assist federal trial judges.¹⁶ In 1817, Congress expanded these assistants’ jurisdiction and dubbed them “United States Commissioners.”¹⁷ An 1898 act directed that district courts, not circuit courts, would henceforth appoint commissioners, and also regulated the compensation of commissioners through fees.¹⁸ In 1940, Congress empowered district courts to authorize commissioners to try petty offenses committed on property under the exclusive and concurrent jurisdiction of the federal government—provided that the commissioner first informed the defendant of her right to proceed before a district judge and obtained the defendant’s consent to proceed.¹⁹

The Federal Magistrates Act of 1968 (the “Act”)²⁰ abolished the office of United States Commissioner, and established in its place—within the federal judiciary—the office of “United States Magistrate.”²¹ One of the primary goals of the Act was to increase the ways in which magistrates could take on some of the workload faced by the federal district courts, and thus render the federal judicial system more efficient.²² In order to facilitate this, the Act granted magistrates jurisdiction far broader than their predecessors.²³

In response to a Supreme Court decision that narrowly construed magistrates’ powers,²⁴ Congress amended the Act in 1976.²⁵ The 1976 legislation codified a broad grant of authority to magistrates.²⁶

¹⁶ See Act of March 2, 1793, ch. 22, § 4, 1 Stat. 334 (empowering “any person having authority from a circuit court to take bail”).

¹⁷ See Act of March 1, 1817, ch. 30, 3 Stat. 350. For more historical background on the commissioner system, see Peter G. McCabe, *The Federal Magistrate Act of 1979*, 16 HARV. J. ON LEGIS. 343, 345-47 (1979).

¹⁸ See Act of May 28, 1989, ch. 252 §§ 19, 21, 29 Stat. 184, [check].

¹⁹ See Act of October 9, 1940, ch. 785, 54 Stat. 1058-59.

²⁰ 82 Stat. 1107 (Oct. 17, 1968).

²¹ See *Mathews v. Weber*, 423 U.S. 261, 266 (1976); Joseph F. Spaniol, Jr., *The Federal Magistrates Act: History and Development*, 1974 ARIZ. ST. L.J. 565, 565. For historical discussion of the Act, see Spaniol, *supra*, at 566-68; McCabe, *supra* note [check], at 347-50.

²² See, e.g., *Mathews*, 423 U.S. at 266 (“The Act . . . sought to ‘reform the first echelon of the Federal judiciary into an effective component of a modern scheme of justice by establishing a system of U.S. magistrates.’” (quoting S. Rep. No. 371, 99th Cong., 1st Sess., 8 (1967))); H.R. Rep. No. 1629, 90th Cong., 2d Sess. 12 (1968), *reprinted in* 1968 U.S.C.C.A.N. 4254 (law was “intended . . . to cull from the ever-growing workload of the U.S. district courts matters that are more desirably performed by a lower tier of judicial officers”); Puro & Goldman, *supra* note [check], at 138 (“The purposes of the Magistrate Act were to improve litigants’ access to federal courts, to provide an alternative avenue for litigants to avoid delays, and to increase the judicial resources and expand the organizational capacity of U.S. district courts.”).

²³ See Spaniol, *supra* note [check], at 565.

²⁴ See *Wingo v. Wedding*, 418 U.S. 461 (1974) (holding that district judges lacked authority to designate a magistrate to conduct an evidentiary hearing in a habeas corpus action). In his dissenting opinion, Chief Justice Burger expressly invited Congress to overrule *Wingo*. See *id.* at 487 (“[N]ow that the Court has construed the Magistrates Act contrary to a clear legislative intent, it is for the Congress to act to restore its intentions if its declared objectives are to be carried out.”).

²⁵ Pub. L. No. 94-577, 94th Cong. (Oct. 21, 1976). For historical discussion of the 1976 legislation, see McCabe, *supra* note [check], at 353-55.

²⁶ See McCabe, *supra* note [check], at 354 (“The measure expressly superseded the Supreme Court decision in *Wingo v. Wedding* by authorizing the delegation of evidentiary hearings in habeas corpus cases to magistrates. It also overruled . . . circuit court decision which had invalidated various references to magistrates under the 1968 Act. Primarily, however, the 1976 law affirmed the broad range of duties which were already being performed by magistrates in many district courts.” (footnotes omitted)).

In 1977, the U.S. Department of Justice submitted to Congress proposed legislation that was “designed to provide litigants in the federal courts with more efficient and inexpensive justice and to reduce the burdens of district judges.”²⁷ When ultimately enacted in 1979,²⁸ the legislation further confirmed the expansive and varied responsibilities that magistrate judges were authorized to perform.²⁹

Over the years since the advent of the magistrates system, magistrates have enjoyed greater acceptance, and legitimacy, in the eyes of the public, lawyers, and members of the federal judiciary.³⁰ Both in recognition of that legitimacy and in the hope of further legitimating the office and its holders,³¹ Congress saw fit in 1990 to rename magistrates as “United States Magistrate Judges.”³²

B. The Role and Selection of Magistrate Judges

Magistrate judges are not Article III judges; they are commonly said to fall within the rubric of Article I judges.³³ Unlike their Article III counterparts—like Supreme Court Justices and federal circuit and district judges—they do not receive a constitutional guarantee of life tenure, nor a constitutional guarantee that their salaries will never be reduced.³⁴ Full-time magistrate judges are appointed for eight-

²⁷ McCabe, *supra* note [check], at 362-63.

²⁸ Federal Magistrate Act of 1979, Pub. L. 96-82, 93 Stat. 643 (Oct. 10, 1979). For historical discussion of the 1979 Act, see Puro & Goldman, *supra* note [check], at 143-45.

²⁹ See generally McCabe, *supra* note [check], at 364-90. For historical discussion of the 1979 Act, see *id.* at 362-64.

³⁰ See The Honorable Philip M. Pro & The Honorable Thomas C. Hnatowski, *Measured Progress: The Evolution and Administration of the Federal Magistrate Judges System*, 44 AM. U. L. REV. 1504, 1506 (1995) (“From its inception, the magistrates system has evolved to meet the needs of the federal judiciary, while reflecting the growing confidence of federal judges, the bar, and the general public in its effectiveness.”). Cf. H.R. Rep. No. 734, 101st Cong., 2d Sess. 31 (1990) (noting that, even before the official change in title, “magistrates are commonly addressed as ‘judge’ in their courtrooms”); Judith Resnik, *Judicial Independence and Article III: Too Little and Too Much*, 72 S. CAL. L. REV. 657, 661 (1999) (noting that, the construction of federal courthouses, “magistrate judges’ courtrooms are not only built into the design, but their dimensions—like the powers of magistrate judges—have increased”).

³¹ H.R. Rep. No. 734, 101st Cong., 2d Sess. 31 (1990). See MCCABE, *supra* note [check], at 14 (“The statutory change in title immediately brought a great deal of prestige to the position and clearly emphasized the judicial role of Magistrate Judges.”).

³² Judicial Improvements Act of 1990, Pub. L. No. 101-650, § 321, 104 Stat. 5089, 5117. For historical discussion of the decision officially to grant magistrates the title of “judge”, see Judith Resnik, *Housekeeping: The Nature and Allocation of Work in Federal Trial Courts*, 24 GA. L. REV. 909, 946-47 (1990).

A 2000 act empowered magistrate judges to hold litigants in contempt. See Federal Courts Improvement Act of 2000, Pub. L. No. 106-518 (Nov. 13, 2000). For historical discussion of the 2000 legislation, see Kende, *supra* note [check], at 570-75.

³³ Cf. Resnik, *supra* note [check], at 631-32 (referring instead to non-Article III judges since “Congress derives . . . powers [to create judicial officers] from Article I of the Constitution and arguably from Article IV” in addition to Article III, and “[o]ne cannot always tell what kind of court Congress has created”).

³⁴ See U.S. CONST., art. III, § 1.

year terms, while part-time terms expire after four years.³⁵ Individuals may be reappointed for successive terms.³⁶

The compensation paid magistrate judges is set annually by the Director of the Administrative Office of the U.S. Courts and is capped at 92% of the compensation for federal district judges.³⁷ Still, magistrate judges enjoy statutory protection against salary reduction during a term in office.³⁸ And, by statute, they may only be removed from office in the middle of a term (by the district judges in the district) “only for incompetency, misconduct, neglect of duty, or physical or mental disability.”³⁹

Magistrate judges enjoy the support of law clerks and assistant.⁴⁰ They have Chambers, and make use of courtrooms, in federal courthouses. The Federal Judicial Center provides training to magistrate judges.⁴¹

³⁵ 28 U.S.C. § 631(e) (“The appointment of any individual as a full-time magistrate judge shall be for a term of eight years, and the appointment of any individuals as a part-time magistrate judge shall be for a term of four years . . .”).

A magistrate judges ordinarily cannot continue to serve once she has attained the age of 70, although the district judges in the district may make exception on a case-by-case basis. *See id.* § 631(d).

Full-time magistrate judges “may not engage in the practice of law, and may not engage in any other business, occupation, or employment inconsistent with the expeditious, proper, and impartial performance of their duties as judicial officers.” 28 U.S.C. § 632(a). In contrast, part-time magistrate judges

shall render such service as judicial officers as is required by law. While so serving they may engage in the practice of law, but may not serve as counsel in any criminal action in any court of the United States, nor act in any capacity that is, under such regulations as the conference may establish, inconsistent with the proper discharge of their office. Within such restrictions, they may engage in any other business, occupation, or employment which is not inconsistent with the expeditious, proper, and impartial performance of their duties as judicial officers.

Id. § 632(b).

³⁶ *See* 28 U.S.C. § 631(a) (referring to both “original appointment” and “reappointment”).

³⁷ 28 U.S.C. §§ 633(a)(1)(C), 634(a).

³⁸ 28 U.S.C. § 634(b) (“[T]he salary of a full-time United States magistrate judge shall not be reduced, during the term in which he is serving, below the salary fixed for him at the beginning of that term.”).

³⁹ 28 U.S.C. § 631(i). The provision states:

Removal of a magistrate judge during the term for which he is appointed shall be only for incompetency, misconduct, neglect of duty, or physical or mental disability, but a magistrate judge’s office shall be terminated if the conference determines that the services performed by his office are no longer needed. Removal shall be by the judges of the district court for the judicial district in which the magistrate judge serves; where there is more than one judge of a district court, removal shall not occur unless a majority of all the judges of such court concur in the order of removal; and when there is a tie vote of the judges of the district court on the question of the removal or retention in office of a magistrate judge, then removal shall be only by a concurrence of a majority of all the judges of the council. . . . Before any order or removal shall be entered, a full specification of the charges shall be furnished to the magistrate judge, and he shall be accorded . . . an opportunity to be heard on the charges.

Id.

⁴⁰ *See* 28 U.S.C. § 635(a) (“Full-time United States magistrate judges serving under this chapter shall be allowed their actual and necessary expenses incurred in the performance of their duties, including the compensation of such legal assistants as the Judicial Conference, on the basis of the recommendations of the judicial councils of the circuits, considers necessary, and the compensation of necessary clerical and secretarial assistance. Such expenses and compensation shall be determined and paid by the Director [of the Administrative Office of the United States Courts] under such regulations as the Director shall prescribe with the approval of the conference.”).

⁴¹ 28 U.S.C. § 637 (“The Federal Judicial Center shall conduct periodic training programs and seminars for both full-time and part-time United States magistrate judges, including an introductory training program for new magistrate judges, to be held within one year after initial appointment.”).

1. The Role of Magistrate Judges

The fact that magistrate judges do not fall within the ambit of Article III limits the functions they may constitutionally perform.⁴² Still, with the consent of the parties, magistrate judges are empowered to try “class A” criminal misdemeanors⁴³ and civil matters.⁴⁴

Even without the consent of the parties, Congress has authorized magistrate judges to perform—and magistrate judges regularly undertake—additional responsibilities. On the criminal side, magistrate judges are authorized to try petty offenses, i.e., “class B” and “class C” misdemeanors, and infractions.⁴⁵ They are also authorized to handle a number of matters that may arise during pretrial proceedings in criminal matters. These include conducting probable cause hearings, issuing search warrants, and holding initial court appearances, preliminary hearings, and arraignments.⁴⁶

Congress has further empowered district judges to “designate a magistrate judge to hear and determine” the vast majority of “pretrial matter[s]” in both criminal and civil cases.⁴⁷ A district judge is to

⁴² For analyses over the years of the constitutional limits, see, for example, Silberman, *supra* note [check], at 1304-21; Kende, *supra* note [check].

⁴³ See 28 U.S.C. § 636(a)(5) (granting magistrate judges “the power to enter a sentence for a class A misdemeanor in a case in which the parties have consented”).

A class A misdemeanor is a criminal offense for which the maximum prison sentence is “one year or less but more than six months.” 18 U.S.C. § 3559(a)(6).

For more detailed discussion, see MCCABE, *supra* note [check], at 34-41.

⁴⁴ See 28 U.S.C. § 636(c).

⁴⁵ See 28 U.S.C. § 636(a)(4) (granting magistrate judges “the power to enter a sentence for a petty offense”).

Petty offense “means a Class B misdemeanor, a Class C misdemeanor, or an infraction.” 18 U.S.C. § 19. In turn, a class B misdemeanor is a criminal offense for which the maximum prison sentence is “six months or less but more than thirty days.” 18 U.S.C. § 3559(a)(7). A class C misdemeanor is a criminal offense for which the maximum prison sentence is “six months or less but more than thirty days.” 18 U.S.C. § 3559(a)(8). An infraction is one for which the maximum prison sentence is “five days or less, or if no imprisonment is authorized.” 18 U.S.C. § 3559(a)(9).

⁴⁶ Section 636(a)(1) invests magistrate judges with “all powers and duties conferred or imposed upon United States commissioners by law or by the [Federal] Rules of Criminal Procedure for the United States District Courts.” 28 U.S.C. § 636(a)(1). The commissioner’s duties “consisted essentially of issuing criminal process, administering oaths, conducting probable cause proceedings, and binding defendants over for trial in the District Court.” MCCABE, *supra* note [check], at 25.

The Federal Rules of Criminal Procedure make explicit reference to “Magistrate Judge”. See Fed. R. Crim. P. 1(b)(5) (“‘Magistrate judge’ means a United States magistrate judge as defined in 28 U.S.C. §§631–639.”); *id.* R. 1(b)(3) (defining “Federal judge” to include “a magistrate judge”); *id.* R. 1(b)(2) (“‘Court’ means a federal judge performing functions authorized by law.”). See also *id.* R. 1(c) (“When these rules authorize a magistrate judge to act, any other federal judge may also act.”).

The Federal Rules empower magistrate judges, *inter alia*, to issue arrest warrants based upon sworn criminal complaints, see *id.* R. 3, 9; issue search warrants for the government for certain kinds of evidence, see *id.* R. 41(b); conduct a criminal defendant’s initial court appearance, see *id.* R. 5(a), 58(b)(2); conducting a preliminary hearing, see *id.* R. 5.1; and conducting an arraignment, *id.* R. 10.

Beyond that, federal statutes empower magistrate judges to conduct bail hearings (and, in cases involving more serious alleged crimes, detention hearings). See 18 U.S.C. §§ 3141-3150.

For more detailed discussion, see MCCABE, *supra* note [check], at 25-34.

⁴⁷ 28 U.S.C. § 636(b)(1)(A) (“Notwithstanding any provision of law to the contrary[,] . . . a judge may designate a magistrate judge to hear and determine any pretrial matter pending before the court, except a motion for injunctive relief, for judgment on the pleadings, for summary judgment, to dismiss or quash an indictment or information made by the defendant, to suppress evidence in a criminal case, to dismiss or to permit maintenance of a class action, to dismiss for failure to state a claim upon which relief can be granted, and to involuntarily dismiss an action.”).

reconsider such a determination by a magistrate judge only where “it has been shown that the magistrate judge’s order is clearly erroneous or contrary to law.”⁴⁸

Congress also has empowered district judges to designate a magistrate judge to conduct hearings on, and to prepare “proposed findings of fact and recommendations”—usually referred to as a “report and recommendation” or “R&R”—for the disposition of various dispositive motions—including a motion for judgment on the pleadings and a motion for summary judgment—and of “applications for post[-]trial relief made by individuals convicted of criminal offense and of prisoner petitions challenging the conditions of confinement.”⁴⁹ If a party objects to a magistrate judge’s R&R, it is to be reviewed de novo by the district judge.⁵⁰

Finally, the governing statute further asserts that “[a] magistrate judge may be assigned such additional duties as are not inconsistent with the Constitution and laws of the United States.”⁵¹ The Supreme Court has interpreted that grant broadly.⁵²

So much for the outer reaches of the statutory powers of magistrate judges. It bears great emphasis that (leaving to the side instances where the parties consent to magistrate judge jurisdiction) these powers cannot be exercised unless a magistrate is designated to exercise a power. That can happen in one of two basic ways: either (i) on a case-by-case or issue-by-issue basis, a district judge designates the magistrate judge to act, or (ii) the district judges on the bench of a district court as a whole in general designate magistrate judges to act in certain capacities—whether through the use of a local district court rule or a standing order—and the district judge presiding over a case in which a designated capacity arises does not withdraw the designation.⁵³

This structure reveals—consistent with the legislative history of the various Acts defining magistrate judges’ jurisdiction and powers—the great flexibility enjoyed by district judges to determine how to deploy magistrate judges in their districts.⁵⁴ This is not to say that many district courts do not put

⁴⁸ 28 U.S.C. § 636(b)(3).

⁴⁹ 28 U.S.C. § 636(b)(1)(B) (“Notwithstanding any provision of law to the contrary[,] . . . a judge may also designate a magistrate judge to conduct hearings, including evidentiary hearings, and to submit to a judge of the court proposed findings of fact and recommendations for the disposition, by a judge of the court, of any motion excepted in subparagraph (A), of applications for post[-]trial relief made by individuals convicted of criminal offenses and of prisoner petitions challenging conditions of confinement.”).

⁵⁰ 28 U.S.C. § 636(b)(1)(C) (“Within fourteen days after being served with a copy [of an R&R], any party may serve and file written objections to such proposed findings and recommendations as provided by rules of court. A judge of the court shall make a de novo determination of those portions of the report or specified proposed findings or recommendations to which objection is made.”).

⁵¹ 28 U.S.C. § 636(b)(3).

⁵² See *Peretz v. United States*, 501 U.S. 923, 932 (1991) (construing this language in the context of a criminal case, and concluding that “[t]he generality of the category ‘additional duties’ indicates that Congress intended to give federal judges significant leeway to experiment with possible improvements in the efficiency of the judicial process that had not already been tried or even foreseen”).

⁵³ See MCCABE, *supra* note [check], at 24 (“In some districts, the local rules list the various duties of Magistrate Judges and the proceedings that they are authorized by the court to conduct. In other districts, the rule merely state that the court has authorized its Magistrate Judges to exercise all the powers authorized by statute, subject to general orders of the court and orders of individual District Judges.”).

⁵⁴ See MCCABE, *supra* note [check], at 7 (“A central feature of the Federal Magistrates Act is that it does not mandate the assignment of particular duties to Magistrate Judges. Instead it authorizes each District Court to determine what duties to assign to its Magistrate Judges in order to best meet the needs of the court, its judges, and the litigants.”); *id.* at 23; SMITH, *supra* note [check], at 61 (“The magistrate system was designed for flexible utilization by district judges according to the needs of their respective districts”); Pruo & Goldman, *supra* note [check], at 139 (“The 1979 Magistrate Act gave additional flexibility to the court’s utilization of magistrates . . .”);

their magistrate judges to similar uses. For example, as a recent white paper on magistrate judges observes, many districts use their magistrate judges to aid in settlement,⁵⁵ and to supervise social security disputes.⁵⁶ Still, flexibility, and concomitant variation across districts, persists.⁵⁷ Indeed, it is precisely through the freedom of district judges in a district to use magistrate judges as they see fit that the magistrate judge system offers the promise of increased efficiency in the federal litigation process.

2. The Selection of Magistrate Judges

Since magistrate judges do not fall within the ambit of Article III, they are not (as are Article III judges) appointed by the President with the advice and consent of the Senate.⁵⁸ Magistrate judges are appointed by a majority of the district judges within the district.⁵⁹

Statutory law requires that magistrate judges be “selected pursuant to standards and procedures promulgated by the Judicial Conference of the United States.”⁶⁰ Those standards and procedures must “contain provision for public notice of all vacancies in magistrate judge positions and for the establishment by the district courts of merit selection panels, composed of residents of the individual judicial districts, to assist the courts in identifying and recommending persons who are best qualified to fill such positions.”⁶¹ Reliance on merit selection panels for the selection of magistrate judges arrived with the 1979 amendments to the governing statute.⁶²

The statute sets out very minimal qualifications for the magistrate judge position, including that (absent special circumstances) a magistrate judge have been “for at least five years a member in good

Puro, Goldman & Padawer-Singer, *supra* note [check], at 444 (“The high degree of flexibility in magistrate use depending on the magistrate’s and judge’s expertise is an important element underlying the magistrate system.”). *See also* Seron, *supra* note [check], at 35-46 (describing, based upon survey of districts at the time, three models by which district judges might employ magistrate judges: as additional judges, as specialists, and as team players).

⁵⁵ *See* MCCABE, *supra* note [check], at 45 (“Magistrate Judges in most districts are active in settlement in civil cases.”).

⁵⁶ *See* MCCABE, *supra* note [check], at 50 (“Magistrate Judges serve in many districts to review Social Security appeals, *i.e.*, appeals from the denial of Social Security benefits, especially disability benefits, by the Commissioner of the Social Security Administration.”).

⁵⁷ *See* MCCABE, *supra* note [check], at 23 (noting the “substantial disparity in use of Magistrate Judges among the courts, based on differences in caseloads, local conditions, and the preferences of District Judges”); SMITH, *supra* note [check], at 115-41 (factors affecting the role played by magistrate judges in a district include (i) district judges’ conceptualization of magistrate judges, (ii) familiarity and communication between district judges and magistrate judges, (iii) magistrate judges’ expectations of themselves, (iv) lawyers’ experience with magistrate judges, (v) established patterns of magistrate judge use, (vi) the method for assignment of tasks, and (vii) the quantity and composition of the district’s caseload).

⁵⁸ *See supra* [check].

⁵⁹ 28 U.S.C. § 631(a) (“Where there is more than one judge of a district court, the appointment, whether an original appointment or a reappointment, shall be by the concurrence of a majority of all the judges of such district court, and when there is no such concurrence, then by the chief judge.”).

⁶⁰ 28 U.S.C. § 631(b)(5).

⁶¹ *Id.*

⁶² SMITH, *supra* note [check], at 32; *see also id.* at 30 (noting that, before the statute was amended to require the use of merit selection panels, “many judges appointed familiar lawyers, such as former law clerks and assistant U.S. attorneys, with whom the judges had already established working relationships”); *id.* at 31 (noting that, “in the late 1970s, Congressional concerns about the appearance of patronage in direct selection by district judges and the lack of representativeness in appointments coincided with the Carter administration’s efforts to institute merit selection procedures for the appointment of federal district and circuit court judges”).

standing of the bar.”⁶³ The Judicial Conference regulations further direct, to be qualified for appointment as a magistrate judge, a candidate must “[h]ave been engaged in the active practice of law for a period of at least five years.”⁶⁴ Further, “[a] district court may establish additional qualification standards appropriate for a particular magistrate judge position, taking into account the specific responsibilities anticipated for that position.”⁶⁵

When an opening (for which an incumbent magistrate judge is not seeking reappointment) arises, the court or panel first must publicize the position and solicit applications.⁶⁶ Anyone interested in being considered for the position should file an application.⁶⁷

Judicial Council regulations implement the statute’s merit selection panel requirement, directing that, “[b]efore the appointment or reappointment of a United States magistrate judge, the court, by majority vote of the district judges, shall appoint a merit selection panel which shall recommend to the court for consideration individuals whose character, experience, ability, and commitment to equal justice under the law fully qualify them to serve as a United States magistrate judge.”⁶⁸ The panel then holds meetings and examines applications, in large measure as it sees fit⁶⁹ (subject to “rules of procedure for the panel to follow”⁷⁰).

The Judicial Council regulations also leave the panel with discretion as to how to evaluate the applicants.⁷¹ At the same time, the Administrative Office offers “suggestions” as to how a panel might proceed.⁷² The suggested factors include an applicant’s “qualities and professional skills most often

⁶³ 28 U.S.C. § 631(b).

⁶⁴ Judicial Conference Regulation [hereinafter “Reg.”] § 1.01(b). At most two of those five years can be service as a law clerk to a judge or judicial officer. *Id.* § 1.01(b)(4). The Judicial Conference has explained that “[t]his limitation is intended to ensure, among other things, that magistrate judge applicants are seasoned and experienced attorneys.” Reports of the Judicial Conference for March 2010, at 21-22.

⁶⁵ Reg. § 1.02.

⁶⁶ Reg. § 2.01. “The Regulations do not prescribe the minimum amount of time a public notice should be published. It is recommended, however, that a full notice . . . be published in sources that will either reach a wide audience of qualified applicants or invite comments on the reappointment.” ADMINISTRATIVE OFFICE OF THE U.S. COURTS, THE SELECTION, APPOINTMENT, AND REAPPOINTMENT OF MAGISTRATE JUDGES 13 (2010). “Since the Regulations specify that the merit selection panel normally must submit its report containing the names of the best-qualified applicants to the court within 90 days of its creation, it is recommended that the court issue the required public notice before or at the same time it appoints the panel.” *Id.*

⁶⁷ “The court should use an application form that will elicit information on applicants relating to the qualifications prescribed for the office. A resume may be considered as an alternative.” ADMINISTRATIVE OFFICE OF THE U.S. COURTS, THE SELECTION, APPOINTMENT, AND REAPPOINTMENT OF MAGISTRATE JUDGES 14 (2010). The Administrative Office has propounded a sample application form. *See id.* app. F.

⁶⁸ Reg. § 3.01.

⁶⁹ *See* ADMINISTRATIVE OFFICE, *supra* note [check], at 21 (“[T]he Regulations of the Judicial Conference provide the panel with a large degree of discretion in the review of applications and the selection of individuals to recommend to the court.”). *See also id.* at 21-22 (“Depending on the actual or anticipated number of applications submitted, the panel may consider whether to delegate the task of screening applications to the chairperson, to a committee, or to individual members of the panel.”); *id.* at 22 (“Following the initial screening of applications, the panel in its discretion may choose to conduct personal interviews of some or all applicants. Interviews may be necessary in those situations where members of the panel have no personal knowledge of the applicants or their legal abilities.”).

⁷⁰ *Id.* at 21.

⁷¹ *See id.* at 25 (“The regulations of the Judicial Conference do not prescribe how the panel should evaluate the applicants. The procedures are generally left to the discretion of the individual courts and panels.”).

⁷² *See id.* at 25. *See generally id.* at 25-28.

demanding for the specific duties to be assigned”;⁷³ the applicant’s judicial temperament and promise;⁷⁴ the applicant’s “academic record and related achievements in law school and college”;⁷⁵ the extent and type of the applicant’s legal practice;⁷⁶ the applicant’s knowledge of the federal judicial system;⁷⁷ and the applicant’s personal attributes.”⁷⁸

Once the panel has concluded its review of the applicants,⁷⁹ it should “collectively”⁸⁰ forward to the district court “the five applicants the panel has determined as best qualified.”⁸¹ The district judges of the district are to select the magistrate judges from the list of names submitted by the panel.⁸²

If a sitting magistrate judge seeks reappointment, the Judicial Council regulations call upon the district court judges first to “determine, by majority vote . . . , whether . . . to consider the reappointment of the incumbent.”⁸³ In making this determination, the regulations direct that “[t]he court should give due

⁷³ *Id.* at 25. The regulation expounds:

The range of duties delegated to magistrate judges by district judges varies substantially from one district to another. The panel’s objective is to recommend individuals most suited to the needs of the particular district court. Emphasis should be placed on those qualities and professional skills most often demanded for the specific duties to be assigned.

Id.

⁷⁴ *Id.* at 26. The regulation expounds:

During their deliberations, the members [of the panel] should bear in mind the judicial nature of the office of magistrate judge. A considerable number of former United States magistrate judges have been appointed and are now serving as United States district and court of appeals judges. The position of magistrate judge is viewed by many as a proving ground that can provide invaluable practical experience for future Article III judges. Thus, the panel should recommend individuals who possess the same types of personal and professional qualities expected of district judges.

Id.

⁷⁵ *Id.* The regulation adds: “Special attention might be given to class standing, quality of the schools attended, membership on the law review board, and membership in other associations.” *Id.*

⁷⁶ *Id.* The regulation expounds:

The panel should consider how long the applicant has practiced law and the type of legal practice. The applicant should have demonstrated professional competence, including an ability to deal with complicated legal problems, an aptitude for legal scholarship, and effective writing. The applicant also should be well regarded professionally by other lawyers. The members of the panel should also consider whether the applicant has been recently involved in any pro bono or public service activity. The panel should not confine its considerations to person with any one type of legal work. It should consider candidates from all segments of the bar, including government service, law school faculties, legal aid associations, public interest establishments, and state courts.

Id.

⁷⁷ *See id.* at 26-27 (“Because the rules of procedure in the federal judicial system frequently differ from those practiced in the various state court systems, the panel might consider the applicant’s familiarity with the federal court system.”).

⁷⁸ *See id.* at 27.

⁷⁹ *See id.* at 29 (directing that the panel should arrive at its top candidates “[a]fter all written information has been obtained, all interviews have been completed, and all follow-up information has been gathered”).

⁸⁰ *Id.*

⁸¹ Reg. § 3.04.

⁸² More specifically, the regulation provides:

The district judges shall select from the list provided by the panel. However, if not applicant receives a majority vote of the district judges the court shall request a second list of five names. The court is then free to select from either list. If, again, no applicant receives a majority vote, the chief judge shall make the selection for the court from the either list.

Reg. § 4.01.

⁸³ Reg. § 6.02.

consideration to the professional and career status of the position of United States magistrate judge.”⁸⁴ Guidance from the Administrative Office of the U.S. Courts is clearer still: “Normally, an incumbent magistrate judge who has performed well in the position should be reappointed to another term of office.”⁸⁵

If the court decides against reappointment, then “it shall so notify the incumbent” and then is to follow the procedures applicable for initial appointments.⁸⁶ If, instead, the court decides in favor of reappointment, then the court must (i) provide public notice of the proposed reappointment and invite comments from the public;⁸⁷ (ii) appoint a merit selection panel to “review the incumbent’s current service as magistrate judge and other experience, the comments from members of the bar and public, and other evidence of the incumbent’s good character, ability, and commitment to equal justice under the law”;⁸⁸ and (iii) “[a]fter due consideration of the report of the panel, . . . determine whether to reappoint the incumbent by majority vote of all district judges.”⁸⁹

II. MERIT-BASED APPOINTMENT OF MAGISTRATE JUDGES

The foregoing Part described how the governing statute, Judicial Council regulations, and Administrative Office guidance would paint the selection of magistrate judges as merit-based. But in fact is it? After all, there is a large literature in political science and law that suggests that judges—including federal district judges—act ideologically. If that is so, then why wouldn’t one expect district judges (to the extent they are able) to appoint magistrate judges with ideological bents similar to their own? The limited commentary is divided on the question of whether magistrate judges are in fact appointed based on ideology or merit.⁹⁰

⁸⁴ *Id.*

⁸⁵ ADMINISTRATIVE OFFICE, *supra* note [check], at 37. The guidance further elucidates:

To serve the court, a magistrate judge relinquished a law practice or other career choice. Accordingly, the court should be sensitive the needs and expectations of the professional and the career choice the incumbent made by accepting the position of United States magistrate judge.

Id.

⁸⁶ Reg. § 6.02(a).

⁸⁷ *Id.* § 6.03(a).

⁸⁸ *Id.* § 6.03(b).

⁸⁹ *Id.* § 6.03(c).

⁹⁰ *Compare, e.g.,* Christina L. Boyd, Dissertation, *Placing Federal District Courts in the Judicial Hierarchy* 68 (2009) (“I code the ideology of [magistrate judges] by taking the median district court judge [judicial common space score] for the year that they assumed their position.”) with Resnik, *supra* note [check], at 671 (“Article III judges have incentives to pick stellar candidates.”).

Sometimes commentators lump the selection and monitoring process to form predictions about magistrate judge behavior. *See, e.g.,* CARROLL, *supra* note [check], at 24-26 (the close proximity within which magistrate judges work with their selectors—the district judges—argues in favor of a proximate selectorate theory of magistrate judge behavior, under which magistrate judges decide cases similarly to district judges); Boyd & Sievert, *supra* note [check], at 251-56 (advancing a theory under which district judges are principals and magistrate judges are their agents, and noting in that context that “district judges can vet their agents for the qualities, demeanor, and experience that will make them a good fit within the district” and that “district judges are likely to be all the more able to devote the time necessary to be satisfied that their vote is carefully made”). Carroll hypothesizes that there should be “[n]o significant differences between the collective [ideological] decision-making of Magistrate Judges and District Judges” within a district, CARROLL, *supra* note [check], at 39, and offers empirical evidence in support of that hypothesis, *see id.* at 83-86. Boyd and Sievert hypothesize that magistrate judges will tend to hew to the district’s average district judge’s ideology, both when deciding cases on consent of the parties and when issuing

Insofar as the model I present in the next Part rests in no small part on the assumption that the selection of magistrate judges is merit-based, I turn in this Part to a considered examination of that question. To the extent they exist, surveys and interviews of judges confirm that selection of magistrate judges focuses on merit.⁹¹ There are in fact several reasons to expect that this should be the case.

First, and foremost, the statute calls for it, and it calls for it in a way that makes it very likely in fact to happen, even if district judges would all else equal prefer a different result. Second, all else is not equal: Merit-based appointment of magistrate judges offers district judges a benefit, and that benefit will outweigh the benefits of ideological-based appointment under plausibly common conditions.

First, and foremost, the statute calls for it, and it calls for it in a way that makes it very likely in fact to happen. The statute requires that, in elucidating the procedures for selection, the Judicial Conference of the United States (the “Judicial Conference”) mandate “the establishment by the district courts of merit selection panels . . . to assist the courts in identifying and recommending persons who are best qualified” to be magistrate judges.⁹² The statute thus focuses the appointment process on merit.⁹³ Moreover, by removing the initial screening from the district judges, the statute restricts the ability of district judges to use ideology to identify candidates.

Second, and relatedly, the Judicial Conference’s regulations further hinder efforts a district court might make to reduce the role of merit in the magistrate judge selection process. The regulations direct merit selection panels to solicit candidates on a broad basis, so that the field of candidates cannot be restricted to handpicked choices.⁹⁴ They also direct the panels to focus on qualities and qualifications that speak to the candidates’ merits.⁹⁵

reports and recommendations. *See* Boyd & Sievert, *supra* note [check], at 257, 263-65. They empirically find support in the first context, *see id.* at 259-62, but only weak support in the latter context, *see id.* at 266-69.

⁹¹ Based upon interviews with relevant actors, Christopher Smith explains:

Although district judges are appointed through a partisan political process of presidential nomination and senatorial approval and most district judges had experience or connections with partisan political activity in order to be appointed to the bench, there was surprisingly little evidence of political party affiliations affecting the selection of magistrates. In two districts, judges were reported to push for magistrate candidates based upon partisan political affiliations, but, in general, the political conflicts over magisterial appointments involved contests between judges within individual districts who had competing values or goals concerning the appointment and utilization of magistrates.

Magistrates are viewed by judges as important resources. They are generally considered to be essential to the management of large and growing caseloads in the federal courts and thus judges emphasize competence rather than patronage in appointing new magistrates. Political conflicts occur over the definitions of selection criteria and competence, but apparently magistrates are too valuable in the resource-scarce judiciary to permit primary emphasis on partisan political considerations. Interviews revealed numerous examples of judges appointing magistrates from the opposite political party or not knowing the partisan inclinations of the selected appointee.

SMITH, *supra* note [check], at 44-45.

See also Resnik, *supra* note [check], at 670 (“[T]he judiciary has selected a high-quality and relatively nonpolitical corps of judges in a relatively inexpensive fashion. The authorizing legislation for magistrate judges specifies very general requirements and calls on the Judicial Conference to promulgate procedures that include public notice and provide for merit selection panels to assist in identifying qualified persons.”).

⁹² 28 U.S.C. § 631(b)(5).

⁹³ *But see* SMITH, *supra* note [check], at 155-56 (“[T]he operation of the supposedly merit-based procedures [employed during the Carter administration for Article III judgeships] often ultimately involved the same sorts of partisan political considerations that characterize the usual nomination process for federal judges.”).

⁹⁴ *See supra* notes [check] and accompanying text.

⁹⁵ *See supra* notes [check] and accompanying text.

Third, the extent to which the system relies on transparency in process at some points, and process opacity at other points, further assures a result based upon merit. The composition of the merit selection panel is publicly divulged, thus limiting district judges' ability to populate the panel with ideologues. At the same time, the interviews of the candidates by the panel, as well as the deliberations of the panel and of the district judges, are allowed to proceed outside the public eye. This opacity in process may allow collegiality to flourish, where public scrutiny might otherwise call partisan behavior to the fore.⁹⁶

Fourth—and moving beyond what statutes and regulations require—one can readily see the benefits district judges obtain by actually appointing magistrate judges based on merit. Legal commentators—perhaps most prominently Judge Richard Posner—have argued that as a general matter judges seek to maximize their leisure time.⁹⁷ If that is true, then district judges may prefer to have at their disposal magistrate judges who reduce their workload as much as possible, even if that means sacrificing something in terms of the ideological outcomes the district judges might also prefer. And, as the model below predicts, highly able magistrate judges offer district judges large opportunities for workload reduction (though the results are of course a function of the assumptions that underlie it). Finally, the appointment of magistrate judges based on merit in no way precludes district judges from achieving ideological goals on their own (especially since the use of magistrate judges is essentially left to the discretion of district judges).

Fifth, the prospects of benefits resulting from ideological-based appointments, though possible, are less certain. Consider that district judges are themselves subject to regular review by the court of appeals, and are loathe to be reversed. (Even if a court of appeals includes in its complement many judges aligned with a district judge, still the fact that a panel of judges is drawn randomly and only after the district judge has ruled limits the district judge to relying upon the median ideology of the likely panel composition.) To the extent that a district judge has to modulate her own ideological preferences in light of hierarchical monitoring, it will matter less to that judge how closely to her own personal ideological leanings a judge beneath her will make decisions.

Indeed, even if at the time of a magistrate judge's appointment (or reappointment) the court of appeals is closely aligned with a majority of a district's district judges (such that the risk of reversal is relatively low), still there may not be a strong incentive to appoint an ideologically proximate magistrate judge. After all, the magistrate judge will be appointed for an eight-year term—the equivalent of two presidential terms—and it is far from certain that the ideological preferences of the court of appeals and district court will remain aligned over that long a time horizon.

Sixth, even to the extent that a district judge has some freedom to achieve ideological outcomes, a district judge who has aspirations of higher judicial office may prefer to modulate her decisions to the ideological preferences of the sitting president. And, over the eight-year term of a magistrate judge, the

⁹⁶ See Rafael I. Pardo, *The Utility of Opacity in Judicial Selection*, 64 N.Y.U. ANN. SURV. AM. L. 633, 647-48 (2009); cf. Resnik, *supra* note [check], at 671 (“As compared with either state judicial elections or Article III nominations, the selection process for federal statutory judges is a low-profile event. . . . Because the selection process crafted through statute and Judicial Conference guidelines does not mimic the inquiries associated with the congressional approval of Article III judgeships and party affiliations are less central, the pool of prospective federal judges is different. Some individuals now serve as judges who would not as a political matter have been likely to have been nominated by a President nor approved by the Senate.”).

⁹⁷ See Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1, 11, 20-21 (1993).

sitting president’s ideological preferences may shift, making it less important to lock in the ideological preferences of a magistrate judge.

Seventh, even if—despite all the foregoing points—a district’s district judges would prefer to ensconce an ideologically sympathetic magistrate judge, it is not easy actually to choose a judge who decides cases in line with those ideological preferences. Consider first that evidence of the ideological preferences of a candidate for a magistrate judge position may be far from clear; most candidates will presumably not have prior judicial experience.

Moreover, even when a President appoints a Justice to the Supreme Court—i.e., when the information on a candidate’s ideological preferences, and the efforts to unearth that information, are likely to be greatest—still the sitting Justice may not live up to the President’s expectations.⁹⁸ And a Justice who initially vindicates a President’s ideological expectations may experience ideological drift over the course of her appointment;⁹⁹ an eight-year term may afford a magistrate judge a similar opportunity. And a magistrate judge’s own aspirations for higher judicial office¹⁰⁰ may convince her to factor in the ideological preferences of the President and Senate, rather than the district judges.

To be sure, commentators argue in the context of magistrate judges that monitoring by the district court will to some degree at least cause magistrate judges to hew the ideological line.¹⁰¹ Put another way, the argument is that the relative dearth of judicial independence enjoyed by magistrate judges—lacking the protections of Article III—are likely to “live up to the ideological terms of their appointment.” These arguments undervalue the reality that magistrate judges in fact enjoy considerable judicial independence. They are appointed for lengthy—eight-year—terms,¹⁰² they can only be removed for “incompetency, misconduct, neglect of duty, or physical or mental disability,”¹⁰³ and the norm is that they will receive reappointment if they seek it.¹⁰⁴ By statute, their compensation may not be reduced below the level at which it was set upon initial appointment.¹⁰⁵ As Rafael Pardo and I have observed in the context of other non-Article III judges (bankruptcy judges), “[w]hen one considers the type of jurist produced by the judicial selection process for [magistrate] judges in conjunction with their term of appointment, the standard for their removal, and the treatment afforded to their compensation, it would appear that

⁹⁸ See, e.g., Jonathan Remy Nash, *Prejudging Judges*, 106 COLUM. L. REV. 2168, 2186 n.53 (2006) (discussing how a President’s reliance on a so-called “stealth candidate” can backfire).

⁹⁹ See Lee Epstein, Andrew D. Martin, Kevin M. Quinn & Jeffrey A. Segal, *Ideological Drift Among Supreme Court Justices: Who, When, and How Important?*, 101 NW. U. L. REV. 1483 (2007).

¹⁰⁰ While not the norm, the elevation of magistrate judges to higher federal judicial offices has become more common over the years. See, e.g., MCCABE, *supra* note [check], at 19 (“In 1976, two Magistrate Judges were appointed by President Ford as United States District Judges, inaugurating a patten followed by every succeeding president to appoint Magistrate Judges to Article III judgeships. As of June 15, 2014, 162 full-time Magistrate Judges and 7 part-time Magistrate Judges had each been appointed as Article III judges – to serve as U.S. District Judges and, in one or more instances, as U.S. Circuit Judges. Magistrate Judges have been appointed to District Judgeships in 68 of the 91 Article III District Courts and 5 of the 12 circuit courts of appeals.”); SMITH, *supra* note [check], at 155 (“The fact that a number of magistrates have been appointed to district judgeships and that the issue has been mentioned and discussed in law reviews and legislative hearings indicates that magistrates can serve a cognizable function as ready-made judges for the judicial system.”); Resnik, *supra* note [check], at 671 (“[T]he ranks of Article III judges are increasingly populated by individuals who once served as statutory judges.”).

¹⁰¹ See CARROLL, *supra* note [check], at 24-26; Boyd & Sievert, *supra* note [check], at 251-56.

¹⁰² See *supra* notes [check] and accompanying text.

¹⁰³ See *supra* notes [check] and accompanying text.

¹⁰⁴ See *supra* notes [check] and accompanying text.

¹⁰⁵ See *supra* notes [check] and accompanying text; Boyd & Sievert, *supra* note [check], at 254 (“[M]agistrates across districts are regularly reappointed to their positions after their initial eight-year terms expire.”).

[magistrate] judges have achieved a considerable degree of judicial independence.”¹⁰⁶ And that independence from their selectors may indeed free magistrate judges to follow their own ideological preferences, thus reducing the benefits to district judges of trying to select magistrate judges based upon ideology in the first place.

III. MODELING DECISIONS TO MAKE REFERRALS OF MATTERS TO MAGISTRATE JUDGES AS DECISION TREES

In this Part, I construct model a district judge’s decision to refer, or not to refer, matters to a magistrate judge as a series of decision trees with incomplete information. My goal is to improve our understanding of how district judges may choose to deploy the limited resource of magistrate judge services.¹⁰⁷

I exclude decisions to refer matters in criminal cases, since there concerns over fundamental fairness may trump (at least for some district judges) concerns of efficient resource allocation. I also exclude consideration of cases where magistrate judges act as trial judges, insofar as that circumstance can arise only with the approval of the matters; district judge approval is irrelevant.

A. The Model

The model is designed to evaluate when federal district judges will choose to refer matters to federal magistrate judges. The game features two players that have action choices: the federal district judge and the court of appeals panel that hears the appeal from the district judge, although the court of appeals will behave entirely mechanically. The magistrate judge will play a role in the game, but has no choices to make, i.e., is not a player. Also, Nature will play a role in selecting the types of cases that come before the district judge.

As I detail below, the district judge’s utility is based upon three factors: (i) minimizing her workload (since all else equal, a district judge would prefer to do less work¹⁰⁸); (ii) her desire to attain outcomes in cases that are infused with ideological issues—“ideological cases”¹⁰⁹—that are consistent with her own ideology; and (iii) her desire *not* to be reversed by the court of appeals. A court of appeals

¹⁰⁶ Jonathan Remy Nash & Rafael I. Pardo, *An Empirical Investigation into Appellate Structure and the Perceived Quality of Appellate Review*, 61 VAND. L. REV. 1745, 1769 (2008).

¹⁰⁷ See SMITH, *supra* note [check], at 85 (noting that, in one judicial district, “two judges expressed reluctance about actually having magistrates supervise consent trials, because of unknown potential consequences such as lengthy trials causing backlogs with Social Security cases and civil motions”); Dessem, *supra* note [check], at 837-38 (“The advisory group [required to be put in place in each federal district by the Civil Justice Reform Act of 1990] for the Southern District of New York recommended an increased use of magistrate judges in the civil pretrial process, but recognized that this additional work could not be handled by the magistrate judges unless their existing duties were curtailed. It therefore recommended that magistrate judges no longer be assigned dispositive motions, social security appeals, and habeas corpus petitions.”). Cf. Puro & Goldman, *supra* note [check], at 145-46 (“The overuse of consensual jurisdiction may irreparably harm the value of the magistrate. While each magistrate could handle a few dispositive motions and trials, an ever-increasing number of such matters would threaten his ability to keep cases moving toward a conclusion.”). On the general topic of judicial resources as constrained, see, for example, Matt Spitzer & Eric Talley, *Judicial Auditing*, 29 J. Legal Stud. 649, 654 n.15 (2000) (discussing judicial auditing costs, and noting that at the least they constitute opportunity costs to the reviewing court); Lewis A. Kornhauser, *Adjudication by a Resource-Constrained Team: Hierarchy and Precedent in a Judicial System*, 68 S. CAL. L. REV. 1605, 1610 (1995) (discussing the assumption of resource constraint on courts).

¹⁰⁸ See *supra* [check].

¹⁰⁹ See *infra* [check].

garners utility from reaching decisions consistent with the panel's ideology. It is also concerned with workload: It is especially onerous for the court of appeals to reverse a decision of the district judge that is in line with the R&R of a magistrate judge.

The game thus incorporates incentives for a district judge to refer matters to a magistrate judge: (a) the desire to reduce the district judge's workload, (b) insofar as magistrate judges are appointed based on merit and therefore are presumed better able to reach technically "correct" decisions in non-ideological cases,¹¹⁰ the desire to minimize reversal by the court of appeals, and (c) and the possibility of shielding against reversal by the court of appeals a decision with which the district judge is in ideological agreement. At the same time, there are countervailing incentives that might convince the district judge not to refer matters to magistrate judges: The magistrate judge might not reliably decide a matter as would the district judge, and it will take work for the district judge to reject the magistrate judge's R&R. And, even if the district judge puts that work in, there is the risk that the court of appeals will reverse the district judge. Beyond these competing incentives, the game incorporates a resource constraint, in the form of a limit on the extent to which the district judge may refer matters to the magistrate judge.

The model consists of two stages: a "referral allocation stage," and a "decision stage." In the referral allocation stage, the district judge decides which matter(s) (if any) she wishes to refer to the magistrate judge. In the decision stage, all matters are decided in light of the referral choices made at the referral allocation stage.

I solve the overarching finite game using backwards induction. I proceed as follows. First, I describe the referral allocation stage and the decision stage. While elucidating the various decision stage decision trees, I explore the extent to which the district judge draws a benefit from choosing to refer to the magistrate judge (assuming the resource constraint would allow for a referral). Finally, I solve the referral allocation decision tree by comparing and ranking the benefits that various types of referrals offer.

I introduce various model parameters and assumptions as I build the model; Tables 1 and 2 present a summary of the most important nomenclature and assumptions for ease of reference.

¹¹⁰ See *supra* Part II.

TABLE 1: Key nomenclature.

Parameter	Definition
n	Number of cases on the district judge's docket
ω	The fraction of cases on the district judge's docket that are ideological cases.
ρ	Number of the maximum $2n$ opportunities for referral to the magistrate judge that the district judge can take advantage of (i.e., the resource constraint).
R	The cost the district judge suffers when her judgment is reversed by the court of appeals.
η	The proportion of non-ideological cases in which the district judge reaches the "incorrect" outcome, i.e., an outcome that will be reversed by the court of appeals.
I	The benefit to the district judge of obtaining a final judgment (after review by the court of appeals) in an ideological case that is in line with the district judge's ideological preferences.
W	The cost of the district judge of writing an opinion that rejects the R&R of the magistrate judge.
τ	The proportion of the time that the ideological preferences of the three-judge court of appeals panel hearing the appeal in a case will align with the ideological preferences of the district judge.
C	The benefit to the court of appeals of obtaining a final judgment (after review by the court of appeals) in an ideological case that is in line with the ideological preferences of the court of appeals panel hearing the appeal in the case.
H	The cost to the court of appeals panel of drafting an opinion that reverses the judgment of the district judge that had adopted the R&R of the magistrate judge.

TABLE 2: Key assumptions underlying the model.

Assumption	Rationale
$0 < \rho \leq 2n$	The resource constraint can be, but need not be, binding.
$0 < \eta$	The district court will reach the wrong conclusion in non-ideological cases at a non-zero rate.
$1 < I < R$	The ideological benefit to the district judge should be less than the cost of reversal by the court of appeals.
$1 < W < R$	The cost to the district judge of drafting an opinion that rejects the magistrate judge's R&R should be higher than the benefit obtained by referring to the magistrate judge in the first place, but less than the cost of reversal by the court of appeals.
$C < H$	The cost to the court of appeals of drafting an opinion that reverses a judgment of the district judge that adopted the magistrate judge's R&R should be prohibitively expensive, i.e., larger than any associated benefit.

1. Referral Allocation Stage

The district judge's docket D consists of n cases: $D = \{d_1, d_2, \dots, d_n\}$. The docket includes both ideological cases¹¹¹ and non-ideological cases.¹¹² (While all cases cannot in reality be separated into ideological and non-ideological cases, I make the simplifying assumption for purposes of the model.) An ideological case is one that the district judge and court of appeals—i.e., ideologically-motivated judges—would prefer to have come out one way or the other. A non-ideological case is one about which the district judge and court of appeals care comparatively less. The court's docket consists of ωn ideological cases, where $0 < \omega < 1$. The remaining $(1 - \omega)n$ cases are non-ideological. Both the district judge and court of appeals can readily ascertain whether a case is ideological or not.

I assume that in every case on the docket two matters come before the district judge—discovery supervision and a motion for summary judgment.¹¹³ The district judge may refer both, either, or neither of these to the magistrate judge. Across the docket, then, there are $2n$ matters that the district judge can decide whether or not to refer.

I assume that the ability of the district judge to make referrals to the magistrate judge may be constrained by the limited time of the magistrate judge. Specifically, I assume that the district judge can refer at most ρ assignments to the magistrate judge, such that $0 < \frac{\rho}{2n} \leq 2n$.

The district judge is the only actor in the referral allocation stage. The district judge makes two referral decisions with respect to each case on the docket. For each $i \in n$, let $a_i \in \{0, 1\}$ represent the district judge's decision as to whether to refer discovery supervision in case d_i (where $a_i = 1$ represents a decision to refer and $a_i = 0$ represents a decision not to refer), and let $b_i \in \{0, 1\}$ represent the district judge's decision as to whether to refer the summary judgment motion in case d_i (where, analogously, $b_i = 1$ represents a decision to refer). Thus, the district judge's move at this stage is represented by a $2n$ -vector $\langle a_1, a_2, \dots, a_n, \beta_1, \beta_2, \dots, \beta_n \rangle$, where $a_i, \beta_i \in \{0, 1\} \forall i \in 1, 2, \dots, n$.

2. Referral Decision Stage

In the referral decision stage, we will distinguish among three different types of decision trees that arise, depending on whether we are dealing with discovery supervision and (if not) upon the type of case: (1) discovery supervision, and (2) summary judgment in (a) non-ideological cases and (b)

¹¹¹ I use the term “ideological cases” to refer to “cases in ideologically charged subject-matter areas that raise politically salient issues.” Jonathan Remy Nash, *Expertise and Opinion Assignment on the Courts of Appeals: A Preliminary Investigation*, 66 FLA. L. REV. 1599, 1611 (2014). See, e.g., Cass R. Sunstein et al., *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation*, 90 VA. L. REV. 301, 309-10 (2004) (noting that some areas of law “by general agreement, are ideologically contested,” while suggesting that other areas involve cases that are “apparently nonideological”); cf. Richard L. Pacelle, Jr., *The Dynamics and Determinants of Agenda Change in the Rehnquist Court*, in CONTEMPLATING COURTS 251, 252 (LEE EPSTEIN ED., 1995) (distinguishing between cases of low interest heard by the Court out of duty to resolve lower court conflicts, and cases of high interest heard because of subject matter); Lori Hausegger & Lawrence Baum, *Inviting Congressional Action: A Study of Supreme Court Motivations in Statutory Interpretation*, 43 AM. J. POL. SCI. 162, 171, 183 (1999) (discussing Pacelle's analysis of high- and low-interest cases that are separated by subject matter).

¹¹² I use the term “non-ideological cases” to refer generally to cases that are “largely lacking in ideological controversy” and that “do not raise [politically] salient issues.” Nash, *supra* note [check], at 1611. See LEE EPSTEIN ET AL., *THE BEHAVIOR OF FEDERAL JUDGES* 126, 136 (2013) (discussing low-ideology cases); Jonathan Remy Nash & Rafael I. Pardo, *Does Ideology Matter in Bankruptcy? Voting Behavior on the Courts of Appeals*, 53 WM. & MARY L. REV. 919 (2012) (finding no evidence of ideological voting among circuit judges in bankruptcy cases involving discharges of debt).

¹¹³ The motion for summary judgment is not the only pretrial dispositive motion that a party can bring, but it is a common one, and I rely on it in the model as a typical motion.

ideological cases. Across all decision trees, a decision to refer a matter to the magistrate judge secures for the district judge a payoff—based upon a decrease in workload—of 1; a decision not to refer provides a payoff of 0. For the discovery supervision, that is the entirety of the payoff; the court of appeals plays no role. In the summary judgment context, in contrast, other concerns—reversal by the court of appeals, workload, ideological congruity with outcome, and error in non-ideological cases—play a role in the players’ final utility.

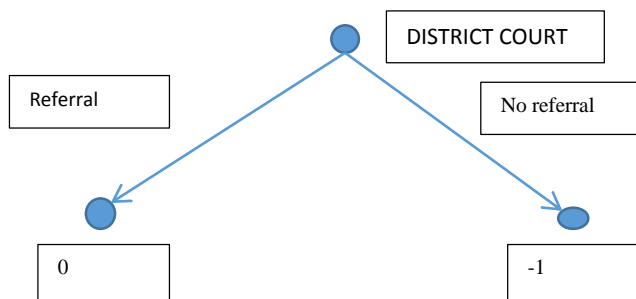
In elucidating the referral decision stage decision trees, I first set up the tree and the relevant payoffs. I then turn to considering the district judge’s strategy for the decision tree, and in particular what benefit (if any) the district judge can expect to gain from opting to refer in the particular decision tree.

a. Discovery Supervision

Whether the district judge refers discovery supervision in a case to the magistrate judge or conducts it herself, there is no formal decision that is required, and there is no appeal to the court of appeals.¹¹⁴ Referring a case to the magistrate judge for discovery supervision garners the district judge a utility of 0; a decision not to refer provides a payoff of -1. (The decision to refer or not for discovery supervision has no impact on the utility of the court of appeals, and the court of appeals plays no role in this game.) Figure 1 presents the decision tree for the decision whether or not to refer a case for discovery supervision.

¹¹⁴ This is consistent with reality: First, if the district judge refers discovery supervision to the magistrate judge, then the magistrate judge resolves all discovery disputes definitively, subject only to review for abuse of discretion by the district judge. Second, in the federal judicial system, there is ordinarily no appeal until a final decision has been reached, and resolution of discovery disputes almost never result in final decisions. The likelihood that the resolution of a discovery dispute will result in reversible error once there *has* been a final decision is small.

FIGURE 1: Decision tree for supervision of discovery.



The benefit for the district judge from referring discovery supervision in a case is positive and uniform:

$$B(\text{referral of discovery supervision}) = 0 - (-1) = 1$$

b. Summary Judgment

We next consider resolution of the question of whether to refer to a magistrate judge motions for summary judgment. In contrast to discovery supervision, summary judgment decisions are subject to appeal. When the court of appeals reverses a district judge’s summary judgment decision, the district judge suffers a cost, R . In keeping with reality, I assume that reversal for the district judge produces the largest cost a district judge can suffer.¹¹⁵

If the district judge has referred summary judgment to the magistrate judge, then the magistrate judge issues a report and recommendation (or “R&R”).¹¹⁶ The district judge reviews the R&R *de novo*, meaning that it can accept or reject that R&R. Thereafter, the court of appeals reviews the district judge’s decision *de novo*, with again the freedom to affirm or reverse that decision.¹¹⁷

If instead the district judge has *not* referred the summary judgment motion in the case to the magistrate judge, then the district judge simply decides the motion without the benefit of input from the magistrate judge. This imposes a cost of -1 on the district judge.¹¹⁸ (The court of appeals then affirms or reverses, as above.)

¹¹⁵ Reversal reflects negatively on the district judge’s qualifications and reputations, and may also adversely affect the district judge’s prospects for promotion within the federal judiciary.

¹¹⁶ Magistrate judges are not empowered to issue binding rulings on dispositive motions, such as a motion for summary judgment. *See supra* [check].

¹¹⁷ In reality, the decision by the district judge on summary judgment might not be a final judgment—indeed, the decision could leave matters for resolution at trial—in which case appeal to the court of appeals would not ordinarily lie until trial was complete. For simplicity—and without affecting the applicability of the results very greatly—I streamline matters in the model and assume that the appeal to the court of appeals follows after the district judge makes her decision.

¹¹⁸ The extent to which the referral of a dispositive motion to a magistrate judge generates a benefit by reducing the judiciary’s overall load—and indeed whether it generates such a benefit at all—is the subject of some debate. Some suggest that the fact that the district judge has to engage in *de novo* review means that referring the dispositive motion to the magistrate means that the dispositive motion must be reviewed (*de novo*) twice, once by the magistrate judge and then again by the district judge. *See SMITH, supra* note [check], at 151-52 (“Magistrates’ reports and recommendations may simply be a third brief considered by judges, along with the briefs from plaintiffs and

I distinguish between non-ideological cases and ideological cases: In ideological cases, summary judgment decisions will have ideological valence, while that is not the case in non-ideological cases. This affects the district judge's payoffs, which in turn means that there will be distinct decision trees in non-ideological cases and ideological cases.

i. Summary judgment in non-ideological cases

I assume that the magistrate judge and the court of appeals are both likely to arrive at the "correct" outcome in non-ideological cases: The magistrate judge is good at reaching the correct outcome because he is selected on the basis of merit. The court of appeals will do this effectively because that court hears appeals in panels of three judges, and three judges are more likely to reach the correct outcome than is a single judge.¹¹⁹ I further assume that, whatever the cost to the court of appeals of reversing the district judge, it is outweighed by the benefit of reaching the correct decision in a non-ideological case.

As a result of this, the district judge's dominant strategy is to adopt the R&R of the magistrate judge in all non-ideological cases where the district judge has chosen to refer the summary judgment motion to the magistrate judge. A decision to reject the magistrate judge's R&R will impose on the district judge both (i) the cost W of writing an opinion that rejects the magistrate judge's R&R, and (ii) the cost R of being reversed by the court of appeals. Thus, the total utility to the district judge will be

defendants . . ."); *id.* at 96 (In one judicial district, "[t]he magistrates previously handled Social Security appeals, but they persuaded the judges to discontinue the practice of assigning such cases. The magistrates believed, and the [district] judges apparently agreed, that it was a waste of time to have magistrates go through the time-consuming process of preparing a report and recommendation for a Social Security appeal when the [district] judges were subsequently reviewing each case in detail. Thus, the magistrates felt that they had become a wasteful intermediary step which could be omitted by having the [district] judges do one thorough review of each case for themselves."). Indeed, one federal district court—the Northern District of California—has put in place a general order that precludes, absent exception by the district's executive committee, district judges from referring to magistrate judges, *inter alia*, "[c]ivil pretrial matters that are dispositive of a claim or defense and require a *de novo* review by a district judge," and "[p]risoner petitions and habeas corpus cases." N.D. Cal. Gen. Order 42 (adopted Jan. 23, 1996; amended Jan. 16, 2001). The order specifically cites efficiency as the basis for this rule: "It is the policy of the court to promote the efficient utilization of magistrate judges and to avoid the unnecessary duplication of judicial action." *Id.*

One answer to this question is that at least some district judges do not fully review magistrate judges' R&Rs at least some of the time (even though that goes against the statutory requirement). See SMITH, *supra* note [check], at 151 ("Very often, . . . by being a neutral judicial officer, and subordinate colleague to the [district] judges, a magistrate can have more influence on the [district] judge's ultimate determination than any litigant's brief and therefore influence the [district] judge's final decision by framing and analyzing issues in a particular way. In addition, some [district] judges say that they will defer to reasonable determinations by a magistrate even if the [district] judge might have reached a contrary conclusion."). One might surmise that this is perhaps more likely in non-ideological cases, where district judges have less of an incentive to review magistrate judges' R&Rs with care.

A better justification for the benefit that arises from having a magistrate judge write an R&R for a dispositive motion—even though the district judge, in keeping with the governing statute, will review the motion anew—is that the magistrate judge's work helps to highlight and refine the key issues and disputes underlying the motion. Again, one might expect this benefit to be greater and/or more likely to accrue in non-ideological cases, where expertise as opposed to ideology drives the decision-making process for the district judge.

¹¹⁹ See Nash & Pardo, *supra* note [check], at 1748 ("[T]o the extent that there is an objectively "correct" answer to a question of law posed on appeal, and to the extent that there is a greater than 50% chance that each appellate judge will reach that "correct" answer, the Condorcet Jury Theorem instructs that a panel of judges will more likely reach the "correct" answer than will a single . . . judge.").

$-W - R$. On the other hand, if the district judge simply accepts the magistrate judge's R&R, then her utility will be 0. Thus,

$$EU_{DJ}(\text{referral of SJ in non-ideological case}) = 0$$

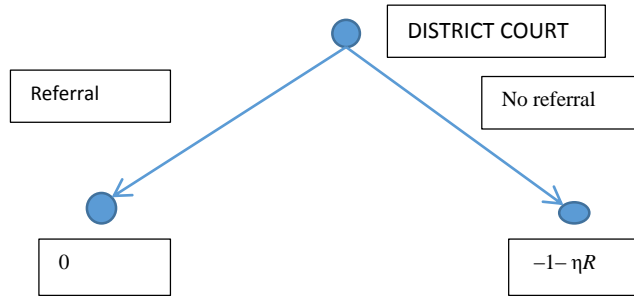
If instead the district judge does not refer the summary judgment motion in a non-ideological case to the magistrate judge, then the district judge must decide the motion on her own. I assume that the district judge will reach the correct answer in some cases, and the incorrect answer in other cases. In particular, I assume that the district judge will have an error rate of η , where $0 < \eta < 1$.

We calculate the district judge's utility thus. As always, the district judge's decision not to refer will provide the judge with a base utility of -1. Beyond that, if the district judge reaches the wrong conclusion (with probability η), then the court of appeals will reverse. If the district judge reaches the correct conclusion (with probability $1 - \eta$), then the court of appeals will affirm. The district judge's utility from not referring a motion for summary judgment in a non-ideological case will thus be

$$EU_{DJ}(\text{no referral of SJ in non-ideological case}) = -1 + (-R) + (1 - \eta)(0) = -1 - \eta R$$

Figure 2 summarizes the decision stage decision tree for summary judgment in non-ideological cases.

FIGURE 2: Decision tree for summary judgment in non-ideological cases.



The benefit from referring a summary judgment motion in a non-ideological case is always positive:

$$B(\text{SJ in non-ideological cases}) = 0 - (-1 - \eta R) = 1 + \eta R$$

ii. Summary judgment in ideological cases

I assume that ideology is dichotomous. Thus, the district judge either agrees with, or disagrees with, the R&R of the magistrate judge, and with the ideology of the court of appeals panel.

I assume that the magistrate judge consistently rules based on merit. In ideological cases, merit-based decision-making is orthogonal to ideology. Thus, 50% of the time a magistrate judge will rule on summary judgment in ideological cases with the district judge's ideological leaning, and 50% of the time he will rule against those leanings.

Consistent with reality, I assume that the ideological alignment (or lack thereof) between the district judge and the court of appeals in a case is a function of the composition of the court of appeals panel hearing the appeal in the case: If two or three judges on the three-judge panel share ideological

views with the district judge, then the court of appeals will have a consonant ideological view, while if zero or one judge on the panel shares ideological affinity with the district judge, then the court of appeals will have divergent ideological preferences. Let τ denote the frequency with which the court of appeals and district judge share ideological preferences.¹²⁰

The district judge draws a benefit I when a final decision by the court of appeals is in line with her own ideological preferences; the ideological payoff is 0 when the final decision goes against her preferences. As above, it will cost the district judge W to write an opinion rejecting the magistrate judge's R&R, and the district judge suffers a cost, R , when her decision is reversed by the court of appeals.

The court of appeals draws a benefit C from a final decision in an ideological case in line with its ideological preferences. The court of appeals suffers a cost H , where $C < H$, when it reverses a decision by the district judge that adopts the R&R of the magistrate judge.¹²¹ In other words, it will be prohibitively costly for the court of appeals to reach a decision when both lower judges have reached the opposite conclusion.

The summary judgment decision tree in ideological cases proceeds thus. First, the district judge decides (based on its decision in the referral allocation decision tree) whether or not to refer the motion to the magistrate judge. If she has chosen not to refer, then the district judge decides whether or not to decide the motion in alignment with her own preferences. After that, the court of appeals decides whether to affirm or reverse the district judge's decision.

If instead the district judge has chosen to refer, then Nature decides whether (with 50% likelihood) the magistrate judge issues a report and recommendation in line with the district judge's ideological preferences or against them. Either way, the district judge must then decide to accept or reject the magistrate judge's R&R, and then the court of appeals will affirm or reverse.

We now make the decision tree more tractable by reducing the relevant branches. We do so by noting that the court of appeals will always have a dominant strategy. First, if the district judge has not referred, then the court of appeals should always (whether that requires affirming or reversing the district judge's decision) rule in line with its ideological preferences: To do so provides a payoff of C , while not doing so produces a payoff of 0. Second, if the district judge has in fact referred, then the court of appeals should (i) follow the same strategy if the district judge rejects the magistrate judge's R&R but (ii) simply affirm if the district judge accepts the magistrate judge's R&R (since reversing will impose a

¹²⁰ The determination of τ requires combinatoric calculations. For example, consider a bench consisting of seven judges. There are ${}^7C_3 = \frac{7!}{3!4!} = \frac{(7)(6)(5)}{(3)(2)} = 35$. (This ignores the possibility of judges of judges from other courts sitting by designation.)

If none of the judges share ideological affinity with the district judge, then $\tau = 0$. But τ also equals 0 when there is one circuit judge who is of like ideological mind, for then there is no combination of three judges that features a panel majority sympathetic to the district judge's leanings.

Now say that two circuit judges share ideological alignment with the district judge. The only three-judge panels that will tend to agree with the district judge are those that include both of the judges with whom the district judge shares ideological affinity. Thus, the number of such panels equals $({}^2C_2)(5)$ (since there are five other judges on the court). That equals $(1)(5) = 5$. Then $\tau = \frac{5}{35} = \frac{1}{7}$.

Last, say that three of the court's complement are of like ideological mind. Now there is one panel that has all three of those judges on it. There are also $({}^3C_2)(4) = (3)(4) = 12$ panels where two of those judges constitute a majority, and thus are panels that are likely to side ideologically with the district judge. Thus, $\tau = \frac{1+12}{35} = \frac{13}{35}$.

More generally, if j represents the number of judges on the court of appeals and t the number of like-minded judges to the district judge, then $\tau = ({}^tC_3 + {}^tC_2(j-t)) / jC_3$.

¹²¹ Insofar as there is always some cost to the court of appeals in reversing, or even affirming, a lower court decision, one can think of H as the marginal cost of reversing when *both* judges below have reached the identical conclusion.

cost of H , and by assumption H outweighs the maximum possible ideological payoff, C , that the court of appeals could obtain by reversing).

To complete the decision tree, then, let's consider first the scenario where the district judge has not referred, and second the scenario where she has.

In an ideological case that the district judge does not refer on summary judgment, the district judge must rule on summary judgment with appeal then lying to the court of appeals. The district judge has the option of ruling on summary judgment—and thus deciding the case—(i) in accordance with the district judge's ideological preferences, or (ii) against the district judge's ideological preferences.

Let's start with the first possibility—where the district judge decides the case in accordance with her ideological preferences. With probability τ , the court of appeals will have congruent preferences. If that is true, then the court of appeals will derive utility I from affirming the district judge and utility 0 from reversing the district judge. Given that, the court of appeals will have a dominant strategy to affirm the district judge. Accordingly, the district judge will derive utility $-1 + I$.

Now with probability $1 - \tau$, the court of appeals will have preferences that are *not* congruent with those of the district judge. If that is true, then the court of appeals will derive utility 0 from affirming the district judge and utility I from reversing the district judge. Given that, the court of appeals will have a dominant strategy to reverse the district judge. Accordingly, the district judge will derive utility $-1 - R$.

In total then, the district judge's utility from deciding a case in accordance with her ideological preferences will be

$$\begin{aligned} EU_{DJ}(\text{deciding } SJ \text{ according to preferences} | \text{no referral}) &= \tau(-1 + I) + (1 - \tau)(-1 - R) \\ &= -1 - R + \tau(I + R) \end{aligned}$$

We consider next the second possibility—where the district judge decides the case *against* her ideological preferences. With probability τ , the court of appeals will have congruent preferences to the district judge, and thus will not be happy with the district judge's decision. The court of appeals thus will derive utility 0 from affirming the district judge and utility I from reversing the district judge. Given that, the court of appeals will have a dominant strategy to reverse the district judge. And, if the court of appeals reverses the district judge's decision, it will bring about an outcome to which the district judge is sympathetic—thus providing the district judge with a payoff of I —but also impose upon the district judge the costs R of reversal. Accordingly, the district judge will derive utility $-1 + I - R$.

Now with probability $1 - \tau$, the court of appeals will have preferences that are *not* congruent with those of the district judge. If that is true, then the court of appeals will derive utility I from affirming the district judge and utility 0 from reversing the district judge. Given that, the court of appeals will have a dominant strategy to affirm the district judge. Accordingly, the district judge will derive utility -1 .

In total then, the district judge's utility from deciding a case in accordance with her ideological preferences will be

$$\begin{aligned} EU_{DJ}(\text{deciding } SJ \text{ against preferences} | \text{no referral}) &= \tau(-1 + I - R) + (1 - \tau)(-1) \\ &= -1 + \tau(I - R) \end{aligned}$$

We now move to the scenario where the district judge has made a referral to the magistrate judge. If the district judge accepts the R&R of the magistrate judge, then the court of appeals will affirm that decision.¹²² That being the case, the district judge gains utility I by accepting the R&R of the magistrate

¹²² This is because, as I explained above, the cost of reversing such a decision, H , is larger (by assumption) than any benefit (including in particular I) that the court of appeals could gain by reversing.

judge that is in line with the district judge’s preferences, and utility 0 from accepting the R&R of the magistrate judge that is against the district judge’s preferences.

On the other hand, the court of appeals may choose to affirm or reverse the district judge’s decision to reject the magistrate judge’s R&R. Writing an opinion rejecting the magistrate judge’s R&R will cost the district judge W . Beyond that, if the district judge rejects the magistrate judge’s decision that was in line with the district judge’s personal preferences, then with probability τ the court of appeals will reverse (thus providing it with utility I) and with probability $1 - \tau$ the court of appeals will affirm (again providing it with utility I). A court of appeals reversal under these circumstances will provide the district judge with an outcome to which the district judge is sympathetic—thus providing the district judge with a payoff of I —but also impose upon the district judge the costs R of reversal. Accordingly, the district judge will derive utility $I - R$. At the same time, a court of appeals affirmance will provide the district judge with utility 0. All told, then, the district judge’s utility from rejecting the magistrate judge’s R&R that is in line with the district judge’s personal ideological preference will be

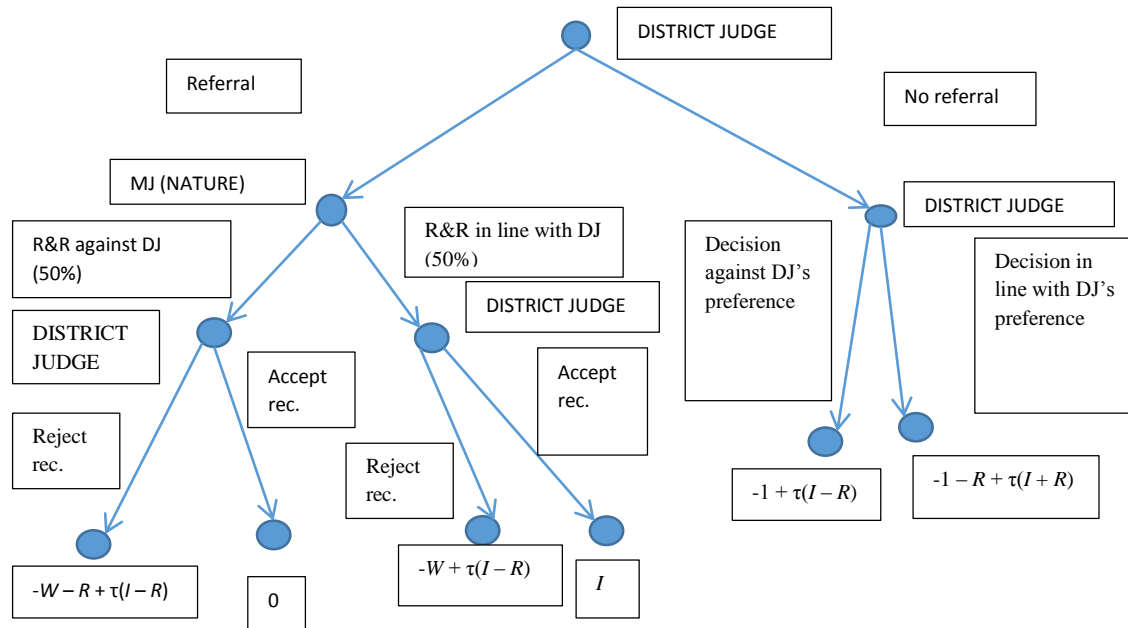
$$EU_{DJ}(\text{rejecting MJ's recommendation}|\text{recommendation in line with DJ's preferences}) = -W + \tau(I - R) + (1 - \tau)(0) = -W + \tau(I - R)$$

On the other hand, if the district judge *rejects* the R&R, then with probability τ the court of appeals will have preferences in line with the district judge and affirm the district judge’s decision. That will provide the district judge with a benefit of I (from an ideologically desirable final decision) but also cost the district judge W in effort: $-W + I$. And, with probability $1 - \tau$, the court of appeals—having preferences opposed to the district judge—will reverse the district judge’s decision, imposing on the district judge a cost R beyond the cost W of drafting the opinion: $-W - R$. Thus, the district judge’s utility from *rejecting* the R&R of the magistrate judge that goes against the district judge’s preferences will be

$$EU_{DJ}(\text{rejecting MJ's recommendation}|\text{recommendation against DJ's preferences}) = -W + \tau(I) + (1 - \tau)(-R) = -W - R + \tau(I + R)$$

Figure 3 presents the decision tree for summary judgment decision in ideological cases.

FIGURE 3: Decision tree for summary judgment in ideological cases.



Having constructed the decision tree, we next need to identify the district judge's optimal strategy when the district judge has made a referral, and when she has not made a referral. After that, we will be in a position to derive the benefit (if any) that the district judge gains from making a referral.

(1) Optional Decision Strategy: *No Referral*

A little algebra confirms the intuition that, absent a referral to the magistrate judge, the district judge should decide summary judgment motions in ideological cases in line with her own preferences if $\tau > \frac{1}{2}$, and against her own preferences if $\tau < \frac{1}{2}$.

Lemma 1: If the district judge has made no referral of the summary judgment motion in an ideological case to the magistrate judge, then she ought to decide the motion in line with her own preferences if $\tau > \frac{1}{2}$, and against her own preferences if $\tau < \frac{1}{2}$.

The proof is in the Appendix.

(2) Optional Decision Strategy: *Referral*

We consider first what the district judge should do when the magistrate judge provides (as he will with 50% probability) a report and recommendation in line with the district judge's ideological preferences. If the district judge affirms, she will receive a payoff of I . In contrast, the district judge's utility the district judge's utility from rejecting the magistrate judge's R&R that is in line with the district judge's personal ideological preference is

$$EU_{DJ}(\text{rejecting MJ's recommendation} | \text{recommendation in line with DJ's preferences}) = -W + \tau(I - R)$$

Since (by assumption) $R > I$, the latter utility will be negative, and in particular will be less than the district judge's (positive) utility from accepting the magistrate judge's R&R under these circumstances (with payoff of I). Accordingly, the district judge's dominant strategy is to accept the magistrate judge's R&R when that R&R is in line with her (the district judge's) personal ideological preferences. The intuition here is that accepting the magistrate judge's R&R "locks in" the court of appeals (regardless of the preferences of the panel of the court of appeals), so if the R&R is in line with the district judge's preferences the district judge ought simply to accept that R&R. We thus arrive at Lemma 2.

Lemma 2: When the magistrate judge issues a report and recommendation on summary judgment in an ideological case in line with the district judge's ideological preferences, the district judge's dominant strategy is to accept that R&R.

The proof lies just above.

Now consider the district judge's optimal strategy when the magistrate judge issues a report and recommendation that goes against the district judge's ideological leaning.

Lemma 3: When the magistrate judge issues a report and recommendation on summary judgment in an ideological case that goes against the district judge's ideological preferences, the district judge should reject that R&R only when

$$\tau > \frac{R + W}{R + I}$$

Otherwise, the district judge should accept that R&R.

The proof is in the Appendix.

Let us pause and make a few observations about the small likelihood that τ will indeed be greater than $\frac{R+W}{R+I}$. First, at an absolute minimum, $\frac{R+W}{R+I} > \frac{1}{2}$,¹²³ thus, if $\tau < \frac{1}{2}$, then the district judge should accept all R&Rs. Second, if $W > I$, then $\frac{R+W}{R+I}$ will be greater than 1, and therefore necessarily larger than τ . Third, even if $I > W$, still $\frac{R+W}{R+I}$ will be close to 1 if—as may often be the case if indeed fear of reversal by the court of appeals is the district judge’s primary concern—the costs of reversal far outweigh the other parameters, i.e., R is much larger than either W or I .¹²⁴

What is the intuition behind Lemma 3? It is easy to see why, in the typical case, i.e., where $\tau < \frac{R+W}{R+I}$, the district judge should simply accept a report and recommendation that goes against her ideological wishes: Where τ is not very large, the district judge will realize that, while rejecting such a report and recommendation will allow her to rule as she would prefer, it will also open up a sizeable risk (more sizeable for lower values of τ) that the court of appeals will reverse her, thus leaving her with no ideological benefit *and* a reversal cost.

In contrast, for very large τ , the district judge can be reasonably certain that (since the court of appeals preferences are substantially the same as her own) that the court of appeals will affirm the district judge’s ruling, thus leaving her with an ideological benefit (and no reversal cost)—provided that the cost to the district judge to reject the magistrate judge’s R&R (W) is not excessive.

(3) Determining the Benefits of Referral

At this point, we know that (i) if the district judge chooses not to refer, then she will decide the case along the line of her preferences if $\tau > \frac{1}{2}$ and decide the case against her preferences if $\tau < \frac{1}{2}$, and (ii) if the district judge does choose to refer, then she will simply accept the magistrate judge’s R&R in all cases if $W > I$ or if $W < I$ and $\tau < \frac{R+W}{R+I}$; and if instead $W < I$ and $\tau > \frac{R+W}{R+I}$, then the district judge will accept all R&Rs in line with her preferences and reject all R&Rs against them.

¹²³ It is not hard to see that $\frac{1}{2}$ is an extreme lower limit for τ if the condition is met. Solving for R , we obtain

$$\begin{aligned}\tau(R + I) &> R + W \\ \tau I - W &> R(1 - \tau) \\ \frac{\tau I - W}{1 - \tau} &> R \\ \left(\frac{\tau}{1 - \tau}\right)I - \frac{W}{1 - \tau} &> R\end{aligned}$$

Note that the left-hand side of this inequality consists of one (positive) term less another (positive) negative term; the right-hand-side is positive. At an absolute minimum, then, $\left(\frac{\tau}{1 - \tau}\right)I$ must be greater than R . But, $I < R$; thus, for it to be true that $\left(\frac{\tau}{1 - \tau}\right)I > R$, it must be that $\frac{\tau}{1 - \tau} > 1$, i.e., that $\tau > \frac{1}{2}$. In actuality, τ will have to be considerably greater.

¹²⁴ Note that $\lim_{R \rightarrow \infty} \frac{R+W}{R+I} \rightarrow 1$.

It remains to figure out what benefit referrals offer, i.e., to discover whether district judge obtains a larger utility from referring or not referring. To perform this task thoroughly, it is helpful to identify four possible scenarios:

- Scenario I: $\tau < \frac{1}{2}$. Here, the district judge decides against her interest if there's no referral, and (since the fact that $\tau < \frac{1}{2}$ means that $\tau < \frac{R+W}{R+I}$ ¹²⁵) accepts all R&Rs if she refers.
- Scenario II: $W > I$ and $\tau > \frac{1}{2}$. Here, the district judge decides in accordance with her interest if there's no referral, and accepts all R&Rs if she refers.
- Scenario III: $W < I$ and $\frac{1}{2} < \tau < \frac{R+W}{R+I}$. Here, again, the district judge decides in accordance with her interest if there's no referral, and accepts all R&Rs if she refers.
- Scenario IV: $W < I$ and $\tau > \frac{R+W}{R+I}$. Here, the district judge decides in accordance with her interest if there's no referral, accepts all R&Rs in line with her preferences, and rejects all R&Rs against her preferences.

I consider each scenario in turn.

Scenario I: $\tau < \frac{1}{2}$.

We'd expect the district judge to prefer to refer here. Referring provides her with her preferred outcome in 50% of the cases with no reversal costs; this is much better than she fares by not referring. This intuition is captured in the following Proposition.

Proposition 1: Under Scenario I—where $\tau < \frac{1}{2}$ —there will be a positive benefit of $1 + I\left(\frac{1}{2} - \tau\right) + R\tau$ when the district judge chooses to refer the summary judgment motion in the ideological case to the magistrate judge.

The proof is in the Appendix. Proposition 1 indicates that it is *always* in the district judge's interest to refer summary judgment motions in ideological cases to the magistrate judge when $\tau < \frac{1}{2}$.

Scenario II: $W > I$ and $\tau > \frac{1}{2}$.

Proposition 2: Under Scenario II—where $W > I$ and $\tau > \frac{1}{2}$ —there will be a positive benefit of $1 + I\left(\frac{1}{2} - \tau\right) + R\tau$ when the district judge chooses to refer the summary judgment motion in the ideological case to the magistrate judge, provided that $\tau < \frac{2R+I+2}{2R+2I}$. If on the other hand, $\tau > \frac{2R+I+2}{2R+2I}$, then referral offers no positive benefit.

The proof is in the Appendix.

Corollary 2.1: $\frac{2R+I+2}{2R+2I} > \frac{3}{4}$.

The proof is in the Appendix.

Corollary 2.2: $\frac{2R+I+2}{2R+2I}$ approaches 1 as R gets larger relative to I .

Proof: It is clear that $\lim_{R \rightarrow \infty} \frac{2R+I+2}{2R+2I} = 1$.

Q.E.D.

¹²⁵ See *supra* note 10.

Corollary 2.3: If $I < 2$, then $\frac{2R+I+2}{2R+2I} > 1$.

Proof: If $I < 2$, then $2I < I + 2$, meaning that the numerator of $\frac{2R+I+2}{2R+2I}$ is greater than the denominator.

Q.E.D.

Thus, we conclude that, if

$$\tau > \frac{2R + I + 2}{2R + 2I}$$

then the district judge will not refer and decide cases on her own, and specifically in accordance with her own preferences (which likely align with those of the court of appeals). The intuition here is that, if the district judge believes that the court of appeals is quite likely to agree with her (quite likely, meaning in excess of at least $\frac{3}{4}$ of the time), then it behooves her simply to decide cases as she sees fit and not to rely on the magistrate judge deciding in her favor 50% of the time. On the other hand, if τ is larger than $\frac{1}{2}$ but not that large—i.e., less than $\frac{2R+I+2}{2R+2I}$ —then the risk of reversal looms large enough to dissuade the district judge from deciding cases on her own; she instead will opt to shield outcomes against reversal by relying on the magistrate judge’s R&Rs. Finally, if ideological considerations are especially small for the district judge ($I < 2$), then the district judge will (not surprisingly) simply refer all summary judgment motions in ideological cases to the magistrate judge.

Corollary 2.4: To the extent that it is in the interest of the district judge to refer a summary judgment motion to the magistrate under Scenario II—i.e., the extent that $\frac{2R+I+2}{2R+2I} > \tau$ —then the benefit gained from making the referral is $1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$.

The proof is in the Appendix.

Note that, as compared to Scenario I, the ideological term is now negative, since the decision not to refer imposes some ideological cost under Scenario II (since $\tau > \frac{1}{2}$). That cost is offset by the reduction in reversal costs. In short, there is a positive benefit, but it will not necessarily be very positive.

$$\text{Scenario III: } W < I \text{ and } \frac{1}{2} < \tau < \frac{R+W}{R+I}.$$

This Scenario is very similar to Scenario II in terms of the district judge’s optimal play: The district judge decides in accordance with her preferences if there’s no referral, and accepts all R&Rs if she refers. The only question is whether the district judge will in fact refer or not refer. We know from Scenario II that the district judge’s incentives flip when τ reaches $\frac{2R+I+2}{2R+2I}$. Thus, the question under Scenario III is whether $\frac{R+W}{R+I}$ is greater than $\frac{2R+I+2}{2R+2I}$. If $\frac{R+W}{R+I} < \frac{2R+I+2}{2R+2I}$, then τ will never be large enough to flip the district judge’s incentives. If on the other hand $\frac{2R+I+2}{2R+2I} < \frac{R+W}{R+I}$, then τ can be larger than $\frac{2R+I+2}{2R+2I}$, meaning that the district judge will sometimes have an incentive to refer to the magistrate judge under Scenario III.

Proposition 3: Under Scenario III,

- If $I > 2W - 2$, then the district judge will always refer all summary judgment motions to the magistrate judge.
- If $I < 2W - 2$, then the district judge will refer all summary judgment motions to the magistrate judge, provided that $\tau < \frac{2R+I+2}{2R+2I}$. If on the other hand, $\tau > \frac{2R+I+2}{2R+2I}$, then referral offers no positive benefit.

The proof is in the Appendix.

Corollary 3.1: If under Scenario III it is in the district judge’s interest to refer summary judgment motions to the magistrate judge—i.e., *either* (i) $I > 2W - 2$ or (ii) $I < 2W - 2$ and $\tau < \frac{2R+I+2}{2R+2I}$ —then the benefit accruing to the district judge from referring equals $1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$.

Corollary 3.1 simply concludes (not surprisingly) that, to the extent that referring is an optimal strategy for the district judge under Scenario III, the benefit the district judge enjoys will be exactly the same as under Scenario II. The proof is identical the proof of Corollary 2.4.

$$\text{Scenario IV: } W < I \text{ and } \tau > \frac{R+W}{R+I}.$$

Under Scenario IV, the district judge (i) decides in accordance with her interest if there’s no referral, (ii) accepts all R&Rs in line with her preferences, and (iii) rejects all R&Rs against her preferences.

Proposition 4: In Scenario 4, the district judge gains no benefit from referring summary judgment motions to the magistrate judge, and accordingly will not make any referrals.

The proof is in the Appendix. The intuition behind this finding is logical: In Scenario IV, τ is large enough that the district judge’s optimal strategy, if she has referred summary judgment to the magistrate judge and the magistrate judge has returned a report and recommendation against the district judge’s (and probably therefore also the court of appeals’) preferences, is to reject the R&R. However, if τ is that large, then the district judge in the end will still do better by not referring in the first place: This is because the district judge picks up only a small improvement in the number of favorable outcomes by locking in the magistrate judge’s R&R via the referral path, while the workload benefit in the 50% of cases that return a favorable R&R are outweighed by the workload costs in the other 50% of the cases (since $W > 1$).

Table 3 summarizes the various scenarios, whether (and if so when) referral is an optimal strategy under each scenario, and the benefit obtained when referral is an optimal strategy. Figures 4 and 5 depict the relationship between τ and the district judge’s propensity to make referrals in ideological cases.

TABLE 3: Scenarios for determining whether or not the district judge will refer summary judgment in ideological cases.

Scenario	Assumptions	Is there any benefit from referring?	Benefit from referring:
I	$\tau < \frac{1}{2}$	Yes	$1 + I\left(\frac{1}{2} - \tau\right) + R\tau$
II	$W > I,$ $\tau > \frac{1}{2}$	$\tau < \frac{2R+I+2}{2R+2I}$	$1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$
		$\frac{2R+I+2}{2R+2I} < \tau$	--
III	$W < I, \frac{1}{2} < \tau < \frac{R+W}{R+I}$	$\tau < \frac{2R+I+2}{2R+2I}$ or $I > 2W - 2$	$1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$
		$I < 2W - 2$ and $\frac{2R+I+2}{2R+2I} < \tau$	--
IV	$W < I$ and $\tau > \frac{R+W}{R+I}$	No	--

FIGURE 4: Relationship between τ and the benefit from referring when $I < W$, or where $W < I < 2W - 2$.

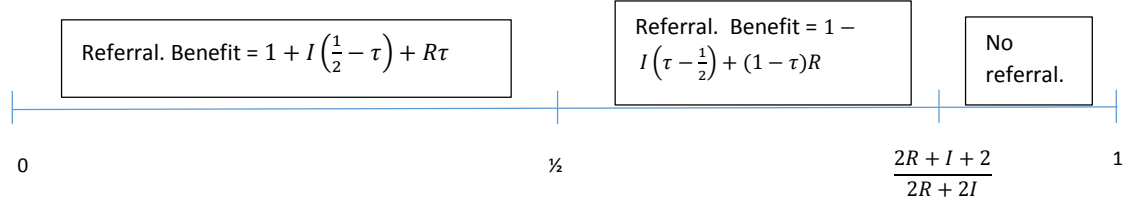
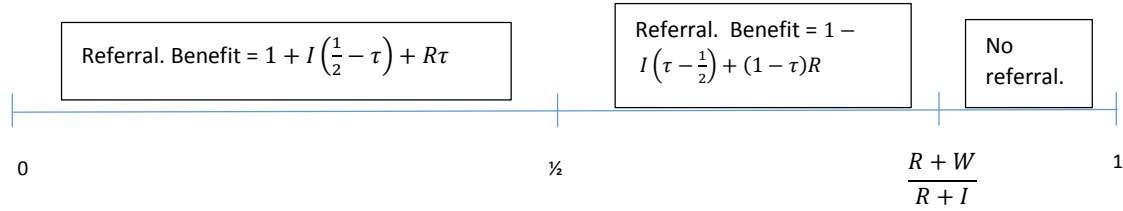


FIGURE 5: Relationship between τ and the benefit from referring when $2W - 2 < I$.



B. Solving the Referral Allocation Decision Tree

In order to determine how—and to what extent—the district judge will use her allocation of possible referrals., we have to (i) determine which decision trees offer a positive benefit from referral and which do not, and (ii) among those trees that do provide a positive benefit, rank the benefits so that we can determine the order in which the district judge will deploy referrals.

Proposition 5: Even if the district judge has referral freedom available, she will *not* refer a summary judgment motion in an ideological case (and thus may leave resources on the table) in any of the following settings:

- Where $I < W$ and $\frac{2R+I+2}{2R+2I} < \tau$.
- Where $W < I$ and $\tau > \min(\frac{2R+I+2}{2R+2I}, \frac{R+W}{R+I})$.

Proof: It was shown above that these settings offer no positive benefit from referrals.

Q.E.D.

Note that, in these circumstances, the district judge may wind up leaving allocation resources on the table.

Proposition 6: Referral of summary judgment in non-ideological cases offers a greater benefit than does referral of discovery supervision.

Proof: We have seen that $B(\text{discovery supervision}) = 1$, and $B(\text{SJ in non-ideological cases}) = 1 + R\eta$. Since by assumption $\eta > 0$, $B(\text{SJ in non-ideological cases}) > B(\text{discovery supervision})$.

Q.E.D.

Proposition 7: Referral of summary judgment in ideological cases where $\tau < \frac{2R+I}{2R+2I}$ offers a greater benefit than does referral of discovery supervision.

The proof is in the Appendix.

Proposition 8: If $\tau > \frac{2R+I}{2R+2I}$ —such that referring summary judgment in ideological cases still provides a positive benefit, then referral of summary judgment in non-ideological cases provides the largest benefit, followed by referral of discovery supervision, and finally by referral of summary judgment in ideological cases.

The proof follows from what we have seen before. Note that, if $\tau > \frac{2R+I}{2R+2I}$, then the benefit from referral in ideological cases will be less than 1, and therefore of the least value.

We should expect the benefit from referring summary judgment in ideological cases to be at its maximum when $\tau = \frac{1}{2}$. When $\tau = \frac{1}{2}$, the district judge is entirely uncertain whether what the court of appeals will do. This makes the option of not referring a very dicey game. Thus, the certainty offered by the referral option provides the maximum gain. This notion is captured by the following Proposition.

Proposition 9: Referral of summary judgment in ideological cases will be at a maximum when $\tau = \frac{1}{2}$.

The proof is in the Appendix.

Proposition 10: If $\eta > \frac{1}{2}$, then referral of summary judgment in non-ideological cases will offer the maximum benefit.

The proof is in the Appendix.

C. Equilibrium Outcomes

With these propositions in place, we are in position to identify our equilibrium solutions

SETTING 1: Either $I < W$ and $\frac{2R+I+2}{2R+2I} < \tau$, or $W < I$ and $\tau > \min(\frac{2R+I+2}{2R+2I}, \frac{R+W}{R+I})$.

The district judge will refer summary judgment in non-ideological cases first, and then discovery supervision. She will not refer summary judgment in ideological cases.

- *If $r < (1 - \omega)n$, then the district judge refers r motions for summary judgment in non-ideological cases, chosen at random.*
- *If $r = (1 - \omega)n$, then the district judge refers all the motions for summary judgment in non-ideological cases.*
- *If $(1 - \omega)n < r < (1 - \omega)n + n$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, and (ii) discovery supervision in $r - (1 - \omega)n$ cases, chosen at random among the n cases.*
- *If $(1 - \omega)n + n \leq r$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, and (ii) discovery supervision in all cases. If r is strictly greater than $(1 - \omega)n + n$, then the remaining opportunities for referral go unused.*

SETTING 2: $\tau > \frac{2R+I}{2R+2I}$ (but we are not within Setting 1).

The district judge will refer summary judgment in non-ideological cases first, followed by discovery supervision, and then summary judgment in ideological cases.

- *If $r < (1 - \omega)n$, then the district judge refers r motions for summary judgment in non-ideological cases, chosen at random.*
- *If $r = (1 - \omega)n$, then the district judge refers all the motions for summary judgment in non-ideological cases.*

- If $(1 - \omega)n < r < (1 - \omega)n + n$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, and (ii) discovery supervision in $r - (1 - \omega)n$ cases, chosen at random among the n cases.
- If $(1 - \omega)n + n = r$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, and (ii) discovery supervision in all cases.
- If $(1 - \omega)n + n < r < 2n$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, (ii) discovery supervision in all cases, and (iii) motions for summary judgment in $r - (1 - \omega)n - n$ ideological cases, chosen at random.
- If $r = 2n$ —i.e., if there is no constraint on referrals—then the district judge refers (i) all the motions for summary judgment in non-ideological cases, (ii) discovery supervision in all cases, and (iii) all the motions for summary judgment in ideological cases.

SETTING 3: $\eta > \frac{1}{2}$ and $\tau < \frac{2R+I}{2R+2I}$.

The district judge will refer summary judgment in non-ideological cases first, followed by summary judgment in ideological cases, and then discovery supervision.

- If $r < (1 - \omega)n$, then the district judge refers r motions for summary judgment in non-ideological cases, chosen at random.
- If $r = (1 - \omega)n$, then the district judge refers all the motions for summary judgment in non-ideological cases.
- If $(1 - \omega)n < r < n$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, and (ii) motions for summary judgment in $r - (1 - \omega)n$ ideological cases, chosen at random.
- If $n = r$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, and (ii) all the motions for summary judgment in ideological cases.
- If $n < r < 2n$, then the district judge refers (i) all the motions for summary judgment in non-ideological cases, (ii) all the motions for summary judgment in ideological cases, and (iii) discovery supervision in $r - n$ cases, chosen at random.
- If $r = 2n$ —i.e., if there is no constraint on referrals—then the district judge refers (i) all the motions for summary judgment in non-ideological cases, (ii) all the motions for summary judgment in ideological cases, and (iii) discovery supervision in all cases.

SETTING 4: $\eta < \frac{1}{2}$, $\tau < \frac{2R+I}{2R+2I}$, and $B(\text{referral of SJ in non-ideological cases}) > B(\text{referral of SJ in ideological cases})$

The equilibrium strategy here is identical to the strategy under Setting 3.

SETTING 5: $\eta < \frac{1}{2}$, $\tau < \frac{2R+I}{2R+2I}$, and $B(\text{referral of SJ in non-ideological cases}) < B(\text{referral of SJ in ideological cases})$

The district judge will refer summary judgment in ideological cases first, followed by summary judgment in non-ideological cases, and then discovery supervision.

- If $r < \omega n$, then the district judge refers r motions for summary judgment in ideological cases, chosen at random.
- If $r = \omega n$, then the district judge refers all the motions for summary judgment in ideological cases.
- If $\omega n < r < n$, then the district judge refers (i) all the motions for summary judgment in ideological cases, and (ii) motions for summary judgment in $r - \omega n$ non-ideological cases, chosen at random.

- If $n = r$, then the district judge refers (i) all the motions for summary judgment in ideological cases, and (ii) all the motions for summary judgment in non-ideological cases.
- If $n < r < 2n$, then the district judge refers (i) all the motions for summary judgment in ideological cases, (ii) all the motions for summary judgment in non-ideological cases, and (iii) discovery supervision in $r - n$ cases, chosen at random.
- If $r = 2n$ —i.e., if there is no constraint on referrals—then the district judge refers (i) all the motions for summary judgment in ideological cases, (ii) all the motions for summary judgment in non-ideological cases, and (iii) discovery supervision in all cases.

A few points are worthy of note. First, the determination of which setting is applicable will often turn in large measure on the value of τ . Note that, even when Presidents of a single party have held the White House for an extended period of time, practically τ is unlikely to get very high or very low for any particular district judge; this is because it generally takes a long time for Presidents to be able to staff circuit courts with all their own nominees. It thus may be that Setting 1 occurs rarely.

Second, the determination between Settings IV and V will turn upon whether the payoff from referring summary judgment in ideological cases outweighs the payoff from referring summary judgment in non-ideological cases. That determination will largely turn on the values of τ and η . In that regard, consider that (per Proposition 9) the payoff from referring summary judgment in ideological cases is maximized when $\tau = \frac{1}{2}$. We may see this point more clearly by the realistically believable case where $R = 2I$, i.e., where $I = R/2$. Then

$$B(\text{referring SJ in ideological case} \mid \tau < \frac{1}{2}) = 1 + \frac{R}{2}(\frac{1}{2} - \tau) + R\tau = 1 + \frac{R}{4} + \frac{R\tau}{2}$$

and so that benefit equals the benefit of referring summary judgment in non-ideological cases when

$$1 + \frac{R}{4} + \frac{R\tau}{2} = 1 + R\eta$$

or when

$$\eta = \frac{1}{2}\tau + \frac{1}{4}$$

Also,

$$\begin{aligned} B(\text{referring SJ in ideological case} \mid \tau > \frac{1}{2}) &= 1 - I(\tau - \frac{1}{2}) + (1 - \tau)R \\ &= 1 - \frac{R}{2}(\tau - \frac{1}{2}) + (1 - \tau)R \end{aligned}$$

and so that benefit equals the benefit of referring summary judgment in non-ideological cases when

$$1 - \frac{R}{2}(\tau - \frac{1}{2}) + (1 - \tau)R = 1 + R\eta$$

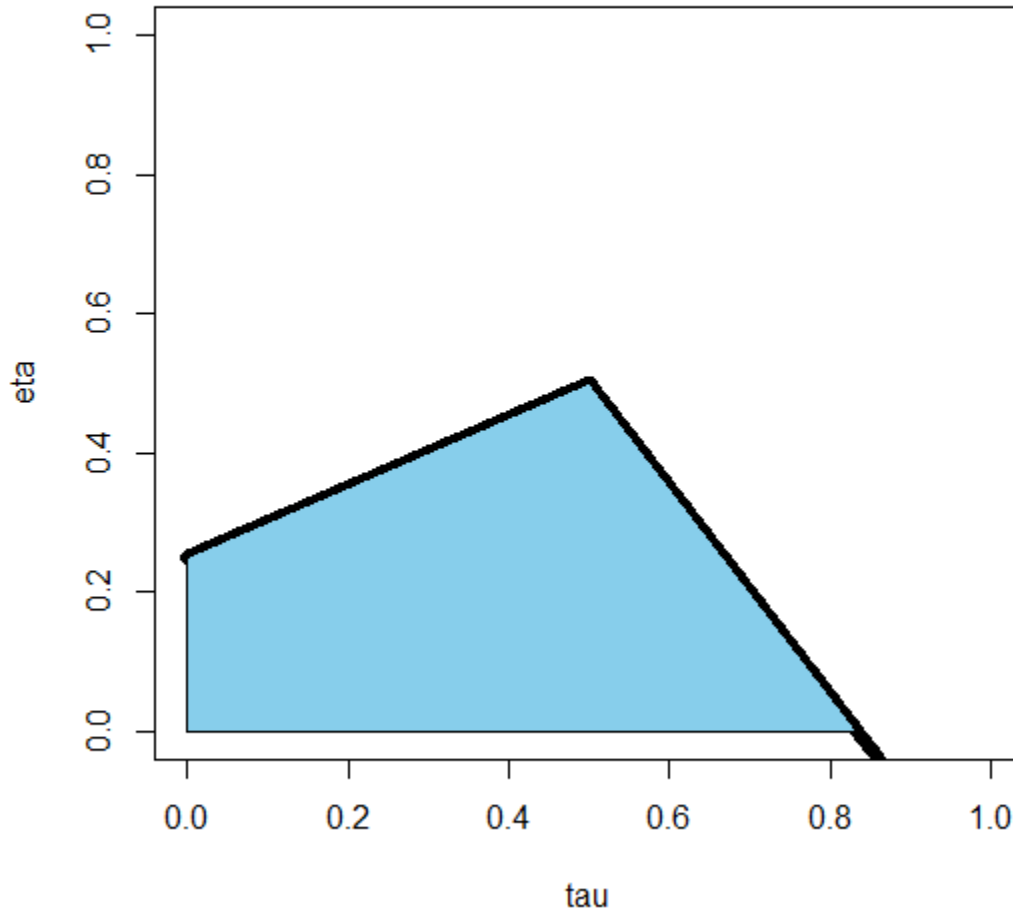
or when

$$\eta = -\left(\frac{3}{2}\right)\tau + \frac{5}{4}$$

Figure 6 depicts this relationship graphically. The black border is where the benefit of referring summary judgment in ideological cases precisely equals the benefit of referring summary judgment in non-ideological cases. The blue shaded area corresponds to values of τ and η where the benefit from referring in ideological cases is greater; the reverse is true in the unshaded area. Note that—as predicted

by Proposition 9—the benefit from referring summary judgment in ideological cases reaches its maximum when $\tau = \frac{1}{2}$. Note further that—as predicted by Proposition 10—once η exceeds $\frac{1}{2}$, the benefit of referring summary judgment in non-ideological cases is always greater. Finally, note that, for very large values of τ ($\tau > \frac{5}{6}$), the benefit of referring summary judgment in non-ideological cases is greater no matter what the value of η ; this is because the benefit from referring summary judgment in ideological cases has dropped below 1.

FIGURE 6: Relationship between the benefits of referring summary judgment in ideological and non-ideological cases as a function of τ (the likelihood that the district judge’s ideological preferences match those of the court of appeals panel) and η (the extent to which the district court is likely absent referral to a magistrate judge to render a summary judgment decision in a non-ideological that the court of appeals will reverse), under the assumption that $R = 2I$.



D. Observable Implications

The equilibria above suggest some interesting comparative statics that should lend themselves to fruitful future research. Consider that, on any district court with Democratic and Republican appointees, the Democratic appointees should have a value for τ that is very different from—indeed the opposite of—the value of τ held by the Republican appointees. If the theory here is correct, then one ought to see some differences in referral practices between Democratic and Republican appointees.

Moreover, consider that the value of τ for any given district judge may shift over time as the composition of the circuit court changes. In those cases, the theory predicts that one should see the change in τ over time reflected in changes in referral practices by the district judge over time. Again, this is a testable hypothesis.

IV. CONCLUSION

This paper has argued that district judges have strong incentives to look to merit in appointing magistrate judges. It then has used that conclusion to construct decision tree models of district judges' choices to refer, or not to refer, matters to magistrate judges.

APPENDIX – PROOF OF MATHEMATICAL PROPOSITIONS

Lemma 1: If the district judge has made no referral of the summary judgment motion in an ideological case to the magistrate judge, then she ought to decide the motion in line with her own preferences if $\tau > \frac{1}{2}$, and against her own preferences if $\tau < \frac{1}{2}$.

Proof: We know that the district judge's utility from deciding a case in accordance with her ideological preferences will be

$$EU_{DJ}(\text{deciding SJ according to preferences|no referral}) = -1 - R + \tau(I + R)$$

We also know that the district judge's utility from deciding a case in accordance with her ideological preferences will be

$$EU_{DJ}(\text{deciding SJ against preferences|no referral}) = -1 + \tau(I - R)$$

Knowing this, the district judge will choose to decide a case according to her own preferences (assuming that she makes no referral to the magistrate judge) if and only if

$$\begin{aligned} EU_{DJ}(\text{deciding SJ according to preferences|no referral}) \\ > EU_{DJ}(\text{deciding SJ against preferences|no referral}) \end{aligned}$$

that is, if and only if

$$-1 - R + \tau(I + R) > -1 + \tau(I - R)$$

$$-R + I\tau + R\tau > I\tau - R\tau$$

$$2R\tau > R$$

$$\tau > \frac{1}{2}$$

In contrast, the district judge will decide summary judgment against her own preferences if and only if $\tau < \frac{1}{2}$.

Q.E.D.

Lemma 3: When the magistrate judge issues a report and recommendation on summary judgment in an ideological case that goes against the district judge's ideological preferences, the district judge should reject that R&R only when

$$\tau > \frac{R + W}{R + I}$$

Otherwise, the district judge should accept that R&R.

Proof: Recall from above that accepting that R&R will result in a court of appeals affirmance, and a consequent payoff of 0 to the district judge. On the other hand, the district judge's utility from *rejecting* the R&R of the magistrate judge that goes against the district judge's preferences is

$$EU_{DJ}(\text{rejecting MJ's R&R|recommendation against DJ's preferences}) = -W - R + \tau(I + R)$$

The district judge thus will reject the magistrate judge's R&R under these circumstances if and only if

$$-W - R + \tau(I + R) > 0$$

i.e., if and only if

$$\tau > \frac{R + W}{R + I}$$

Q.E.D.

Proposition 1: Under Scenario I—where $\tau < \frac{1}{2}$ —there will be a positive benefit of $1 + I\left(\frac{1}{2} - \tau\right) + R\tau$ when the district judge chooses to refer the summary judgment motion in the ideological case to the magistrate judge.

Proof: The relevant utilities are:

$$EU_{DJ}(\text{no referral} | \tau < \frac{1}{2}) = -1 + \tau(I - R)$$

$$EU_{DJ}(\text{referral} | \tau < \frac{1}{2}) = \frac{1}{2}(I) + \frac{1}{2}(0) = \frac{I}{2}$$

We verify that

$$EU_{DJ}(\text{referral} | \tau < \frac{1}{2}) > EU_{DJ}(\text{no referral} | \tau < \frac{1}{2})$$

$$\frac{I}{2} > -1 + \tau(I - R)$$

$$\frac{I + 2}{2} > \tau(I - R)$$

$$\frac{I + 2}{2I - 2R} > \tau$$

But $I + 2 > I$ and $2I - 2R < 2I$, and so $\frac{I+2}{2I-2R} > \frac{1}{2}$. But then, since $\frac{1}{2} > \tau$ by assumption, we conclude that the district judge's dominant strategy is (if resources allow) indeed to refer all ideological matters to the magistrate judge if $\frac{1}{2} > \tau$.

Now

$$\begin{aligned} B(\text{referral of SJ in an ideological case where } \tau < \frac{1}{2}) &= \frac{I}{2} - [-1 + \tau(I - R)] \\ &= 1 + I\left(\frac{1}{2} - \tau\right) + R\tau \end{aligned}$$

Q.E.D.

Proposition 2: Under Scenario II—where $W > I$ and $\tau > \frac{1}{2}$ —there will be a positive benefit of $1 + I\left(\frac{1}{2} - \tau\right) + R\tau$ when the district judge chooses to refer the summary judgment motion in the ideological case to the magistrate judge, provided that $\tau < \frac{2R+I+2}{2R+2I}$. If on the other hand, $\tau > \frac{2R+I+2}{2R+2I}$, then referral offers no positive benefit.

Proof: Since $\tau > \frac{1}{2}$, the district judge will, if she does not refer to the magistrate judge, decide the case according to her own preferences and receive

$$EU_{DJ}(\text{no referral} | \tau > \frac{1}{2}) = -1 - R + \tau(I + R)$$

On the other hand, if the district judge refers matters to the magistrate judge, then—since $W > I$ —she will always accept the magistrate judge's R&R and thus (as under Scenario I) will receive

$$EU_{DJ}(\text{referral}|\text{Scenario II}) = \frac{1}{2}(I) + \frac{1}{2}(0) = \frac{I}{2}$$

The district judge will thus refer only if

$$EU_{DJ}(\text{no referral}|\tau > \frac{1}{2}) < EU_{DJ}(\text{referral}|\tau > \frac{1}{2})$$

$$-1 - R + \tau(I + R) < \frac{I}{2}$$

$$\tau < \frac{R + \frac{I}{2} + 1}{R + I}$$

$$\tau < \frac{2R + I + 2}{2R + 2I}$$

In contrast, if

$$\tau > \frac{2R + I + 2}{2R + 2I}$$

then the district judge will not refer and instead will prefer to decide ideological cases on her own.

Q.E.D.

Corollary 2.1: $\frac{2R+I+2}{2R+2I} > \frac{3}{4}$.

Proof: Note first that $\frac{3R+2}{4R} > \frac{3}{4}$ for any positive value of R . Thus, we will have proven the Lemma if we can confirm that $\frac{2R+I+2}{2R+2I} > \frac{3R+2}{4R}$.

$$\frac{2R + I + 2}{2R + 2I} > \frac{3R + 2}{4R}$$

$$8R^2 + 4IR + 8R > 6R^2 + 6IR + 4R + 8I$$

$$2R^2 + 4R > 2IR + 8I$$

$$2R(R + 4) > 2I(R + 4)$$

$$R > I$$

Thus, since $\frac{2R+I+2}{2R+2I} > \frac{3R+2}{4R}$ and $\frac{3R+2}{4R} > \frac{3}{4}$, $\frac{2R+I+2}{2R+2I} > \frac{3}{4}$.

Q.E.D.

Corollary 2.4: To the extent that it is in the interest of the district judge to refer a summary judgment motion to the magistrate under Scenario II—i.e., the extent that $\frac{2R+I+2}{2R+2I} > \tau$ —then the benefit gained from making the referral is $1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$.

Proof: The utility from referring under Scenario II is identical to that under Scenario I (since the district judge accepts all R&Rs from the magistrate judge):

$$EU_{DJ}(\text{referral}|\text{Scenario II}) = \frac{1}{2}(I) + \frac{1}{2}(0) = \frac{I}{2}$$

The utility from not making a referral is:

$$EU_{DJ}(\text{no referral}|\text{Scenario II}) = -1 + \tau I - (1 - \tau)R$$

Thus the benefit from referring is

$$B(\text{Scenario II}) = \frac{I}{2} - [-1 + \tau I - (1 - \tau)R] = 1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$$

Q.E.D.

Proposition 3: Under Scenario III,

- If $I > 2W - 2$, then the district judge will always refer all summary judgment motions to the magistrate judge.
- If $I < 2W - 2$, then the district judge will refer all summary judgment motions to the magistrate judge, provided that $\tau < \frac{2R+I+2}{2R+2I}$. If on the other hand, $\tau > \frac{2R+I+2}{2R+2I}$, then referral offers no positive benefit.

Proof: Under Scenario III, the district judge decides in accordance with her preferences if there's no referral, and accepts all R&Rs if she refers. The only question is whether the district judge will in fact refer or not refer. We know from Scenario II that the district judge's incentives flip when τ reaches $\frac{2R+I+2}{2R+2I}$. Thus, the question under Scenario III is whether $\frac{R+W}{R+I}$ is greater than $\frac{2R+I+2}{2R+2I}$. If $\frac{R+W}{R+I} < \frac{2R+I+2}{2R+2I}$, then τ will never be large enough to flip the district judge's incentives.

Thus, only if $\frac{2R+I+2}{2R+2I} < \frac{R+W}{R+I}$ can τ can be larger than $\frac{2R+I+2}{2R+2I}$ (with the result that the district judge will have sometimes have an incentive to refer to the magistrate judge under Scenario III). This can only happen where

$$\frac{2R + I + 2}{2R + 2I} < \frac{R + W}{R + I}$$

$$\frac{2R + I + 2}{2(R + I)} < \frac{R + W}{R + I}$$

$$\frac{2R + I + 2}{2} < R + W$$

$$2R + I + 2 < 2R + 2W$$

$$I + 2 < 2W$$

$$I < 2W - 2$$

Q.E.D.

Proposition 4: In Scenario IV, the district judge gains no benefit from referring summary judgment motions to the magistrate judge, and accordingly will not make any referrals.

Proof: Since $\tau > \frac{1}{2}$, the district judge will, if she does not refer to the magistrate judge, decide the case according to her own preferences and receive

$$EU_{DJ}(\text{no referral}|\text{Scenario IV}) = -1 - R + \tau(I + R)$$

The utility from referring includes settings where the district judge accepts, or rejects, the magistrate judge's R&R, depending upon the ideological valence of that R&R:

$$EU_{DJ}(\text{referral}|\text{scenario IV}) = \frac{1}{2}(I) + \frac{1}{2}(-W + \tau I - (1 + \tau)R) = \frac{(I - R)(1 + \tau) - W}{2}$$

Thus, there will be a positive benefit from referral only where

$$\begin{aligned} \frac{(I - R)(1 + \tau) - W}{2} &> -1 - R + \tau(I + R) \\ I - R + \tau I - \tau R - W &> -2 - 2R + 2\tau I + 2\tau R \\ 2 + I + R - W &> \tau I + 3\tau R \\ \frac{2 + I + R - W}{I + 3R} &> \tau \end{aligned}$$

There is thus an upper cap on τ . At the same time, however, by assumption (since we are under Scenario IV) $\tau > \frac{R+W}{R+I}$. Thus, for referral to provide a benefit, it must be that

$$\begin{aligned} \frac{2 + I + R - W}{I + 3R} &> \frac{R + W}{R + I} \\ 2R + IR + R^2 - RW + 2I + I^2 + IR - IW &> IR + IW + 3R^2 + 3RW \\ 2R + 2IR + R^2 - RW + 2I + I^2 - IW &> IR + IW + 3R^2 + 3RW \\ 2R + IR + 2I + I^2 &> 2IW + 2R^2 + 4RW \\ \frac{2R + IR + 2I + I^2 - 2R^2}{2I + 4R} &> W \end{aligned}$$

But now recall that (by assumption) $W > 1$. Thus, it must be that

$$\frac{2R + IR + 2I + I^2 - 2R^2}{2I + 4R} > 1$$

Let us solve for I when this inequality becomes an equality. (I will have to be even larger than that for the inequality to hold.)

$$\begin{aligned} \frac{2R + IR + 2I + I^2 - 2R^2}{2I + 4R} &= 1 \\ I^2 + IR + 2I + 2R - 2R^2 &= 2I + 4R \\ I^2 + IR - 2R - 2R^2 &= 0 \end{aligned}$$

Now, using the quadratic equation,

$$I = \frac{-R \pm \sqrt{R^2 - 4(-2R - 2R^2)}}{2}$$

We immediately dispense with the negative root: Since $-R$ is already negative, subtracting from that will yield a negative number, and by assumption I is positive. Thus, we are left with:

$$I = \frac{-R + \sqrt{9R^2 + 8R}}{2}$$

But we have also assumed that $R > I$. If that is so, then it must be that

$$R > \frac{-R + \sqrt{9R^2 + 8R}}{2}$$

$$2R > -R + \sqrt{9R^2 + 8R}$$

$$3R > \sqrt{9R^2 + 8R}$$

$$9R^2 > 9R^2 + 8R$$

$$0 > 8R$$

Since (by assumption) $R > 1$, this cannot be. Thus, since the minimum possible value for I does not satisfy the requirement that $R > I$, we have reached a contradiction. We conclude that there was no positive benefit from referring under Scenario IV in the first place.

Q.E.D.

Proposition 7: Referral of summary judgment in ideological cases where $\tau < \frac{2R+I}{2R+2I}$ offers a greater benefit than does referral of discovery supervision.

Proof: While $B(\text{discovery supervision}) = 1$, $B(\text{SJ in ideological cases} \mid \tau < \frac{1}{2}) = 1 + I\left(\frac{1}{2} - \tau\right) + R\tau$. Clearly, then $B(\text{discovery supervision}) < B(\text{SJ in ideological cases} \mid \tau < \frac{1}{2})$.

Now consider $\frac{1}{2} < \tau$. Here, the benefit of referral equals $1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R$. Thus, $B(\text{discovery supervision}) < B(\text{SJ in ideological cases} \mid \tau > \frac{1}{2})$ only where

$$1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R > 1$$

$$(1 - \tau)R > I\left(\tau - \frac{1}{2}\right)$$

$$R - R\tau > I\tau - \frac{I}{2}$$

$$R + \frac{I}{2} > \tau(R + I)$$

$$\frac{2R + I}{2R + 2I} > \tau$$

Thus, the benefit of referral still exceeds 1 where $\frac{1}{2} < \tau < \frac{2R+I}{2R+2I}$.

Q.E.D.

Proposition 9: Referral of summary judgment in ideological cases will be at a maximum when $\tau = \frac{1}{2}$.

Proof: First, note that

$$\frac{\partial B(\text{referral of SJ in ideological cases} \mid \tau < \frac{1}{2})}{\partial \tau} = \frac{\partial [1 + I\left(\frac{1}{2} - \tau\right) + R\tau]}{\partial \tau} = R - I$$

Since by assumption $R > I$, this means that the benefit of referring when $\tau < \frac{1}{2}$ is linear with positive slope; it has its maximum when $\tau = \frac{1}{2}$. That maximum is $1 + I\left(\frac{1}{2} - \frac{1}{2}\right) + R\left(\frac{1}{2}\right) = 1 + \frac{R}{2}$.

Next, note as well that

$$\frac{\partial B(\text{referral of SJ in ideological cases} | \tau > \frac{1}{2})}{\partial \tau} = \frac{\partial [1 - I\left(\tau - \frac{1}{2}\right) + (1 - \tau)R]}{\partial \tau} = -R - I$$

This means that the benefit of referring when $\tau > \frac{1}{2}$ is linear with negative slope; it has its maximum when $\tau = \frac{1}{2}$. That maximum is $1 - I\left(\frac{1}{2} - \frac{1}{2}\right) + \left(1 - \frac{1}{2}\right)R = 1 + \frac{R}{2}$.

Q.E.D.

Proposition 10: If $\eta > \frac{1}{2}$, then referral of summary judgment in non-ideological cases will offer the maximum benefit.

Proof: We know from Proposition 9 that referral of summary judgment in ideological cases provides a maximum benefit ($\tau = \frac{1}{2}$) of $1 + \frac{R}{2}$. But we also know that referral of summary judgment in non-ideological cases will yield $1 + \eta R$. Thus, if $\eta > \frac{1}{2}$, then the benefit of referring summary judgment in non-ideological cases outweighs the benefit of referring in ideological cases.

Q.E.D.