The Politics of the U.S. Federal Judiciary's Requests for Institutional Reform*

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Objectives. We ask whether the requests the federal judiciary makes to Congress are conditioned either on political factors or on its actual institutional needs. *Methods*. We build a new measure of the yearly well-being of the federal courts from 1978 through 2013 using factor analysis. We specify two formal models to generate testable hypotheses that help to untangle equilibria behavior resulting from competing claims on judicial preferences for court reforms. We test these claims using data from the chief justice's Year-End Reports on the Federal Judiciary. *Results*. We find that requests are *not* conditioned upon the courts' actual institutional needs but instead upon their ideological proximity to the Senate. *Conclusion*. We conclude that the federal judiciary views its own administration in a similarly political fashion as its elected counterparts.

Article III of the U.S. Constitution vests in the federal judiciary neither the power of "the purse nor sword," but "merely judgment."[1] Consequently, the Third Branch depends on the cooperation of the elected branches to enforce its decisions and provide its resources. The legislative branch maintains substantial influence over the fiscal appropriations to the judiciary as well as its organization and impact. Because interbranch relations are influenced by policy preferences (Clark, 2009; Gely and Spiller, 1990), it is to be expected that Congress assesses its decisions over judicial allocations, reforms, and maintenance with respect to political preferences (Crowe, 2012; de Figueiredo et al., 2000; de Figueiredo and Tiller, 1996) or attempts to shape the judicial branch to affect future policy outputs (Barrow and Walker, 1988). In this article, we ask whether the federal judiciary approaches its institutional maintenance from a similar, political standpoint, and if so, what if any impact does the courts' *actual* state of health play on its recommendations for institutional maintenance?

Extant scholarship has established that Congress has political preferences regarding the composition and activities of the judiciary, but there is less evidence that the judicial branch has similar preferences. One way to analyze these preferences is to look at the judiciary's policy requests. Vining and Wilhelm (2016) suggest that the judiciary approaches its institutional needs from an apolitical perspective. They find that courts identify their organizational needs and relay them to Congress without attempting to "cash in" on ideological alliances. In this respect, the federal judiciary's strategy toward its institutional

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[1]See *The Federalist*, Number 78.

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maintenance corresponds more to Niskanen's (1968) theory of the bureaucrat as "budget maximizer" than to Barrow and Walker's (1988) hypothesis of institutionalism *as* politics.

Although previous scholarship has examined federal judicial interactions over its own reforms, this body of research also has its weaknesses. First, previous work has not fully specified what the goals of the courts are with respect to its reforms. Second, scholarship has not specified what types of strategies judges might take to achieve those goals in light of the courts' actual institutional well-being. The first problem relates to a theoretical tension: Is the judiciary pursuing ends like those of some bureaucratic agencies, which always prefer greater resources or a Goldilocks-style strategy of not-too-much-or-little, but just enough reform? If this tension is addressed, we can then approach the second problem above over how the judiciary attempts to achieve its preferred ends in light of its actual well-being. No previous study has systematically studied federal judicial well-being, but it is essential to understand how the judiciary's preferences affect the means it takes to achieve reform.

This article addresses these shortcomings in the literature both theoretically and empirically. The organization of this study is as follows. First, we review legislative and judicial preferences for court reform. While legislative preferences for court reform appear to be determined according to their most preferred policy outcomes, the judiciary's preferences are less clear. Thus, we formalize two competing theoretical models that differ with respect to the goals courts pursue with respect to institutional reforms. Results from these models help to formulate expectations about what types of equilibria behavior courts pursue as a result of these competing claims on their preferences for reform. We use these competing theoretical expectations to generate empirically testable hypotheses over how courts make institutional requests empirically. We then construct a new measure of the federal judiciary's actual institutional well-being from a composite of yearly indicators. Using this measure, we examine requests for reform in the chief justice's Year-End Reports on the Federal Judiciary from 1978 through 2011. Our empirical results indicate that the judiciary's requests for support are conditioned on its ideological proximity to co-equal branches, particularly the Senate. Perhaps of greatest interest, we find little evidence to support the contention that requests are conditioned upon the actual well-being of the federal judiciary. We conclude with a discussion of our findings.

Institutional Preferences for Judicial Maintenance

Policy preferences among citizens and elites have proved important to how courts interact with their co-equal branches. Through the separation of powers and the electoral connection, Congress and the executive check the policy making of the courts by reversing their decisions or threatening to curb their authority to do so (Clark, 2009; Gely and Spiller, 1990). Congress might revise statutes interpreted unfavorably by the courts, or it might propose court-curbing legislation to signal its dissatisfaction with judicial policy making. But because the courts rely upon the elected branches for the provision of tangible and intangible resources (e.g., money vs. a discretionary docket), a similar temptation might also exist to reform (or neglect) the courts in order to secure preferable political ends. Significantly less is known about this second type of interinstitutional interaction—court reform.

The response of policymakers to the exigencies of the Third Branch indicates their preferences for court reform, and these preferences are almost certainly tied to their other political preferences (i.e., Poole and Rosenthal, 1997) or to those of their constituents' (Clark, 2009, 2011). An analysis of legislative-judicial relations over American history

demonstrates how congressional interest in maintaining the courts is largely policy oriented (Crowe, 2012). Some of these reforms are major and relate to the creation of new judgeships (de Figueiredo et al., 2000; de Figueiredo and Tiller, 1996), the creation of wholly new courts (Barrow and Walker, 1988; Turner, 1965), the alteration of courts' jurisdiction or precedents (Gely and Spiller, 1990; Stumpf, 1965), or the enforcement of extant legal precedents (Rosenberg, 2008). Other reforms are more mundane and relate to the provision of monetary allocations, the authority to conduct studies on courtroom efficiency or to hire clerical staff, or even to adjust courts' docket discretion (Vining and Wilhelm, 2012). Nevertheless, all of these reforms to the Third Branch appear to implicate politicians' most preferred policy outcomes.[2] Consequently, we posit that legislative preferences for court reform are "unique."[3] That single preference is generally called an "ideal point" in spatial models of politics (i.e., Enelow and Hinich, 1984; Poole and Rosenthal, 1997).

The judiciary's preferences for institutional reforms, however, are less clear than those of the policymakers. On the one hand, judges' policy preferences are activated when Congress considers changing the composition of the courts as it did with the Fifth Circuit in 1981, creating new judgeships and opportunities to affect policy outputs (Barrow and Walker, 1988). On the other hand, policy preferences might not be implicated over other kinds of reforms such as providing judges with more staff or bigger budgets (Posner, 1993). To the extent that courts' reforms do not implicate judges' policy preferences, their preferences for institutional maintenance might mirror those of the bureaucrats such that greater resources are strictly preferred to fewer (Niskanen, 1968).

Historically, federal judges rarely weighed in on proposed congressional changes to their institution. This trend changed, however, once Chief Justice Taft assumed office in 1921. Taft made his preferences for judicial maintenance well known throughout Washington (Murphy, 1962). His efforts culminated with the creation of the Conference of Senior Circuit Judges, a committee composed of the chief justice and senior judges from each of the circuit courts of appeals in 1922.[4] This tribunal regularly gives policy recommendations to Congress, thereby signaling the preferences of the judiciary.[5] Consider, for example, the Violence Against Women Act and the Conference's advocacy against the law. The Committee on Federal-State Jurisdiction warned, "as drafted [the Violence against Women Act] could cause major state-federal jurisdictional problems."[6] Regardless, Congress passed the law, and nine years later, Chief Justice Rehnquist's majority opinion in *U.S. v. Morrison* invalidated large portions of the Act. Rehnquist's majority opinion argued that the Violence Against Women Act "contains no jurisdictional element establishing that the federal cause of action is in pursuance of Congress' power . . ."[7]

[2]For example, it took Chief Justice William Howard Taft nearly three years to secure passage of the Judges' Bill of 1925, which gave the Supreme Court greater discretion over its docket. Senators including Thomas J. Walsh (D–Montana) and John W. Herrald (R–Oklahoma) opposed the change in the Court's discretionary power (62 *Congressional Record* 8, 67th Congress, 2nd Session (8547); 66 *Congressional Record*, 68th Congress, 2nd Session (2753)). They argued that excessive docket discretion would endanger citizens' civil liberties by allowing the Court to deny petitions without hearing oral arguments. Taft spent substantial time and political capital to promote this reform. From 1922 to 1925, he wrote to legislators, engaged in lecture tours, drafted legislation, and offered the service of his associate justices as witnesses before Congress (Murphy, 1962).

[3]These types of preferences are elsewhere termed "single-peaked" or "satiable."

[4]It was later renamed the Judicial Conference of the United States in 1948 and has included both circuit and district court judges since 1957 (42 Stat. 837).

[5]This helps to explain why chief justices (who have the authority to name the members of the Conference) have historically attempted to "stack the deck" with their ideological allies (Nixon, 2003).

[6]See *Report of the Proceedings of the Judicial Conference of the United States* (September 1991:58).

[7]529 U.S. 598 (at 613).

The federal courts are willing to weigh in on policy proposals, but do judges approach court reforms via similarly political preferences? The institutional health of the judiciary is driven by a mixture of institutional reorganization and fiscal appropriations. Legislative maintenance of the judicial branch creates tensions among the judges' loyalties. On the one hand, the judiciary prefers organizational reforms that facilitate operations. This includes reducing judicial workloads, providing more staff, changing jurisdiction rules to allow for more dismissals, raising salaries, furthering retirement benefits, or simply budgeting more money for sundry resources.[8] In short, judges are likely to favor reforms that will make their jobs easier to perform (Posner, 1993). Thus, when legislative maintenance implicates the resources of the judiciary, judicial preferences are likely linear (more always preferred to less) and *not* unique.

Nonetheless, when proposed legislative reform threatens to alter the ideological output of the judiciary, judges are more likely to assess such proposals with regard to their own policy preferences. During the 1960s, when the Fifth Circuit Court of Appeals managed consequential civil rights cases, the potential for a circuit split brought with it important policy ramifications for the old Fifth and proposed Eleventh Circuits. This pitted liberals and conservatives both in the judiciary and in Congress against one another (Barrow and Walker, 1988). Consequently, federal court reform is often intertwined with fundamental questions of politics. New judgeships create opportunities for presidents, through their appointment power, to shift a court's ideological balance (Krehbiel, 2007; de Figueiredo et al., 2000; de Figueiredo and Tiller, 1996).

It is important to understand what the judiciary wants out of its interactions with Congress because judicial maintenance is not a single-player game. Members of the courts send signals to Congress about their institution's needs through reports from the Judicial Conference of the United States, the chief justice's Year-End Reports on the Federal Judiciary, and testimony before legislative committees. Given competing perspectives regarding how judges might perceive legislative attempts at court reform, we might begin to form expectations for how the judiciary chooses to behave at the bargaining table. If judges hold unique preferences for reform, as we expect Congress does, then we might expect to see its members pursuing these ends when they are politically aligned with the elected branches. When these players are ideologically opposed, we might expect to see more obfuscation over the courts' needs. Even still, if judges tend to prefer more to less maintenance, we might expect them to behave as if they need further reforms even when they might not.

The Model

In this section, we consider how judges might signal their institutional needs given competing claims on how their preferences are ordered. We argue that a *political* bargaining process is indicative of a spatial game of separated powers such that every player has unique (single-peaked) preferences. However, we believe that a game of maintenance characterized by an *apolitical* emphasis on the acquisition of further resources is indicative of insatiable preferences that are neither single-peaked nor symmetric, but linear. This characterization

[8]For example, Chief Justice John Roberts's 2012 Year-End Report on the Federal Judiciary stressed the necessity of sufficient resources to provide an efficient judicial system to the American public: "Unlike executive branch agencies, the courts do not have discretionary programs they can eliminate or projects they can postpone. The courts must resolve all criminal and civil cases that fall within their jurisdiction, often under tight time constraints. A significant and prolonged shortfall in judicial funding would inevitably result in the delay or denial of justice for the people the courts serve" (⟨http://www.supremecourt.gov/publicinfo/year-end/2012year-endreport.pdf , 9⟩; last accessed March 30, 2016).

of the judiciary makes judges more akin to bureaucrats than legislators. Thus, our central question is this: How does changing the judiciary's preferences affect its equilibrium requests for institutional assistance?

Next, we specify two game-theoretic, signaling models that consider how judges and legislators might interact over judicial maintenance, one with satiable, one with insatiable judicial preferences. These games are characterized by asymmetric information, where courts have an informational advantage over their own institutional well-being compared to the legislature. Our solution concept is a perfect Bayesian equilibrium where players update their beliefs according to Bayes's Rule whenever possible, and players' actions are sequentially rational at each information set.[9]

There are two players to each model: a judiciary, J, and a legislature, L. At the beginning of the game, Nature exogenously deals some random "shock" to J's institutional well-being, $\omega \in \{-\epsilon, \epsilon\}$, where $\epsilon > 0$. Positive shocks to the judiciary's status quo well-being leave it institutionally better off than it was previously, while negative shocks denote the opposite. The judiciary is perfectly informed over its institutional shock, while L possesses only a belief over the realization of ω such that $Pr(\omega = \epsilon) = p$, where $p \in [0, 1]$, and $Pr(\omega = -\epsilon) = 1 - p$. While players are asymmetrically informed over the realization of J's exogenous shock, we only require that J be *better* informed than L. This minimal assumption allows for the possibility that some previous L (not modeled) had a hand in determining the value of ω, though due to the exigencies of time, remains imperfectly aware of that value. We note that, to the extent this is the case, nothing is changed with respect to the equilibria we identify below.

After receiving its private information over ω, J then signals L regarding its institutional well-being. For simplicity, we model J's signal as binary—either J reports that it is "well-off" or that it is "not well-off." The legislature takes J's signal and updates its beliefs that J is institutionally well-off according to Bayes's Rule.[10] Finally, once L has updated its beliefs, it selects a level of maintenance for the courts, $m \in \Re$.

The outcome of the allocation game for J is an additive variable,

$$x = m + \omega,$$

which is the sum of J's exogenous shock, ω, and L's chosen level of maintenance, m. The legislature has a single, unique preference over how much maintenance J ought to receive. For simplicity, we assume that L's most preferred outcome, x, is $\theta_L = 0$, where L strictly prefers to balance J's maintenance, m, with its institutional losses/gains, ω, and any deviations from θ_L in x strictly results in utility losses to L: $U_L(m) = -(\theta_L - x)^2$.[11] Unpacking the x term in L's utility function and taking into account that $\theta_L = 0$ gives,

$$U_L(m) = -(-m - \omega)^2.$$

We see, then, that when $\omega = \epsilon$, L prefers that $m = -\epsilon$, and when $\omega = -\epsilon$, L prefers that $m = \epsilon$. Hence, L maximizes its payoffs when it chooses an amount of m that is inverse to ω.

[9] For simplicity and consideration of space, we restrict our analysis to pure strategy equilibria.

[10] We assume that when L observes off-equilibrium path behavior, its beliefs are such that either state of institutional integrity is equally likely ($Pr(\omega = \epsilon) = 0.5$).

[11] The intuition here is that the legislature does not want to overmaintain the judiciary if Nature has dealt it a positive shock, just as it prefers not to undermaintain the judiciary if Nature dealt it a negative institutional shock. Presumably, the legislature has a finite amount of resources and does not want to spend them all in one place. Nevertheless, the legislature has at least some interest, however minimal, in seeing that the machinery of justice is sufficiently greased (Crowe, 2012).

Now consider the judiciary's preferences. We introduce two models to capture the essence of our competing interpretations over J's preferences with regard to legislative maintenance. In the first model, J is said to have "preference satiability." This model captures a phenomenon in which the judiciary, like its legislative counterpart, has a single, most preferred amount of institutional maintenance. Therefore, in Model 1, we assume that J's preferences are single-peaked and maximized at $\theta_{J,S} \in \Re$, that those preferences are symmetric around that ideal point, and that they exist somewhere on the real number line such that

$$U_{J,S}(x) = -(\theta_{J,S} - x)^2.$$

In the second model, J is said to have "preference insatiability." That is, the judiciary always prefers more to less legislative maintenance. Therefore, in Model 2, we assume that J's preferences are linear and *not* single-peaked (insatiable):

$$U_{J,I}(x) = x.$$

In each model, J's preferences are common knowledge.

We are primarily interested in whether different types of preference assumptions for J's preferences for institutional maintenance affect the signals it sends the legislature in equilibrium.[12] Let us turn first, then, to L's response to J's signal. Suppose that J pools on one of its two possible signals. That is, suppose that, no matter what, J always sends the same information to L. The legislature cannot update its prior beliefs over J's realization of ω, p. Hence, L's best response to J's signals is a function of its prior beliefs, p, and the value of J's shock:

$$m^* = \epsilon(1 - 2p). \tag{1}$$

The legislature's optimal choice of maintenance, given that L cannot update its information over the state of ω in Equation (1), is plotted in Figure 1.[13] Each line represents a rational choice of maintenance for L such that m^* is on the y-axis, and the probability that J's institutional shock was positive is on the x-axis. The judiciary's shock is held constant in three separate lines at $\epsilon = 0.15$, $\epsilon = 0.50$, and $\epsilon = 0.15$. Note that L's legislative response is decreasing in its belief (p) that J's institutional shock was positive. Finally, observe that L defaults to $m^* = 0$ (its ideal point) whenever it is at its greatest uncertainty ($p = 0.5$).

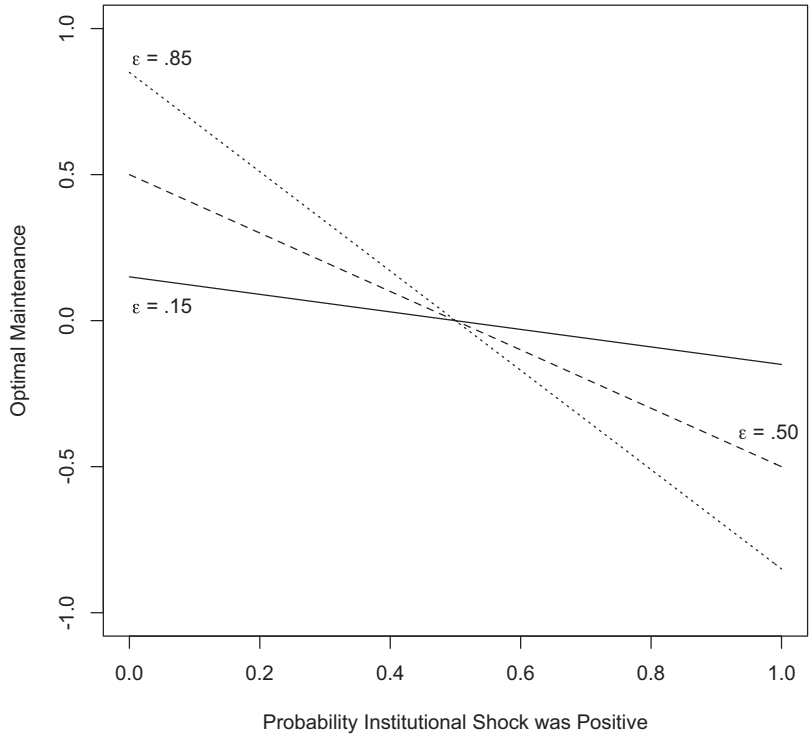
Keeping in mind L's optimal choice of maintenance, let us now consider J's choice of signal. Starting with those J who have satiable preferences, what incentive is there for J to reveal its "type"? Suppose L forms the belief that J signals that it is "well-off" when $\omega = \epsilon$ with a probability of 1 and that it signals it is "not well-off" when $\omega = -\epsilon$ with a probability of 1. If J honestly relays its exogenous shock to L, the legislature will respond with an inverse amount of maintenance; hence, J's maintenance will be $x = 0$. And if J were to deviate from such a truthful strategy, L would default to $m^* = 0$, and $x = \omega$. The judiciary will choose whichever outcome is closest to its ideal point, $\theta_{J,S}$. If, on the other hand, J "pools" on one of its signals, it expects to receive $x = \omega + m^*$, but deviating from that strategy again yields it $x = \omega$. The judiciary will choose whichever outcome is closest to its ideal point.

[12] Please see the Supporting Information Appendices for all proofs.

[13] Note that Equation (1) defines the legislature's best response even when it observes off-equilibrium path behavior, as we have already noted that its beliefs at such a juncture are that $p = 0.5$. Hence, by encountering off-equilibrium path signals, the legislature's best response is its ideal point, $m^* = 0$. Furthermore, note that $m^* \in [-\epsilon, \epsilon]$.

FIGURE 1

A Legislature's Optimal Choice of Maintenance



NOTE: The lines represent the legislature's optimal choice of maintenance, given differing specifications of the judiciary's institutional shock, ϵ. The *x*-axis denotes the probability the judiciary's shock was positive, and the *y*-axis denotes the legislature's rational choice of maintenance, given no additional information over the judiciary's well-being.

Proposition 1. *Given satiable judicial preferences, a pure strategy pooling equilibrium if both* $\theta_{J,S} \leq -\epsilon + \frac{m^*}{2}$ *and* $p \geq 0.5$*, or* $\theta_{J,S} \geq \epsilon + \frac{m^*}{2}$ *and* $p \leq 0.5$*. Otherwise, a pure strategy separating equilibrium exists if* $-\epsilon \leq \theta_{J,S} \leq \epsilon$*.*

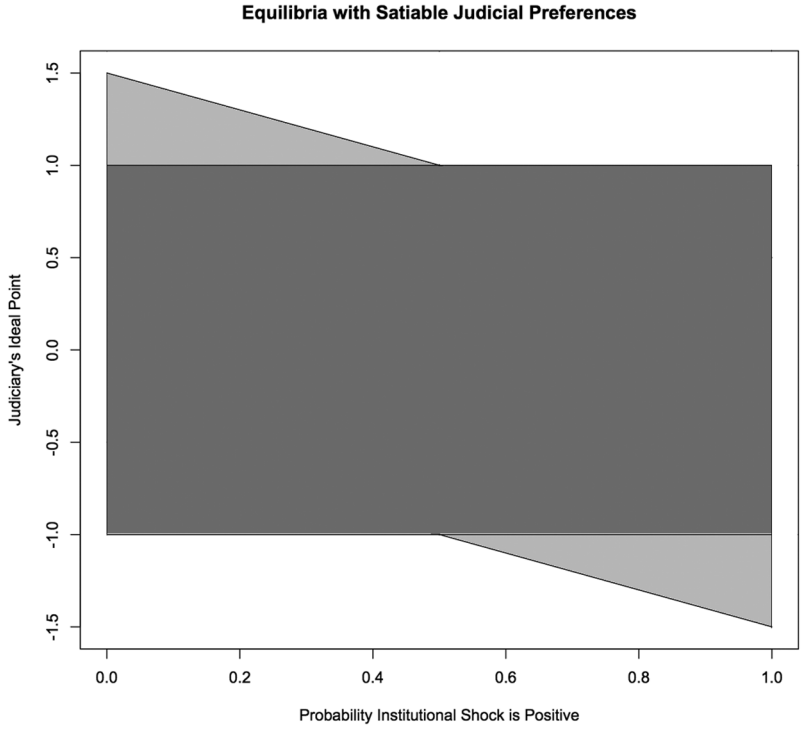
We graphically depict Proposition 1 in Figure 2. The *y*-axis denotes the ideal point of the judiciary ($\theta_{J,S}$) and the *x*-axis shows the probability *J*'s shock was positive (p). Note that we hold ω constant at 1 when drawing Figure 2. The light gray regions denote pure strategy pooling equilibria. Also observe that these equilibria attain when J is ideologically distant from L's most preferred policy. That is, when J and L desire different outcomes, J's best alternative is to obfuscate over its institutional well-being. But when J and L each desire similar outcomes, a pure strategy separating equilibrium attains. Therefore, J is incentivized to truthfully reveal the value of its institutional shock. The dark gray region in Figure 2 denotes these separating equilibria.

Now consider what strategic choices face J when its preferences are linear or insatiable.[14] Recall that L always prefers to offer the inverse amount of ω in institutional maintenance. Consequently, when its prior belief is such that ω is negative, J and L

[14]Recall that $U_{J,I} = \omega + m$.

FIGURE 2

A Legislature's Optimal Choice of Maintenance



NOTE: The *y*-axis represents the judiciary's most preferred outcome, while the *x*-axis denotes the probability its institutional shock was positive. The dark gray region in the figure represents all pure strategy separating equilibria. The light gray region represents all feasible pure strategy pooling equilibria. The shock, ω, is held constant at 1.

share a preference to provide more maintenance to the courts. Nevertheless, when J's institutional shock is positive, J is incentivized to obfuscate its well-being given that it prefers more maintenance, and L prefers less. Because J will always be incentivized to mislead L when its shock is positive, a pure strategy separating equilibrium can never exist. Nevertheless,

Proposition 2. *Given insatiable judicial preferences, a pure strategy pooling equilibrium exists if* $p \leq 0.5$*, and a pure strategy separating equilibrium will never exist.*

Compare the judiciary's signaling behavior according to Propositions 1 and 2. When J ranks its possible outcomes such that there exists a unique alternative it prefers, it might find ways to work with L to secure its institutional well-being. But when J always prefers more to less maintenance, it only adopts (in equilibrium) the types of behavior that the extremist counterpart with satiable preferences does. The former might find ways honestly to convey its private information to the legislature, while the latter will consistently attempt to manipulate the legislature's information through obfuscatory signaling behavior.

Measuring Judicial Well-Being

Scholarship considering judicial requests for institutional assistance is incomplete when it fails also to account for the judiciary's actual well-being (e.g., Vining and Wilhelm, 2016). Without controlling for the federal courts' actual well-being, research into the political motivations of institutional requests omits one of the most relevant confounding variables. Some previous research has controlled for specific types of institutional well-being such as judges' caseloads (e.g., de Figueiredo and Tiller, 1996), but none to our knowledge has generated an aggregate measure for the health of the federal courts. From this broader perspective, we believe that this measure will be of use to scholars studying the separation of powers vis-à-vis court appointments and confirmations, government budgeting, and judicial administration, in addition to practitioners interested in diagnosing judicial malaise.

To include a control for the federal judiciary's institutional well-being into this study, we introduce a new variable that is generated via factor analysis. Factor analysis is appropriate whenever the variable one intends to measure is "essentially outside of measurement" and when the observed data are assumed to be caused by that immeasurable, latent factor (Cudeck, 2000:269). As such, we gathered variables we believed indicative of the kinds of institutional "shocks" to the judiciary's well-being discussed in the previous section.

First, we gathered data relating to the federal courts' financial stability. Representative items falling into this category include judges' salaries and retirement benefits or appropriations for building projects, repairs, and renovations.[15] Not only is the fiscal health of the courts important, but so too are the rules and personnel that guide and implement them. To this end, we additionally gathered data relating to judicial administration, including matters of procedure and jurisdiction. Excessive case filings, vacant judgeships, jurisdiction requirements, and statutes federalizing large classes of crimes might affect the judiciary's efficient disposition of cases and the job satisfaction of federal judges.[16] Therefore, the manner by which Congress handles the judiciary's structural health implicates its institutional well-being. We summarize the variables used for our measure of the federal judiciary's well-being in Table 1.

Following the intuition of the formal models above, we capture by-period "shocks" to the federal judiciary's institutional health with the variables listed in Table 1. Yearly shocks are calculated by comparing the well-being for each variable in the current year to the one in the previous year. Any difference can be attributed to some latent shock. As an example, consider one component in the factor analysis: judges' salaries. For this variable, we gathered the average yearly earnings of a typical federal judge (in 2014 dollars) and subtracted them from average earnings in the year prior. Differences less than zero indicate lower earnings compared to the previous year, while positive values denote salary increases.

[15]From an organizational perspective, these items are important to maintain the efficacy of the judiciary. If the Third Branch does not have the monetary resources to discharge its duties effectively and efficiently, harm may befall the courts and the public it serves. Ineffective courts will struggle to attract qualified candidates for the bench, keep qualified members, process cases in a timely manner, and maintain esteem among the people and political elites (Olsen and Huth, 1998; Posner, 1985; Vining, Zorn, and Smelcer, 2006). Hence, fiscal appropriations are important factors in assessing the well-being of the judicial branch.

[16]Data relating to caseloads are gathered from the Federal Judicial Center's online archives available at ⟨http://www.fjc.gov/history/caseload.nsf/page/caseloads_main_page⟩ (last accessed March 21, 2016). Other data relating to judicial administration are taken from the federal judicial archives available at ⟨http://www.uscourts.gov⟩ (last accessed March 21, 2016) and from the Lower Court Confirmation Database (1977–2004) available at ⟨http://www.cdp.binghampton.edu⟩ (last accessed January 19, 2015).

TABLE 1

Descriptive Statistics for Variables Used to Measure of Judicial Well-Being (1978–2013)

Variable	Description	Mean (*SD*)	Range
Salaries	Previous year's salary of an average federal judge in 2014 dollars, subtracted from current year's earnings	−1,431.00 (10,302.67)	−18,130 to 49,280
Appropriations	Previous year's fiscal appropriations for the federal judiciary in 2014 (millions) dollars subtracted from current year's appropriations	140.50 (189.69)	−496.10 to 645.30
Vacancies	Previous year's percentage of authorized federal judgeships sitting vacant, subtracted from current year's percentage	0.04 (6.00)	−21.43 to 17.19
New cases	Previous year's number of newly filed cases filings in the federal judiciary subtracted from current year's filings	1,921.00 (4,491.19)	−9,242 to 12,260
Cases pending	Previous year's number of unresolved cases in the federal judiciary subtracted from current year's unresolved cases	2,096.00 (4,769.60)	−10,470 to 14,160
Significant reform	Dichotomous variable indicating whether the elected branches passed a major act reforming the size or scope of the judiciary	0.07 (0.25)	0–1

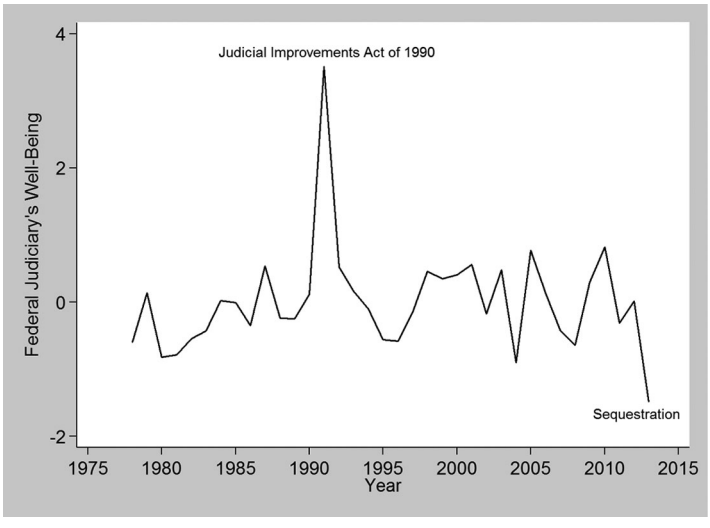
Looking at Table 1, we see that in a typical year, the average federal judge suffers a nearly $1,400 cut in pay. This realization is indicative of a "negative shock."[17]

While many of the factors in Table 1 are affected either by congressional action or inaction, we note that the judiciary's institutional shock is exogenous to the extent that information over judicial well-being remains asymmetric. First, note that judicial disrepair is necessarily determined by previous Congresses other than the one to which the courts petition for reform. Either through membership turnover or a lack of contemporaneous salience, the judiciary is almost certainly better situated to assess its present institutional needs than Congress. Second, with the exception of members of the House or Senate Judiciary Committees, ordinary members of Congress do not have the necessary expertise in judicial affairs to assess the courts' institutional needs and must rely instead upon cues from committee members or the courts themselves (Barrow and Walker, 1988; Gilligan and Krehbiel, 1989). Finally, an examination of the *Congressional Record* indicates that even highly informed members of the Judiciary Committees learn from the judiciary's signals

[17]In determining which components to include in our factor analysis, we reviewed the types of requests the judiciary has historically made of the elected branches. For an overview of these requests, see Vining and Wilhelm (2012).

FIGURE 3

The Well-Being of the Federal Judiciary



NOTE: The trend-line denotes the U.S. federal judiciary's institutional well-being. A spike in 1991 is principally due to the Judicial Improvements Act of 1990. The low point for judicial well-being is 2013 with the implementation of deep spending cuts from sequestration.

about its institutional needs. For example, in 1998, Senator Chuck Grassley (R–IA) of the Judiciary Committee used Chief Justice Rehnquist's Year-End Report on the Federal Judiciary to dispute Democratic charges that judicial vacancies were crippling the courts. Rather, referencing the chief justice's report, Grassley argued that excessive jurisdiction was the root of the judiciary's institutional problems.[18]

We plot the results from the factor analysis in Figure 3, which shows the well-being of the U.S. federal judiciary from 1978 to 2013.[19] The trend line in the figure demonstrates a composite score attained through factor analysis.[20] Looking at Figure 3, we see a fair amount of face validity in the results of the factor analysis. A peak in well-being occurs in 1991, which is principally due to the Judicial Improvements Act of 1990. This was a major piece of legislation that provided for 85 new federal judgeships, allocated approximately $433 million more than Congress allocated the previous year, and gave the average judge a raise worth nearly 25 percent of his or her previous year's earnings. In contrast, a sharp dip in well-being occurs between 2012 and 2013. This slump is primarily due to the implementation of harsh sequestration cuts in the judiciary's budget. Dips in well-being throughout the 1990s and 2000s are due also in part to Congress' relative unwillingness to create new judgeships or to fill vacant ones. Since 1990, Congress has not authorized a single new court of appeals judgeship. Nevertheless, over this same span, the number of

[18] *Congressional Record*, February 10, 1998:S547.

[19] For a similar methodological approach, see McGuire (2004), which measured the "institutionalization" of the U.S. Supreme Court.

[20] An analysis of the eigenvalues indicates that a single factor sufficiently explains the variance in the data across 36 years of observations, and the first factor accounts for nearly 98 percent of this variance. The result of this method is a new measure of the federal judiciary's institutional well-being.

cases filed in the courts of appeals in 2013 was 180 percent that of the rate filed in 1990. Using our new measure, we may say that the federal courts in 2013 were approximately five times worse off than they were in 1991.

Testing the Politics of Judicial Reform

In this section, we use our new measure of judicial well-being to test whether the judiciary pursues political ends when making requests (Barrow and Walker, 1988; Crowe, 2012; de Figueiredo et al., 2000; de Figueiredo and Tiller, 1996) or apolitical, resource-oriented ends similar to bureaucratic agents (Niskanen, 1968; Vining and Wilhelm, 2016). According to our formal models, if the game of judicial reform is apolitical and the courts are interested only in achieving greater resources, then its signal should not vary with respect to the elected branches' preferences. On the other hand, if the game is being played by judges with more political ends, we should expect to see a more sophisticated means of signaling the courts' institutional well-being. We believe that the best way to examine the judiciary's strategy is to analyze how it signals the elected branches for reform. Arguably, the simplest way to invite reform is to make specific requests for maintenance. If the judiciary intends to "cash in" on political alliances, it should make more of these specific requests when it is ideologically aligned with its coordinate branches. But if the courts are not pursuing a political agenda, we should not expect to see them making requests in light of ideological (in)congruence but with respect to actual institutional needs for reform.

Data and Methods

To test these competing interpretations of judicial requests for reform, we use data collected by Vining and Wilhelm (2012) of reforms requested in the chief justice's Year-End Report on the Federal Judiciary.[21] These reports represent salient opportunities for the chief justice to signal his co-equal branches, the press, the legal community, and the public regarding the state of the Third Branch. While the Year-End Reports are not the sole means by which the elected branches become informed about the courts' well-being, we believe that they are the most appropriate for our empirical analysis because they are salient, routine, and represent the overall needs of the judiciary as voiced by the chief justice in his official (as opposed to personal) capacity.[22]

Dependent Variable. The dependent variable for the statistical analysis is the total number of requests the chief justice made in his annual Year-End Report. The total number of annual requests the chief justice makes well-captures the kinds of signaling behavior discussed above. Because the nature of the dependent variable is a discrete count,

[21]The Year-End Report on the Federal Judiciary is analogous to the president's State of the Union Address.

[22]In addition to the Year-End Report, public and private messages from judges indicate the health of the judiciary. Publicly, the reports of the Judicial Conference make policy proposals to Congress and comment on judicial needs. Nevertheless, because the chief justice selects the members of the Conference, the proposals they make are heavily determined according to the preferences of the chief justice (Nixon, 2003; Wheeler, 1988). Furthermore, the Conference meets infrequently and is often understaffed (Cannon and Cikins, 1981); therefore, its assessments of judicial well-being are likely incomplete compared to those of the chief justice (Vining and Wilhelm, 2012). Privately, individual judges and justices relay their personal concerns regarding the organization of the Third Branch (Barrow and Walker, 1988; Murphy, 1962). Gathering such data, however, would not only be tedious and subjective but also incomplete as an analysis for how the courts signal their institutional needs.

we use a count model to test our competing accounts of judicial signaling behavior. The dependent variable is not overdispersed ($p = 0.73$); thus, a Poisson regression is an appropriate method of statistical analysis.

Independent Variables. We are primarily interested in whether the courts pursue political or resource-oriented ends when they make specific requests for reform. If the judiciary's requests are apolitical, then we should observe more requests when the institution's well-being wanes. Hence, we control for the judiciary's actual well-being using the measure described in the previous section. But if the courts' requests for reform represent political opportunism, then we should observe that the chief justice's requests are made in reference to some other, ideological factor. Consequently, we control for political congruity among the three branches of government. For all ideological controls, we use data from the Judicial Common Space, estimated by Epstein et al. (2007). These ideological scores are appropriate because the ideologies of each of the three branches are estimated within the same ideological "space."

We measure the absolute ideological distance between the median members of the Supreme Court, House of Representatives, Senate, and the President of the United States. While we have chosen Common Space Scores as our primary means of controlling for divergent political preferences among the three branches of government, we recognize that this strategy has its shortcomings. First, one might question whether the institutional preferences of the Supreme Court are an appropriate measure of the preferences of the entire federal judiciary. We respond to this potential criticism by noting that the Supreme Court is the most important federal court as the court of last resort. It is also the most salient among the media, elites, and the public. Hence, it is likely members of the other branches (individually and through the electoral connection) make their assessments of the judiciary with the politics of the Supreme Court as a frame of reference (Clark, 2009). Thus, if the chief justice is to account strategically for the elected branches' assessment of his courts, he must likely do so with respect to the median member of the Supreme Court.[23]

Second, one might argue that using median voting members of each branch of government misses key institutional nuances. Specifically, one might question why members of the House or Senate Judiciary Committees or relevant pivotal voting members would not be more appropriate references for making ideological comparisons among the branches (Krehbiel, 2010). We respond to this claim by noting that current congressional politics scholarship emphasizes the dominant position of the majority party in either chamber in the decision-making process (Cox and McCubbins, 2005; Gailmard and Jenkins, 2007), which suggests an attenuated role for filibuster pivots.

As additional controls, we include dichotomous indicators for each chief justice making requests in our data set. These include Warren Burger, William Rehnquist, and John Roberts. Prior scholarship has found important personal distinctions in how each chief justice pursues his agenda (Vining and Wilhelm, 2012). Thus, including fixed effects for each chief justice helps to control for these agenda-related idiosyncrasies. Moreover, we cluster robust standard errors by each chief justiceship in the data. Summary statistics for the variables in the regression are included in Table 2.

[23] Some might suppose that the chief justice makes recommendations, not with respect to his institution's ideology, but to his own. In the Supporting Information Appendices, we present robustness checks using the Common Space Score of the chief justice as the reference point (as opposed to the median member of the Supreme Court). The results between the two estimation strategies are nearly identical.

TABLE 2

Descriptive Statistics for Variables Used to Predict Chief Justice's Requests

Variable	Description	Mean (*SD*)	Range
Requests (dependent variable)	Total number of requests CJ made in Year-End Report	5.42 (3.47)	0, 13
Well-being	Yearly measure (factor analysis) of federal judiciary's institutional well-being	0.00 (0.80)	−1.48, 3.51
House distance	Common Space distance between median court member and median House member	0.20 (0.16)	0.04, 1.03
Senate distance	Common Space distance between median court member and median Senate member	0.20 (0.19)	0.00, 1.05
President distance	Common Space distance between median court member and the president	0.59 (0.15)	0.35, 1.15
Burger	Dichotomous, "1" if CJ Burger, "0" otherwise	0.36 (0.49)	0, 1
Rehnquist	Dichotomous, "1" if CJ Rehnquist, "0" otherwise	0.43 (0.50)	0, 1
Roberts	Dichotomous, "1" if CJ Roberts, "0" otherwise	0.20 (0.41)	0, 1

TABLE 3

Predicted Requests in Year-End Report (1978–2011)

Variable	Estimate (Robust SE)	95% Confidence Interval
Well-being	0.09 (0.20)	−0.30, 0.48
Senate distance	−1.54*** (0.26)	−2.04, −1.03
House distance	−1.37 (1.41)	−4.13, 1.38
President distance	0.74 (0.57)	−0.38, 1.86
Rehnquist	−0.48*** (0.12)	−0.76, −0.24
Roberts	−1.51*** (0.24)	−1.98, −1.03
Intercept	2.00*** (0.48)	1.06, 2.94

*NOTE: The dependent variable is the number of agenda items in the chief justice's Year-End Reports; $N = 33$, log pseudo-likelihood= −65.85. Robust standard errors are clustered by three chief justiceships. Significance tests are two-tailed such that $p < 0.01$ (***).

Results

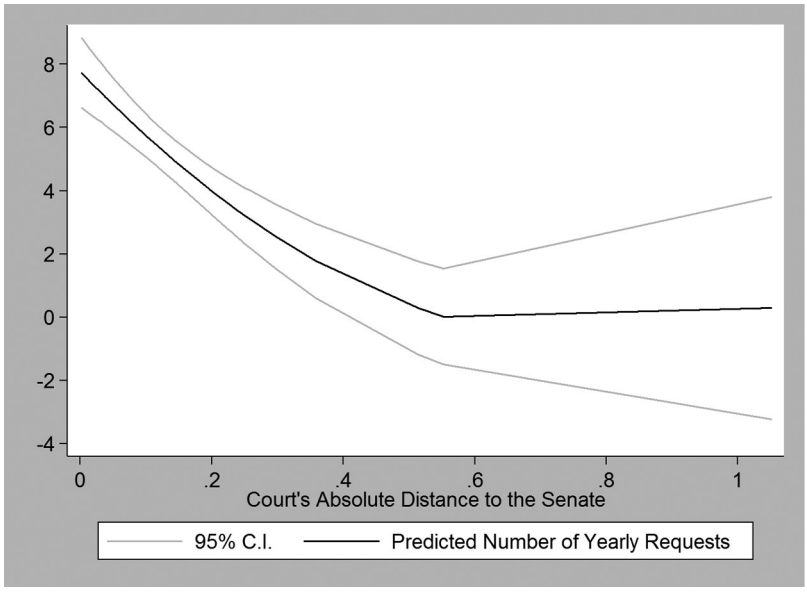
Results from the statistical regression are located in Table 3. Our findings generally support the contention that the chief justice's requests for institutional reforms are related to political and personal factors. We find little evidence that requests are based on the *actual* needs of the Third Branch.[24]

Note first that the absolute ideological distance between the Supreme Court and the Senate is negative and statistically significant. This suggests that as the median member of

[24]We omitted one observation from 1991 after determining that it was exerting too much "influence" on the results of the entire statistical model. We provide regression results that include this observation in the Supporting Information Appendices and offer further justification for its omission.

FIGURE 4

Predicted Number of Requests as a Function of Senate–Court Ideological Congruity



NOTE: The *y*-axis shows the predicted number of requests the chief justice makes in his Year-End Report. The *x*-axis shows the ideological distance between the Supreme Court and Senate. The dark line shows the statistical model's predicted number of requests as a function of Court–Senate congruity. The light gray lines denote 95 percent confidence intervals. Note that the chief justice's number of requests is declining as the two institutions move apart ideologically.

the Court moves farther away from the median member of the Senate, the statistical model predicts that the chief justice makes fewer requests for institutional reform, all else equal. The dependent variable spans 0–13 requests with a mean of 5.4. The mean ideological distance between the Supreme Court and Senate is approximately 0.2, using Common Space Scores (Epstein et al., 2007).[25] We plot the chief justice's predicted number of Year-End Report requests with respect to the preferences of his own Court and the Senate in Figure 4.

Examining Figure 4, note that the model predicts that when the Court's ideological distance to the Senate is held at its mean, the chief justice is predicted to request approximately four items of reform. When the Court and Senate are located approximately two standard deviations from each other, the model anticipates *no* requests in the chief justice's Year-End Report. This finding is in sharp contrast to when the two institutions are perfectly aligned ideologically. When this occurs, the model predicts the chief justice to "cash in" on his Court's ideological congruity with the Senate and make approximately eight specific requests for institutional reform.

Our ideological findings with respect to the Senate are consistent with some previous work that examines congressional responses to courts' needs vis-à-vis contemporaneous politics (Crowe, 2012). Specifically, de Figueiredo and Tiller (1996) and de Figueiredo et al. (2000) found that interbranch politics played an important role in the elected branches' decision to expand the federal courts such that expansion occurred when the

[25]We updated the scores through 2011 using the estimator in Epstein et al. (2007).

branches were politically aligned. Our results complement these to the extent that we find that courts similarly target Congress for its preferred reforms in times of similar alignment. Our statistical model is most similar to Vining and Wilhelm's (2016), but our results diverge in important ways. Their study of the chief justice's requests found no statistically significant effect for political congruence. We find, however, that once we control for the courts' *actual* well-being, at least one measure for political congruence plays a statistically significant role in predicting how the chief justice interacts with the elected branches to request reforms.

These ideological findings are important, especially in light of the fact that we additionally controlled for each of the three chief justices in our data set. Chief Justice Burger is the reference category in the statistical model, and our results confirm previous insight that Chief Justices Rehnquist and Roberts made significantly fewer requests than did Burger (Vining and Wilhelm, 2012, 2016). The coefficient estimates on Rehnquist and Roberts are negative and statistically significant. Note further that the coefficient for Roberts is marginally greater than that for Rehnquist. Roberts is indeed an anomaly inasmuch as he makes so few requests from Congress. In fact, he prides his branch of the federal government for its efficiency, streamlined services, and cost containments amidst economic recession and government sequestration.[26] Nevertheless, despite these differences in personalities and leadership styles among the three chief justices, we continue to find meaningfully significant results for how each of the three petition Congress in light of ideological congruence with the Senate, all things being equal.

Let us now consider the statistical model's predicted effect for the federal courts' actual well-being on the number of requests the chief justice made in his Year-End Report. Most importantly, our results fail to reject the null hypothesis that the judiciary's actual well-being has no effect on the number of requests the chief justice makes each year. These findings contrast with those in de Figueiredo and Tiller (1996) and de Figueiredo et al. (2000), who found some support for the hypothesis that Congress's decision to expand the courts was determined by the caseload of the average judge. Here, we find little to no support for the contention that the courts' actual needs determine how the chief justice in turn makes requests of the elected branches. Our analysis differs from previous ones because we look not only at salient agenda items such as federal caseload but also at judicial vacancies, appropriations for physical space and resources, jurisdiction, and so forth.

When the entire scope of the judiciary is considered, we find little evidence to suggest the chief justice makes his requests based on his institution's needs. Rather, our results point to the importance of political factors associated with the Senate and personal factors unique to each chief justice. Therefore, the results of the statistical model offer support for the types of signaling behavior predicted by the formal model in which the judiciary had single-peaked preferences such that judges pursued ends similar to those of the legislature. We find little support for the types of equilibria behavior identified in the formal model that cast the judiciary as a resource-oriented institution. Hence, judges, according to our empirical results, behave more like politicians than bureaucrats.

Not all of our ideological controls achieved statistical significance, however. While the ideological distance between the Court and Senate predicted negative and significant effects on the number of requests in the chief justice's Year-End Reports, we do not find similar effects for the distance between the Court and House or executive. Null findings with respect to the House are somewhat surprising given the special connection between House

[26]For example, see Roberts's 2012 and 2013 Year-End Reports on the federal judiciary in which he lists numerous ways his courts have responsibly managed their budgets.

representatives and their constituents. Clark (2009, 2011) found that House members in particular had their "fingers on the pulse" of the American electorate, leading the Supreme Court to moderate its review of congressional acts in light of these constituent preferences. Our results might suggest, then, that judicial administration is less salient to the public and therefore warrants less deference to House preferences when seeking institutional reforms. Similarly, the preferences of the executive probably play a less important role to how the chief justice seeks reforms inasmuch as it is members of Congress who must write the statutes addressing reform, marginalizing the effect the president might have in influencing how judicial reform bills are crafted.

Conclusion

This article considers how the federal courts actively pursue institutional reforms from the elected branches of government. To do so, we created a measure of the federal courts' *actual* well-being via factor analysis. Using this new measure, we then performed statistical analyses on the signals the chief justice sends regarding the federal courts' institutional needs. We then regressed these requests using a Poisson count model, controlling for ideological congruity among the branches, the idiosyncrasies of the individual chief justices making the requests, and the actual well-being of the federal courts. The results from the statistical regression provided little to no support for the contention that the chief justice makes his requests for institutional reforms as a function of his institution's *actual* needs. To the contrary, in fact, we only found support for the hypothesis that the chief justice targets ideologically congruent politicians for institutional reform, particularly in the Senate.

These results are important because they fill a longtime gap in the literature on the administration of the federal courts. On the one hand, quantitative and qualitative evidence has long suggested that Congress views judicial maintenance and reform as a political game. Nevertheless, substantially less has been known about how the courts viewed this process. While some qualitative evidence suggested that judges viewed *some* types of reform politically (Barrow and Walker, 1988), other quantitative studies found no statistically significant effect for such ideological variables (Vining and Wilhelm, 2016). By controlling for the federal courts' institutional well-being—and by rigorously examining how judicial signaling behavior might differ with respect to competing model of courts' preferences—we have shed important new light on how the federal courts and the chief justice in particular target ideological allies in Congress to "cash in" on their political congruity for institutional reform and maintenance.

REFERENCES

Barrow, Deborah J., and Thomas G. Walker. 1988. *A Court Divided: The Fifth Circuit Court of Appeals and the Politics of Judicial Reform*. New Haven, CT: Yale University Press.

Cannon, Mark W., and Warren I. Cikins. 1981. "Interbranch Cooperation in Improving the Administration of Justice: A Major Innovation." *Washington and Lee Law Review* 38:1–20.

Clark, Tom S. 2009. "The Separation of Powers, Court Curbing, and Judicial Legitimacy." *American Journal of Political Science* 53:971–89.

———. 2011. *The Limits of Judicial Independence*. Cambridge: Cambridge University Press.

Cox, Gary W., and Matthew D. McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the U.S. House of Representatives*. Cambridge: Cambridge University Press.

Crowe, Justin. 2012. *Building the Judiciary: Law, Courts, and the Politics of Institutional Development*. Princeton, NJ: Princeton University Press.

Cudeck, Robert. 2000. "Exploratory Factor Analysis." Pp. 265–96 in Howard E. A. Tinsley and Steven D. Brown, eds., *Handbook of Applied Multivariate Statistics and Mathematical Modeling*. San Diego, CA: Academic Press.

de Figueiredo, John M., Gerald S. Gryski, Emerson H. Tiller, and Gary Zuk. 2000. "Congress and the Expansion of the U.S. District Courts." *American Law and Economics Review* 2:107–25.

de Figueiredo, John M., and Emerson H. Tiller. 1996. "Congressional Control of the Courts: A Theoretical and Empirical Analysis of Expansion of the Federal Judiciary." *Journal of Law and Economics* 39:435–62.

Enelow, James M., and Melvin J. Hinich. 1984. *The Spatial Theory of Voting: An Introduction*. Cambridge: Cambridge University Press.

Epstein, Lee, Andrew Martin, Jeffrey A. Segal, and Chad Westerland. 2007. "The Judicial Common Space." *Journal of Law, Economics, and Organization* 23:303–25.

Gailmard, Sean, and Jeffrey A. Jenkins. 2007. "Negative Agenda Control in the Senate and House: Fingerprints of Majority Party Power." *Journal of Politics* 69:689–700.

Gely, Rafael, and Pablo T. Spiller. 1990. "A Rational Choice Theory of Supreme Court Statutory Decisions with Applications to the 'State Farm' and 'Grove City Cases'." *Journal of Law, Economics, and Organization* 6:263–300.

Gilligan, Thomas W., and Keith Krehbiel. 1989. "Asymmetric Information and Legislative Rules with a Heterogeneous Committee." *American Journal of Political Science* 33:459–90.

Krehbiel, Keith. 2007. "Supreme Court Appointments as a Move-the-Median Game." *American Journal of Political Science* 51:231–40.

———. 2010. *Pivotal Politics: A Theory of U.S. Lawmaking*. Chicago, IL: Chicago University Press.

McGuire, Kevin. 2004. "The Institutionalization of the U.S. Supreme Court." *Political Analysis* 12:128–42.

Murphy, Walter F. 1962. "Chief Justice Taft and the Lower Court Bureaucracy: A Study in Judicial Administration." *Journal of Politics* 24:453–76.

Niskanen, William A. 1968. "The Peculiar Economics of Bureaucracy." *American Economic Review* 58:293–305.

Nixon, David C. 2003. "Policy-Making by Different Means: The Chief Justice's Attempts to Shape Policy Through the Judicial Conference of the United States." *Rationality and Society* 15:345–60.

Olsen, Susan M., and David A. Huth. 1998. "Explaining Public Attitudes Toward Local Courts." *Justice System Journal* 20:41–61.

Poole, Keith T., and Howard Rosenthal. 1997. *Congress: A Political-Economic History or Roll-Call Voting*. New York: Oxford University Press.

Posner, Richard A. 1985. *The Federal Courts Crisis and Reform*. Cambridge: Harvard University Press.

———. 1993. "What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)." *Supreme Court Economic Review* 3:1–41.

Rosenberg, Gerald N. 2008. *The Hollow Hope: Can Courts Bring About Social Change?* 2nd ed. Chicago, IL: University of Chicago Press.

Stumpf, Harry P. 1965. "Congressional Response to Supreme Court Rulings: The Interaction of Law and Politics." *Journal of Public Law* 14:377–95.

Turner, Kathryn. 1965. "Federalist Policy and the Judiciary Act of 1801." *William and Mary Quarterly* 22:3–32.

Vining, Richard L. Jr, and Teena Wilhelm. 2012. "The Chief Justice as Advocate-in-Chief: Examining the Year-End Report on the Federal Judiciary." *Judicature* 95:267–74.

———. 2016. "The Chief Justice as Administrative Leader: Explaining Agenda Size." Pp. 357-73 in David J. Danelski and Artemus Ward, eds., *The Chief Justice: Appointment and Influence*. Ann Arbor: University of Michigan Press.

Vining, Richard L. Jr, Christopher Zorn, and Susan Navarro Smelcer. 2006. "Judicial Tenure on the U.S. Supreme Court, 1790–1868: Frustration, Resignation, and Expiration on the Bench." *Studies in American Political Development* 20:198–210.

Wheeler, Russell R. 1988. "Empirical Research and the Politics of Judicial Administration: Creating the Federal Judicial Center." *Law and Contemporary Problems* 51:31–53.

Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's website:

Figure A.1: Observations' Influence on Empirical Results
Figure A.2: Comparing Model Fit Between Two Data Sources
Table A.1: Predicted Requests in Year-End Report (1978–2011)
Table A.2: Predicted Requests in Year-End Report (1978–2011)