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*Washington University in St. Louis*

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WASHINGTON UNIVERSITY IN ST. LOUIS

Department of Political Science

Dissertation Examination Committee:

James F. Spriggs, II, Chair

Lee Epstein

Andrew D. Martin

John W. Patty

Elizabeth Maggie Penn

Power to Appoint: A Model of Appointments to the United States  
Federal Judiciary

by

Alicia Uribe

A dissertation presented to the  
Graduate School of Arts and Sciences  
of Washington University in  
partial fulfillment of the  
requirements for the degree  
of Doctor of Philosophy

December 2014

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Alicia Uribe

2014

# Contents

List of Figures	iii
List of Tables	iv
Acknowledgments	vi
Abstract	viii
1 Introduction	1
2 Model of Federal Judicial Appointments	4
3 Selection Mechanisms and the Judges Selected	44
4 Empirical Tests of Federal Appointments	100
5 Conclusion	131
6 Appendices	133
Bibliography	140

# List of Figures

2.1	Model Algorithm . . . . .	19
2.2	Constraint . . . . .	29
2.3	Ideology Result . . . . .	30
2.4	Qualifications Result . . . . .	34
2.5	Promotion Result . . . . .	35
2.6	Vacancy Result: Constraint . . . . .	38
2.7	Vacancy Result: Inherited Vacancies . . . . .	39
2.8	Vacancy Result: Distance between president and status quo . . . . .	40
2.9	Vacancy Result: Talent pool size . . . . .	41
3.1	Random Assignment: Ideology . . . . .	50
3.2	Random Assignment: Qualifications . . . . .	51
3.3	Random Assignment: Promotions . . . . .	53
3.4	Single Appointer: Ideology . . . . .	56
3.5	Single Appointer: Qualifications . . . . .	58
3.6	Single Appointer: Vacancies (Constraint) . . . . .	59
3.7	Single Appointer: Vacancies (Inherited vacancies) . . . . .	60
3.8	Single Appointer: Vacancies (Talent pool size) . . . . .	61
3.9	Single Appointer: Vacancies (Distance between appointer and status quo) . . . . .	62
3.10	Single Appointer: Promotions . . . . .	64
3.11	Voting Body: Ideology . . . . .	69

3.12	Voting Body: Qualifications . . . . .	70
3.13	Voting Body: Vacancies (Constraint) . . . . .	72
3.14	Voting Body: Vacancies (Inherited vacancies) . . . . .	73
3.15	Voting Body: Vacancies (Talent pool size) . . . . .	74
3.16	Voting Body: Vacancies (Distance between president and status quo) . . . . .	75
3.17	Voting Body: Promotions . . . . .	76
3.18	Elections: Ideology (Party advantage) . . . . .	86
3.19	Elections: Ideology (Constraint) . . . . .	87
3.20	Elections: Ideology (Elector) . . . . .	89
3.21	Elections: Qualifications (Party advantage) . . . . .	91
3.22	Elections: Qualifications (Constraint) . . . . .	92
3.23	Elections: Promotions (Party advantage) . . . . .	94
3.24	Elections: Ideology (Constraint) . . . . .	95
4.1	Predictions: Vacancies (Constraint) . . . . .	106
4.2	Predictions: Vacancies (Inherited vacancies) . . . . .	107
4.3	Predictions: Vacancies (Distance between president and status quo) . . . . .	109
4.4	Predictions: Promotions . . . . .	110

# List of Tables

2.1	Simple Example . . . . .	24
4.1	Empirical Results: Vacancies . . . . .	119
4.2	Empirical Results: Promotions (Constraint) . . . . .	126
4.3	Empirical Results: Promotions (Elite distance) . . . . .	127
6.1	Empirical tests vacancies (Constraint): Multiple Senate ideologies (Robustness Result) . . . . .	138
6.2	Empirical tests vacancies (Elite distance): Multiple Senate ideologies (Robustness Result) . . . . .	139

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# ABSTRACT OF THE DISSERTATION

by

Alicia Uribe

Doctor of Philosophy in Political Science

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James F. Spriggs II, Chair

## ABSTRACT

This dissertation project considers judicial appointments in a new light. The project, first, considers how appointments to the United States Federal Judiciary might be thought of differently if the appointment to multiple positions were thought of as interdependent decisions rather than independent decisions. I create a simulation based model that matches judges with vacant positions in the judiciary to see how our expectations of appointments should differ for different levels of the judiciary and in different political environments. I then consider how this approach might translate to other selection mechanisms comparing the selection system for the federal judiciary with other systems that are commonly used in the American states. I compare and contrast the results of these models to discuss how selection mechanism dictates the types of judges that are selected. Finally, I apply empirical tests to the testable predictions from the model of the United States Federal Judiciary, finding support for a number of the hypotheses that result from this approach.

# Chapter 1

## Introduction

There can be little doubt that judicial selection processes matter. Politicians and scholars alike have an interest in the manner by which judges are selected (Brace and Hall, 1997; Brace and Boyea, 2008; Caldarone, Canes-Wrone and Clark, 2009; Canes-Wrone, Clark and Kelly, 2014; Gordon and Huber, 2007; Hall and Bonneau, 2008; Huber and Gordon, 2004; Nelson, Caufield and Martin, 2013; O'Connor, 2010; Rehnquist, 2002). This interest exists for judges selected to all courts in both the state and federal judiciaries. There are a number of aspects of selection that are of interest. First, scholars have examined who is selected to these courts, especially as certain elements of the political environment change (Choi and Gulati, 2004; Clark, 2003; Danelski, 1964; Goldman, 1999; Krehbiel, 2007; Moraski and Shipan, 1999; Rohde and Shepsle, 2007; Slotnick, 2003). Second, scholars have examined components of individual selection processes (*see, e.g.*, Binder and Maltzman, 2004; Epstein and Segal, 2005; Goldman, 1999; Martinek, Kemper, and Van Winkle, 2002; Moraski and Shipan, 1999; Segal, 1987). Third, scholars have investigated how selection or retention mechanisms dictate judges' behavior once they are on the court (Besley and Payne, 2013; Brace and Boyea, 2008; Canes-Wrone, Clark and Kelly, 2014; Cann and Wilhelm, 2011; Choi, Gulati and Posner, 2011). In addition to research analyzing individual selection mechanisms, scholars are interested in the comparison of selection mechanisms, particularly how these mechanisms

lead to differences in the quality of judges (O'Connor, 2010) and the relationship between the court and the public (Brace and Hall, 1997; Brace and Boyea, 2008; Huber and Gordon, 2004).

In this dissertation project, I delve into the topic of judicial selection. In Chapter 2, I create a model that rethinks how judicial appointments are made. In Chapter 3, I adapt this model to match different selection processes in the United States, to see how the judges selected under different mechanisms differ. In Chapter 4, I test the testable predictions from the model created in Chapter 2.

Scholars have treated appointments to the United States Federal Judiciary as isolated events. In doing so, scholars have essentially assumed that each appointment decision is made independently. In Chapter 2, I create a model that instead thinks of these decisions as interdependent, or that each appointment decision affects the other decisions that are made. To do this, I conceptualize the question of judicial appointments to the United States Federal Judiciary as a portfolio problem, where the president must choose how to fill all vacancies in the judiciary, and the decisions that he makes are interdependent because the judges must be selected from a finite group of individuals. As a result, when the president decides to appoint a judge to one position, the judge cannot be appointed to any other position. To determine this portfolio, I create a simulation based model that matches judges with vacant positions in the judiciary. This model predicts not only who is selected, but also which positions remain vacant, making this the first model to predict presidential behavior at more than one stage of the selection process (time to nomination and who is selected).

In Chapter 3, I adapt this model to accommodate four additional selection mechanisms: single appointer, voting body, elections, and random assignment. The first three represent selection mechanisms that are currently utilized in the American states, while the fourth mechanism is used as a baseline to see how structured selection mechanisms dictate who is selected. In this chapter, I compare the results of these four mechanisms with the results in

Chapter 2, highlighting the tradeoffs that are inherent in the selection mechanisms utilized to select judges.

In Chapter 4, I empirically test to the testable predictions from Chapter 2. The model in Chapter 1 yields a number of predictions about the ideology and qualifications of the judges that are selected, the number of vacancies that are left open in the judiciary, and the number of vacancies that are filled by promoting judges within the judiciary as opposed to selecting new judges. In Chapter 4, I test the model's predictions about vacancy rates and promotion rates. The results of these empirical tests are, for the most part, consistent with the predictions from the model.

This dissertation project rethinks vital aspects of the appointment process, including the manner by which judges are selected. This project also compares how judges selected under different mechanisms differ from one another. Finally, this project empirically tests some of the model's predictions finding preliminary support for the model.

# Chapter 2

## Model of Federal Judicial Appointments

*Because in the long run, the federal judges the president chooses may be his most profound legacy. ... [J]udges remain.* - Bob Dole, 1996

In a 1996 speech, then presidential hopeful, Bob Dole, best stated the importance of judicial appointments. While presidents do many important things while in office such as declare and end wars and sign major pieces of legislation into law, few things have as profound an impact as the changes he makes to the United States Federal Judiciary. Courts produce policy through their decisions and as a result, the individuals who serve in the judiciary affect how law develops. The changes that the president makes to the judiciary through his appointments can have a large effect on how decisions are made. Judicial appointments are also one of the longest lasting legacies that presidents leave behind because the judges they appoint will serve in the judiciary and continue to impact judicial policy long past the president's tenure in office. There can be little doubt that judicial appointments matter to presidents.

Because of the importance of judicial appointments, a rich literature has developed that examines various aspects of the appointment process (*see, e.g.*, Binder and Maltzman 2004; Epstein and Segal 2005; Goldman 1999; Martinek, Kemper, and Van Winkle 2002; Moraski and Shipan 1999; Segal 1987). Yet, no work has looked at the portfolio of appointments that the president makes to fill vacancies within the judiciary. Instead, the literature to date has inherently assumed that appointments to the judiciary are independent. Scholars have focused on appointments to each level of the judiciary separately and treated each appointment opportunity as an isolated event without considering how other vacancies that are open at the same time can affect the president's behavior.

Traditional models of selection leave many questions about the process unanswered. These models consider individual vacancies and assume that the president will fill each vacant position, even if he is constrained by the Senate and cannot improve the location of the court (Choi and Gulati, 2004; Krehbiel, 2007; Moraski and Shipan, 1999; Rohde and Shepsle, 2007). However, vacancies often build up within the judiciary, with the president not addressing the vacant positions. Given the importance of judicial appointments, it is unclear why this type of behavior should ever occur. If, as the quote at the beginning of this chapter suggests, judicial appointments are the most profound legacy that a president can leave behind, why would he ever leave judicial positions vacant? This type of behavior makes little sense if considering appointments independently. However, when considering appointments as a portfolio decision where the president must fill multiple vacancies from a finite talent pool, the prevalence of vacant positions becomes more understandable.

In this chapter, I develop a model that considers the portfolio of appointments the president chooses to fill vacant positions within the United States Federal Judiciary. This is a model of presidential decision making under constraint. This approach differs from more traditional models of selection in a number of ways. First, the model incorporates both judicial ideology and qualifications. Second, there exists a finite pool of potential judges to

fill all vacant positions within the judiciary.<sup>1</sup> Third, the president makes decisions about how to fill all positions within the judiciary concurrently.

The model predicts a portfolio of judicial appointments. These predictions include not only who is selected, but also who is not selected, or, which positions remain vacant. As a result, this is the first model of the appointment process that is able to predict behavior at multiple stages of the process (delay in selection of nominees as well as the actual nominees selected).

The results from the model suggest that changes in a few key parameters dictate a number of the president's decisions. These parameters include the president's ideological position relative to the Senate, or, the constraint the president faces from the Senate; the composition of the judiciary; the size and composition of the talent pool (including the qualifications and ideologies of members in the talent pool); and the number of vacant positions within the judiciary. As these key parameters change, the ideology and qualifications of the judges selected, the types of judges selected (whether judges are promoted or selected to the judiciary for the first time), and the number of positions that remain vacant also change.

In this chapter, I develop a theoretical model that matches judges to vacant positions. In the next section, I review the literature on judicial appointments, I then set up and describe the model, discuss the results of the model, and conclude with thoughts about future extensions.

## Judicial Appointments

This chapter contributes to a widely understudied aspect of judicial appointments: selection. As noted previously, countless scholarly projects have focused on judicial appointments, however, most focus on easily quantifiable aspects of the appointment process, such as confirmation votes (Epstein and Segal, 2005; Epstein et al., 2006; Martinek, Kemper and

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<sup>1</sup>Or, for vacant positions at higher levels, the president can promote from within the judiciary.



Van Winkle, 2002; Segal, 1987; Segal, Cameron and Cover, 1992) and delay in confirmation votes (Epstein and Segal, 2005; Jo, 2011; Shipan and Shannon, 2003). Far fewer projects focus on the selection stage itself (Abraham, 2008; Epstein and Segal, 2005; Goldman, 1999; Moraski and Shipan, 1999; Nemacheck, 2008). This is due, in large part, to difficulty in gathering data relevant to selection decisions. Indeed, most of the data that is available is vastly restricted. In most cases, the only information readily available is the name of the person who was nominated. In general, little to no information is known about who the president considered for the nomination. Some speculation occurs about presidents' short lists, particularly when it comes to the Supreme Court (Epstein, Landes and Posner, 2013; Nemacheck, 2008); however, this information is largely unavailable for lower court appointments and the information that is available, even for the Supreme Court, is not necessarily a complete set of potential nominees who were considered. As a result, literature analyzing selection has done so through formal theory (Choi and Gulati, 2004; Krehbiel, 2007; Moraski and Shipan, 1999; Rohde and Shepsle, 2007) or by giving summary information about judges who were appointed (*see e.g.*, Clark, 2003; Danelski, 1964; Goldman, 1999; Slotnick, 2003). Empirical literature looking more broadly at selection has done so by examining aspects of the selection decision for which data are more readily available. Such empirical literature has looked at when the president makes his selection decision after a vacancy is first opened (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004; Shipan and Allen, 2011) and the factors that affect promotion either within the federal judiciary (Black and Owens, 2012; Epstein, Landes and Posner, 2013; Savchak et al., 2006) or from state supreme courts (Bratton and Spill, 2003).

This chapter contributes to the theoretical literature about judicial appointments. In this chapter, I focus on the portfolio of appointments to the full judiciary rather than individual appointments to a particular level of the judiciary. In doing so, I am able to better anticipate how the president makes decisions at each level.

The literature to date analyzing appointments to the federal judiciary has developed a thorough understanding of the appointment process. Scholars have shown how the president makes his decisions about when to fill vacancies (Binder and Maltzman, 2002, 2009; Massie, Hansford and Songer, 2004; Shipan and Allen, 2011) and who to nominate (Abraham, 2008; Epstein and Segal, 2005; Goldman, 1999; Moraski and Shipan, 1999; Nemacheck, 2008), along with how the Senate decides whether to confirm or reject the nomination (Epstein et al., 2004; Epstein and Segal, 2005; Epstein et al., 2006; Johnson and Roberts, 2004; Martinek, Kemper and Van Winkle, 2002; Massaro, 1990; Overby and Strauss, 1992; Scherer and Steigerwalt, 2008; Silverstein, 1994; Segal, 1987; Segal, Cameron and Cover, 1992; Stratmann and Garner, 2004) and how long it waits before confirming (Bell, 2002; Epstein and Segal, 2005; Jo, 2011; Nixon and Goss, 2001; Scherer and Steigerwalt, 2008; Shipan and Shannon, 2003; Stratmann and Garner, 2004). Despite each step of the process being analyzed in isolation, the findings about each element of the process are remarkably consistent. The empirical literature looking at judicial appointments finds that both the ideology and qualifications of potential nominees are important determinants of who is selected and confirmed and that constraint from the Senate can affect who is selected and when. This suggests that rather than each step of the process occurring in isolation of the other steps, perhaps one underlying process produces the results from each of these scholarly works. In this chapter, I will investigate the extent to which a single model of appointments can explain all of these phenomena.

In developing this model, I do not intend to negate or undermine any one theory or set of theories about judicial appointments, but rather, I seek to uncover a broader theory under which each of these individual theories can be explained that can also explain new aspects of the appointment process. This model is meant to bridge together existing theories by relying on what is known about the process from decades of scholarly work.

## Selecting Judges: A Portfolio of Appointments

Standard models of selection in political science are not adequately structured to handle portfolio problems. However, models of these types of decisions are exceedingly common in economics literature. In economics, scholars often think about the allocation of people to goods or workers to jobs and have developed models that can optimally match two groups of people or one group of people to goods or jobs (Gale and Shapley, 1962; Hall, 1935; König, 1931; Pentico, 2007; Roth, 1984; Roth and Sotomayor, 1990; Votaw, 1952). These types of models, which come in two varieties, matching and assignment models, seek to find an optimal matching of the two groups that minimizes some overall cost function for the complete match. These models range from exceedingly simple, where there are some equal number of agents and goods that need to be matched, to more complex variants of the simple model where certain aspects are changed to accommodate specific problems with the basic model, such as one group is larger than the other or multiple people can be matched with one good or position (*see, e.g.*, Aggarwal, Tikekar, and Hsu, 1986; Balinski and Sönmez, 1999; Shapley and Scarf, 1974).

In a matching model, some group of individuals must to be matched with either another group of individuals or a group of goods. Each individual has preferences over matches. One example of such a model is the matching of hospital residencies to doctors (Gale and Shapley, 1962; Darley, 1959; Roth, 1984; Stalnaker, 1953). In this model, there exists a group of hospitals and a group of doctors. Doctors give a rank ordering of their preferred hospitals and hospitals give a rank ordering of their preferred residents. To match the two groups, the algorithm starts with the doctors' rankings. If the hospital at the top of the doctor's rankings has the doctor in its top  $q$  slots, where  $q$  is the number of positions that the hospital has open, the two are tentatively matched. For any doctors not yet matched, if they are in the top  $q$  slots of their second choice hospital's rankings, the two are tentatively matched. This process continues until the end of the doctors' rankings has been reached. The model updates by removing doctors from the rankings of all hospitals that are lower

on the doctor's ranking than their tentative match. The algorithm repeats to find new matches. If a new match makes a doctor better off, the new match replaces the old one. This process of updating continues until no new matches are made. This approach is formulaic of matching models. There exists two groups that must be matched and a matching algorithm is devised to optimally match the groups. Other examples of matching models include marriage models, matching of buyers to houses, or coeds to dorm rooms (*see e.g.*, Gale, 1962; Shapley and Scarf, 1974). There are two main variants of matching models, two-sided models (*for a review, see*, Roth and Sotomayor 1990), such as the residency matching model, where both groups have preferences over matches, or one-sided models where only one group has preferences over matches.

Assignment models are very similar to matching models.<sup>2</sup> A typical assignment model consists of a group of agents (or employees) and tasks of equal sizes that need to be matched in such a way that the total cost of the assignments is minimized. The matching is constrained such that each task is assigned to one agent and each agent only one task. Variants of this model have incorporated qualifications into the assignment process, where not all agents are qualified for all tasks (Caron, Hansen and Jaumard, 1999).

In creating a model of judicial appointments, I start conceptualizing the model in a vein that is similar to these matching and assignment models in the economics literature. I am interested in finding the portfolio of judges that maximizes the president's payoff. While the model that I describe in this section bears some resemblance to these other models, ultimately there are a number of differences between the model that is best suited to this problem and these other models because of unique components of the judicial appointment process.

There are a number of aspects of the appointment process that must be captured in the model. First, the model must be able to select the optimal matching of judges to positions, which is determined by the group of judges that are appointed to a court. Second, there are

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<sup>2</sup>For a good overview of these models, see Pentico (2007).

two components of the individuals being matched that determines the optimal set of judges. I assume that the president wants to appoint judges who are ideologically similar to himself, but also that there is some premium for the qualifications of the judge appointed. Third, the model must be flexible to allow positions to remain unfilled in the judiciary. Finally, although this is a model of presidential decisionmaking, and I am interested in the portfolio of judges that optimizes the president's payoff, there is an external actor, the Senate, who can block these appointments. Ultimately, the model must incorporate each of these elements into the matching process.

The judges, or potential judges, have some set of courts to which they would prefer to be appointed. I assume that each potential judge in the talent pool desires to be on a court and has a preference to be placed on the highest court possible. For judges who are already on a federal court, they have a preference to be elevated to a higher court. These preferences are captured by the choice sets for the different positions. I assume there exists some pool of potential judges within the population. The size of this pool may vary.<sup>3</sup> Members of the talent pool can be appointed to any position within the judiciary.<sup>4</sup> Judges on district courts can be promoted to either circuit courts or the supreme court and the judges on circuit courts can be promoted to the supreme court. As a result, the choice set for the supreme court consists of the talent pool and all judges on the district and circuit courts; the choice set for circuit courts consist of the members of the talent pool living in the circuit and all

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<sup>3</sup>I simulate the model with three different sizes for this pool.

<sup>4</sup>Some may take issue with this assumption because not all judges are likely to be considered for all positions, mostly because they are not qualified for every position. The president's payoff function consists of a cost for appointing unqualified judges (and the threshold for determining qualified judges is higher for higher courts). This cost serves to limit the appointment of judges to courts for which they are not qualified if the cost of appointing an unqualified judge outweighs the shift in court output for appointing her. While in theory all members of the pool could be appointed to all positions, and based on Article II of the United States Constitution, there is nothing preventing this occurring, in practice, the costs serve to differentiate, to some extent, the choice sets that will be considered for each position. Furthermore, sometimes judges are nominated to positions for which they are not necessarily qualified, such as the nomination of Harriet Miers to the Supreme Court.

judges on the district courts in the circuit; and the choice set for district courts consists of all members of the talent pool living in the district.<sup>5</sup>

For this model to provide information about the portfolio of judicial appointments, it is necessary to match potential judges with positions. There are a couple of ways to go about this. One would be to use actual data about selection pools. This is not a feasible option because there is little information known about who is considered to fill positions within the judiciary. Short of having a list of names considered, but not chosen for, particular positions, this type of model cannot provide any information about who is selected. Another way to gain insight into the portfolio of appointed judges is to simulate appointments. This is the approach that I will take in this model. I simulate a talent pool and judiciary to be matched and use the results of the simulations to gain insight into the appointment process.

The president's objective is to allocate judges to positions within the judiciary such that his payoff function is maximized. The president's payoff is determined, in part, by his distance from each court ( $ct_j$ ), for all  $J$  courts in the judiciary.  $J$  is equal to the one supreme court, the  $C$  circuit courts, and the  $D$  district court. For this model, I use 4 district courts and 2 circuit courts. I restrict the number of courts for the sake of efficiency. I assume that judges can only be appointed to the district and circuits in which they live, so this approach does not limit possible appointments that would occur if there were a larger judiciary. This structure allows for comparison within each level as well as comparison across levels. The ideology for each court is determined by the decision rule for that court. Supreme Court cases are decided by a simple majority of 5 justices, so the median member of the court is the best approximation of court output. Circuit court cases are decided by randomly selected three judge panels. The decision rule on the panel is majority rule. As a result, the expected court location is equal to the average median for all possible three judge panels. To calculate

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<sup>5</sup>Judges for United States District Court vacancies are often chosen from potential judges living in the district (or at the very least living in the state) and Courts of Appeals vacancies are at times tied to a particular state, so only potential judges living in that state are considered (Giles, Hettlinger and Peppers, 2001). As a result, I assume that potential judges are only considered for a vacancy if they live in the district or circuit.

this value, I take the median for each permutation of three judges on the circuit and take the average of those median scores. District court cases are decided by a single randomly selected judge. The best approximation of district court decisions is the mean ideology score for the judges on the district court. The weights,  $w_{level(j)}$  reflect the importance of the court in the judicial system, where  $level(j)$  indicates whether court  $j$  is a district, circuit, or supreme court. A common assumption about appointments to the United States Federal Judiciary is that Supreme Court appointments are more important, or carry more weight, because of the importance of this court in the judicial hierarchy. Epstein and Segal (2005) suggest that often the president takes a much more active role in these appointments. If Supreme Court appointments are more important than those to lower courts, it follows that circuit court appointments should also hold more weight than district court appointments. To account for this diversity in the import of appointments, I incorporate these weights to account for how much each court is valued by the president. I assume the weight increases for each level of the judiciary. The ideological component of the president's payoff consists of a summation of the divergence of each court in the judiciary from the president multiplied by the weight for the court's position in the judiciary.

The president's payoff is also determined in part by the qualifications of the judges who are appointed. For the purposes of this model, I assume that the president does not care about the judge's qualifications because of any intrinsic value in having qualified judges, but rather qualifications factor into the president's payoff as a cost that he pays for appointing unqualified judges. This cost might best be thought of as a cost paid in political or public capital for choosing to appoint an ideologue judge who is unqualified.<sup>6</sup> The cost for appointing an unqualified judge is equal to some basic cost for the level of the appointment ( $c_{a,level(i)}$ ), where  $level(i)$  indicates the level where the judge is appointed, multiplied by the inverse of the judge's qualification score,  $q_i \in (0, 1]$ . Because the qualification scores are less

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<sup>6</sup>A good example of this type of appointment is George W. Bush's 2005 appointment of Harriet Miers to the United State Supreme Court.

than 1, taking the inverse of these scores will make the cost paid for appointing unqualified judges larger for judges who are less qualified. As with the weights for court ideology, I assume that this cost is higher for higher courts because the stakes are higher for these appointments. The cost is equal to some positive value if the judge’s qualifications fall below the threshold of qualifications for the court, and 0 otherwise. The total cost for the portfolio of appointments is equal to the sum of the cost for each of the  $N$  judges selected in the portfolio.

The payoff function consists of the ideological component described above, which is determined at the court level and a qualification cost component which is determined at the individual level of each appointment. The president’s payoff function is:

$$u_P = - \sum_{j=1}^J w_{level(j)} (ct_j - p)^2 - \sum_{i=1}^N c_{a,level(i)} \left( \frac{1}{q_i} \right) \quad (2.1)$$

Some may question if all three levels of the judiciary should be incorporated into a single model together. This would only be problematic if different processes determine appointments to different levels of the judiciary. The findings of previous literature are consistent with respect to what matters for appointment and confirmation decisions: for appointments to all levels of the judiciary, decisions are dictated in large part by the ideology and qualifications of the judges (Binder and Maltzman, 2009; Epstein and Segal, 2005; Epstein et al., 2006; Martinek, Kemper and Van Winkle, 2002; Segal, 1987; Segal, Cameron and Cover, 1992). The only differences that exist between levels is the degree to which these components matter. This suggests that it is the same process that drives appointments to each level of the judiciary, and the only thing that differs between levels is degree. The weights in the model allow the president to place greater emphasis on certain appointment decisions without dictating a specific behavior with respect to where judges are placed. By incorporating different weights and different costs for vacancies at each level, the model is able to handle these differences in the importance of vacancies at each level of the judiciary.



The two main components of the president's and Senate's payoff functions are the ideology and qualifications of the potential judges. I use these two components because previous literature consistently finds that these are the main components that factor into nomination and confirmation decisions (Binder and Maltzman, 2009; Epstein and Segal, 2005; Epstein et al., 2006; Martinek, Kemper and Van Winkle, 2002; Segal, 1987; Segal, Cameron and Cover, 1992). For this model, I assume that there is perfect information about the ideology and qualifications of potential judges. This assumption is prudent in the sense that nominees are vetted prior to appointment. However, uncertainty over each of these components might certainly be present, especially when considering utility over future decisions, because judges' ideologies can change once they are on the court (Epstein et al., 2007; Epstein, Landes and Posner, 2013; Martin and Quinn, 2007; Black and Owens, 2012). In future extensions of this model, I intend to incorporate this kind of uncertainty to see how it might affect appointment decisions.

I do not incorporate the Senate's preferences directly into the president's payoff function. There is no reason to anticipate that the president gains or loses any utility based on how well the Senate does in the president's appointment decisions. Instead, the Senate exists as a different actor in the model and only factors into the president's calculation by blocking or accepting nominees. Again, I assume there is perfect information and that the president knows whether the Senate will accept a nominee based on her ideology and qualifications. The Senate makes its decisions with respect to its own payoff function. If the Senate receives a greater payoff for accepting a nomination, then it will do so.

The president appoints judges to positions such that the appointments maximize his overall payoff. However, the judges must be approved by the Senate. The Senate's payoff is also determined by the court locations and the qualifications of the judges appointed. For the most part, the Senate's payoff function is identical to the president's payoff function, but with the Senate's ideology rather than the president's. However, the Senate also pays a cost,

$c_{r,level(i)}$  multiplied by the judge’s qualification score, for rejecting qualified judges.<sup>7</sup> As with the cost for appointing unqualified judges, the cost is greater for higher courts and increases for judges who are better qualified.<sup>8</sup> The total cost for each round of the model is equal to the sum of the costs for each of the  $M$  nominees that the Senate blocks. The Senate’s payoff function is:

$$u_S = - \sum_{j=1}^J w_{level(j)} (ct_j - s)^2 - \sum_{i=1}^N c_{a,level(i)} \left( \frac{1}{q_i} \right) - \sum_{i=1}^M c_{r,level(i)} (q_i) \quad (2.2)$$

In this model, I am necessarily limiting the role and complexity of the Senate. A broad literature suggests that there are multiple important and potentially pivotal actors in the Senate (Aldrich and Rohde, 2000; Cox and McCubbins, 2007; Krehbiel, 1998; Primo, Binder and Maltzman, 2008). In this model, I summarize the Senate’s role with a single ideology score. This is, primarily, a model of presidential decisionmaking and while the Senate matters for the purposes of potentially constraining the president, the internal workings of the Senate only matters to the extent that it constrains the president. Since, there is always some ideology that is potentially constraining, summarizing the Senate with a solitary ideology is not nearly as problematic in practice as it first appears. In fact, in many models of interactions between Congress and other political institutions, Congress is summarized through a solitary ideology or as an interval of ideologies (*see, e.g.*, Hettinger and Zorn, 2005; Segal, 1997).

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<sup>7</sup>Note, in this model, rejection never occurs. Instead, the Senate functions to block nominations; I assume that there is perfect information so the president knows if a judge would be rejected if nominated. He does not select any judge who would be rejected. The Senate still pays the cost for blocking the judge, because the president could in theory appoint the judge and make the Senate pay the cost. However, the portfolio of appointed judges only includes those judges who the president chooses to nominate and who would be confirmed by the Senate. In future extensions of this model, I plan to relax this component and incorporate uncertainty over rejection to see when the president appoints nominees explicitly to make the Senate pay the cost of rejecting, perhaps to curry more favor in the next round.

<sup>8</sup>An important note on the judges’ qualification scores: experience on a federal court increases the judge’s qualification score. As a result, judges on district and circuit courts often have higher qualification scores than judges who have no federal court experience (and judges on circuit courts have higher scores than those on district courts). As a result, this cost is paid more often when the president promotes from within the judiciary.

While surely, the results of the model would be more interesting by incorporating more information about the Senate process, or adding more pivotal ideologies for the Senate, for the most part, the results of the model are not affected by this limitation and to the extent that they are, this model would underestimate any constraint effects. This model essentially assumes that a single member of the Senate is pivotal for all confirmation decisions within the Senate at a given time. This would only not be the case if different Senators mattered for different appointments. If this were true, it would likely yield more extreme results than the current results of the model. Consider how the results would change if blue slip Senators served to constrain appointments.<sup>9</sup> Because only Senators from the nominee's home state can block the nominee through a blue slip, different ideologies would matter for different appointments. However, for each potential nominee, at most two Senators could constrain the president's decision about where to nominate the potential judge. Each potential judge can only be considered for a position on one district court, one circuit court, and one supreme court. The same Senator would serve as a constraint for nominations to the district or circuit court because the blue slip process is determined by the nominee's home state.<sup>10</sup> Since no blue slip process exists for the supreme court, a different Senator (median of the Senate, judiciary committee median, etc.) would pose the potential constraint for nomination to the supreme court. If the home state Senator is unlikely to submit a negative blue slip, then the pivotal Senator defaults to the same Senator for the supreme court nomination. For all states where this is the case, the results of the model as currently presented hold. For states where this is not the case, the ideology of the blue slip Senator likely poses a greater constraint than the default Senate ideology, otherwise the Senator would not need to present

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<sup>9</sup>For lower court appointments, Senators from the nominee's home state are sent a blue slip, in which their opinion of the nominee is requested. If a Senator sends back an unfavorable blue slip for the nominee, this often serves to effectively block confirmation of the nominee.

<sup>10</sup>While there are two Senators from every state that could submit a negative blue slip, in the literature, this constraint is summarized using a single ideology score for each state, which is determined by the likelihood that a negative blue slip will be submitted (Binder and Maltzman, 2002, 2004).

a blue slip to block the nomination.<sup>11</sup> As a result, when a blue slip threat is present, the president faces greater constraint for placing the potential judge on a lower court. For all states where this blue slip threat is present, the president would then be biased towards not appointing the judge or appointing the judge to the supreme court. If blue slip Senators are the pivotal actors in the Senate, any results of the model that predict where a potential judge is nominated or that predict non-selection of a judge would be biased. The results of the model are already biased towards placing judges on higher courts, so this result would not change if the model was adjusted to allow blue slips Senators to be pivotal, but the magnitude of the effect would likely be stronger. As for other results that might change by incorporating blue slip ideology, it is likely that more vacancies on courts where a blue slip threat is present would be left unfilled. Because the vacancy result is already determined based on the level of constraint the president faces, this result would still hold but instead be based on the level of constraint for the particular court. Thus, it seems that while some results of the model might change slightly by incorporating multiple ideologies (or more specifically, by incorporating the blue slip process), these changes would be minimal, and likely only make the current results even stronger.

In order to find the portfolio of appointments that optimizes the president's payoff, I could look at all permutations of possible portfolios to find the best one. Because this model has many more possible judges than vacant positions, the number of permutations is unwieldy. Instead, I hard-wire some assumptions into the matching algorithm that make these permutations unnecessary. A graphical depiction of the process is shown in Figure 2.1. The algorithm is as follows:

1. Vacancies occur randomly.<sup>12</sup>

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<sup>11</sup>Because this process is largely private, there is no reason to expect that Senators symbolically block nominees. As a result, the Senator will only present a blue slip if, without their attempt to block the nomination, the nominee would be confirmed.

<sup>12</sup>This requires an assumption that vacancies occur randomly within the judiciary, which surely some might take issue with given literature that suggests that judges retire strategically (Barrow and Zuk, 1990;

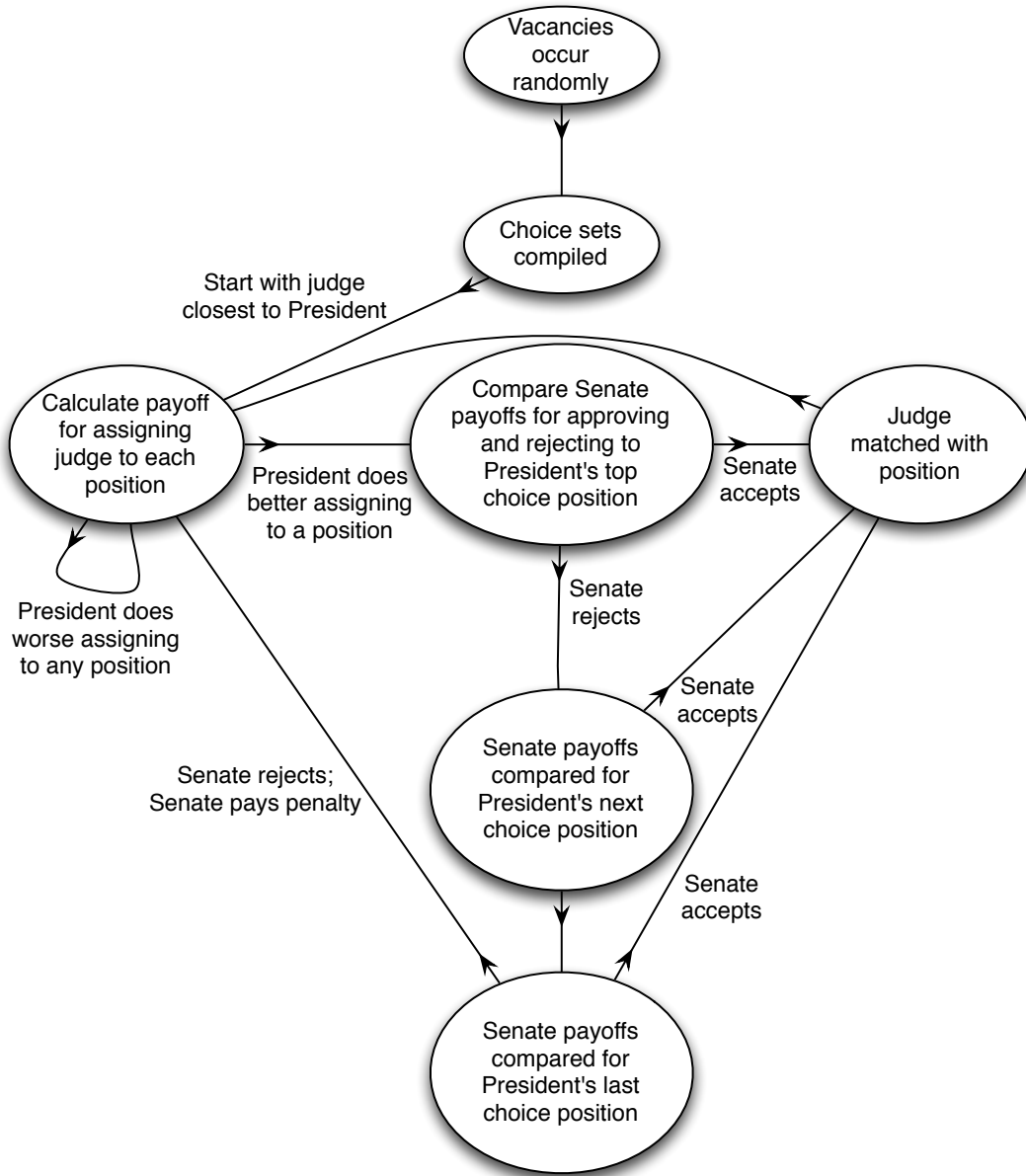


Figure 2.1: Matching algorithm within each round of the model

2. Lists of judges or potential judges located between the president's ideology and the status quo are compiled for each court.<sup>13</sup>
3. The lists for each court are aggregated into a master list.
4. Starting with the judge who is located closest to the president, the president's payoff is calculated for each possible appointment for that judge.<sup>14</sup>
5. If the president receives a higher payoff for appointing the judge to at least one of the positions than for not appointing her to any, the judge is matched with the position that gives the president the highest payoff and that the Senate will confirm. If the

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Hansford and Songer, 2010; Nixon and Haskin, 2000; Spriggs and Wahlbeck, 1995). While a more accurate model of vacancies would allow judges to decide when to retire, the assumption of random vacancies does not affect any of the results of the model. This model yields predictions about the president's strategy for filling vacancies given the ideology of the Senate and the status quo (or the ideology of the court if the president does not fill any vacancies). Allowing strategic retirements in the model would only affect the location of the status quo (since the judges retiring would be more closely centered around the president's ideal point). This assumption does not, however, affect the president's strategy for filling vacancies given the location of the status quo and the location of the Senate. This assumption would only affect the results if the president could force judges to retire, because the decision of who to appoint would not be exogenous to the status quo location. There is little reason to believe that this occurs in appointments to the United States Federal Judiciary.

<sup>13</sup>I impose this restriction for two reasons. The first reason is a practical one: it limits the number of possible judges who could be placed into each position. The second reason concerns presidential strategy. Without imposing this restriction, the model would tend to select extreme judges who would move the court output location as close to the president as possible, especially for lower courts where the court location is determined using a mean. Because means are not robust to outliers, selecting extreme judges will move the mean closer to the president, but at the cost of appointing judges who will make extreme decisions. This type of appointment is rare in practice, so I impose the restriction that the president will not appoint judges who are more extreme than himself. The results of the model hold when I lessen this restriction by allowing the president to select judges who are more extreme than himself, but not farther away from his ideology than the status quo for each court. The general relationships hold when loosening this assumption, though the strength of the relationships change. Another approach that might ensure that extremist judges are not selected would be to include a variance component into the president's payoff. In other words, the payoff function would include the quadratic loss component as well as a cost for the variance of the ideologies on the court. This would ensure that extremist judges who shift the mean, but increase the variance, would not be selected. In future extensions of the model, I intend to incorporate this variance component into the model.

<sup>14</sup>To determine the president's payoff, the new judge is placed on the court and the new court location is calculated and placed into the president's payoff function. If the appointment is a promotion within the judiciary, the judge is removed from their current court and placed on the new court, both court locations are calculated, and the president's payoff is calculated. If the judge's qualification score falls below the threshold for the court, the qualification cost is also added into the president's payoff function.

Senate will not confirm the judge to any of the president's preferred positions, the Senate pays the maximum cost for blocking the nomination.

6. If the president does better by not appointing the judge (or if the Senate will block the appointment to any position), the president moves on to the next closest judge.
7. Steps 4-6 repeat until all vacancies are filled or until all judges have been considered for all positions.

This algorithm relies on a number of assumptions about the appointment/matching process. First, the president does best by considering judges starting with the judge closest to his own ideology. Because I assume that the president will not appoint judges more extreme than himself, this assumption is straightforward. The largest shifts in court output will occur from appointments that are farthest away from the court's current location, and thus located as near to the president's ideal point as possible.<sup>15,16</sup>

A second assumption is that once a judge is matched with a position, she will not be moved later in the matching algorithm. This assumption requires another assumption, that the president has some preference for appointing like-minded judges to higher courts. The rationale for this assumption is relatively straightforward. If the judge is best matched with a district court position, each additional judge appointed to the court that is located between

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<sup>15</sup>This is not necessarily true for the Supreme Court because the decision rule dictates that the median member determines the location of the Court's output. As a result, the court location can only move to one of three locations (either of the ideal points of the two judges next to the current median or the ideology of the new judge) with the introduction of a single member (regardless of how extreme that judge's ideology is).

<sup>16</sup>The only time this assumption might be problematic is when a vacancy is filled through promotion, because promoting a judge moves two court locations. If promoting the judge moves the position of the judge's current court farther away from the president, the president might be able to do better by appointing a judge from a different court or who is not currently serving in the judiciary, even if the judge's ideology is farther away from the president's. However, if the president has some preference for appointing more like-minded people to higher courts, then the president would want to promote the judge to the position even though it might move the lower court's position away from his ideal point so long as there is some increase in his payoff for doing so. Because the president can fill the vacancy created by the promotion with someone who will shift the court some of the way back to the president's ideal point, this assumption is less problematic in practice.

the president's ideal point and the status quo will move the court's location closer to the president. As a result, moving any of the judges to a different court would shift the court location further from the president. If the judge is best matched with a higher court, the decision rules on these courts are such that multiple judges yield similar court locations. However, if the president has some premium for appointing judges located closer to his ideal point to higher courts, this assumption is fine. This additional assumption seems reasonable not only because appointments to higher courts are often assumed to be more important, but also because while a number of judges may yield the same median given the current set of vacancies, when future vacancies occur, having a judge located at (or very near to) the president's ideal point increases the probability that future medians will be located nearer to his ideal point.

A third assumption is similar to the second assumption; each sequential matching decision is made without concern for how the rest of the vacancies will be filled. Another way to think about this is to assume that each matching decision is made with the assumption that all other judges further away from the president will not improve the president's payoff and as such the president will leave all additional vacancies empty. Because the president begins selecting nominees with the judges that are closest to his ideal point, no judge who will be considered later in the matching process will improve the court's location more than the current judge. Furthermore, each match in the algorithm must increase the president's payoff over what his payoff was in the last step of the matching process. As a result, all other vacancies will only be filled if the president receives an increase in his payoff for doing so. The other assumptions cover any judge (or set of judges) farther away from the president that would yield the same court location or that would give a better overall payoff because another court position is not moved farther away from the president.

The final assumption works in conjunction with the third assumption: future appointments will not change the Senate's preferences over the current judge. At first glance, this assumption seems problematic, but because of the matching algorithm, this assumption is



not problematic in practice. The president begins filling vacancies with the judge closest to his ideal point and will never appoint an additional judge unless the Senate will approve both judges. If the Senate approved the first judge in an earlier step in the algorithm, either the judge improved the court's location relative to the Senate's ideal point (in which case rejecting the judge in a later round will move the court away from the Senate's ideal point) or the Senate accepted the judge because the cost of rejecting the judge outweighed the movement in the status quo away from the Senate's ideal point (which will still be the case if the Senate rejects the judge in a later round).

A few final notes on the computational setup for the model. The model is dynamic in the sense that the president's actions in the last round of the model affect his decisions in the current round.<sup>17</sup> Each round (or iteration) represents a year. I assume that Senate elections occur every 2 years and presidential elections every 4. In a presidential election year, with some probability, the president stays in office and the ideology of the president carries over for another 4 years, otherwise a new president is randomly chosen. In a Senate election year, with some probability the Senate's ideology shifts slightly (the same party retains control), and a small value is added to the Senate's ideology score, otherwise a new ideology score is chosen at random. At the end of each year, some set of judges leave the talent pool of potential judges and are replaced by a smaller group of potential judges centered around the president's ideal point. Programming details for the computational model are presented in Appendix A in Chapter 6.

## Results

To get a better sense of the model presented above, I start with a small example. Consider the judiciary in Table 2.2.1.

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<sup>17</sup>The model is not dynamic in terms of strategy. The president and Senate do not consider the payoffs they would receive in future rounds, rather the decisions in each round are independent of decisions that will be made in future rounds.

Level	1	2	3	4	5
Supreme	Vacant	$(.9, \frac{6.5}{12})$	$(-.2, \frac{8.5}{12})$		
Circuit	$(.9, \frac{4.5}{12})$	Vacant	$(-.1, \frac{9.5}{12})$	$(-1, \frac{6.5}{12})$	$(.5, \frac{5.5}{12})$
District	$(.1, \frac{10}{12})$	$(.5, \frac{9}{12})$	$(.4, \frac{4}{12})$		
Talent	$(-.5, \frac{4}{12})$	$(-.7, \frac{7}{12})$	$(.4, \frac{3}{12})$		

Table 2.1: The judiciary consists of one supreme court, one circuit court, and one district court. Judges on a court can be promoted to higher positions in the judiciary. There is a talent pool of potential judges that can be appointed anywhere within the judiciary. The columns indicate the individual member of each court or talent pool. The judges and potential judges are represented by their ideology and qualification scores: (ideology, qualifications). Consistent with the qualification scores in the computational model, these qualification scores are meant to reflect an additive scale for qualifications, which are anchored by the highest possible level of qualifications, 12.

To make this example tractable and easy to explain, I have limited the size of the judiciary to one supreme, one circuit, and one district court. I have also decreased the size of these courts to 3 members on the supreme court, 5 on the circuit court, and 3 on the district court. The talent pool consists of 3 members. The president's ideal point is .6 and the Senate's, -.2. If the president does not appoint any judges, he receives a payoff of -6.75. This will serve as a baseline to determine whether judges are appointed. To find the portfolio of judges that will maximize the president's payoff, I use the algorithm for the model. I denote a judge or potential judge using the level where they are currently situated in the judiciary: (t, d, c, or s) and the position where they are located in Table 2.2.1. For example, the judge on the district court who is in the first column in Table 2.2.1 is denoted as d1 and has an ideology of .1 and qualifications of  $\frac{10}{12}$ .

1. *Vacancies occur.* There are two vacant positions in the judiciary: one on the supreme court and one on the circuit court.
2. *Lists of judges or potential judges located between the president's ideology and the status quo are compiled for each court.* Using the median, the supreme court status quo is -.55. Using the mean of the medians of all possible permutations of three judge panels,

the circuit court status quo is -.5. The judges whose ideologies are located between the president's and the status quo for the supreme court are t1, t3, c3, c5, d1, d2, and d3. The judges whose ideologies are located between the president's and the status quo for the circuit court are t1, t3, d1, d2, and d3.

3. *The lists for each court are aggregated into a master list.* The list of all possible judges to be considered are: t1, t3, c3, c5, d1, d2, and d3.
4. *Starting with the judge who is located closest to the president, the president's payoff is calculated for each possible appointment for that judge.* The judge closest to the president's ideal point is c5. This judge is already on the circuit court, so she can only be appointed to the supreme court vacancy. If the president appoints c5 to the supreme court, his payoff is -6.78.<sup>18</sup>
5. *If the president receives a higher payoff for appointing the judge to at least one of the positions than for not appointing her to any, the judge is matched with the position that gives the president the highest payoff and that the Senate will confirm. If the Senate will not confirm the judge to any of the president's preferred positions, the Senate pays the maximum cost for blocking the nomination.* The president's payoff does not increase for appointing the judge to the vacant position.
6. *If the president does better by not appointing the judge (or if the Senate will block the appointment to any position), the president moves on to the next closest judge.* Because, the president does better for not appointing the judge, the next judge is considered.
7. *Steps 4-6 repeat until all vacancies are filled or until all judges have been considered for all positions.*

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<sup>18</sup>Note, because this judge is already on a court, she must be removed from her current position and the new circuit court location must be calculated in addition to the new supreme court location.

- (a) The next closest judge is a two way tie between t3 and d3. For both judges, the president's payoff is calculated for appointing the judge to the circuit court vacancy and to the supreme court vacancy. His payoff increases for appointing either judge to either court, but the Senate would reject any nomination and because neither potential judge has high qualifications, the Senate pays no cost for doing so. The next closest judge is considered.
- (b) The next closest judge is d1. If d1 is appointed to either court, the president's payoff increases, and his payoff is greatest for appointing to the supreme court. The Senate's payoff is higher for approving the nomination to the supreme court than rejecting, so d1 is appointed to the supreme court. Because the judge is promoted from a district court, there are now vacancies on the circuit and district courts. Because there are still vacant positions, the process continues. The president's baseline payoff when considering judges for the remaining vacancies is now his payoff for having appointed d1 to the supreme court, which is -4.76.
- (c) The next closest judge is d2. Because this judge is on the district court already, she can only be appointed to the circuit court. The president's payoff is improved by appointing d2 to the circuit court, but the Senate's payoff is higher if it rejects. The judge's qualifications are above the threshold for the circuit court, so the Senate pays the cost for blocking the nomination.
- (d) The next closest judge is t1. The appointment of t1 to any position makes the president worse off, so she is not appointed to any position.
- (e) There are no judges remaining from step 3, so the algorithm ends. In this example, the president appoints d1 to the supreme court vacancy and leaves the resulting district court appointment and the circuit court appointment open for future rounds.

This preliminary example reveals a number of features of this model. Conventional wisdom about appointments suggests that both the circuit and supreme court vacancies should have been filled by judges with ideologies near to the president's ideal point. The qualifications of the judges played a key role in this example; many of the judges located near to the president's ideal point were not qualified for the vacant positions. Constraint also played a role in these results. The judges who were close to the president's ideal point, who were also qualified, were not so qualified that the Senate would pay a cost to reject them, so the nominations were blocked. The finiteness of the pool of judges also affected the results. A number of key differences in the parameters of the model could have yielded different results, including the judges in the judiciary, the size and composition of the talent pool, and the president and Senate's ideal points. To yield more in-depth predictions from the model, I turn to simulation.

When considering more realistic numbers of possible judges, such as 500 or more, and a more realistic judiciary, this type of model is best approached through simulation. I have simulated 5000 iterations of the model for three different initial talent pool sizes: 500, 1000, and 2000. For each run, I store information for only the latter 3000 iterations of the model.<sup>19</sup> The Supreme Court in the model consists of 9 members; the size of the 2 circuit courts are modeled after the 9th and the 5th circuits, which have 29 and 17 judges respectively; the district courts are modeled after the Central District of California and the Arizona District in the 9th circuit, which have 28 and 13 judges respectively, and the Southern District of Texas and the Eastern District of Louisiana in the 5th circuit, which have 19 and 12 judges respectively. The 9000 simulated iterations of the model for which I have saved the matched appointments provide roughly 67,000 appointments to analyze. The results of the model are presented below.

### *Ideology of Judge*

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<sup>19</sup>This will ensure that any initial effects of the random seed chosen are not captured in the results of the model that I analyze.

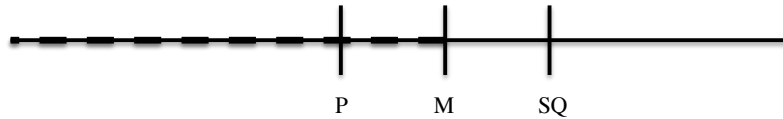
There are a number of potential variables of interest in this model. One of the most obvious is the ideology of the judge. One of the main questions that can be answered by this model that has not been addressed in previous literature is where the president appoints the judges whose ideologies are most similar to his own. To get a sense of the ideologies of the appointed judges, I have graphed the matched appointments in density plots in Figure 2.3. This graph shows the proximity of the judge by the level of the appointment. The graph is further broken down by the level of constraint that the president faces from the Senate. I define a president's constraint as the location of his ideal point relative to the Senate and the status quo (or the reversion point if no appointments are made). For the remainder of this chapter, I conceptualize constraint as either binary, the president is constrained because he disagrees with the Senate over where to move the status quo, or as "regimes" of constraint, the president is either unconstrained, semi-constrained, or fully-constrained, similar to Moraski and Shipan (1999). Figure 2.2 shows how the arrangement of the preferences of the president and the Senate and the status quo help to determine the level of constraint the president faces. The president is unconstrained when the Senate is located to the left of  $M$ , the midpoint between the president and the status quo, which is the dashed region in Figure 2.2a. If the Senate is located in this region, the president can appoint a judge at his ideal point and the Senate will prefer the appointment of the judge to the status quo. The president is semi-constrained when the Senate is located between  $M$  and the status quo, the dashed region in Figure 2.2b. In this region, the Senate prefers the location of the status quo to the president's ideal point, so is more likely to reject a judge located at the president's ideal point.<sup>20</sup> The president is fully-constrained if he and

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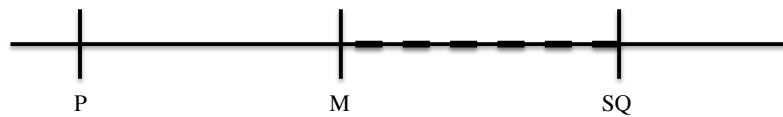
<sup>20</sup>Because the payoff functions are calculated using the location of the court once a judge is appointed, and both the president and Senate prefer a shift in the court in the same direction, the president might still be able to select a judge located at his ideal point that will yield a court location the Senate prefers to the status quo in this regime. For the sake of efficiency and space, information is not stored on the compositions of each court as the matching process proceeds, so it is not possible to tell the exact location at which a judge could be selected that the Senate would prefer to the status quo. As a result, in the semi-constrained regime, the president might still be unconstrained in that he can select a judge at his ideal point and the Senate would confirm. The approach I use here is the best approximation of determining the president's level of constraint.

the Senate are located on opposite sides of the court, the Senate is in the dashed region in Figure 2.2c.<sup>21</sup> In this regime, the Senate prefers the location of the status quo to any movement of the court towards the president’s ideal point based on ideology alone.

2a: Unconstrained President (Regime 1)



2b: Semi-Constrained President (Regime 2)



2c: Fully Constrained President (Regime 3)

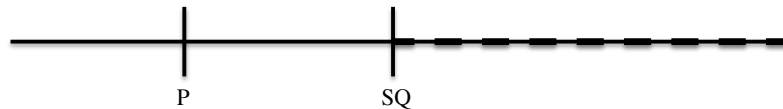


Figure 2.2: President’s level of constraint. The arrangement of the president’s and Senate’s preferences and the status quo determine the level of constraint the president faces from the Senate. The president faces a particular level of constraint when the Senate is located in the dashed region in each subfigure.

Any results that suggest differences between when a president is unconstrained and semi-constrained should be considered a conservative bound on the differences between these levels of constraint.

<sup>21</sup>The binary classification (constrained or unconstrained) will suffice when I look at any outcome of the model for which it only matters whether the president and the Senate can agree on which direction to move the status quo. For example, when looking at whether the president fills a vacancy. However, this is not as informative a conceptualization of constraint when considering who is actually appointed. I take the “regimes” approach for any analysis looking at the actual individual selected, since the expected ideology of the judge differs based on whether the president or the Senate is closer to the status quo, even if the two agree on which direction to move the court.

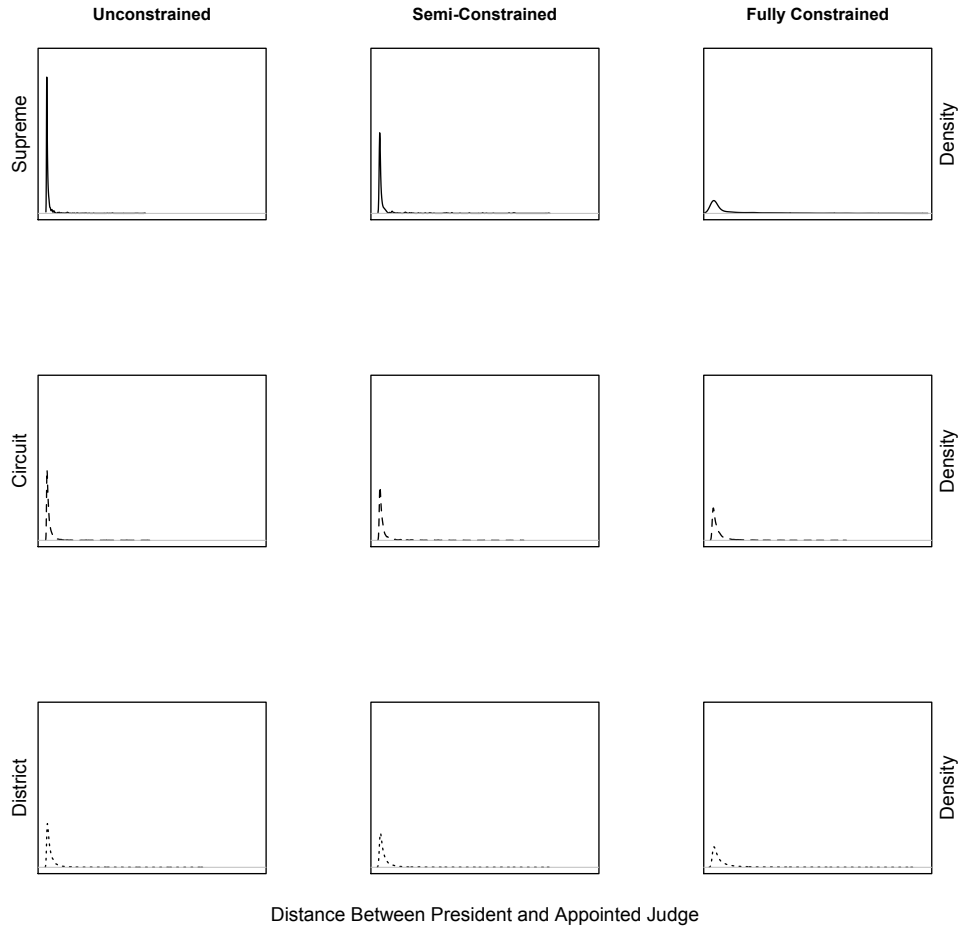


Figure 2.3: This graph shows the density of the absolute distance between the president’s ideal point and the ideal points of the appointed judges. The graphs across the columns correspond to the level of constraint that the president faces from the Senate: unconstrained, semi-constrained, and fully constrained. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are identical.

In looking at these graphs, a few patterns are immediately evident. First, the president appoints judges who are closer to his ideal point when he is less constrained and he does so more consistently.<sup>22</sup> One may wonder about the skew in each of these graphs. One of the main reasons for this skew is that the distance between the president and the status quo varies within each graph. When the president is farther away from the status quo, the judges

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<sup>22</sup>Kolmogorov-Smirnov tests confirm that the distributions in these graphs differ significantly.



appointed are farther away from the president's ideal point on average than judges selected when the president is close to the status quo. As a result, when the president is farther from the status quo, he is more likely to appoint judges farther from his ideal point. The extent of the skew, however, is particularly interesting. The distribution of the distance between the president and the status quo is roughly similar among each of these graphs (though this variable is on average higher in the semi-constrained regime as a result of the measurement of this variable). However, the skew is much wider in the fully constrained regime than in the unconstrained or semi-constrained regimes. This suggests that the level of constraint leads to more judges being selected at locations farther from the president's ideal point even controlling for differences in the distance between the president and the status quo. As the president becomes more constrained, the mean distance between the president and appointed judges increases for all courts. The skew of the appointed judges' ideal points also increases as the president becomes more constrained. Second, when the president is unconstrained, he appoints judges who are closest to his ideal point to higher courts. The skew in the judges' ideologies are also smaller for higher courts when the president is unconstrained. This relationship starts to change when the president is semi-constrained. Though the modal judge appointed to the supreme court in this regime is still closer than the modal judge appointed to lower courts, the skew for the judges appointed to the circuit courts is smaller than for the other courts when the president is semi-constrained. When the president is fully-constrained, this pattern changes even further. When the Senate and the president disagree over which direction to move the court, the judges who are most ideologically similar to the president are placed on circuit courts (with a lower skew for these judges). The next closest judges are placed on district courts and then the supreme court. This likely has to do with the decision rule on these courts. The average shift in court location following the appointment of judges is roughly similar for the supreme and circuit courts when the

president is fully-constrained, with the larger shift occurring on the supreme court.<sup>23</sup> This suggests that appointments on circuit courts have a smaller impact on the location of the court than those to the supreme court. Still, the variance of the ideologies of the judges appointed to the supreme court when the president is fully-constrained is much larger than that of judges selected to circuit courts, indicating that the president's ideology is not as good a predictor of the ideology of judges appointed to the supreme court.

Some of these results are likely driven by the assumptions underlying the algorithm of the matching process, particularly assumptions two and three. If the president were to move judges in later steps of the matching algorithm (or consider appointments that could occur in later steps), this would likely have the greatest effect on the proximity of supreme court appointments. Because a number of judges move the median to the same location, the closest judge need not be appointed to the supreme court to yield the same court output. However, for reasons stated previously, it is still likely that the president would place the most ideologically similar judges on the supreme court. If this assumption were relaxed, I expect that the "best" judges would move to lower courts later in the matching algorithm, thereby potentially changing this result. However, while on average, the closest judges are placed on the supreme court, the closest judge could be placed on a lower court in the matching process for one of two reasons. First, the judge is unqualified for higher courts, so they are placed on a court for which the president will not pay a cost to appoint. Second, while there is a greater weight for higher courts built into the president's payoff function, meaning that any shift in court output for appointing a judge to higher courts is magnified over a similar shift for a lower court appointment, if the lower court is particularly far away from the president, appointing the judge to a lower court may result in a change in court output that can outweigh the shift that would occur if the judge were appointed to a higher

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<sup>23</sup>This is measured as the difference between the court's location before any appointments are made and the court location after all appointments are made in a particular year. The average shift in court location is smaller for district courts in this regime than for the circuit and supreme courts.

court, even accounting for the difference in these weights. As a result, at times even if the best judge is qualified for all positions, she is still placed on a lower court.

This initial result is promising. Conventional wisdom about judicial appointments suggests that judges who are most similar to the president will be appointed to higher courts, which is confirmed in the results of this model. While the model is structured such that there is some bias towards this result, it does not hold for each iteration of the model, nor does this finding hold when the president is most constrained. This not only provides some external validity to the model, but also suggests that this model provides some new hypotheses to test about when this conventionally held understanding about judicial appointments does not occur in practice.

### *Qualifications*

Another interesting dynamic of the model concerns the qualifications of the appointed judges. The mean qualifications of the judges matched in the simulations are plotted in Figure 2.4. The qualifications are graphed per court for each level of constraint.

The qualification scores of the appointed judges always increase for higher positions. This result makes sense given the structure of the model. The qualification thresholds are higher for higher courts, so more qualified judges are appointed to these courts. Additionally, the qualifications increase as the president becomes more constrained. This result makes sense in light of the costs for rejecting qualified nominees. As the president becomes more constrained, he has a greater incentive to choose judges whose qualifications are above the threshold at which the Senate would pay a cost to reject the judge. This ensures that the Senate will be more likely to confirm the judge and will do so if the cost for rejecting exceeds the shift in the court location from the Senate's ideal point. Furthermore, the variance of the qualifications of the appointed judges decreases for judges selected when the president is fully constrained. While the variance is roughly the same when the president is unconstrained and semi-constrained for each level of the judiciary, the variance is much smaller when the

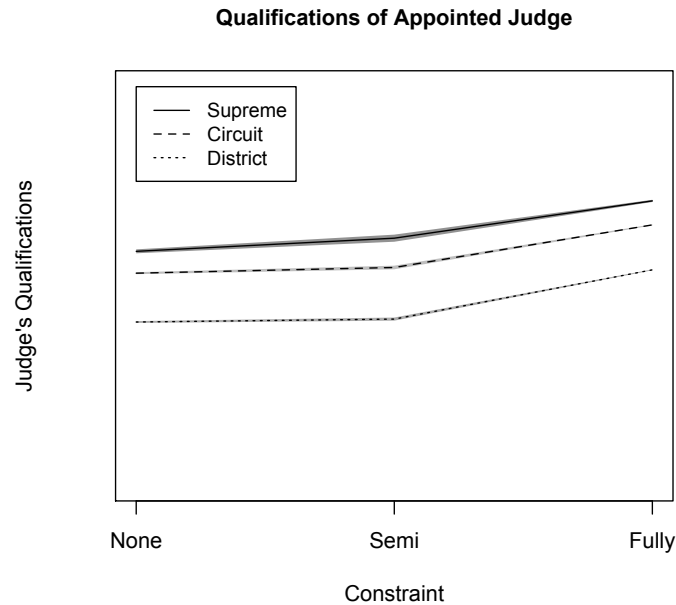


Figure 2.4: Qualifications of Appointed Judge. The y-axis is the qualifications of the appointed judges. Values towards the top of the graph represent judges with higher qualifications. Each point on the graph is equal to the mean qualifications for judges selected to a particular court when the president faces a certain level of constraint. 95% confidence intervals are shown around each mean.

president is fully constrained, since he must selected judges whose qualifications are above the threshold or the Senate will reject his nominees.

### *Promotions*

A new dynamic that this model predicts is the type of judge that is appointed. The model predicts when the president is more likely to promote within the judiciary versus filling vacancies with new talent. Empirical literature has been surprisingly silent on the question of promotions within the judiciary, with just a few articles published about the instances in which certain judges are most likely to be promoted (Black and Owens, 2012; Epstein, Landes and Posner, 2013; Savchak et al., 2006). What this model suggests is that there are certain instances in which promotion is more likely in general. Figure 2.5 shows

the percentage of vacancies that are filled through promotion on the circuit courts and the supreme court as the president becomes more constrained.<sup>24</sup>

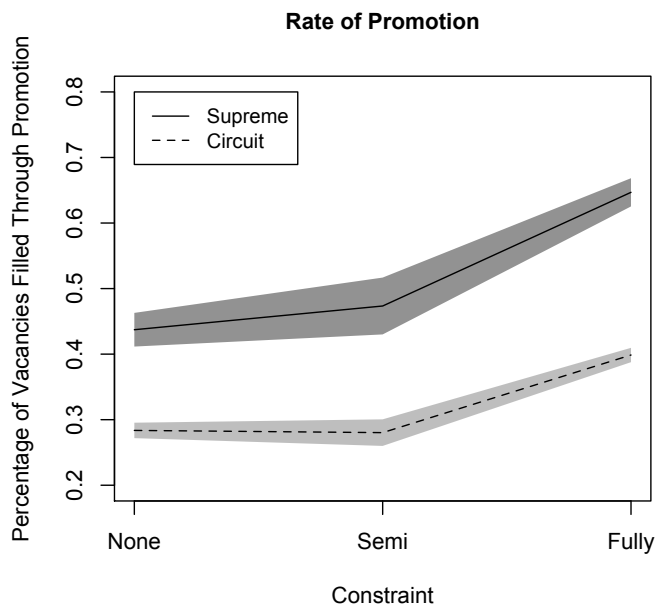


Figure 2.5: Percentage of vacancies filled through promotion. The y-axis measures the percentage of vacancies that are filled through promotion. The x-axis measures the level of constraint the president faces from the Senate, with the president being either unconstrained (none), semi-constrained (semi), or fully-constrained (fully).

A few patterns are evident from this graph. First, promotions are more likely, in general, to the supreme court than they are to circuit courts. This result makes sense if for no other reason than the fact that there are more people to promote to the supreme court. Not only does this result make sense intuitively, it is a widely understood empirical reality about judicial appointments. Since 1981, 80% of nominations to the Supreme Court have been promotions within the judiciary. On circuit courts, only about 30% of nominations were promotions in the same time frame. That the matching model can predict this result that is

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<sup>24</sup>This graph only shows the promotion rate when there is at least one position to fill on the court. The data points used to create the graph are calculated using the average promotion rate in each category (so for circuit courts or the supreme court when the president is unconstrained, semi-constrained, or fully-constrained). 95% confidence intervals are graphed around the means.

taken as a fundamental truth about appointments, provides a great deal of support for the other results of the model.

More interestingly, the promotion rates change as the president becomes more constrained. On both the circuit and supreme courts, there is no change between when the president is unconstrained and semi-constrained, but there is an increase in promotion rates when the president is fully-constrained.<sup>25</sup>

There are two main reasons to expect more promotions as the president becomes more constrained. First, when the president is constrained, he can generally leverage appointments of judges who are located closer to his ideology when the nominee is better qualified. Because current judges have higher qualification scores on average and the pool of non-judges with qualification scores comparable to the current sitting judges is much smaller, it becomes increasingly more likely that vacancies will be filled through promotion. Second, when the president is fully-constrained, the Senate and president disagree over which direction to move a particular court. If the president promotes a judge from a lower court, he moves the location of two courts: the court where the appointment is made and the court where the judge is promoted from. Because the president and Senate have divergent preferences about where they want court outputs, this results in a compromise of sorts: the one court is moved towards the president and the other is moved towards the Senate (because the judge being removed is close to the president's ideal point). As a result, the president is not only able to leverage the qualifications of the judge, but also the additional movement of the lower court location. The qualification cost and lower court movement not only work together to help get judges approved by the Senate, but they also work separately. The president does at times

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<sup>25</sup>This result is contingent on the qualification threshold for the Senate's rejection cost. In the results presented, I have set the threshold at a level such that the Senate pays a cost for rejecting members of the talent pool that have particularly high qualification scores. If the threshold level is set at a higher qualification score, where no new judges have qualification scores that are high enough to make the Senate pay a rejection cost, then all vacancies are filled through promotion when the president is constrained (but vacancies are filled with new judges when the president is unconstrained). This occurs because when the president is constrained, he mostly appoints judges whose qualification scores are above the cost threshold (though he does appoint judges who are not above this threshold, but only when he promotes or when the judge does not move the location of the court).

appoint judges whose qualifications are below the threshold when he is fully-constrained, but in each instance, the appointment is a promotion within the judiciary.<sup>26</sup>

An additional dynamic that affects promotion rate is the size of the talent pool. Because I simulated the model using three different sizes of initial talent pools, I am able to see how often vacancies are filled through promotions as the size of this pool changes. There exists a negative correlation between the size of the talent pool and the rate of promotions. As the size of the pool increases, there are more potential judges with high qualification scores. Additionally, since there are more judges, more of these highly qualified judges will be located close to the president's ideal point, decreasing the need for the president to promote. This result is fairly straightforward. If there are more new people who can be appointed, the president is more likely to find judges who are qualified and located close to his ideal point.<sup>27</sup>

### *Vacancies*

A final component of this model that is of interest is how often the president leaves vacancies open (because he cannot improve his payoff by appointing additional judges). To think of this in terms of language often used in empirical literature, this is a measure of when to expect delay in nominations. Figure 2.6 shows the percentage of vacancies left open when the president is constrained and when he is unconstrained for each level of the judiciary.<sup>28</sup>

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<sup>26</sup>This is mostly true for the circuit courts. Due to the way that the circuit court ideology is calculated, it is possible to appoint a judge near the president's ideal point who does not affect the expected court output for the court. As a result, at times judges are appointed to circuit courts when the president is fully constrained whose ideologies are below the threshold for which the Senate will pay a cost to reject, who are also not promoted, because they will yield no change in the location of the court.

<sup>27</sup>Again, this result is contingent on the cost threshold level. If the threshold level is sufficiently high that the president does not appoint new judges, then the size of the talent pool will have no effect on the promotion rate when the president is constrained.

<sup>28</sup>To calculate this statistic, I include only those vacancies left open when there is at least one vacancy to be filled as measured by the sum of vacancies unfilled in the last iteration, the number of vacancies that open in the current iteration, and the number of promotions that occur in the current iteration that create new vacancies to be filled. The data points used to create this graph are measured using the average percentage of vacancies unfilled for each court for each level of constraint. 95% confidence intervals are graphed around the means.

The interplay between the president and the Senate is often cited as the reason that there are so many vacant positions in the judiciary. Even the Chief Justice of the United States Supreme Court will specifically appeal to both in his year end report (Rehnquist, 2002; Roberts, 2010). Figure 2.6 shows that a larger percentage of positions are left open when the President is constrained. This effect is largest for the supreme court, with smaller effects for the circuit and district courts.

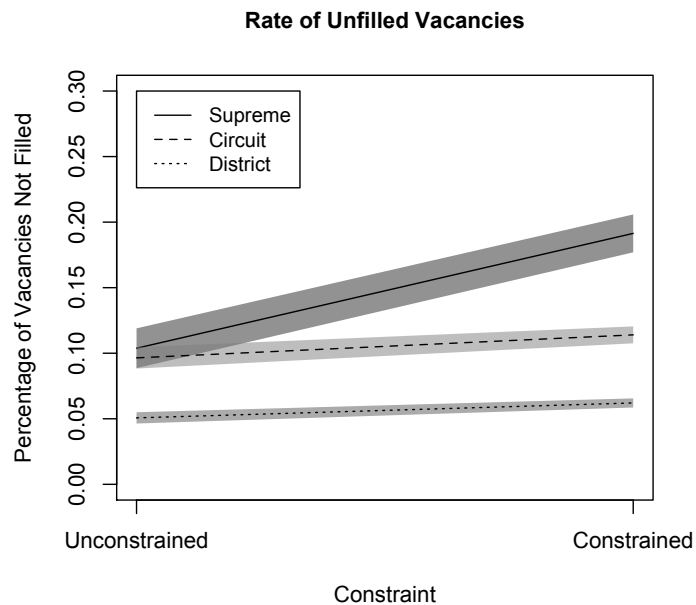


Figure 2.6: Vacancy rate. The y-axis measures the percentage of vacancies that are still open at the end of each round of the model. The x-axis measures the level of constraint the president faces (either unconstrained or constrained).

Still, the graph in Figure 2.6 is not overly compelling, particularly for the district and circuit courts. If constraint does not fully explain judicial vacancies, what other factors might play a role in the persistence of judicial vacancies? One question is how the persistence of vacancies affects the vacancy fulfillment rate. There are often long runs of vacancies that build up within the judiciary. Why does this happen; is there some self-fulfilling component to these built up vacancies? Figure 2.7 shows how the number of “inherited vacancies”, or vacancies carried over from a previous year, affect the president’s ability to fill vacancies in the current year. To create this graph, I estimated a logistic regression of the proportion of



vacancies that are left open at the end of each round on the number of vacancies “inherited” from the previous round, whether it is the president’s first year, and an interaction between the two.<sup>29</sup> This figure shows the predicted proportion of unfilled vacancies for each possible value of “inherited” vacancies. I have graphed these predictions for new and continuing presidents with 95% confidence intervals surrounding the predictions.

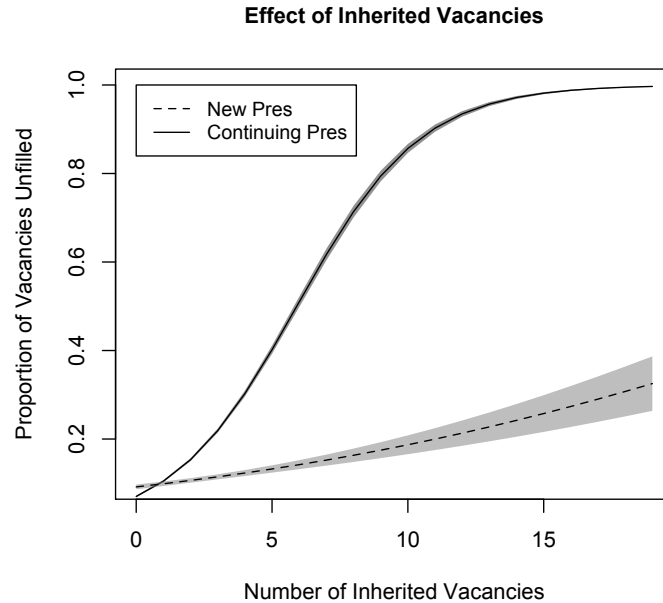


Figure 2.7: Vacancy rate. The y-axis measures the predicted proportion of unfilled vacancies. The x-axis measures the number of vacancies that carry over from the previous round.

This figure suggests that the number of vacancies that are “inherited” from previous rounds of the model affects the rate of unfilled vacancies. As the number of “inherited” vacancies increases, the percentage of vacancies that are left open in the current round increases. This effect differs for new and continuing presidents. For new presidents, the

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<sup>29</sup>I use a measure of vacancies that were open in the geographic area of the court at the end of the last round. For district courts, this means the vacancies on the district court, its circuit court, and the supreme court. For circuit courts, this is all vacancies on the circuit court, the district courts in the circuit, and the supreme court. For the supreme court, this is equal to all vacancies in the judiciary. I use the geographic vacancies rather than just the vacancies on that court because all courts in the geographic region have overlapping choice sets, so it is expected that all vacancies on those courts will affect one another.

rate of unfilled vacancies is always lower than for continuing presidents.<sup>30</sup> The effect of “inherited” vacancies is also much smaller for new presidents than continuing presidents.

Another factor that contributes to the rate of vacancies is the distance between the president and the court’s status quo location. Figure 2.8 shows the vacancy rate as the distance between the president and the status quo increases. For each point on this graph, the vacancy rate is equal to the average number of vacancies open when the distance between the president and the status quo is between the value at that point and .1 plus that value. So for 1.3, the vacancy rate is equal to the mean vacancy rate when the distance between the president and the status quo is in (1.3,1.4].

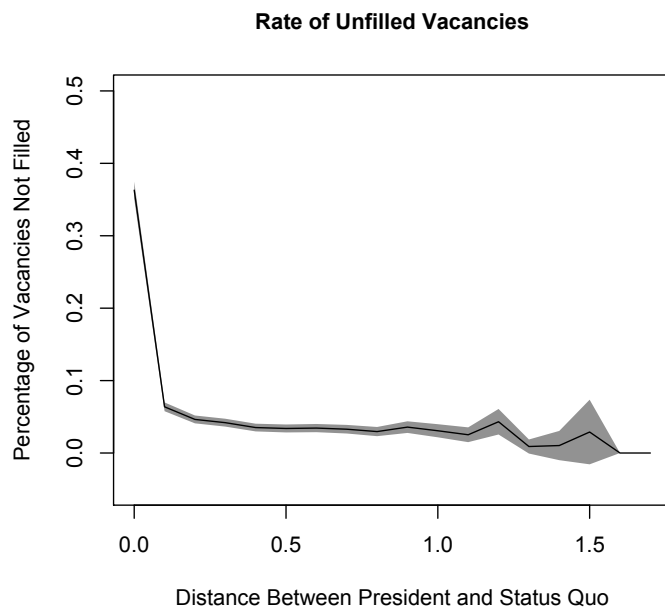


Figure 2.8: Vacancy rate. The y-axis measures the percentage of vacancies that are still open at the end of each round of the model. The x-axis measures the distance between the president and the status quo.

For the most part, as the distance between the president and the status quo increases, the percentage of vacancies that are left open decreases. When the president is sufficiently far from the status quo, he fills all vacancies. This result is straightforward; when the president

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<sup>30</sup>It is worth noting that because a new president is in his first year, it is expected that he will fill as many vacancies as possible to begin moving the courts towards his ideal point.

is farther away from the court, appointing more judges will move the court closer, but when he is relatively close to the court, there is likely some point at which appointing more judges will not improve the location of the court, so he leaves vacancies open.

A final dynamic that affects the vacancy rate is the size of the talent pool. Figure 2.9 shows the percentage of vacancies that are left open on each court for each initial talent pool size.



Figure 2.9: Vacancy rate. The y-axis measures the percentage of vacancies that are still open at the end of each round of the model. The x-axis measures the initial talent pool size.

There is a noticeable decrease for each court for larger talent pool sizes in Figure 2.9. For the district and circuit courts, there is a consistent decrease in the vacancy rate as the talent pool size increases. For the supreme court, there is no difference in the vacancy rate for talent pool sizes of 500 and 1000, but there is a statistically significant difference between talent pool sizes of 500 and 2000 and 1000 and 2000.

## Discussion and Conclusion

In this chapter, I have presented a model matching potential judges to positions within the judiciary. This is the first scholarly work to consider the portfolio of judges appointed to the judiciary rather than individual appointments. In addition, this is the first model to examine multiple stages of the appointment process at once. I do this by creating a model in which vacancies occur throughout the judiciary and the president must fill the vacancies with new talent or by promoting judges within the judiciary. The model predicts not only who is selected, including information about whether the judge is promoted from within the judiciary, but also when the president delays filling vacancies.

The results of this model are very encouraging. Many of the results are consistent with previous research or conventionally held wisdom about judicial appointments: the president appoints judges located as close to his ideal point as possible, the “best” judges are placed on higher courts, and disagreement with the Senate affects both the timing to nomination and the ideology of the judges that are selected. In addition, the results of this model produce a number of new hypotheses about the appointment process both about when certain expectations from previous research break down as well as new variables that affect vacancy rate and promotion decisions.

As with any theoretical model, this model is an abstraction of the process. As a result, there are a number of potential extensions to this model and future research should explore many of these extensions. Such extensions include: incorporating multiple pivotal players in the Senate; adding additional players, such as interest groups, into the model; adding uncertainty about Senate rejections; adding uncertainty about judges’ ideologies and qualifications; and allowing judges’ ideologies to shift once they are on the court.

Judicial appointments are an important part of any presidency. As the quote that opened this paper suggests, for a president, judicial appointments “may be his most profound legacy”. The model that I have presented in the paper shows that a number of key elements factor into the decisions that the president makes. First, the composition of the judiciary

and pool of judges from which the president can appoint affect the number of vacancies that are left unfilled, the ideology and qualifications of the judges selected, and the way in which vacancies are filled (either through promotion or by selecting a new judge). Second, a large determinant of delay in filling vacancies is the number of vacancies that build up in the judiciary. When a president inherits vacancies from a predecessor, or allows vacancies to build up in the judiciary within his own presidency, his ability to fill vacancies is affected and there is more delay in filling vacancies. Lastly, this model suggests that Senate constraint affects each of the components of judicial appointments. When the president faces constraint from the Senate, he selects judges with different ideologies and qualifications, there is more delay in filling vacancies, and he is more likely to fill vacancies through promotion rather than selecting new judges. This model suggests that the bulk of the president's appointment decisions can be explained simply by the composition of the current judiciary, his position relative to the Senate, the number of vacancies that need to be filled, and the size and composition of the talent pool of judges he can appoint. As these four parameters change, the president's behavior with regard to when and how he fills vacancies changes as well. Many of these parameters suggest that vacancies in the judiciary are interdependent and this interdependence helps to determine the president's decisions with regard to how he treats each vacancy. Future research should further examine this interdependency between judicial appointments, including when to anticipate that the president appoints judges to lower positions in the judiciary in order to groom them for advancement within the judiciary later.

# Chapter 3

## Selection Mechanisms and the Judges Selected

*On behalf of the Judiciary, I urge the President and the Senate to work together to fix the underlying problems that have bogged down the nomination and confirmation process for so many years. - Chief Justice, William Rehnquist, 2002*

As this quote from former Chief Justice, William Rehnquist, suggests, the nomination and confirmation process for the United States Federal Judiciary is not without its problems. This quote refers primarily to the vacancy rate that persists in the federal judiciary, which for the last several years has been at around 10%. However, the vacancy rate is not the only potential problem with the federal appointment process. Richard Davis (2005) suggests that the nomination and confirmation process, as it was originally intended, is broken and has become a process where the views of the public, the press, and interest groups play a large role in determining who is selected. Davis suggests that the middle man be cut out of the process and vacancies on the United States Supreme Court should be filled through elections.

This question of the effectiveness and utility of a particular selection mechanism is not unique to the federal judiciary. Many scholars of state courts have an interest in selection mechanisms. Contrary to the federal judiciary, the selection processes for state courts vary greatly. Some states appoint judges in a manner similar to the federal judiciary, others use merit commissions to select judges, still others elect their judges either through partisan or non-partisan elections. This variation in selection mechanisms has led to a rich literature which analyzes the role that selection mechanisms play in the behavior of judges on state courts (Caldarone, Canes-Wrone and Clark, 2009; Canes-Wrone, Clark and Kelly, 2014; Gordon and Huber, 2007; Hall and Bonneau, 2008; Nelson, Caufield and Martin, 2013).

At the heart of any debate over selection mechanisms lies an interest in the effects that a particular mechanism has on the judges that are selected and the judiciaries to which they are selected. For the federal judiciary, this interest lies in the vacancies that result from the current system, as the quote from Rehnquist above shows, or concern over the president packing the courts with his ideological allies as recent concern over recess appointments demonstrates. For state courts, this interest lies in the judges' qualifications (O'Connor, 2010) and whether judges' decisions pander to the public (Brace and Hall, 1997; Brace and Boyea, 2008; Huber and Gordon, 2004).

In this paper, I take this inquiry one step further. I use computational models of four selection mechanisms to examine the effect that the mechanism has on the judges that are selected. The results of these models will be compared with the results of the model created in Chapter 2. I will refer to the model from Chapter 2 as the advise and consent model. In this chapter, I start with the same base model and concept as that model - that vacancies must be considered simultaneously and from a restricted choice set - and craft the model to fit four additional selection methods. First, I model judges selected randomly to provide a baseline by which all structured selection models can be evaluated. Second, I model selection by a single actor to illustrate how judges who do not require Senate confirmation differ from those who must clear this hurdle. Third, I consider judges selected by a voting body. This

model is consistent with judges selected by a legislature or a court, as is the case in many American states as well as courts in other countries. Lastly, I model elections of judges consistent with many American states. These latter three models are selected because they mimic common selection methods used in the American states.

While the purpose of this chapter is to examine the effect of selection mechanisms on the types of judges selected under those mechanisms, I do so through the lens of how judges selected to a particular judiciary, the United States Federal Judiciary, would differ under different selection mechanisms. I will set a number of parameters in the model constant across all models including the structure of the judiciary, the tenure of judges, and the structure of the selection pools for each position. These parameters will be consistent with the federal judiciary. This will allow me to explore how the judges selected differ as the selection mechanism itself changes.

To see how the judges selected under these mechanisms differ, I compare the results of each model based on the ideologies of the judges selected (particularly how close they are to the actors in the model), the qualifications of the judges selected, the vacancy rate, and the prevalence of promotions. I will show that each mechanism comes with trade-offs. No one method is best along each of these dimensions. Rather, a method that comes with a lower vacancy rate might also have less qualified judges. For each model, I examine the ideologies and qualifications of the selected judges to demonstrate which selection mechanisms provide for more or less qualified judges and more or less ideological diversity. I also examine the vacancy rate resulting from each selection mechanism. Some mechanisms require that each position be filled (elections and random assignment); this helps to demonstrate the trade-offs that are inherent in each selection mechanism. Finally, I examine how promotion rates differ across these selection mechanisms. This will help demonstrate how much of a priority each mechanism places on judicial expertise, which is connected with judges' qualifications.

This chapter proceeds as follows. In the next section, I describe and discuss the model and results for each of the four new selection mechanisms. I begin with the random assignment



model, followed by the single appointer model, the voting body model, and the elections model. I conclude by comparing and contrasting the results of these five mechanisms. To do so, I focus on the trade-offs of each selection mechanism with regard to ideological diversity, quality of judges, and the vacancy and promotion rates in the judiciary.

## Selecting Judges

Below, I discuss the deviations from the model created in Chapter 2 for each of four selection mechanisms: random assignment, appointment by a single individual, appointment by a voting body, and elections.

As with the advise and consent model in Chapter 2, each of these models recognizes that the appointer(s) must select judges for all three levels of the judiciary concurrently and that these decisions are not independent of one another. To make a fair comparison across selection mechanisms, I will set some components of the model stagnant across all models. The only elements that will change across models are the players, their payoffs and strategies, and the selection mechanism itself. As a result, the models that are presented below are not necessarily representative of the selection mechanism for any actual institution. Indeed, the selection mechanisms for judiciaries in the American states and in other countries are often quite complex and are not necessarily uniform across all levels of the judiciary, or even all judgeships on a particular court, as is the case with the federal judiciary. This chapter is not intended to and cannot answer how judges in the federal judiciary differ from those in the American states or other countries. Rather, this chapter is intended to address how judges selected under one system (the federal judiciary) would differ if a different selection mechanism were used to select judges.

The structure for the judiciary in these four models will mirror that in the advise and consent model. The judiciary will have three layers: four trial courts, two appellate courts, and a court of last resort. The selection pools for the three levels will be geographic and

hierarchical. The selection pools for the trial courts will consist of all members of the talent pool living in the district, the selection pools for the appellate courts will include all members of the talent pool in the circuit and the members of the two district courts in the circuit, and the selection pool for the court of last resort will consist of all members of the talent pool, the district courts, and the circuit courts.

### **Random Assignment**

As a baseline, the first mechanism I model is one where members of the judiciary are selected at random from the population, a selection system known as sortition. For millennia, philosophers have suggested that such a process is most representative of a democracy (Aristotle and Jowett, 2008; de Secondat baron de Montesquieu, 1989; Dowlen, 2009; Plato and Jowett, 2008). To some extent this random component is already in place in our legal system through the form of juries, with jury selection pools being selected at random from members of a community. What are the trade-offs for a system of random assignment rather than a structured selection process?

This model is unique from each of the structured models to follow in that there are no actors and as a result, there are no payoffs that determine the allocation of judges. Instead, the process for placing judges/potential judges into positions in the judiciary is done solely based on a randomized algorithm. To randomly allocate judges to positions in the judiciary (but to maintain the geographic and hierarchical restrictions at place in the original model), I have created an algorithm to randomly fill each vacancy in the judiciary.

1. The potential judges and judges are randomly sorted.
2. Starting with the first judge on this list, the judge is randomly placed on a court that is higher than the court the judge currently serves on.<sup>1</sup>

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<sup>1</sup>If the selected judge is currently serving on a court, the judge's position is added to the vacancies to be filled for the court the judge is leaving.

3. If there are no vacancies on any of the courts that are higher than the judge's current position and in her geographic region, the judge is not placed and the simulation moves on to the next judge.
4. This process continues until all vacancies are filled.

For the purpose of showing the results of the simulations of the random assignment model, and to make these results comparable to the results of the other models, I will graph each result based on the relationship between an appointer and a confirmer. With each round of the model, an ideology for each an appointer and confirmer are recorded. These ideologies do not factor into the appointment mechanism as either a payoff or a part of the matching algorithm.

*Results: Ideology*

To summarize the ideologies of the judges selected under random assignment, I have graphed the distribution of the absolute value of the distance between the judges' ideologies and the appointer's ideology. These graphs are shown in Figure 3.1 for each level of the judiciary and each level of constraint.

The distribution in each of the nine graphs is roughly equal.<sup>2</sup> This suggests that there are no real differences in the ideologies of the judges selected for higher courts over lower courts. Additionally, the political environment has no effect on the ideologies of the judges selected.<sup>3</sup> Absent a structured selection mechanism, the ideologies of the judges selected to

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<sup>2</sup>While there appears to be a spike near the appointer's ideal point and a tapering off after that, this is a result of the measurement of the variable that is being graphed, not an influence of the appointer's ideal point. Because the measure is the absolute value of the distance between the appointer and the appointed judges, some ideal points can take on a greater range for this variable. For example, a judge whose ideology is located at the extreme of the ideology distribution can be anywhere from 0 to 2 points separated from the appointer's ideology. In contrast, a judge whose ideology is located at 0 can only be between 0 and 1 points separated from the appointer's ideology. As a result, there is a positive skew in the variable, with fewer observations at the tail end. Still, the degree of this skew is very small. The bias that is represented in these graphs is not the result of a bias towards the appointer, but a bias of the individual measure.

<sup>3</sup>Kolmogorov-Smirnov tests suggest that there are significant differences between the distributions of each court for each level of constraint. However, this is likely the result of partitioning of the data into different categories. Since there is nothing in the selection process that would suggest differences between levels of

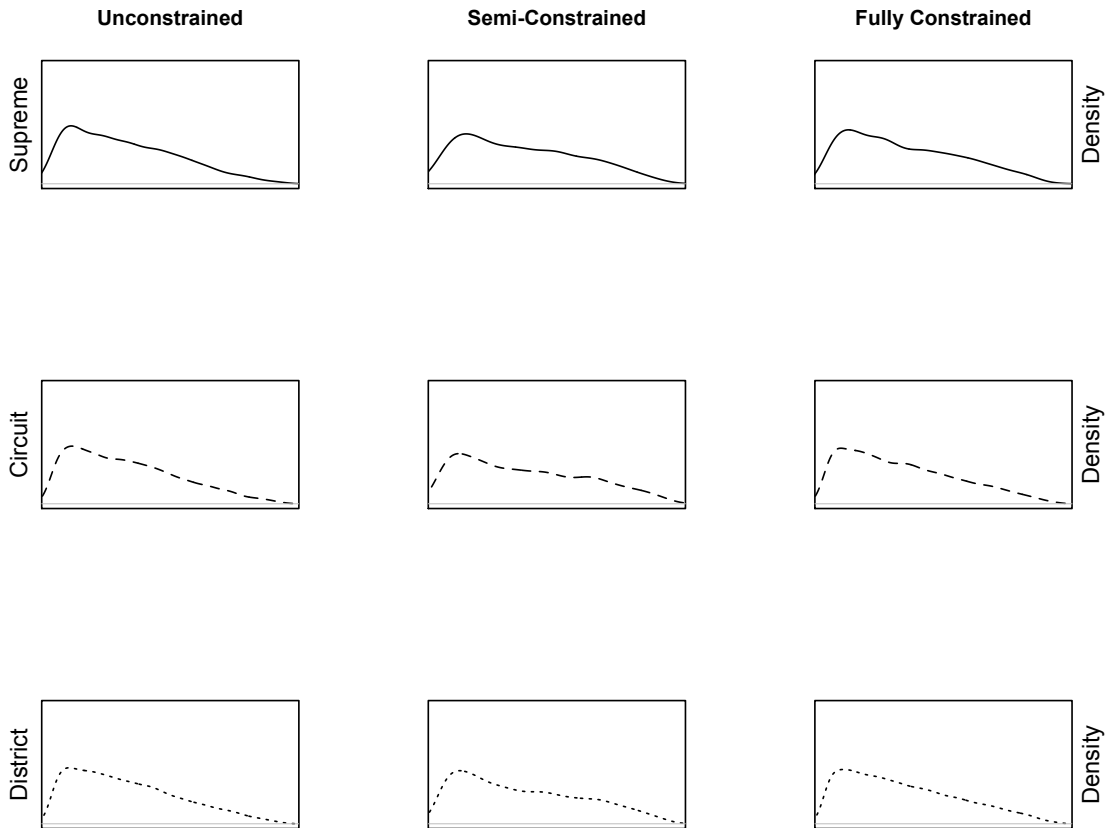


Figure 3.1: This graph shows the density of the absolute distance between the appointer’s ideal point and the ideal points of the appointed judges. The graphs across the columns correspond to the level of constraint that would be faced by the appointer: unconstrained, semi-constrained, and fully constrained. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are identical.

the judiciary are randomly distributed relative to the elite actors in the political system. Rather, these judge’s ideologies are representative of the pool from which they are drawn. If the pool of possible judges is representative of the public at large, then this type of system

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constraint, these differences can be equated with the sectioning of the data. The means for each court are roughly equal for each level of constraint, suggesting that the way the regimes separate the data leads to these differences.

ensures that the ideologies of judges in the judiciary are representative of the ideologies in the public.

*Results: Qualifications*

The advise and consent model ensured that judges had a minimum level of qualifications. This was built into the payoff functions for the president and Senate. The qualification levels should be lower in a random assignment model than in any deterministic models that ensure qualifications are at a certain level.<sup>4</sup> The results for the qualifications of the judges for each level of the judiciary graphed for each level of constraint are shown in Figure 3.2.

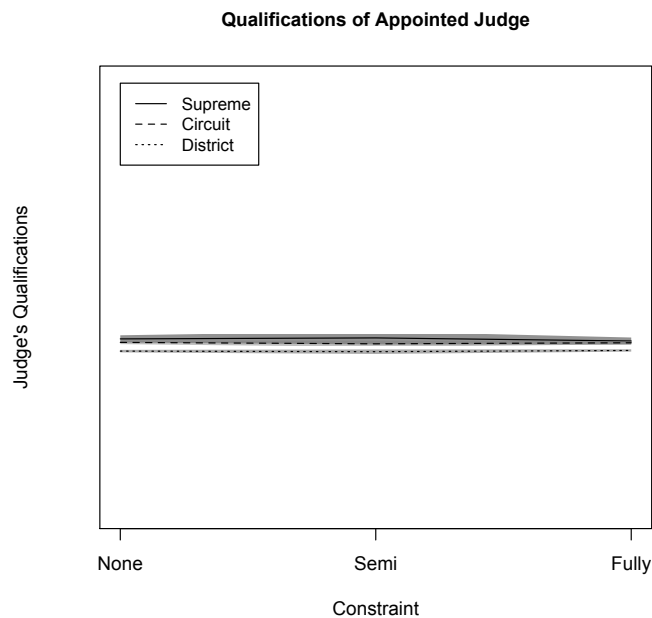


Figure 3.2: This graph shows the average qualifications of appointed judges to each level of the judiciary given each value of constraint. 95% confidence intervals are plotted around the means.

As expected, the qualifications of judges selected under random assignment are lower than those in the advise and consent model. This is particularly true for the circuit courts and the supreme court.<sup>5</sup> The political environment has no effect on the qualifications of the

<sup>4</sup>Given that the pool of judges is the same in each model.

<sup>5</sup>While the qualifications for the circuit and supreme court appointments are still slightly higher than the qualifications for the district court appointments under random assignment, this is because the selection

selected judges. This suggests that so long as the pool of possible judges remains the same, the random model will yield less qualified judges than a structured model would. This model could produce qualified judges if the qualifications necessary to enter the pool of possible judges were set at a level similar to the threshold levels for the costs in the advise and consent models. Absent an increase in the requirements to be placed in the pool, the expected level of qualifications is the mean qualification score for judges in the choice set for each court. Without a mechanism such as costs for selecting unqualified judges or rejecting qualified judges included in the model, the judge's qualifications would be distributed randomly.

*Results: Vacancies*

One of the most immediate benefits of this process is that all vacancies are filled. The random simulation fills each of the vacancies open in the judiciary. As a result, gridlock and workload do not drive vacancies in the judiciary as is the case with the advise and consent model.

*Results: Promotions*

Promotion appears to be a tool that is used to help the confirmation process in the advise and consent model. Since there is no confirmation process in the random assignment model, the rate of promotion in this model should be equal to the percentage of the selection pool for a particular court that is made up of current judges. The promotion rates for the circuit and supreme courts for each level of constraint are shown in Figure 3.3.

The results are as expected. The rate of promotion is roughly equal to the percentage of the selection pool that is made up of current judges for both the circuit and supreme courts. Accordingly, since there are more judges who can be appointed to the supreme court, the promotion rate is higher for the supreme court. Because the assignment is random, the political environment does not affect the promotion rates. High promotion rates, particularly on the Supreme Court, appear to be a product of the selection mechanism used to

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pools for these positions include members of the current judiciary who have higher qualifications on average than the members of the selection pool for the district courts.

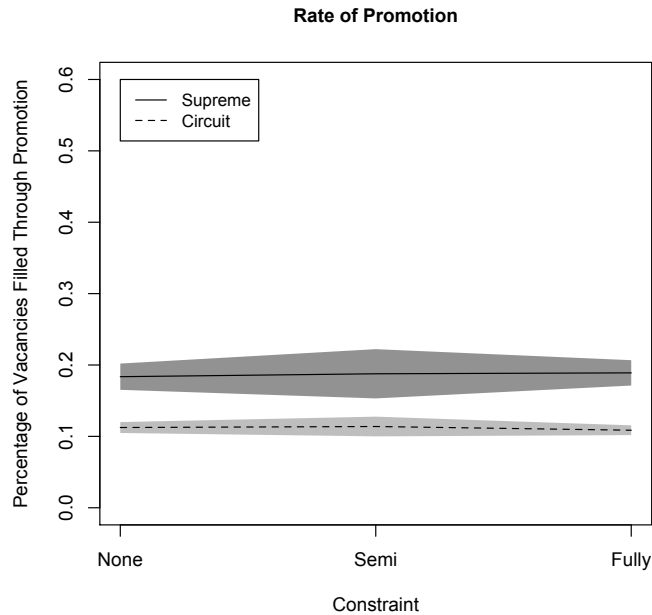


Figure 3.3: This graph shows the average proportion of vacancies filled through promotions on the circuit and supreme courts for each level of constraint. 95% intervals are plotted around the means.

select judges. Promotion plays a role in helping a judge be confirmed, so the advise and consent process has produced a system where promotion occurs more frequently. Without this process, promotions would likely occur at a lower level.<sup>6</sup>

### Single Appointer

In choosing a system for selecting federal judges and other appointed officers in the United States, there was some recognition that judges might be selected by one individual (Federalist 76). Ultimately, the inclusion of a second government actor to check the first was determined to be a better system (Federalist 77). However, elements of a single appointer

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<sup>6</sup>There is some observational equivalence when it comes to promotions as to whether the observed promotion rates result from the selection mechanism. Without knowing how many judges are in the talent pool, or the pool of possible judges, it is possible that the promotion rates reflect the proportion of judges who could be appointed who are currently serving on a court. However, this does not explain the disparity in the promotion rates between the United States Supreme Court and the United States Courts of Appeals. Given that the same non-judges could be appointed to both positions you would only expect a slight increase in promotion rates to the Supreme Court, rather than an increase in the promotion rate of over 200%. Additionally, as the results of the empirical tests in Chapter 4 reflect, there is an increase in promotion rates to both types of courts when the president is constrained, suggesting that the advise and consent framework encourages promotions within the judiciary.

method remains for federal judges. When the Senate is at recess, the president can appoint judges to serve for a limited term. Numerous states and countries also use a single appointer selection process for at least some of their judgeships (AJS 2014; Ministry of Justice 2004). Additionally, in many American states where judges are elected, if a position becomes available in the middle of a judge’s term, the governor can appoint someone to fill the position until the next election at which point the judge can be placed up for election (AJS 2014). How different are the judges selected under a system with a single appointer from judges selected with an extra actor responsible for confirming the judges?

To answer this question, this model removes the Senate from the advise and consent model in Chapter 2. The single appointer fills vacancies based on the payoff he/she receives for his/her appointments. The appointer’s payoff is the same as the president’s payoff in the advise and consent model:

$$u_P = - \sum_{j=1}^J w_{level(j)} (ct_j - p)^2 - \sum_{i=1}^N c_{a,level(i)} \left( \frac{1}{q_i} \right) \quad (3.1)$$

I assume that the single appointer is still uninterested in choosing judges with low qualifications for the same reasons as in Chapter 2. As a result, the appointer’s payoff consists of not only a loss in utility based on the locations of the courts in the judiciary, but also based on the judges’ qualification scores. This cost is identical to the cost in the advise and consent model. It is only paid if the judge’s qualifications fall below the threshold for that court, which increases for higher courts in the judiciary. The cost itself is also larger for higher courts. The algorithm in this model is identical to the algorithm in the advise and consent model with the exception of the step checking whether the Senate would confirm the judge. Rather, the appointer selects each judge to the position that gives him the highest payoff.

The results from the simulations of the model with a single appointer are shown in Figures 1-7. For the purpose of comparing this model with the advise and consent model, I have graphed the results based on the level of “constraint” that would be faced by an extra actor



in the model (were the actor to play a role). The expectation is that the second actor's preferences should not factor into the appointer's appointment decisions. To measure this constraint, the simulations record an ideal point for the extra actor, however this actor's ideology does not factor into the appointer's payoff function or the selection process itself.<sup>7</sup>

*Results: Ideology*

Figure 3.4 shows the density distributions for the distance between appointer's ideal point and the ideal points of the appointed judges. The graph shows the distribution for judges appointed to each level of the judiciary for each level of "constraint" that would be presented by an extra actor.

These graphs reveal two patterns about the ideologies of the appointed judges. First, the appointer more consistently appoints judges similar to his ideology to higher courts.<sup>8</sup> The graphs show that a greater proportion of the density is near to zero for higher courts, indicating that the appointer is more consistently appointing judges near his ideal point to these courts. Second, as expected, the level of constraint faced by the extra actor does not influence the ideologies of the judges who are appointed. The graphs are roughly similar across the columns, indicating that the ideology of the extra actor relative to the appointer's ideal point and the status quo does not influence the ideologies of the judges selected.<sup>9</sup>

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<sup>7</sup>The Senate's preferences do not factor into the president's payoff function in the advise and consent model, but rather its preferences are used to determine whether it will confirm or reject a given judge to a position. As a result, the Senate's preferences factor into the algorithm separately from the president's in that model. In the single appointer model, the extra actor's preferences are not incorporated into either the payoff function for the appointer or the algorithm for the selection process.

<sup>8</sup>Kolmogorov-Smirnov tests confirm these differences.

<sup>9</sup>Kolmogorov-Smirnov tests show that there are significant differences between the levels of constraint. As with the differences in the random assignment model, this is likely due to the calculation of the constraint variable. These differences are most noticeable in the semi-constrained regime. Because constraint is determined by both the ideology of the external actor and the status quo, when semi-constrained, the president tends to be further from the status quo on average. This leads to an increase in the mean distance from the appointer because judges that are farther away from the appointer's ideal point still increase his payoff so he is more likely to accept judges who are farther away rather than leaving positions vacant See Figure 3.9 and the discussion below for more about how the distance between the appointer's ideal point and the status quo affects the vacancy rate.

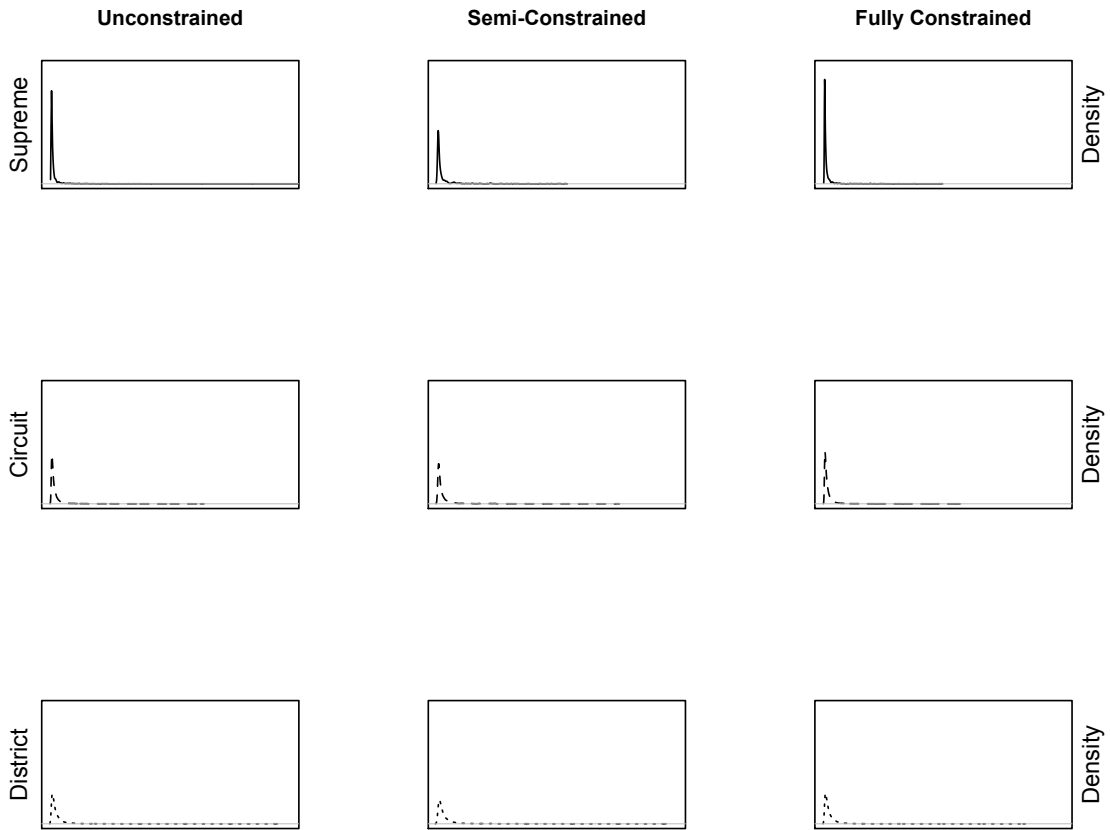


Figure 3.4: This graph shows the density of the absolute distance between the appointer’s ideal point and the ideal points of the appointed judges. The graphs across the columns correspond to the level of constraint that would be faced by the appointer: no constraint, partial constraint, and full constraint. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are equal.

The ideologies of the judges selected in the single appointer model differ from those in the random selection model, and are more consistently close to the appointer’s ideology than in the advise and consent model. While Kolmogorov-Smirnov tests show that there are no differences between the distributions of judges selected in the single appointer and advise and consent results for the circuit and supreme courts when the appointer is unconstrained and semi-constrained, there are differences for all levels of the judiciary when the appointer is fully constrained. This result is particularly interesting in light of the recess appointment process

that is currently being contested before the Supreme Court. What this model demonstrates, is that when the president is able to select judges without the approval of the Senate, the ideologies of the judges are going to be much closer to the president's ideal point than they would be if the president required the approval of a Senate with opposing preferences. This suggests that recess appointments allow the president to momentarily bypass the Senate to select judges that he prefers to those he could appoint were he to compromise with the Senate.

*Results: Qualifications*

An important determinant of the qualifications of the appointed judges in the advise and consent model is the level of constraint the president faces. In the random assignment model, there are no differences as the level of constraint changes. Since there is no constraint in the single appointer model, like in the random assignment model, the qualifications of the appointed judges should be constant for all appointments. However, the qualifications should be higher in the single appointer model than the random assignment model because of the costs associated with selecting unqualified judges. The graph of the mean qualifications for the judges are shown in Figure 3.5 for each level of constraint that would be faced from the extra actor.

As this graph indicates, the level of constraint does not factor into the president's appointment decisions.<sup>10</sup> As would be expected given the costs associated with selecting a judge with low qualification scores, the judges appointed to higher levels of the judiciary have higher qualification scores, which is consistent with the result in the advise and consent model.

Since there is no constraint in the single appointer model, the qualifications of the appointed judges are roughly similar for all appointments and are fairly close to the qualifications

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<sup>10</sup>There is a statistically significant (though very slight) dip in the qualifications of judges on the supreme court when the appointer would be semi-constrained, but not for the other courts. There is, however, not a statistically significant difference between when the appointer would be unconstrained and fully constrained. Given that there is no reason to expect there to be a difference, this difference is likely just a result of chance.

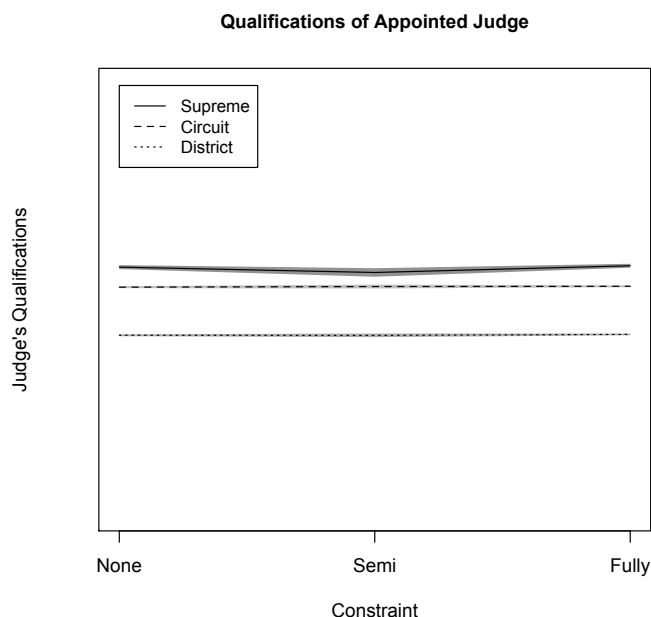


Figure 3.5: This graph shows the average qualifications of appointed judges to each level of the judiciary given each value of constraint. 95% confidence intervals are plotted around the means.

of the judges selected when the president is unconstrained in the advise and consent model.<sup>11</sup> This seems to suggest that the presence of a confirming actor in the appointment process increases the qualifications of the selected judges at least when the confirming actor presents a constraint on the appointer's ability to select judges whose ideologies are similar to his own. If the president bypasses the Senate to select judges that he prefers when he is fully constrained under a recess appointment, he is also likely selecting judges that are likely less qualified to the positions to which they are being selected.

*Results: Vacancies*

The vacancy rate in each round of the advise and consent model is a function of the constraint faced by the Senate, the number of vacancies that carried over from the last round of the model, the talent pool size, and the distance between the president and the

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<sup>11</sup>There are significant differences between the judges selected when the president is unconstrained in the advise and consent model and the judges selected in the single appointer model for the district and circuit courts, but the differences are smaller than the differences between when the president is unconstrained and fully constrained in the advise and consent model.

status quo. Without an external actor to constrain the president, in the single appointer model, the expectation is that the other three factors should contribute to the vacancy rate. Figure 3.6 shows the percentage of vacancies left open when the appointer would be constrained by an external actor and when he would not be constrained.

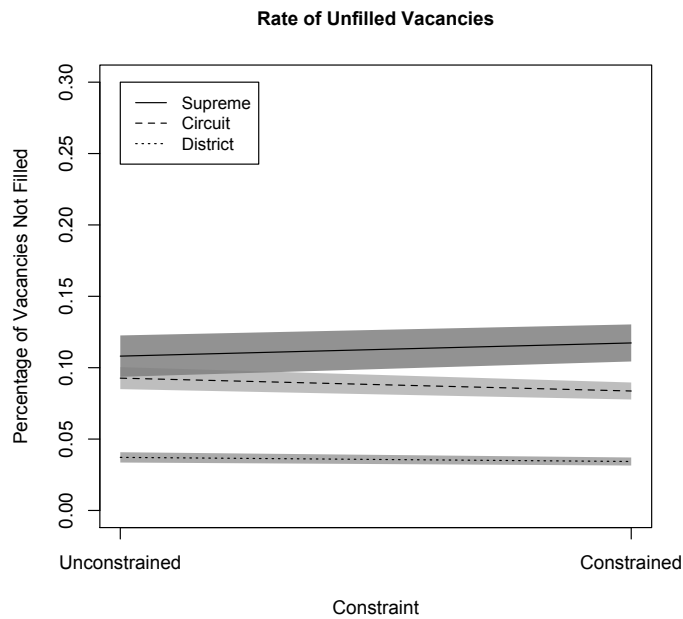


Figure 3.6: This graph shows the average percentage of vacancies left open for each level of the judiciary based on whether the appointer is constrained. 95% confidence intervals are plotted around the means.

There is no significant effect for constraint. The percentage of vacancies left open is roughly equal when the appointer is constrained and unconstrained for each level of the judiciary. There are differences in the percentage of vacancies left open for the different levels of the judiciary. More vacancies are left open on higher courts than lower courts. This result makes sense in light of the selection pool for each position. The minimum qualification level that will ensure that the appointer does not pay a cost for selecting an unqualified judge is higher for higher courts. This ensures that fewer judges in the talent pool can be selected to these courts without the appointer paying this cost. However, if the appointer selects from among the current judges in the judiciary, the lower court position will move away from the appointer's ideal point which could lead to a net loss in the appointer's payoff.

This is especially true when the higher court is located close to the appointer’s ideal point. As a result, there are fewer attractive judges who can be appointed to these courts, leading to a higher vacancy rate.

Another factor that contributes to the vacancy rate is the number of vacancies that the appointer “inherits” from the last round of the model. As with the advise and consent model, the appointer serves a four year term. I have graphed the predicted proportion of vacancies left open based on the number of vacancies that carried over from the last round for both new and continuing appointers in Figure 3.7.<sup>12</sup>

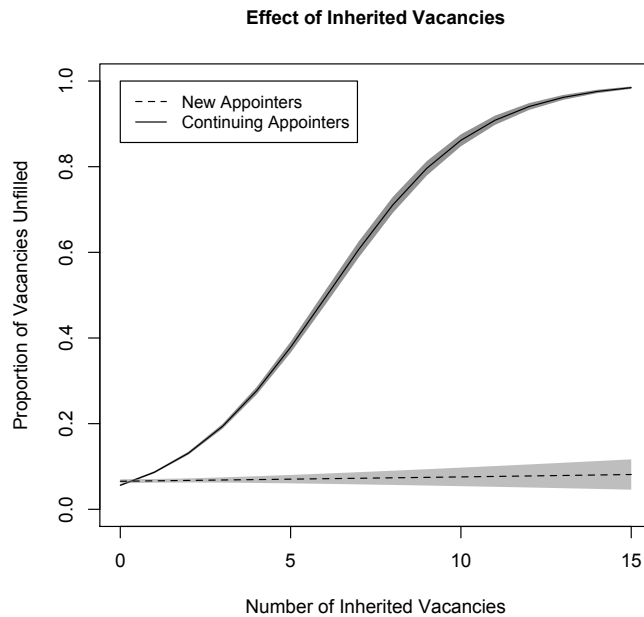


Figure 3.7: This graph shows the predicted percentage of vacancies left open for each level of the judiciary based on the number of vacancies inherited from the last round of the model. 95% confidence intervals are plotted around the predictions.

The number of inherited vacancies has no effect on the percentage of vacancies left open for new appointers. For continuing appointers, the results are consistent with the advise and

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<sup>12</sup>To determine the predicted percentage of vacancies, I have estimated a logit model using the number of vacancies left open divided by the number of vacancies to be filled regressed on the number of vacancies that carried over from the last round, a variable indicating whether it is a new appointer, and an interaction between the two.

consent model. The more vacancies that the appointer opted not to fill in the last round of the model, the more vacancies he will leave open in the current round of the model.

Two additional factors that contribute to the vacancy rate are the size of the talent pool (or the number of possible judges to appoint) and the distance between the appointer and the status quo. The expectation for the former is straightforward: the greater the pool of judges from which the appointer can select, the more likely it is that he will find a judge that he prefers to the status quo to fill each position. The second expectation, that the distance between the appointer and the status quo will contribute to the number of vacancies, is also fairly straightforward. If the appointer is close to the status quo, there will be fewer possible judges who can improve the location of the court relative to the appointer’s ideal point. Since the appointer will only select new judges to the extent that they continue to improve the location of the court relative to his ideal point, if the appointer is close to the status quo, he is likely to leave more vacancies open. The results for the talent pool and the status quo are shown in Figures 3.8 and 3.9.

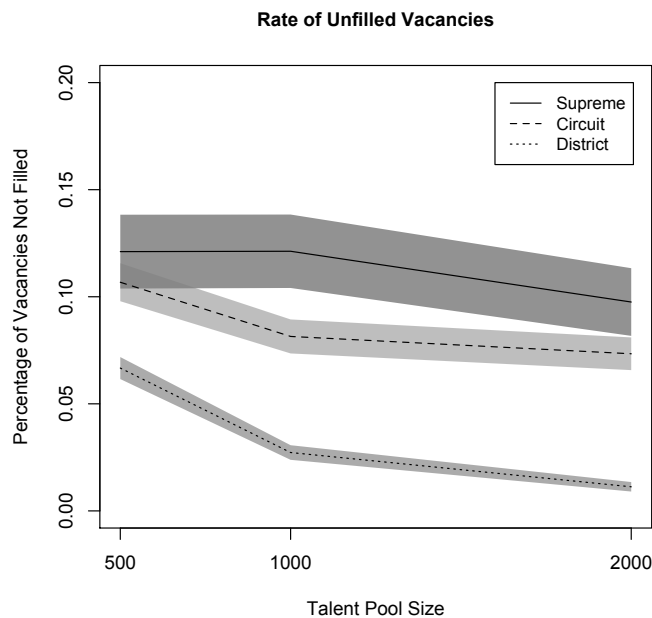


Figure 3.8: This graph shows the average percentage of vacancies left open for each level of the judiciary based on the size of the talent pool. 95% confidence intervals are plotted around the means.



Figure 3.9: This graph shows the average percentage of vacancies left open for each level of the judiciary based on the distance between the appointer’s ideal point and the status quo. 95% confidence intervals are plotted around the means.

Both of the results are as expected. As the size of the talent pool increases, fewer vacancies are left open. This effect is larger for lower courts. This results from the composition of the selection pools for higher courts. For district courts, the selection pool is made up solely of potential judges from the talent pool. For the higher courts, the selection pool also consists of judges currently serving in the judiciary. As a result, an increase in the talent pool size has a smaller impact on higher courts because the percentage increase in the selection pool size is smaller. Additionally, because judges must have higher qualifications on higher courts for the appointer to avoid paying a cost, fewer members of the talent pool are feasible options to the appointer, creating an even smaller change in the portion of the selection pool that will actually be considered when the talent pool size increases. The results for the distance between the appointer’s ideal point and the status quo is also as expected. The farther away the appointer is from the status quo, the more vacancies that he fills. Conversely, when the appointer is closer to the status quo, more vacancies are left open.



As anticipated, while constraint plays no role in this model, the number of inherited vacancies, the size of the talent pool, and the distance between the appointer and the status quo all contribute to the vacancy rate. An important difference in the effect of inherited vacancies is the effect for new appointers. In the advise and consent model, the inherited vacancy effect was smaller for new presidents, but still there was an effect. In the single appointer model, there is no statistically significant effect for inherited vacancies for new appointers. This suggests that this effect, which is largely one of workload effects for the president or appointer, is compounded by the confirmation process. The vacancy rate is also higher for the most part in the advise and consent model than the single appointer model, at least when the president is constrained. There are no differences in the distribution of the vacancy rates between the two models when unconstrained, but vacancy rates are higher when the president is constrained in the advise and consent model.<sup>13</sup> This suggests that not only does a structured model help to determine the vacancy rate in the judiciary over what would occur in a random assignment model, but the structure itself also influences the effects of other variables on the vacancy rate.

#### *Results: Promotions*

Finally, given that constraint played a role in determining when promotions were more likely in the advise and consent model, how common are promotions in a model where there is a single appointer? I anticipate that the promotion rates should still be higher than in the random assignment model because of the appointment costs for selecting unqualified judges, but that the promotion rates should be lower than in the advise and consent model. The promotion results are shown in Figure 3.10.

For circuit courts, the results are as expected. The rate of promotion is roughly similar to the unconstrained rate in the advise and consent model and there is no change as the external actor provides more “constraint”. The results for the Supreme Court are a bit surprising. Here there is a moderate increase in the proportion of vacancies filled by promotion when the

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<sup>13</sup>As determined by Kolmogorov-Smirnov tests.

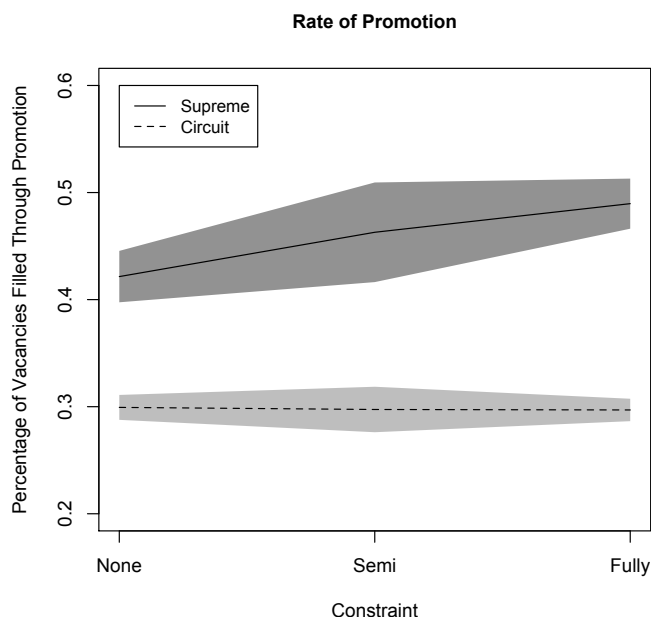


Figure 3.10: This graph shows the average proportion of vacancies filled through promotions on the circuit and supreme courts for each level of constraint. 95% confidence intervals are plotted around the means.

appointer is fully constrained over when unconstrained, though no difference between semi-constrained and either unconstrained or fully constrained. However, this increase is much smaller than in the model that includes the external actor as a check on the appointer’s power.<sup>14</sup>

The presence of a confirmation process affects how often judges are selected through promotion within the judiciary. Kolmogorov-Smirnov tests suggest that there are no differences between the advise and consent and single appointer models for the distribution of promotion rates when the appointer or president is unconstrained or semi-constrained. The confirmation process contributes to an increase in promotion rates, but only when the president and Senate disagree. This suggests that the increased promotion rates in the United States Federal Judiciary that have been seen in the last century may be a product of increased disagreement between the Senate and the president.

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<sup>14</sup>As with the slight dip in the qualification result, this is likely a result of chance.

## Voting Body

Several states choose judges through legislative appointment. A number of other countries allow for the courts to fill their own vacancies. These selection mechanisms have a similar underlying feature: judges are selected by a voting body. How does this selection mechanism differ from a two tiered selection by a president with Senate confirmation or a one tiered selection by a single actor?

A wealth of literature exists about the determinants of the outcomes of votes within a voting body (Arrow, 1951; Baron and Ferejohn, 1989; Krehbiel, 1998). While some theories suggest that the outcome of votes will represent the median or pivotal member's preferences (Black, 1948; Downs, 1957; Krehbiel, 1998), I have chosen to model this selection mechanism as a voting body with unique players and a structure that limits convergence to the median, rather than thinking of appointment by a voting body as the equivalent of the preferences of one member of the body and thus a single appointer model. To the extent that a voting body can be thought of as equaling the median voter's ideal point, the results for a voting body would equal the results of the single appointer model.

To introduce structure into the voting body, I have incorporated an agenda setting mechanism. Literature has shown that the agenda, and particularly agenda setting power, is crucial for determining voting or bargaining outcomes (Baron and Ferejohn, 1989; Cox and McCubbins, 2005; Romer and Rosenthal, 1978; Jeon, N.d.). The median member's preferences are still important for determining who is selected in this model: this actor's vote will serve as a veto on the judges who are selected. However, one actor has proposal power and can choose judges who will improve the median member's payoff over the status quo (no judges are selected) but still select judges who are close to his own ideal point. Proposal power will allow the proposer to make a take it or leave it offer of appointments on which the other members of the voting body will vote up or down. The proposer need not select judges at the other actors' ideal points to get them to vote for the proposal, he needs only select judges that make the other members better off than the status quo.

I model a three member voting body. Each member’s ideology is chosen at random from  $[-1,1]$ . I create “parties” for the purpose of determining proposal power. I do so because it is likely that the proposal would come from one of the two people who share some common feature such as party. This process approximates the role of party gatekeeping in a legislature, which is consistent with literature emphasizing that parties affect outcomes by setting the agenda (Cox and McCubbins, 2005, 2007). The parties are loosely created such that all members in  $[-1,0]$  are in one party and all members in  $(0,1]$  are in another party. If all three members of the voting body are in the same “party”, the proposer is chosen at random from all three members. If not, the proposer is chosen at random from among the two members in the “majority party”.

Each member in the voting body casts her votes based on the payoff she receives. The payoff function for each member is the same as the payoff function for the appointer in the single appointer model and the president in the advise and consent model. The payoff functions for the individuals in the voting body are determined based on the ideologies of the courts in the judiciary and the individual qualification scores for the judges that are selected. The payoff function for each member is:

$$u_{V_k} = - \sum_{j=1}^J w_{level(j)} (ct_j - v_k)^2 - \sum_{i=1}^N c_{a,level(i)} \left( \frac{1}{q_i} \right) \quad (3.2)$$

where  $v_k$  is the ideology of the  $k$ th member of the voting body,  $V$ . Each of the other components of the model are the same as in the advise and consent and single appointer models.

The structure of the matching algorithm is similar to the one in the advise and consent model.

1. For each court, all judges and potential judges who are located between the proposer’s ideal point and the status quo, and who are currently in a lower position in the judiciary, are compiled into a list.

2. These lists are all compiled into a master list and sorted according to their distance from the proposer.
3. Starting with the judge/potential judge whose ideology is closest to the proposer, the proposer considers placing the judge on each court for which she is eligible. The proposer then places the judge on the court that gives him the highest payoff that at least one other member of the voting body will vote for.
4. If there is no placement that makes the proposer better off that will receive at least two votes, the proposer moves on to the next closest judge.
5. Steps 3-4 continue until all vacancies are filled or all judges have been considered for all positions.

Members of the voting body are elected into office every two rounds. With some probability, the member will be reelected and the ideology of that member will continue for two more rounds, otherwise a new ideology is chosen at random. A new proposer is selected at random at the start of each round of the model.

There are a number of similarities between the voting body model and the advise and consent model. Both models include one player who makes the first move in selecting judges. The structure of both models ensures that this player has an advantage. In both models, this first player must obtain the approval of at least one other player. As a result, this player can be constrained by the other players in the model. A big difference between the two models is in the payoff functions for the extra player(s) in the model. In the advise and consent model, the rejection of judges is visible, so there is a cost for rejecting judges. No such cost exists in the voting body model because I assume that the voting behavior of members in the voting body is less transparent than a Senate rejection.

The results for the simulations of the voting body model are below. I measure constraint in this model the same as in the advise and consent model.<sup>15,16</sup>

*Results: Ideology*

The single appointer and advise and consent models consider the proximity of the appointed judges to the appointer's ideal point. In this model, I consider the proximity of the appointed judges to the member of the voting body with proposal power. Figure 3.11 shows the density plots of the absolute distance between the appointed judges and the proposer. The plots are arranged based on the level of the judiciary and the level of constraint the proposer faces from the median member of the judiciary.

As with the results of the advise and consent model, when the proposer faces greater constraint from the median, he appoints judges whose ideologies are farther from his own.<sup>17</sup> Additionally, the proposer appoints judges who are closer to his own ideology to positions that are higher in the judicial hierarchy (meaning that he appoints judges whose ideologies are more similar to his own to the supreme court over circuit courts, etc). Kolmogorov-Smirnov tests show that the differences between levels are significant when the proposer is unconstrained or semi-constrained, but that there are no significant differences in the distributions of the ideologies of judges selected when the proposer is fully constrained.

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<sup>15</sup>I assume that the median voter (on the ideology dimension) is the relevant pivotal actor. While there are two dimensions, ideology and qualifications, so the member with the median ideology is not necessarily the pivotal member, the primary dimension is the ideology of the judges, with an additional incentive (shared by all members) not to appoint low quality judges. The qualification costs are the same for each member. As a result, if the median member does not approve of a judge near the proposer's ideal point, the third member will also not approve of the judge because she is farther away from the proposer's ideal point than the median and pays the same cost as the median for the judge's qualifications. Because the voting rule is majority rule, the proposer only needs to get one other member to vote with him. As a result, he will select a judge that the nearest member will vote for. If the proposer is not the median, this person will be the median. If the proposer is the median, then he can choose between the two members on opposite sides of him and select the member whose ideology is closer. The expectation, therefore, is that the median will be in any winning coalition.

<sup>16</sup>Constraint is measured in the same manner as in the advise and consent model with the proposer as the president and the median as the Senate. The proposer is unconstrained when the median is the proposer.

<sup>17</sup>Kolmogorov-Smirnov tests confirm that the differences between the distributions are significant for each level of the judiciary.

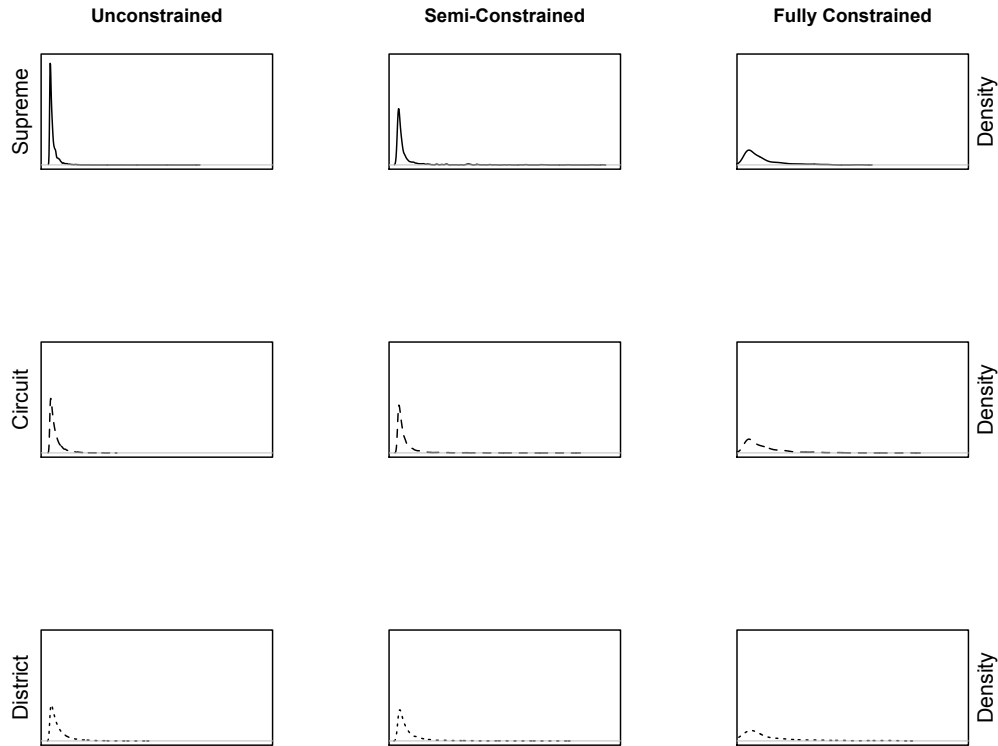


Figure 3.11: This graph shows the density of the absolute distance between the proposer’s ideal point and the ideal points of the appointed judges. The graphs across the columns correspond to the level of constraint the proposer faces: unconstrained, semi-constrained, and fully constrained. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are identical.

The results of the ideologies of the judges selected in the voting body model are very similar to those in the advise and consent model. The president in the advise and consent model does do moderately better than the proposer in the voting body model, suggesting that the dynamics of a voting body lead to less beneficial outcomes for the primary selector.

*Results: Qualifications*

One of the primary reasons that better qualified judges are appointed when the president is constrained in the advise and consent model is that the Senate pays a cost to reject qualified nominees. Because such a cost does not exist in this model, the appointed judges’

qualifications will not necessarily be higher when the proposer is constrained. The qualification results are in Figure 3.12.

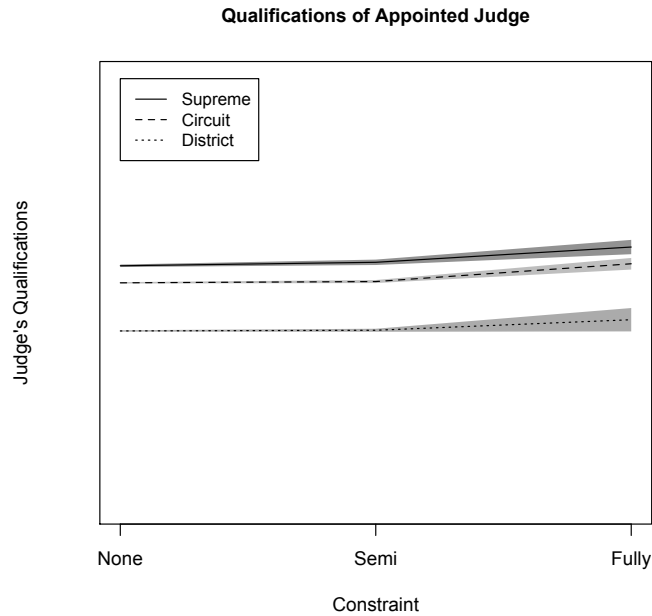


Figure 3.12: This graph shows the average qualifications of appointed judges to each level of the judiciary given each value of constraint. 95% confidence intervals are plotted around the means.

There is an increase in the judges' qualifications when the proposer is fully constrained over when he is unconstrained for the circuit courts and the supreme court. There is no significant difference in the qualifications of appointed judges on the district courts as the proposer becomes more constrained. The result for higher courts likely follows from the increased promotion rates when the proposer is constrained by the median. Because the average qualifications of judges that are serving on a court at the time they are selected are higher than the average qualifications of judges in the talent pool, the judges selected when the proposer is constrained should have higher qualifications since they are being promoted from a lower court. See the discussion below for more on how constraint contributes to promotion rates.

Even compared to the voting body model, the advise and consent framework ensures that better qualified judges are selected, at least when the president is constrained. When



unconstrained, there is no difference in the qualifications of judges selected to district courts between the advise and consent and voting body models.<sup>18</sup> When semi-constrained, the qualifications of judges selected under the voting body model are more in line with the single appointer model and are indistinguishable from those selected under the single appointer model for the district and circuit courts and for district courts, this holds when the proposer is fully constrained. While there are drawbacks to the advise and consent model, it appears to provide the best qualified judges of any of the direct appointment methods.

*Results: Vacancies*

Constraint, the number of vacancies that carried over from the last round of the model, the talent pool size, and the distance between the president and the status quo all contribute to the vacancy rate in the advise and consent model. Because of the similarities between the voting body model and the advise and consent model, I expect all of these factors to contribute to the vacancy rate in the voting body model as well. Figure 3.13 shows the percentage of vacancies left open when the proposer is constrained by the median member and when he is not constrained.

Constraint plays a large role in the percentage of vacancies left open when judges are selected by a voting body. When the proposer is constrained, the vacancy rate increases by about 400%. This effect is much larger than in the advise and consent model. The primary reason why the effect is so much larger in the voting body model is the lack of costs associated with the median blocking appointments. In the advise and consent model, the Senate pays a cost to reject judges who are qualified, thereby making it easier for the president to appoint judges when he is constrained. In the voting body model, without this cost in place, constraint by the median member leads to large increases in the vacancy rate.

There are no differences between the levels of the judiciary when the proposer is unconstrained. When the proposer is constrained, the district courts have a higher rate of vacancies than the supreme and circuit courts, but there is no difference between the supreme and cir-

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<sup>18</sup>As shown by Kolmogorov-Smirnov tests of the distributions of the judges' qualifications.

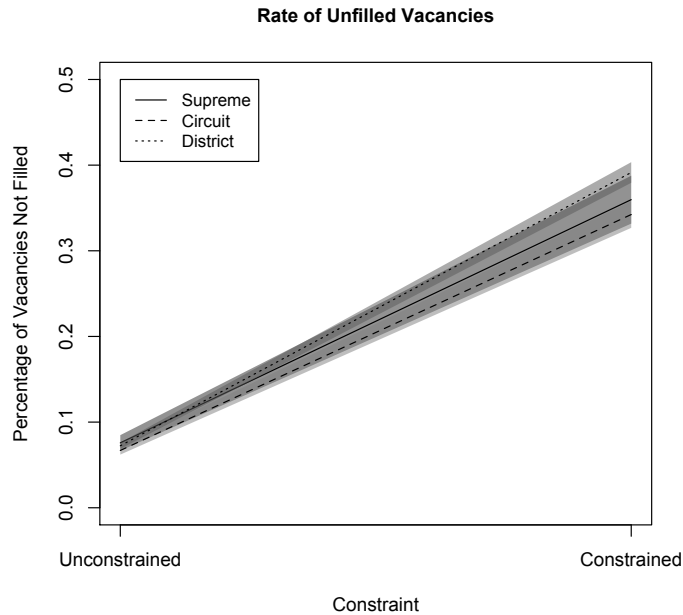


Figure 3.13: This graph shows the average percentage of vacancies left open for each level of the judiciary based on whether the appointer is constrained. 95% confidence intervals are plotted around the means.

cuit courts. See below for a discussion of how constraint factors into promotions in this model, which is why fewer vacancies are left open on higher courts than district courts when the proposer is constrained.

This suggests that gridlock plays a larger role in determining vacancies in a voting body than it does in an advise and consent framework. While there is a lot of focus on the role that gridlock plays in the vacancy rates in the federal judiciary, what this model suggests is that it could be much worse. The visibility of the confirmation process helps to keep the effect of gridlock to a minimum.

Another factor that contributes to the vacancy rate is the number of vacancies that the proposer “inherits” from the last round of the model. A new proposer is chosen in each round of the model, so there are no continuing proposers as in the advise and consent and

the single appointer models.<sup>19</sup> I have graphed the predicted percentage of vacancies given the number of vacancies carried over from the last round of the model in Figure 3.14.<sup>20</sup>

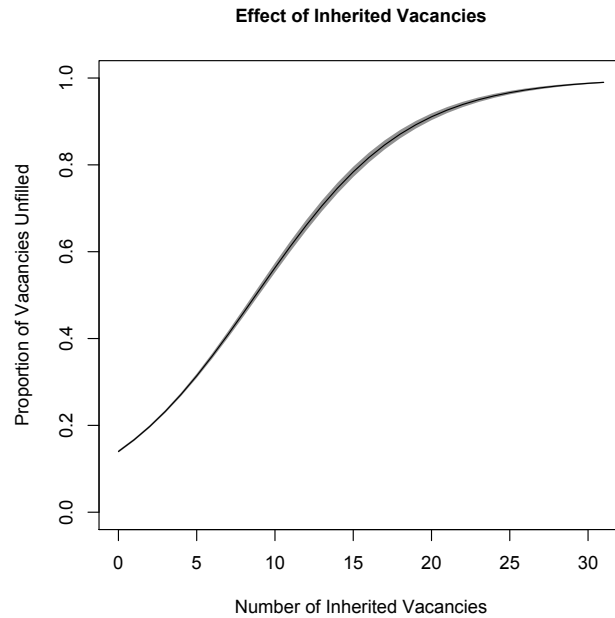


Figure 3.14: This graph shows the predicted percentage of vacancies left open based on the number of vacancies inherited from the last round of the model. 95% confidence intervals are plotted around the predictions.

The effect of “inherited” vacancies is similar in this model to the effect for continuing presidents/appointers in the advise and consent and appointer models. The percentage of vacancies left open increases as the number of vacancies inherited from the last round increases. In addition to the increased role of gridlock in contributing to vacancies in the voting body model over the advise and consent model, the workload effect of the number of

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<sup>19</sup>Because the ideologies do not change every year, and there are only three players in the model, there is a chance that one member of the voting body may be proposer two years in a row. To see if this drives the inherited vacancy result, I have also checked the results separating out new proposers from these “continuing” proposers. The curve looks very similar to the curve in Figure 3.14 for new proposers, though softens slightly, and the predicted vacancy rate changes to one much sooner for continuing proposers than the curve in Figure 3.14. Still, the result for new proposers is more similar to continuing presidents/appointers in the advise and consent and appointer models than for new presidents/appointers, suggesting that the presence of inherited vacancies has a more pronounced effect in the voting body model than the other models.

<sup>20</sup>To determine the predicted percentage of vacancies, I have estimated a logit model using the number of vacancies left open divided by the number of vacancies to be filled regressed on the number of vacancies that carried over from the last round.

vacancies is also larger in this model over the other appointment based models. Overall, the vacancies are higher in the voting body model over the other appointment based models.

Two additional factors that contribute to the vacancy rate are the size of the talent pool (or the number of possible judges to appoint) and the distance between the proposer and the status quo. The expectations for the effects of these two variables are the same as in the other models. Both increases in the talent pool size and the distance between the proposer and the status quo should lead to lower vacancy rates. The results for the talent pool and the status quo are shown in Figures 3.15 and 3.16.

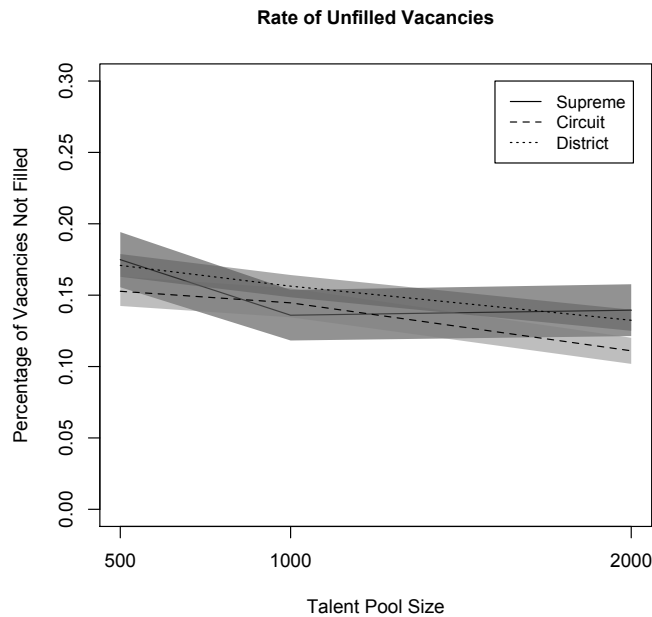


Figure 3.15: This graph shows the average percentage of vacancies left open for each level of the judiciary based on the size of the talent pool. 95% confidence intervals are plotted around the means.

Both of the results are as expected and consistent with the other models. As the size of the talent pool increases, fewer vacancies are left open. The changes in the vacancy rate as the talent pool increases from a size of 500 to 2000 are roughly equal for all three levels of the judiciary.<sup>21</sup>

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<sup>21</sup>There is more variation in the changes from 500 to 1000 and 1000 to 2000.



Figure 3.16: This graph shows the average percentage of vacancies left open based on the distance between the appointer’s ideal point and the status quo. 95% confidence intervals are plotted around the means.

The result for the distance between the proposer’s ideal point and the status quo is also as expected. The farther away the proposer is from the status quo, the more vacancies that he fills. Conversely, when the proposer is closer to the status quo, more vacancies are left open.

Both of these results are consistent across each of the appointment based models. In each model as the talent pool size increases, the vacancy rate decreases, as should be expected because there are more people who can be appointed. Additionally, as the primary appointer moves farther away from the status quo, the vacancy rate decreases, again as should be expected because there are more judges who can pull the court in line with the appointer’s ideal point.

*Results: Promotions*

The advise and consent model in Chapter 2 shows an increase in the percentage of vacancies filled through promotion when the president is fully constrained. The reasons for this increase in promotion rates are two fold. First, the Senate pays a cost for rejecting

qualified judges and current judges are, on average, better qualified. No such cost exists in the voting body model. Second, by promoting, the president offers a compromise of sorts. The president shifts the ideology of a higher court towards his ideal point at the cost of shifting a lower court's position away from his ideal point and towards the Senate's. A similar expectation holds in this model. Given that the median pays no cost to reject judges, the only option available to the proposer to get the median's vote is to offer a shift in a lower court position. As a result, I expect that there will be higher promotion rates when the proposer is constrained. The promotion results are in Figure 3.17.

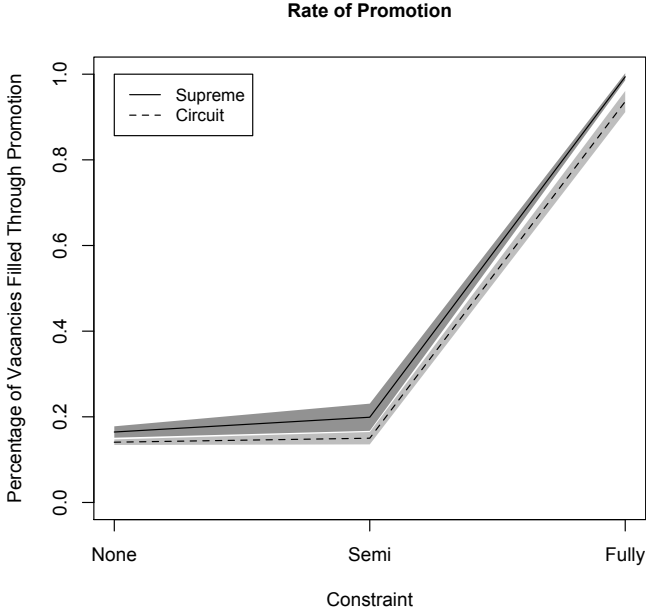


Figure 3.17: This graph shows the average proportion of vacancies filled through promotions on the circuit and supreme courts for each level of constraint. 95% confidence intervals are plotted around the means.

Consistent with my expectation, there is an increase in the promotion rate when the proposer is constrained. What is particularly interesting in this model is that when the proposer is fully constrained, nearly all vacancies are filled through promotion. This result makes sense in light of the incentives in place to get the median's vote. The median pays no cost for rejecting judges, so the proposer must offer a compromise in the location of the courts, which he can do through promotion. The higher promotion rates when the proposer

is constrained help to explain why the vacancy rate decreases and the qualifications increase on higher courts over district courts when the proposer is constrained. Because the proposer can ensure an improvement in the median's overall payoff by yielding some leverage on a lower court, the median will allow more appointments to these higher courts and the selected judges will have higher qualifications as a result of their court experience.

The promotion rates are much higher when the proposer is fully constrained in this model than in either of the other appointment based models. This is only true when the proposer is fully constrained. In fact, for the supreme court, the promotion rates in this model are indistinguishable from the promotion rates in the random assignment model when the proposer is unconstrained or semi-constrained.<sup>22</sup> This suggests that in systems with legislative appointments there should be more promotions than in systems where judges are appointed by a single actor or in advise and consent systems.

## **Elections**

Many scholars of state courts are interested in how selection mechanisms affect judges' behavior while on the bench (Caldarone, Canes-Wrone and Clark, 2009; Canes-Wrone, Clark and Kelly, 2014; Gordon and Huber, 2007; Hall and Bonneau, 2008; Nelson, Caufield and Martin, 2013). One of the main questions in this literature is how the behavior of elected judges differs from appointed judges (Besley and Payne, 2013; Brace and Boyea, 2008; Canes-Wrone, Clark and Kelly, 2014; Cann and Wilhelm, 2011; Choi, Gulati and Posner, 2011). In this section, I build a model of judicial elections. This will allow me to see how the judges that are selected through election differ from those judges who are appointed, both in proximity to the public and the quality of the judges selected.

While there are a number of different types of elections that are utilized to select judges on state courts, ranging from fully partisan to fully non-partisan to a mixture of the two (Society, 2014; Canes-Wrone, Clark and Kelly, 2014; Nelson, Caufield and Martin, 2013), I will only model partisan elections. This model is not meant to emulate the selection system

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<sup>22</sup>Based on Kolmogorov-Smirnov comparisons of the distributions of promotion rates in the two models.

in any one state. Rather, this model is meant to be used to consider how the judges selected to the federal bench would differ if instead of being selected by the president, they were elected much like the legislative and executive branches. As such, I assume that the judges have life-time tenure, so there will not be a question of retention mechanism. This is both computationally efficient, as it will only require a few judges to be selected in each round of the model rather than the entire judiciary, and practical for answering my question, since federal judges serve life tenures.

The model depicts a partisan election. There are two parties: for ease, I call them Democrats and Republicans.<sup>23</sup> It is the parties' responsibility to put forward a slate of judges to be selected by the public. I assume that the geographic requirement still exists, so district judges will be selected by voters in their geographic region, circuit judges will be selected by voters living in the circuit, and supreme court judges will be selected by all voters. I use a median voter approach (Black, 1948; Downs, 1957), assuming that the party is interested in attracting the median voter's vote. Because the judges are selected by different electorates, the median voter will differ for each court. I assume that the median voter is located between the two parties' ideal points. The ideal points for each of the median voters are selected at random in each round.

While I assume the parties want to attract the median voter, I do not assume that there will be complete convergence to the median voters' ideal points. There are two reasons to expect judges to be located away from the median voter's ideal point. First, I assume that the parties are nearly disjoint. The Democratic Party will have an ideal point in  $[-1,0]$  and the Republican Party will have an ideal point in  $[0,1]$ . Each of the judges belong to a party

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<sup>23</sup>I chose to model elections with only two parties, since that is the political landscape in the United States. Because the purpose of this chapter is to consider how the federal judiciary would differ under different selection mechanisms, it makes sense to model the elections as they would likely take place under the current political landscape in the United States. I anticipate that if additional parties were introduced, the results would be mostly consistent, with the parties more often constraining one another because the ideological space would be occupied by more parties. Since this model is applicable beyond judicial selection, but can also be applied to elections more broadly, in future work, I'd like to introduce more parties to see how the components of the model change.



and the parties will only put forward judges who are in their party. The ideal points of judges belonging to each party are nearly disjoint. Judges are first assigned an ideal point in  $[-1,1]$ . They then select their party. Judges whose ideal points are in  $[-1,-.1)$  are Democrats and judges whose ideal points are in  $(.1,1]$  are Republicans. If a judge's ideal point is in  $[-.1,.1]$ , a party is selected at random. Because of this near disjointedness, at times a median voter will be close enough to one party that there is no judge that the other party could put forward who the voter would prefer to a judge located at the first party's ideal point, which will limit convergence to the median voter's ideal point.

Second, there will not be complete convergence to the median voter's ideal point because of the quality (or valence) dimension. When valence is included in a voting model, the standard median voter results do not hold (Aragones and Palfrey, 2002; Carter and Patty, Forthcoming; Groseclose, 2001; Stone and Simas, 2010). As a result, this added dimension will ensure that there is not full convergence to the median voter's ideal point because the parties can select judges located nearer to their ideal points with high qualifications, increasing the voter's payoff.

Inherent in this model, I assume that parties and voters have different motivations and concerns. The party is interested in moving as many courts as possible towards its ideal point. Essentially, the party acts much like the president in the advise and consent model and the appointer in the single appointer model. The difference is the constraint that the party faces. I assume that the voters are unsophisticated and only concerned with selecting a judge who gives them the highest payoff possible (based on the judge's ideology and qualifications). As a result, the parties will be interested in the big picture (how the judges change the overall make-up of the judiciary), while the voters are interested in the individual contest of one judge against another. As a result, the parties must select judges who will help their big picture interest, under the constraint of who the voters prefer to whoever the other party puts forward.

The payoffs for both the parties and the voters are based on the judges' or courts' ideal points and the qualifications (or valence) of the judges. As with the payoffs for the appointer in the single appointer model, the president in the advise and consent model, and the actors in the voting body model, the parties payoffs are determined by the distance of each court in the judiciary from the party's ideal point. The party also pays a cost for appointing low quality judges. This can be considered essentially a loss in reputation for putting forward low quality judges, since the voters would be less trusting of the party's candidates in the future if a low quality judge is elected to the bench from the party. The quality cost is paid for each judge selected that is below the quality threshold for the level of the court. The payoff function for the parties is below.

$$u_{P_k} = - \sum_{j=1}^J w_{level(j)} (ct_j - p_k)^2 - \sum_{i=1}^N c_{a,level(i)} \left( \frac{1}{q_i} \right) \quad (3.3)$$

where  $p_k$  is the ideal point for the  $k$ th party in  $p = \{Democrat, Republican\}$ . Each of the other components of the payoff function are consistent with the explanations in the advise and consent model.

I assume that voters are unsophisticated and do not consider the impact of their voting decisions. As a result, the voter chooses the judge who gives her the highest payoff. Her payoffs are determined by the ideal point of the judge. The assumption that voters incorporate their distance from the candidates into their payoff functions is well represented in voting literature (Downs, 1957; Groseclose, 2001; Hotelling, 1929). While there may be reason to question whether this would be true for judges if they were to be elected, there is some literature to suggest that the public's preferences over individual justices is driven by how ideologically proximate they perceive the judge is from their own ideal point (Cameron, Cover and Segal, 1990; Segal, Cameron and Cover, 1992). In addition, and consistent with literature about the role of valence in voting decisions (Carter and Patty, Forthcoming; Groseclose, 2001), I assume that voters receive positive utility based on the candidate's qualifications. Judicial politics literature also indicates that the public has an interest in

judges' qualifications (Cameron, Cover and Segal, 1990; Segal, Cameron and Cover, 1992; Epstein et al., 2006). The voter's payoff function is:

$$u_{V_k} = -(j - v_k)^2 + vb(q_i) \tag{3.4}$$

where  $v_k$  is the median voter's ideal point for  $k$  in  $v = \{District\ 1, District\ 2, District\ 3, District\ 4, Circuit\ 1, Circuit\ 2, Supreme\}$ ,  $vb$  is the qualification, or valence, benefit received,  $j$  is the candidate's ideal point, and  $q_i$  is the candidate's qualifications. There will be a different median voter for each court in the judiciary due to the geographic locations of the courts. Consistent with the costs paid by the parties, I assume that the voter expects judges appointed to each court to have a minimum level of qualifications. As a result, the benefit,  $vb$ , is zero if the judge's qualifications are below the court's threshold and a positive value if the judge's qualifications are above the threshold. I assume that this benefit is uniform across all levels of the judiciary while the threshold levels differ.

At the start of each round of the model, the ideal points of the parties and voters are selected at random. Next, vacancies open randomly on the court. Once the vacancies are realized, the selection of judges begins. Much like the advise and consent model, the parties' selection of candidates is modeled using a modified matching model. The algorithm for selecting judges proceeds as follows for each party:

1. The party determines the eligible set of judges for each election. The eligible judges are all potential judges in the party who live in the court's geographic region and all judges in the party currently serving on lower courts in the geographic region. The party only considers judges whose ideal points are located slightly more extreme than the party position and just past the median voter's ideal point.<sup>24</sup> All potential judges

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<sup>24</sup>I assume that the party does not want to appoint judges located farther from the party's ideal point than necessary. As a result, I restrict the judges considered in the algorithm to only judges located just past the median voter's position. If I were not to restrict the ideology of judges considered in this way, the party might do worse by putting forward a judge whose ideology is located farther from the party's ideal point than is necessary due to the qualification benefit inherent in the voter's payoff. I also include judges

who are eligible for at least one election are compiled into one list and sorted based on the judge's ideological distance from the party position.

2. Starting with the judge located closest to the party's position, the payoff is calculated for placing the judge up for election for each position for which she is eligible.
3. The party starts by considering placing the judge up for election for the court that will give the party the highest payoff. If the voter's payoff for the judge is higher than the highest payoff the voter will receive for any of the judges in the other party eligible for that court, the judge is selected for election. If the judge is promoted from a lower court, the judge is removed from that court for the purpose of calculating the party's ideal point for future steps in the matching process.<sup>25</sup>
4. If there is a judge in the other party who will give the voter a higher payoff, the judge is considered for the court that gives the party the next highest payoff. The judge is then considered against the judge from the other party eligible for the second best court who gives the voter the highest payoff. If the judge in the first party gives the voter a higher payoff than the judge in the second party, the judge is placed up for election.

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slightly more extreme than the party's position because when the party and the median voter are located close together, the range of ideal points considered must be wide enough to ensure that there are enough judges to cover all elections and the judges who are more extreme than the party position are more proximate than expanding the range even further past the median voter's ideal point. I, in general, do not include judge's whose ideologies are more extreme than the appointer's ideal point in the selection process because some of the court locations are determined using means due to the decision rule for the court, and these rules will tend to favor more extreme judges to pull the location of the court closer to the appointer's ideal point. Because the selection of judges who are more extreme than the selector is not seen often in practice, I restrict the judges considered as near to the selector's ideal point as possible to ensure these extreme judges are not selected.

<sup>25</sup>In the other models, I then added this position to the positions to be filled on the lower court in that round. Because of the nature of elections, in this model, this position will remain open until the next round of the model and will be added to the vacancies to be filled in that round.

5. Steps 3 and 4 repeat until the judge has been considered for each court for which she is eligible and is either selected for a court or not chosen to any court because the other party has a competitor.
6. The party moves on to the next closest judge.
7. Steps 3-6 repeat until either judges have been selected for all positions or all judges have been considered.
8. If there are still positions without judges selected, the party selects the judges from the set of eligible judges created in step 1 who give the voter the highest payoff.<sup>26,27</sup> I assume that the party starts with positions higher in the judiciary first, because the higher courts weigh more heavily in the party's payoff function. This process of choosing candidates for the remaining positions in the party's election slate proceeds as follows:

- (a) The judges who have already been selected are removed from the set of eligible judges.

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<sup>26</sup>Because the judges are selected from each party based on whether there is a judge in the other party who gives the voter a higher payoff, the judges who give the highest payoff must be selected in this step. If the party were not to select the judge in their choice set who gives the voter the highest payoff, the other party could select a judge located closer to its ideal point that gives the voter a lower payoff and makes the other party worse off. To ensure that the other party will not do this, the party's strategy must be to select the judges who give the voter the highest payoff in the step.

<sup>27</sup>Because the selection set extends beyond the median voter's ideal point, it is possible that the party might be better off based on the distance between the selected judge and the party's ideal point if a judge from the other party is elected. This would occur if the judge that gives the median voter the highest payoff from one party is located farther away from the party than a judge from the other party who gives the median voter a slightly lower payoff. By having the party select the judge who gives itself the highest payoff that also gives the median voter a payoff higher than any judge in the other party, I am assuming that the party essentially receives some premium for winning that is larger than the loss in utility that would result from selecting a judge that is located farther from the party's ideal point than a judge from the other party.

- (b) Starting with the supreme court, the judges who give the median voter the  $k$ th highest payoffs, with  $k$  being the number of positions on the supreme court that do not already have a candidate, are selected.<sup>28</sup>
  - (c) The selected judges are removed from the set of eligible judges for the lower courts.
  - (d) Steps b and c are repeated for each circuit court.<sup>29</sup>
  - (e) Step b is repeated for each district court.<sup>30</sup>
9. With the judges selected from each party, the elections occur. The voter's payoffs are calculated for each judge up for election.
10. The judges who give the voter the top  $k$  payoffs are selected for each court, with  $k$  being the number of vacancies on the court.<sup>31</sup>

The nature of elections presents a new challenge for analyzing the results of the model. Because there are two sources of constraint - the other party and the median voter - I will look at how the two levels of constraint affect the judges who are selected. The first is constraint from the other party. Here, the party that is located closest to the median voter has a clear advantage. As a result, a party is advantaged when it is closer to the median voter and disadvantaged when the other party is closer to the median voter. The second level of constraint comes from the median voter. In the same way the relationship between the status quo, Senate, and president affect the judges selected in the advise and consent model,

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<sup>28</sup>If there are no positions open that need a judge on this court, this step is skipped.

<sup>29</sup>If there are no positions open that need a judge on one of these courts, this step is skipped for that court.

<sup>30</sup>If there are no positions open that need a judge on one of these courts, this step is skipped for that court.

<sup>31</sup>Rather than placing the judges in one to one elections, I assume that each party presents a set of judges and the voter selects the judges who give her the highest payoffs much like many state judicial elections where the voters are given a set of judges and told to pick 2 or 3. The results would be the same if I were to set the judges up against one another in head to head elections (because judges are only selected if they beat all other possible judges from the other party).

the same holds for the election model. I use the same formula for determining constraint as the advise and consent model substituting the advantaged party's ideology for the president's and the median voter's ideology for the Senate's.

*Results: Ideology*

Each of the appointment based mechanisms show that, in general, the primary appointer is able to appoint judges near his ideal point with some differences across courts and when the appointer faces constraint from other political actors. In this model, not only are there two parties constraining one another, but there is also an elector who ultimately decides who is selected. As a result, the parties should do less well in assigning judges close to their ideal point than other political actors. However, one party should do better than the other. The advantaged party, or the party closer to the median voter, should appoint more judges located nearer to its ideal point than the disadvantaged party. The distance between the selected judge and the respective party is shown in Figure 3.18.

As is evident from Figure 3.18, parties do much better when they are the advantaged party.<sup>32</sup> The elected judges are much closer to the party's ideal point when the party is closer to the median voter's ideal point than when not. When the party is at a disadvantage relative to the median voter's ideal point, the ideologies of the judges elected from the party are far from the party's ideal point. In fact, the judges are farther from the disadvantaged party's ideal point than they would be if the judges were selected randomly. One difference in this model is that there is not much difference between the different courts in the judiciary. This is likely driven as a result of the payoffs for the voters. While the parties receive higher payoffs for pulling the higher court's ideologies in line with their own, the weight for the ideology of the judge is uniform across all levels of the judiciary in the voter's payoff. Accordingly, while the parties want to move the higher courts closer to their ideal point, they must still select judges who the voter prefers to judges put forward by the other party, who will also have a higher incentive to have their judges win for the higher offices. Kolmogorov-

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<sup>32</sup>These differences have been confirmed by Komogorov-Smirnov tests.

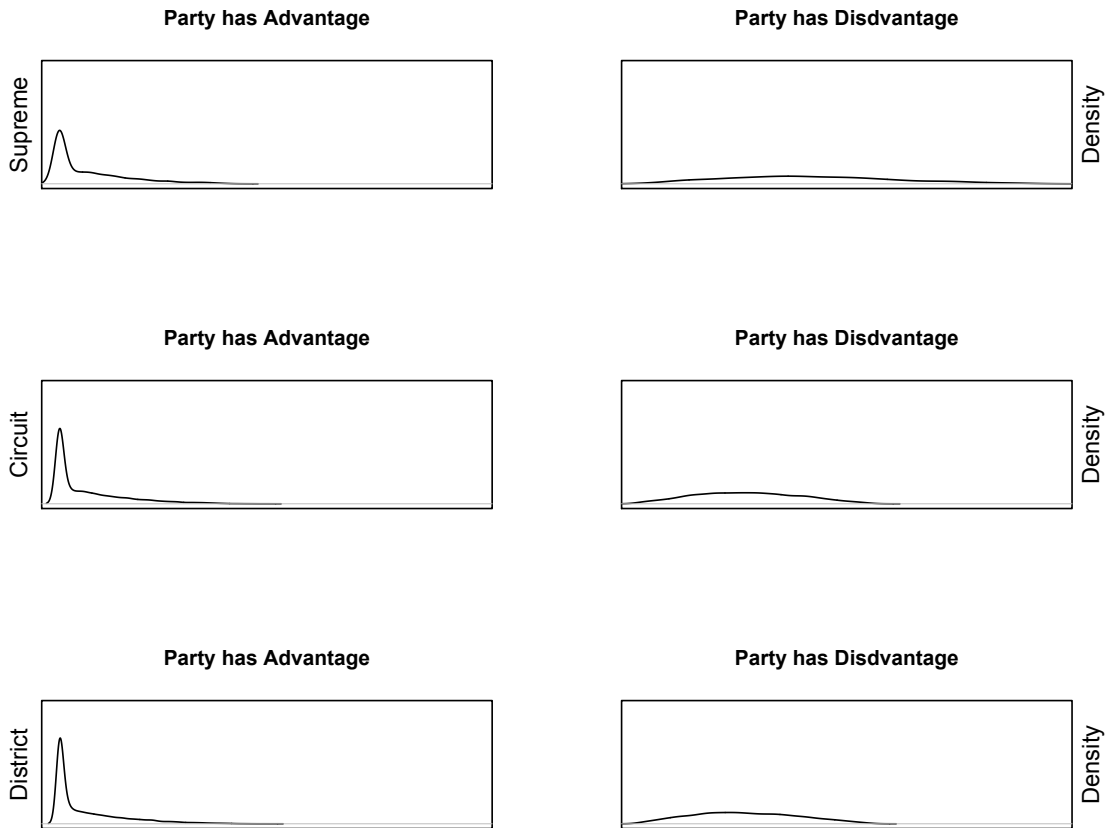


Figure 3.18: This graph shows the density of the absolute distance between the advantaged and disadvantaged parties' ideal points and the ideal points of the judges elected from those parties. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are identical.

Smirnov tests show that while there are differences in the ideologies of the judges selected to different levels of the judiciary when selected from the advantaged party, the only differences between levels for the judges selected from the disadvantaged party are between the district and circuit courts.



Next I consider how the median voter constrains the advantaged party. The graph of the distance between the ideologies of the appointed judges and the advantaged party for different levels of constraint from the median voter are in Figure 3.19.<sup>33</sup>

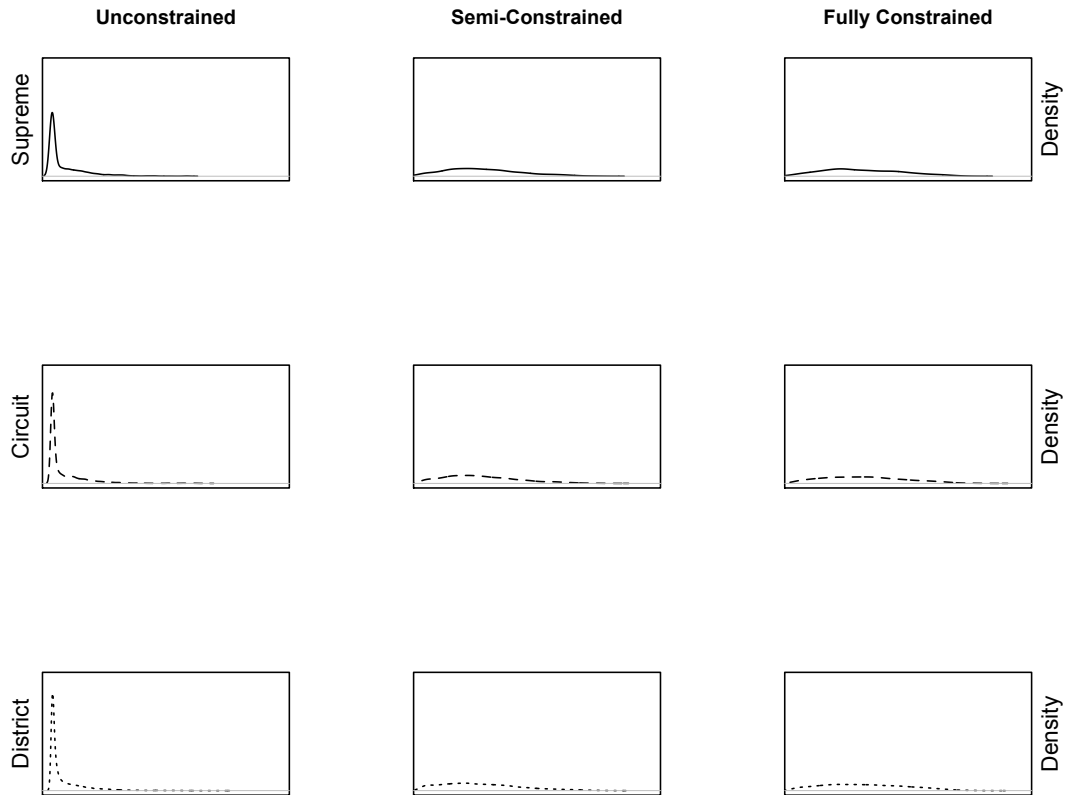


Figure 3.19: This graph shows the density of the absolute distance between the advantaged party’s ideal point and the ideal points of the appointed judges. The graphs across the columns correspond to the level of constraint the party faces from the median voter: unconstrained, semi-constrained, and fully constrained. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are identical.

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<sup>33</sup>This result is unique to the advantaged party. The results for the disadvantaged party look the same as the graphs in the right column in Figure 3.18 regardless of how constrained the party is by the median voter. Even when unconstrained by the median voter, the judges elected from the disadvantaged party are still not close to the party’s ideal point.

Figure 3.19 shows that when the advantaged party is unconstrained by the median voter, the judges selected are closest to the party's ideal point.<sup>34</sup> The judges selected are farther from the advantaged party's ideal point when the party is semi- or fully-constrained by the median voter, but slightly closer when the party is semi-constrained. When the party is unconstrained, the closest judges are selected to the supreme court.<sup>35</sup> The judges that are selected to the circuit and supreme courts are closer to the advantaged party than those selected from the district courts when the party is semi-constrained, with no differences between the circuit and supreme courts. There are no differences between judges selected to the different levels when the party is fully constrained.

Given that elected judges are only close to a party's ideal point when the party is advantaged and unconstrained, it seems that the driving determinant of the appointed judges' ideologies is the median voter's ideal point. This makes sense given that the median voter gets the ultimate say as to who is selected and the parties are competing with one another to bring the judges close to the median voter's ideal point. This is in contrast to the results of the other models, where the first mover has the advantage. Because of the nature of election model, the voter has the advantage rather than the parties with the only advantage for the parties lying in which party has an advantage over the other. Figure 3.20 shows the distribution of the distance between the elected judges' ideologies and the median voter's ideology broken down by the level to which the median voter constrains the advantaged party. As expected, the ideologies of the elected judges are generally close to the median voter's ideal point. Additionally, this result holds for each level of the judiciary and each level of constraint, with only minimal differences between the distributions of elected judges

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<sup>34</sup>Kolmogorov-Smirnov tests confirm these differences.

<sup>35</sup>As confirmed by Kolmogorov-Smirnov tests.

for each of the nine graphs.<sup>36</sup> Where there are differences, the voter does better when the party is more constrained.

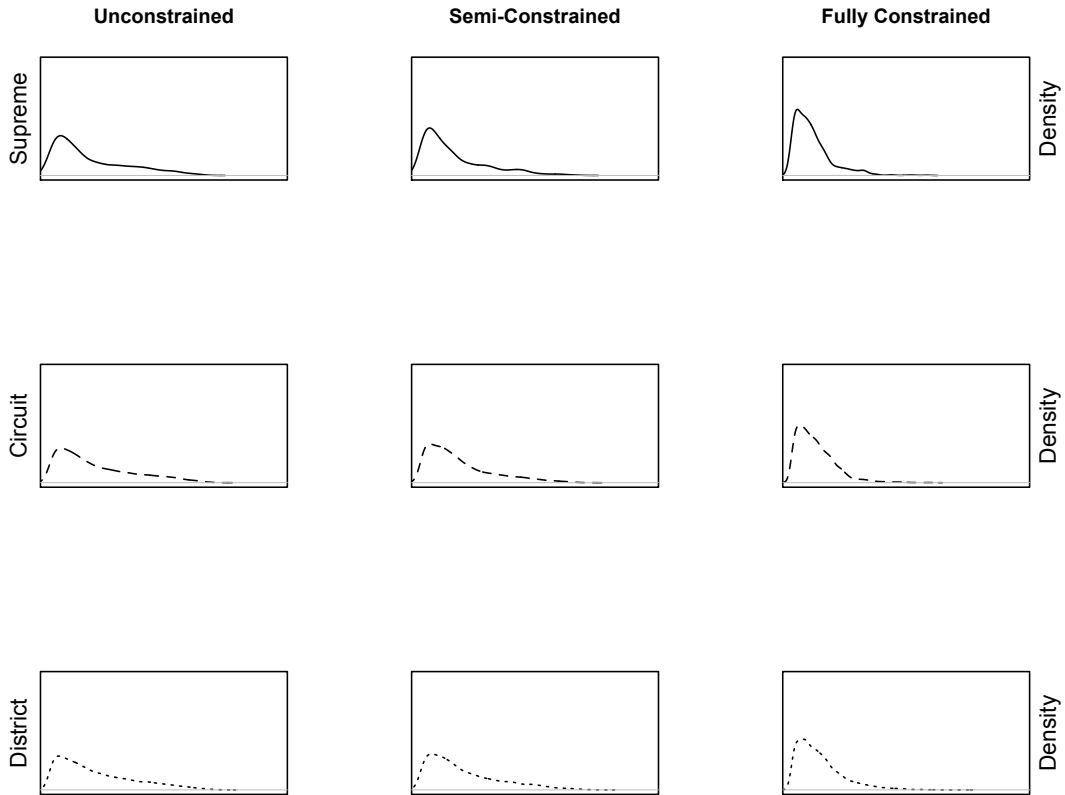


Figure 3.20: This graph shows the density of the absolute distance between the median voter’s ideal point and the ideal points of the elected judges. The graphs across the columns correspond to the level of constraint the advantaged party faces from the median voter: unconstrained, semi-constrained, and fully constrained. The graphs across the rows correspond to the appointments to each level of the judiciary: supreme, circuit, and district courts. The scales for each of these graphs are identical.

The election model creates different incentives than we see in the appointment based models. In both the advise and consent and voting body models, there is a first-mover advantage for the primary appointer. In the election model, we see a second-player advantage.

<sup>36</sup>These distributions do differ significantly based on Kolomogorov-Smirnov tests comparing the distributions.

While the advantaged party has a first-player advantage when unconstrained by the median voter, in the presence of even a little bit of constraint, the median voter is the one who gets judges near his or her ideal point. This might be encouraging to anyone concerned that judges should represent the preferences of the public. The only way the judges would be more representative of the public's preferences in appointment based models is if the ideologies of the elected officials were perfectly representative of the public's preferences, since the judges selected are closer to the appointer's ideal point in each of those models than the judges selected in the elections model are to the median voter.

*Results: Qualifications*

Given that the ideology results in this model are markedly different than the results of other models, and given the prominence of the role of qualifications in the median voter's payoff function, I anticipate that the qualifications of the judges appointed in this model will be higher than the qualifications of the judges selected through other selection mechanisms. This should be particularly true when the elected judges come from the disadvantaged party or when the advantaged party is constrained due to the location of the median voter and the status quo. In each of these instances, the ideologies of the selected judges are farther away from the party's ideal point, indicating a more competitive electoral environment. When the electoral environment is competitive, the parties have an incentive to put forward the most qualified judges possible to maximize their chances of winning the election. Figure 3.21 shows the mean qualifications for the judges selected to each court when the judge who wins the election is from the party with the advantage and when the judge who wins is from the party with the disadvantage.

Consistent with my expectation, the overall qualifications of elected judges is quite high, with the judges elected from the disadvantaged party having much higher qualification scores than judges elected from the advantaged party. When a party is disadvantaged, the best chance it has at winning is to select the best qualified judge possible. As a result, the judges that the median voter prefers from the disadvantaged party will have high qualifications.

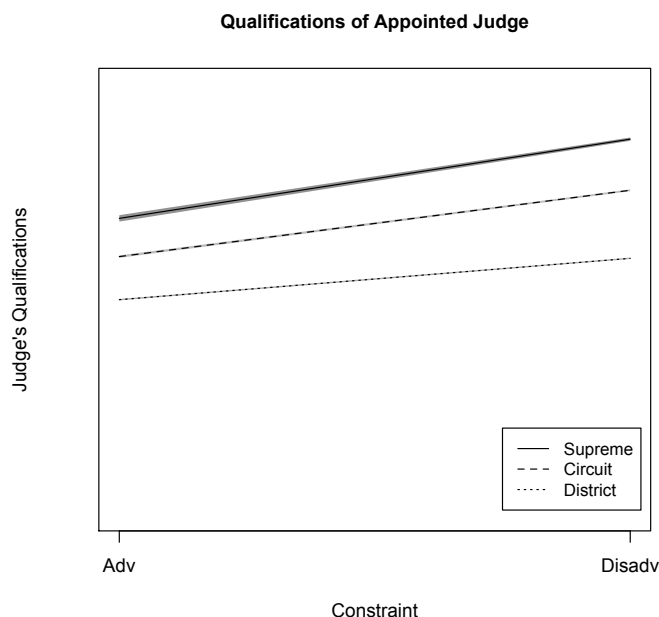


Figure 3.21: This graph shows the average qualifications of elected judges to each level of the judiciary from the advantaged and disadvantaged party. 95% confidence intervals are plotted around the means.

Figure 3.22 shows the qualifications for the judges selected when the advantaged party is unconstrained, semi-constrained, and fully constrained by the median voter. Consistent with my expectations and the results for the ideologies of the elected judges, the qualifications of the elected judges increase as the advantaged party's level of constraint increases. There is a large difference in the qualifications of judges elected when the advantaged party is semi- and fully-constrained over unconstrained. The qualifications continue to increase as the advantaged party goes from semi-constrained to fully constrained, but the change is more moderate. This is because the electoral environment becomes more competitive when the advantaged party is semi- and fully-constrained. When the advantaged party is unconstrained, particularly if the median voter is outside the range of ideal points for judges in the other party, the advantaged party can select any judge and the median voter will vote for that judge. In contrast, when the advantaged party is either semi- or fully-constrained, the disadvantaged party has a better opportunity to start pulling the ideal points of the appointed judges towards the median voter's ideal point by selecting highly qualified judges,

which means that the advantaged party has to start choosing better qualified judges as well, which limits the selection pool. This is consistent with the big changes in the ideology results between no constraint and some level of constraint.

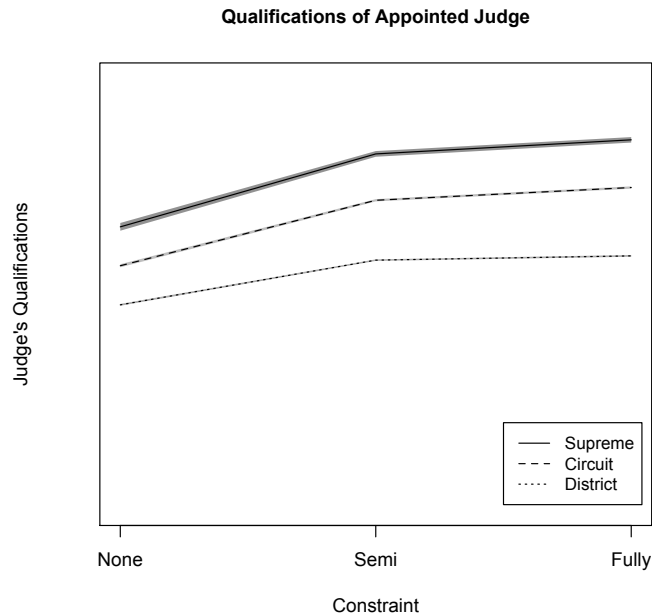


Figure 3.22: This graph shows the average qualifications of elected judges to each level of the judiciary given the level of constraint the advantaged party faces from the median voter. 95% confidence intervals are plotted around the means.

These results suggest that in elections based models, better qualified judges will be selected. This suggests that elections emphasizing judge’s qualifications will yield well qualified judges. To the extent that the valence dimension is better characterized as other features of the candidate, such as personality or like-ability, this result may not translate to better qualified judges.

*Results: Vacancies*

One benefit that results from a system that elects judges is that all vacancies are filled.<sup>37</sup> In the other models, the elite actors can choose to leave positions open if they cannot find someone who will improve their payoff. For parties, this option is not available. If the party decides not to place a judge up for election because the median voter will not vote for a judge that will improve the party's payoff, the median voter will just vote for a judge put forward by the other party. If an election spot was left vacant, the other party would be free to put forward any judge it wanted and the voter would have to vote for that judge.<sup>38</sup> This judge would likely make the first party, the one who did not put forward a judge, worse off than some judge within its own party who only slightly lowers the party's payoff. As a result, the very action of putting forward a candidate can improve the party's overall payoff, whether that candidate wins or loses, because it forces the other party to choose a more moderate judge. Because of these incentives, candidates are selected from both parties for each position that is open.

This stands in contrast to the vacancy rates that are seen in the appointment based models. The nature of elections ensures that judges are selected to fill positions because there are two competing parties who want to get judges on the bench. In contrast, in an appointment based system where some appointer has the option not to appoint if they are not made better off by doing so, vacancies will occur, and certain conditions will lead to greater or fewer vacancies.

#### *Results: Promotions*

The final factor in this model is the rate of promotions. The other models have shown that there is a link between qualifications and promotions and when elite actors are moti-

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<sup>37</sup>Because judges that are elected from a different court (promoted) are not known until after the full elections have taken place, the seats of the judges promoted to a higher court are open at the end of each round of the model. These seats are added to the new openings to be filled in the next round. Because vacancies and promotions are equivalent in this model, I will not discuss the vacancy rate. The decision to leave positions open is not a strategic one in this model. Rather, the positions are left open due to factors that influence the likelihood of promotion, which I will discuss next.

<sup>38</sup>This is assuming an election system with no write in possibilities.

vated to choose highly qualified judges, they are often choosing from judges already in the judiciary who have higher qualification scores on average. Figure 3.23 shows the promotion rates for the elected judges chosen from the advantaged party and disadvantaged party. Consistent with the results for qualifications, the promotion rates for judges selected from the disadvantaged party are higher than the rates for judges selected from the advantaged party. Consistent with the other models, promotion rates are higher on the supreme court than the circuit courts. Again, this is likely due to a larger pool from which to promote and the higher qualification threshold for judges on higher courts.

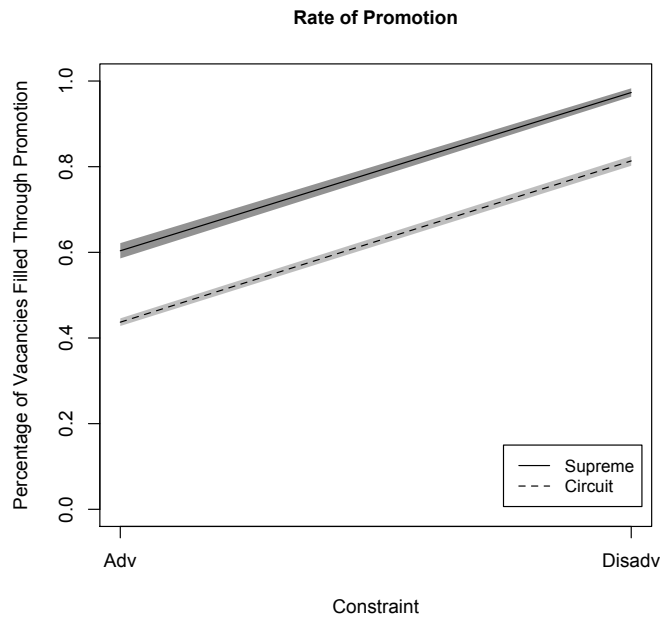


Figure 3.23: This graph shows the average proportion of vacancies filled through promotions on the circuit and supreme courts for judges selected from the advantaged and disadvantaged party. 95% intervals are plotted around the means.

Figure 3.24 shows the promotion rates when the advantaged party is unconstrained, semi-constrained, and fully constrained by the median voter. Again, consistent with the results for qualifications, there is a big increase in promotion rates when the advantaged party goes from unconstrained to semi-constrained and a more moderate increase when the party goes from semi-constrained to fully constrained (though the increase is larger here for circuit



courts than the supreme court). Because the semi-constrained and fully constrained regimes correspond to more competitive environments, where the valence dimension, or qualifications of the judges, becomes more important, better qualified judges are chosen by the parties and those judges are more likely to come from lower courts as these judges are generally better qualified and come with added valence appeal.

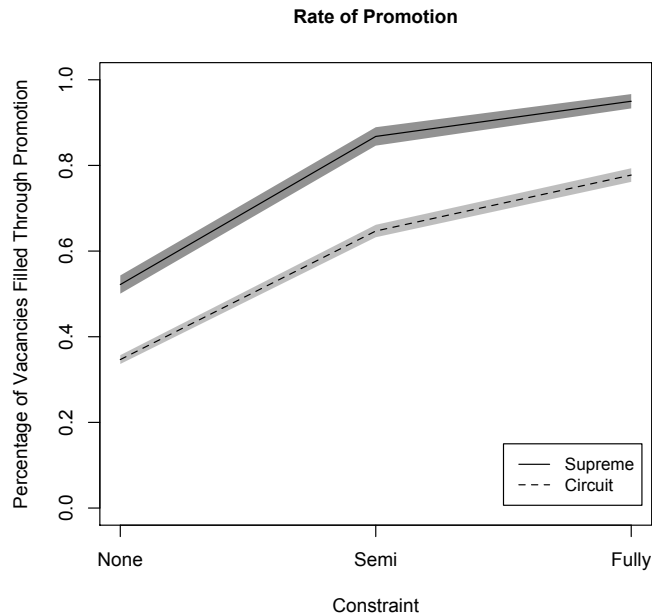


Figure 3.24: This graph shows the average proportion of vacancies filled through promotions on the circuit and supreme courts for judges selected from the advantaged party for each level of constraint faced by the median voter. 95% intervals are plotted around the means.

As with the voting body model, promotion rates are higher in the elections model than in the advise and consent, single appointer, and random assignment models. The difference here, is the added qualification benefit ensures that promotion rates are high even when the advantaged party is unconstrained. The motivation for the promotion is different in this model, however, than in the other models. In the advise and consent and voting body models, promotion served as a compromise between the first and second actors or as a tool to potentially punish the second actor. Here, there are more promotions because the voters want to select the best qualified judges possible and since current judges have higher

qualifications, there are more promotions within the judiciary. Indeed, the qualification and promotion graphs look almost identical in this model, while there are distinct differences between the graphs in the other models.

## Discussion

The results of each of these models differ in key respects. The selection mechanism used to select judges has a pronounced effect on the ideology and qualifications of the judges selected, the rate of positions that are not filled, and the frequency with which positions are filled by judges who are currently serving in the judiciary (promotions). There is no one selection mechanism that is “best” and in considering selection mechanisms, drafters of constitutions or other individuals responsible for choosing the selection mechanism for some position must think about what they care about most.

The ideologies of the selected judges vary from near perfect alignment with the ideology of the person responsible for selecting judges, to farther away when the appointer is constrained by other actors, to no correlation with elite actors’ ideologies when judges are selected randomly. If the parties responsible for determining the mechanism for selecting judges are interested in ensuring the judges are representative of the public’s preferences, elections might be the best system. Elections ensure that the judges are located near to the median voter’s preferences. However, the judges selected under the advise and consent, single appointer, and voting body models are not necessarily removed from the preferences of the public. If the persons responsible for selecting judges are elected by the public, then the ideologies of the appointed judges will likely still be fairly close in line with the public’s preferences. Literature concerned about countermajoritarianism on the Supreme Court has shown that turnover on the Court can ensure that the preferences represented on the Court stay in line with the preferences of the public (Dahl, 1957; Norpoth and Segal, 1994; Segal and Spaeth, 2002). Of course, the judges selected under random assignment might be representative of

the public's preferences as well. Because of the random nature of the selection of the judges, the ideologies on the courts are representative of the public more generally, rather than just the median member of the public as is the case in mechanisms that rely on elections to keep judges in line with the public. In contrast, if the parties responsible for determining the mechanism for selecting judges are interested in ensuring that ideologies of the judges are representative of the elite actors in the political system, the single appointer, advise and consent, and voting body models would be best.

The qualifications of the judges selected also vary across models. The qualifications range from very low in the random assignment model, to meeting a minimum threshold in the single appointer model, to much higher under models where the primary appointer is constrained as in the advise and consent, voting body, and elections models. In the single appointer model, the judge's qualifications are low and just above the threshold for the particular court. In the advise and consent model, the element of constraint ensures better qualified judges at the cost of distance from the primary appointer's ideal point. The voting body model encourages promotions when the proposer is constrained, which leads to higher qualifications at least for higher courts. The highest qualifications occur under the elections model where the added valence component in the voter's payoff function ensures that better qualified judges are selected at the cost of the proximity of the ideology of selected judges to the primary appointer's (parties) ideal points. All of these structured mechanisms differ from a system using random assignment, where the qualifications of the selected judges is quite low.

One of the more normatively interesting components of the model is the vacancy rate resulting from each selection mechanism. The vacancy rate ranges from all vacancies filled in the random assignment and election models, to higher vacancies in models where the judges are selected by elite actors. High vacancy rates are a problem in the federal judiciary, which has led to a literature attempting to understand why some vacancies are filled more quickly than others (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004; Shipan

and Allen, 2011). In selecting a mechanism, this component must be weighed against the ideology and qualifications of the selected judges. There is greater control over the ideology of the selected judges in an appointment based mechanism such as the voting body, single appointer, and advise and consent models. While at least two of these mechanisms, voting body and advise and consent, come with higher qualifications, each of these mechanisms also come with a higher vacancy rate. The elections model ensures that all vacancies are filled while still selecting qualified judges at the cost of less control over the ideologies of the judges, with the ideologies being centered around the median voters' ideal points. The random assignment model also comes with all vacancies being filled, but at the cost of no control over the ideologies of the judges and low qualifications for the selected judges.

Finally, promotions vary across the four models and with it an emphasis on judicial expertise and qualifications. The promotion rate varies from being equal to the portion of the talent pool that is made up of current judges to slightly higher in the single appointer model to higher rates in the advise and consent and elections models to nearly all vacancies being filled by promotions when the promoter in the voting body model is constrained. Again, this comes with trade-offs for the appointer. When the appointer fills a vacancy through promotion he moves the location of the higher court and the lower court, which yields a slight decrease in the overall payoff over what it would be if a similar judge not serving in the judiciary were selected. The trade-off here is judges with higher qualifications are selected when judges are promoted, which helps to ensure confirmation by the extra actors in the model.

This paper shows the trade-offs that are inherent in the type of selection mechanism used to select judges or agents. One topic in the state court literature considers how selection mechanisms affect judicial behavior (Caldarone, Canes-Wrone and Clark, 2009; Canes-Wrone, Clark and Kelly, 2014; Gordon and Huber, 2007; Hall and Bonneau, 2008; Nelson, Caufield and Martin, 2013). This paper shows that these differences start with the mechanisms themselves and the judges that result from them. In choosing a mechanism for selecting

judges, trade-offs must be weighed. These trade-offs include ability to select ideological allies, the quality of judges selected, and the vacancy rates resulting from each mechanism. The selection of a mechanism is not a benign one. Rather, this decision greatly affects each of these dimensions. There is not one mechanism that is “best”, rather the best mechanism can only be determined based on what is most important to the society it represents.

# Chapter 4

## Empirical Tests of Federal Appointments

*The judiciary relies on the President's nominations and the Senate's confirmation process to fill judicial vacancies; ... Over many years, however, a persistent problem has developed in the process of filling judicial vacancies. - Chief Justice, John Roberts, 2010, 7)*

The persistent problem that John Roberts emphasizes in the quote above is the growing number of vacancies in the United States Federal Judiciary. Through his appointments to the judiciary, the president has the ability to make an impact that lasts long beyond his tenure in office. However, persistent vacancies has been the norm for a number of years with vacancies in the judiciary ranging from about 3% of all judgeships to around 11%. As the parties have become more polarized in the Senate, and divided government has become a more frequent reality, gridlock in filling judicial vacancies has risen at the cost of overburdening courts. Indeed, it is this division between the parties that is often blamed for the persistence of judicial vacancies. The very next line in Roberts's report is "[e]ach political party has found it easy to turn on a dime from decrying to defending the blocking of judicial nominations, depending on their changing political fortunes" (Roberts 2010, 7). What exactly does this

process of blocking judicial nominations look like and might there be more to these enduring vacancies than simply political preference divergence? What role do other vacancies in the judiciary play in each appointment decision and how does the distribution of vacancies in the judiciary affect appointment decisions? This question of why vacancies persist is just one of many questions that previous literature analyzing judicial appointments has been limited in answering because appointment decisions have been treated independently.

In Chapter 2, I created a model that addressed the interdependence of vacancies in the judiciary. The model predicts the portfolio of judges that the president chooses to fill positions within the judiciary given constraint both from the Senate and from a finite pool of potential judges from which to appoint. The model produced a number of predictions about what types of judges are selected for which types of positions as well as how those predictions change as the political environment changes. In this chapter, I will focus on the predictions from the model about when to expect delay in the president's nominations along with when to expect positions to be filled through promotion as opposed to new judges being selected.

The literature has remained mostly silent about promotion within the judiciary. A few articles look at the features of judges that make them more or less likely to be promoted (Black and Owens, 2012; Epstein, Landes and Posner, 2013; Savchak et al., 2006), yet no scholarly work has looked at whether promotion is more likely in certain political environments. Ex ante, it is not clear why promotions should ever occur, especially if the president already appears to have difficulty filling vacant positions in the judiciary. A promotion fills an immediate vacancy, but at the cost of creating an additional vacancy to fill. In this chapter, I provide the first theoretical rationale for why promotions might occur and when and present the first empirical test about the factors that make promotions more likely.

In the next section, I begin with a brief review of the literature looking at vacancies and promotions. In the section that follows, I provide a brief review of the results from the model in Chapter 2, focusing on the new hypotheses that are generated about vacancies and

promotions. I then empirically test these new predictions and conclude with thoughts about future research directions.

## Judicial Vacancies and Promotions

Much of the literature looking at judicial appointments focuses on the easy to quantify aspects of the process (Epstein and Segal, 2005; Epstein et al., 2006; Martinek, Kemper and Van Winkle, 2002; Segal, 1987; Segal, Cameron and Cover, 1992). These articles primarily examine the Senate's confirmation decisions including both delay in confirmation and final passage votes. A much more understudied aspect of the process is the selection stage itself. This in large part has to do with difficulty in gathering data relevant to selection decisions, primarily who was considered but not selected. However, two aspects of selection have received some scholarly attention in the empirical literature: when a nominee is selected and when judges are promoted within the judiciary.

An easy to quantify aspect of selection is the timing in which a nomination is made. At times the president fills vacancies swiftly; even sometimes nominating successors before the judge leaving the position has officially left the court. Other times, the president allows vacancies to remain unfilled for extended periods of time and for some positions, the president neglects to nominate anyone before leaving office. This diversity in time to nomination has prompted some scholars to investigate the causes for some vacancies being filled right away and other vacancies remaining open for months or years. These articles have found that politics plays some role in the timing of nominations (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004; Shipan and Allen, 2011). Particularly, scholars have found that the presence of a home state Senator who might block the president's nomination plays a key role in determining when there will be delay in filling vacancies (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004).<sup>1</sup> Other factors also play a role in the timing of

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<sup>1</sup>In Massie, Hansford and Songer (2004), they find this effect for district court vacancies only.



nominations including the time remaining in the president's term, the number of vacancies that have opened in the congressional session, time remaining in the congressional session, why the judgeship became vacant, and characteristics of the judge including race and gender. The predictions from the model in Chapter 2 are in line with the result that politics plays some role in delay in nomination decisions and also suggest an additional factor plays a key role: the number of vacancies that roll over from one time period to the next (or the backlog of vacancies).

Scholars have also examined the factors that contribute to promotion decisions (Black and Owens, 2012; Bratton and Spill, 2003; Epstein, Landes and Posner, 2013; Savchak et al., 2006). One of the primary difficulties in studying who is appointed to the judiciary is compiling a selection pool of possible judges who could be, but are not, appointed to a court. When looking at promotions, a clear pool exists: members of lower courts. This has given scholars some leverage to look at who is selected to fill positions in the judiciary. Scholars have examined what makes certain judges more likely to be promoted from district to circuit courts (Savchak et al., 2006), what judges can do to make their own promotion more likely (Epstein, Landes and Posner, 2013; Black and Owens, 2012), and what makes judges from state supreme courts more likely to be selected for the federal judiciary (Bratton and Spill, 2003). In the first category, Savchak et al. (2006) find that presidential compatibility with a judge's record, the judge's qualifications, and whether the departing judge is from the same state as the district court judge make it more likely that the judge will be promoted, while the distance between the president and the home state Senator, the number of other judges in the president's party in the same state or circuit, the judge's age and seniority, and the number of vacancies on the circuit court previously while the judge was in office all decrease the likelihood that the judge will be promoted. Many of these findings are consistent with the predictions of the model from Chapter 2: the president's choice set and the judge's ideology and qualifications affect the president's decision to promote. Furthermore, the model from Chapter 2 can explain one of the additional findings from Savchak et al. (2006) that goes

against the authors' hypotheses: promotion of a judge is less likely when the president is unconstrained. In the second category of articles looking at promotion decisions, what judges can do to make promotion more likely, Black and Owens (2012) show that judges on circuit courts tend to decide cases more in line with the president's ideology and make their opinions known by publishing their opinions and/or writing additional opinions when there is a Supreme Court vacancy and they are on the president's short list. Epstein, Landes and Posner (2013) find similar behavior: that some judges "audition" for promotion. They find this behavior for both circuit court judges wishing to be elevated to the Supreme Court and district court judges wishing to be promoted to the Courts of Appeals.

However, no scholarly work has examined whether there are certain instances under which promotion is more likely in general. It is well known that many Supreme Court vacancies are filled through promotion, while far fewer circuit court positions are filled in this way. Since 1981, 80% of nominations to the Supreme Court have been promotions within the judiciary.<sup>2</sup> On circuit courts, only about 30% of nominations are promotions in the same time frame. Is there something about the nomination or confirmation process for the Supreme Court that makes promotion more likely than to circuit courts? There is no formal difference between the two with regard to process. Each type of appointment is governed by the "advice and consent" detailed in Article II of the United States Constitution. One possibility is that promotion is more likely because judges who are already on a court are better qualified and given previous literature that suggests an interplay between ideology and qualifications (Binder and Maltzman, 2009; Epstein and Segal, 2005; Epstein et al., 2006; Martinek, Kemper and Van Winkle, 2002; Segal, 1987; Segal, Cameron and Cover, 1992), the president fills these vacancies through promotion because these types of judges are less likely to be rejected. If this is true, might it be the case that other factors that contribute to a more difficult confirmation process also contribute to more promotions?

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<sup>2</sup>This includes nominations that were withdrawn or did not pass through the Senate. If just considering the appointment of justices (justices that are confirmed by the Senate), 10 out of the last 12 appointments have been promotions.

In the next section, I review the results of the model from Chapter 2 pertaining to when vacancies are filled through promotion or not at all, generating the hypotheses that I will test in this chapter.

## Hypotheses

The results from the model that I discuss below come from the approximately 67,000 matched appointments from simulations of the model in Chapter 2. Below, I revisit the results of the model that pertain to the vacancy rate and promotions within the judiciary to develop the hypotheses that will be tested in the next section.

### *Vacancies*

The model provides testable hypotheses about how often the president leaves vacancies open (because he cannot improve his payoff by appointing additional judges). Previous literature has never explicitly modeled when to anticipate vacancies to build up in the judiciary. Rather, the literature has focused on delay in nominations. Because the model uses discrete time periods, when vacancies are unfilled, they carry over to the next year. This is tantamount to the president delaying the nomination choice. Figure 4.1 shows the percentage of vacancies left open when the president is constrained and when he is unconstrained.<sup>3</sup> Previous literature has found that as the relationship between the president and key players in the Senate changes, the amount of delay to expect also changes (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004; Shipan and Allen, 2011). To capture this, I categorize whether the president is constrained or unconstrained. The president is constrained when he and the Senate are on opposite sides of the court's status quo location (the location of

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<sup>3</sup>To calculate this statistic, I include only those vacancies left open when there is at least one vacancy to be filled as measured by the sum of vacancies unfilled in the last iteration, the number of vacancies that open in the current iteration, and the number of promotions that occur in the current iteration that create new vacancies to be filled. The data points used to create this graph are calculated as the average percentage of unfilled positions for each court/constraint pairing. 95% confidence intervals are graphed around the means.

the court if no appointments are made) and unconstrained when they are on the same side of the court.

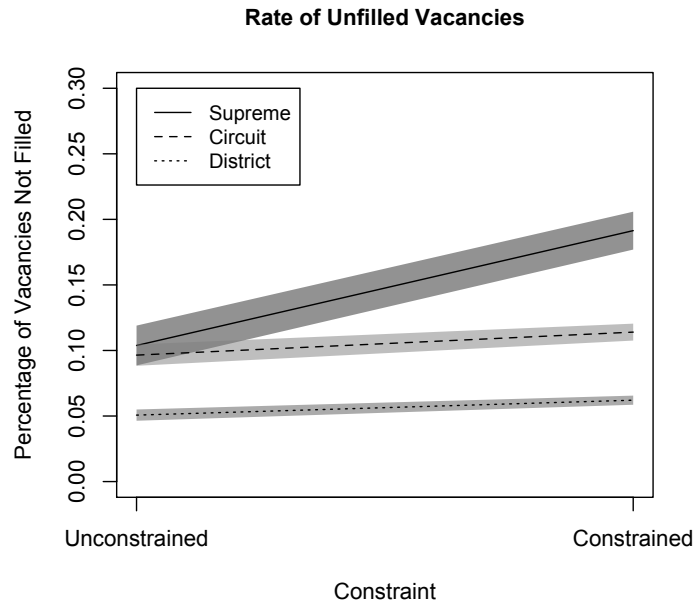


Figure 4.1: Vacancy rate. The y-axis measures the percentage of vacancies that are still open at the end of each round of the model. The x-axis measures the level of constraint the president faces (either unconstrained or constrained).

This graph suggests that there is an increase in the frequency with which positions are left open in the judiciary when the president is constrained. This effect is largest for the supreme court, but the difference is significant for all levels of the judiciary.

- *Hypothesis 1: When the president is constrained by the Senate, there will be greater delay in filling vacancies.*

This constraint result, however, still leaves some question as to why vacancies persist. The difference between unconstrained and constrained presidents is not overly compelling, particularly for the lower courts where the greatest delay often occurs. The results in Chapter 2 indicate that the number of vacancies that the president has to fill, or the workload that he faces, contributes to the vacancy rate. Figure 4.2 shows how the number of “inherited” vacancies, or vacancies that carried over from the previous round, affects the president’s

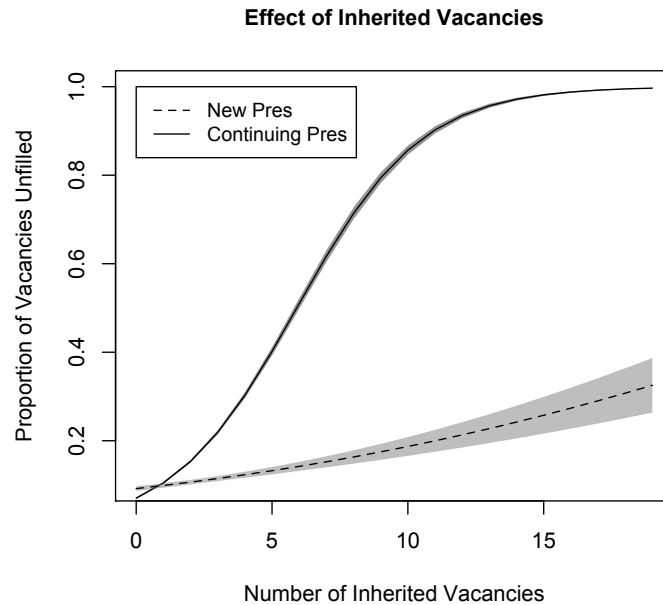


Figure 4.2: Vacancy rate. The y-axis measures the predicted proportion of unfilled vacancies. The x-axis measures the number of vacancies that carry over from the previous round.

ability to fill vacancies in the current round. Figure 4.2 was created using predictions from a logistic regression of the percentage of vacancies left open in each round of the model on the number of “inherited” vacancies, whether it is the President’s first year, and an interaction between the two. The predictions from the model are graphed for each possible value of “inherited” vacancies for new and continuing presidents. 95% confidence intervals are shown around the predictions.

This figure suggests that the presence of “inherited” vacancies, or the backlog the president faces, also affects when vacancies are filled. Figure 4.2 shows that as the number of “inherited” vacancies increases, the proportion of vacancies that are left open also increases.

- *Hypothesis 2: As the number of vacancies the president “inherits” from a previous time period increases, there will be greater delay in filling vacancies.*

Figure 4.2 also shows that this effect differs between new and continuing presidents. The effect is much larger for continuing presidents than new presidents. Additionally, this graph

shows that there is a difference between new and continuing presidents in general. New presidents leave fewer vacancies open than continuing presidents. This difference suggests an interactive effect between new presidents and inherited vacancies.

- *Hypothesis 3: The effect of “inherited” vacancies will be smaller for new presidents than continuing presidents.*
- *Hypothesis 4: New presidents will be less likely to delay filling vacancies than continuing presidents.*

A final factor that affects the rate of vacancies is the distance between the president and the court’s status quo location.<sup>4</sup> When the president is farther away from the court, he leaves fewer vacancies open. Figure 4.3 shows how the vacancy rate changes as the president moves farther from the status quo.<sup>5</sup> This result is straightforward; when the president is farther away from the court, appointing more judges will move the court closer, but when he is relatively close to the court, there is likely some point at which appointing more judges will not improve the location of the court, so he leaves vacancies open.

- *Hypothesis 5: As the distance between the president and the court’s position increases, vacancies will be filled more quickly.*

### *Promotions*

The model also predicts when the president is more likely to promote within the judiciary versus filling vacancies with new talent. The results of the model suggest that there are certain instances under which promotions are more likely. Figure 4.4 shows the percentage

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<sup>4</sup>The court location before any appointments are made.

<sup>5</sup>For each point on this graph, the vacancy rate is equal to the average number of vacancies open when the distance between the president and the status quo is between the value at that point and .1 plus that value.

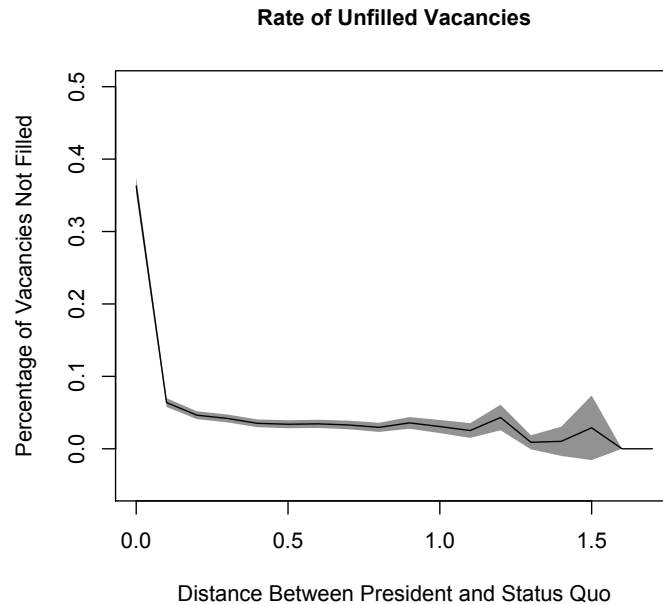


Figure 4.3: Vacancy rate. The y-axis measures the percentage of vacancies that are still open at the end of each round of the model. The x-axis measures the distance between the president and the status quo.

of vacancies that are filled through promotion on the circuit courts and the supreme court for three levels of constraint.<sup>6</sup> For a review of how this is measured, refer to Chapter 2.

This graph suggests two new hypotheses that have been previously untested. First, promotions are more likely, in general, to the supreme court than they are to circuit courts. This result makes sense if for no other reason than the fact that there are more people to promote to the supreme court. Additionally, the thresholds for the qualification costs are higher for the supreme court, and because judges already serving on courts have higher qualifications, promotion is more likely to the supreme court.

- *Hypothesis 6: Promotions are more likely to the Supreme Court than to circuit courts.*

The promotion rates also change based on the president’s level of constraint. For both the circuit and supreme courts, the president promotes more often when he is fully constrained

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<sup>6</sup>This graph only shows the promotion rate when there is at least one position to fill on the court. The data points used to create this graph are the average values for each court/constraint combination. 95% confidence intervals are graphed around the means.

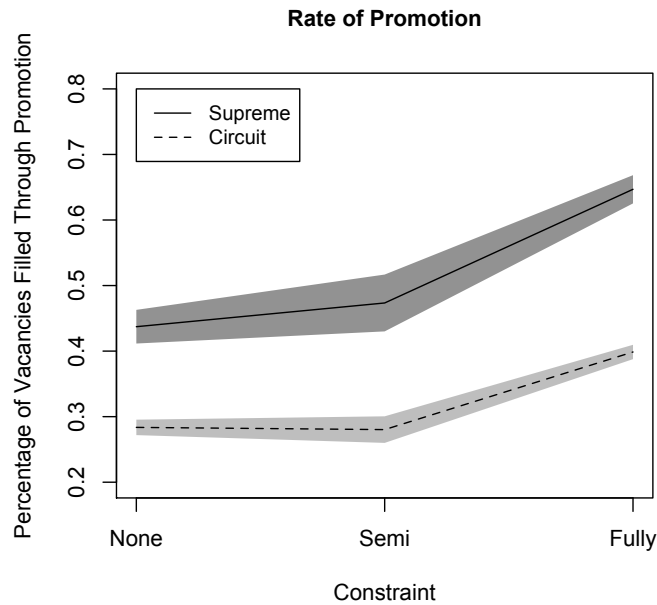


Figure 4.4: Percentage of vacancies filled through promotion. The y-axis measures the percentage of vacancies that are filled through promotion. The x-axis measures the level of constraint the president faces from the Senate, with the president being either unconstrained (none), semi-constrained (semi), or fully-constrained (fully).

over when he is unconstrained or semi-constrained. As a result, I anticipate that the president will be more likely to promote when he is facing a fully constrained regime.

From Chapter 2, there are two reasons to expect more promotions as the president becomes more constrained: the leveraging of better qualified judges for more ideologically proximate judges and the shift of a lower court towards the Senate. As a result, promotions appear to be a tool that is utilized when the president is constrained to help get judges confirmed by the Senate.

- *Hypothesis 7: When the president is fully constrained, vacancies are more likely to be filled through promotion.*



## Data and Methods

To test these seven hypotheses, I use and extend the Lower Federal Court Confirmation Database (Martinek, 2000). I extend the database through 2008 for lower court vacancies and include all Supreme Court vacancies from 1977-2008. The dataset includes one observation for each nomination opportunity. A nomination opportunity can start in one of four ways. Either the judge leaves office,<sup>7</sup> a previous nomination is returned to the president by the Senate, either a nominee or the president withdraws a previous nomination, or a new president assumes office. A single vacancy might have multiple nomination opportunities; a nomination opportunity exists whenever a position is vacant without a nominee pending. A nomination opportunity ends with either a nomination or when the president leaves office if no nomination attempt is made. The start and end dates of each nomination opportunity are recorded in the database. The length to nomination is counted in months. From 1977-2008, there are 2,189 nomination opportunities.

### Vacancies

There are five hypotheses that pertain to when vacancies will remain open in the judiciary. Because the model from which these hypotheses are derived uses discrete time intervals, when a vacancy is not filled it carries over to the next year to be filled in that round, or again, to remain unfilled. This type of action is delay in decision making. Previous literature has looked at delay in filling vacancies using duration models to estimate when vacancies will be filled (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004; Shipan and Allen, 2011). Following previous literature, the dependent variable that I focus on is time to nomination. This is measured as the time between when a nomination opportunity first opens and a nomination is made to fill the vacancy.

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<sup>7</sup>A judge can leave office through resignation, retirement, death, promotion, or by assuming senior status.

The unit of analysis is at the nomination opportunity-month level. To test Hypotheses 1-5, I use a hierarchical discrete time duration model. I use this model rather than a Cox Proportional Hazard Model or Weibull model for two reasons. First, because I am testing hypotheses that derive from a model that uses discrete time periods, a discrete duration model will allow me to more closely test these hypotheses. Second, many of my covariates are time-varying, but most of them only change monthly, yearly, or per congressional session. As a result, aggregating to a monthly time estimate makes practical sense. Because this time measure is discrete rather than continuous, other duration models are inappropriate, and instead a discrete model is the most appropriate model to use (Box-Steffensmeier and Jones, 2004). When estimating a duration model, it is necessary to choose a parametrization for the effect of time on the hazard rate. There are a number of options available for parametrizing this time effect. I use a quadratic form for the duration effect. I chose this parametrization because while it makes sense that vacancies are more likely to be filled in each passing month that they are open, if they have not already been filled, observations in the data set can be right-censored due to presidents leaving office and nomination opportunities ending without a nomination. This means that if vacancies have been open for a particularly long time, it might be less likely that they will be filled because the president is running out of time to fill the vacancy. This type of duration dependence lines up well with a quadratic parametrization for the duration dependence on the hazard rate.<sup>8</sup>

The outcome variable is binary; the outcome is equal to 1 if the nomination opportunity ends in a particular month, and 0 otherwise. There is both left and right censoring in the data. It is possible for nomination opportunities to close before they open, or before

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<sup>8</sup>As robustness checks, I estimate the model using other parameterizations. The additional parameterizations I estimate include a linear effect, a logistic effect, fixed effects for each time period, and a conditional logit. Following Carter and Signorino (2010), who suggest a cubic parametrization may be the best approach, I attempted this parametrization as well. This model proved too taxing on the data and did not reach convergence. However, Carter and Signorino (2010) suggest that any polynomial approach is beneficial, but choose the cubic to find a balance between capturing the correct hazard shape without overfitting. The quadratic approach that I take in this chapter seems sufficient to control for this effect. The results of the models I present are largely robust to other parameterizations of this duration dependence. I make note of any results that differ for different parameterizations of the duration dependence.

the person vacating the position has left. For these left-censored observations, the outcome variable is equal to 1 in the month that it is opened.<sup>9</sup> The outcome variable for right-censored observations, or nomination opportunities that do not end in nomination, is 0 for every month the opportunity is open. Because the outcome is binary, standard models that are suited to handle binary outcome variables can be used to estimate this model (Box-Steffensmeier and Jones, 2004). I estimate a hierarchical logistic regression model with random intercepts for each nomination opportunity and for each president. I include these random intercepts because errors are likely to be correlated within each of these two groups, and including random intercepts in the model will mitigate the effects of correlated errors. The coefficients in the model measure the effect on the hazard rate. In other words, positive coefficients indicate that increases in the variable lead to increases in the hazard rate, or the likelihood that the nomination will end in that month. Negative coefficients indicate that an increase in the variable leads to a decrease in the hazard rate.

The primary variables of interest are the level of the court, *Court*, the number of “inherited” vacancies, or vacancies that carried over to the current month, *Inherited Vacancies*, the president’s distance from the status quo,  $|P-Q|$ , and the relationships between the Senate, the president, and the status quo.

The model does not produce clean predictions about the differences between levels of the judiciary with regard to how often vacancies are left unfilled. However, there are likely differences in the duration of vacancies between the levels of the judiciary in the actual data. To control for these differences, I include a variable that measures the level of the judiciary for each vacancy. This court level variable is categorical. Nomination opportunities are either to the Supreme Court, Courts of Appeals, or district courts.

The model predicts that when there are inherited vacancies, there will be delay in filling positions. I measure vacancies as the number of vacant positions open in the court’s geo-

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<sup>9</sup>Because the model is discrete, this means that left-censored observations are treated as equivalent to observations that are filled within the first month they have opened.

graphic area. For district courts, this is all vacancies within the district, other vacancies in the state the district is located in, all vacancies on the circuit court where the district's cases are appealed, and all vacancies on the Supreme Court.<sup>10</sup> For circuit courts, this is measured as all vacancies on the circuit court, all vacancies on the district courts in the circuit, and all vacancies on the Supreme Court. For the Supreme Court, this is measured as all open vacancies. I use the vacancies in the geographic region rather than just vacancies on the court, because the theoretical model presented in Chapter 2 suggests that the president's behavior with regard to one vacancy is related to his behavior with respect to other vacancies. Geographic regions measure overlapping choice sets. The same judges or potential judges can be appointed to any district in, and the corresponding circuit for, the state in which they live as well as the Supreme Court. As a result, the number of vacancies in the court's geographic region likely has a greater effect on whether vacancies are filled on that court than just the vacancies on the individual court. To get a measure of the inherited vacancies, or the vacancies that carried over to the current month, I measure all vacancies that were open, but not filled, in the previous month. I expect a negative relationship between inherited vacancies and the hazard rate for nomination.

The theoretical model also predicts that the effect of inherited vacancies will differ for new presidents. To estimate this relationship, I include an interaction between new presidents and inherited vacancies. The matching model in Chapter 2 assumes complete and perfect information about the talent pool; that the president enters office already knowing the complete pool of potential judges. In reality, this is likely not the case, and the first few months of a new presidency might consist of compiling a list of potential judges who could be appointed to fill vacancies within the judiciary. The model also assumes the president's only task is to fill vacancies in the judiciary. Given that the actual first year of a presidency is filled with many important duties such as making cabinet and other high level executive

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<sup>10</sup>I include all vacancies open in the state where the district is located rather than just the district itself, because judges can be appointed to any vacancy open in the state where they live (Giles, Hettlinger and Peppers, 2001).

appointments and often the president has some agenda that he would like to complete during his honeymoon period (the first one hundred days the president is in office), it is likely that at for least the first few months of the first year, few vacancies in the judiciary will be filled, contrary to what the model suggests. However, once the president is situated and can focus on judicial appointments, the model's expectations about new presidents should hold. The first year in the model might better be interpreted as the first attention paid to judicial vacancies. To approximate this freshman, or first attention, effect, I code the variable, *New President* as 1 for the second half of the president's first year, and 0 otherwise.<sup>11</sup> I expect positive effects for both *New President* and the interaction between *New President* and *Inherited Vacancies*.<sup>12</sup>

To measure the president's distance from the status quo, I use Judicial Common Space Scores (Epstein et al., 2007) and Federal District Court Judge Ideology Data (Boyd, 2010). I calculate this distance for each month the opportunity is open. To measure the court's location, I use the same procedure I use in the model in Chapter 2, which is to base the court's location on its decision rule. For district courts, I use the mean ideology score for judges on the court.<sup>13</sup> For the circuit courts, I create all possible permutations of three judges, take

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<sup>11</sup>There might be a trichotomous effect and a separate variable should be included for the first sixth months of the president's time in office, since he would be less likely to nominate judges in this time frame. Because I want to know if the president fills vacancies more quickly in the first period in which he pays attention to the vacant positions, I am only interested in the dichotomous effect of new presidents (or the latter six months of the president's first year) and how that differs from the rest of his presidency. To check the effect of a trichotomous variable, with a separate indicator for the first sixth months of the first year, I have estimated the model including a variable for the first sixth months, *First Six*, and an interaction between this variable and the number of inherited vacancies. The results are robust to including these additional variables. The coefficient for *First Six* is negative and statistically significant. In the model with the trichotomous indicator, the interaction between *New President* and *Inherited Vacancies* is statistically significant and negative.

<sup>12</sup>I expect a positive interactive effect because the expected direction for inherited vacancies is negative. Because the theoretical model predicts a smaller relationship between vacancies and duration to nomination for new presidents, I expect a positive interactive effect, which would make a smaller negative marginal effect for vacancies under new presidents than continuing presidents.

<sup>13</sup>There was one nomination opportunity to the District of New Hampshire and two opportunities to the Eastern District of Washington for which there was at least one month with no status quo score because there were no judges on the court in those month(s). All observations for these three nomination opportunities were removed from the dataset.

the medians of those three judge panels, and calculate the mean of all medians.<sup>14</sup> For the Supreme Court, I take the median of all justices on the court. For circuit and district courts, judges can choose to take senior status, in which they are still deciding cases, though not to the same degree, and their position becomes open to be filled. Because these judges are still in the pool to decide cases, I include all senior judges in the status quo scores.<sup>15</sup> One of the primary reasons I chose to keep senior judges in the courts' ideology scores is that there are numerous observations for vacancies to district courts for which the only judges in the district are senior judges. By including senior judges in the court scores, I am able to keep these observations in the dataset. The distance between the president and the status quo is measured as the absolute distance between the court score and the president's ideology score.

To measure the relationships between the Senate, the president, and the court's preferences, *Constraint*, I use the same approach that I use in the discussion of the model results. If the president is constrained, if he is on the opposite side of the court from the Senate, this variable is coded as a 1 and 0 otherwise. As another measure of the political environment, I use the distance between the president and the Senate, *Elite Distance*. Previous literature has pointed to a number of pivotal members in the Senate that might act as a constraint on the president's actions (Aldrich and Rohde, 2000; Cox and McCubbins, 2007; Krehbiel, 1998; Primo, Binder and Maltzman, 2008). For this test, I use the ideology of the blue slip Senator.<sup>16</sup> I do so because prior literature points to the importance of the ideologies of the home state Senators in appointment decisions (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004). The blue slip ideology is measured using blue slip threat. Following

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<sup>14</sup>When there were fewer than three judges on the court, I took the median of the judges on the court.

<sup>15</sup>I also calculate the status quo without these senior judges. Where the results differ when using the two scores, I note so in the discussion of the results.

<sup>16</sup>Note this is different than the approach taken in Chapter 2. In Chapter 2, I assumed that the blue slip process was not at work. However, I anticipate that to the extent that the blue slip process plays a role, it would only strengthen the results. As a result, I still anticipate that I will find the same results I find in the model using the blue slip Senator's score.

Binder and Maltzman (2004), I code blue slip threat as a 1 if one or more of the Senators from the state are more than one standard deviation removed from the president's ideology (using the standard deviation of ideology scores in the Senate) and a 0 if neither Senator from the state is more than one standard deviation from the president's ideology. If both Senators are more than one standard deviation away, the blue slip ideology is measured as the mean of their ideology scores, if only one Senator poses a threat, the ideology measure is equal to that Senator's ideology, and if neither Senator presents a blue slip threat, the score is equal to the president's ideology.<sup>17</sup> Other potential constraining ideologies are the median member of the Senate, the filibuster pivot, a senatorial courtesy score, the judiciary committee median, and the judiciary committee chair. The results using these ideologies differ from the results using the blue slip senator's ideology, but only for the ideology result. The results using each of these ideologies are presented in different models in Appendix B in Chapter 6.

In addition to the variables of interest, I code a number of variables that previous literature suggests are important for the president's decision to fill a vacancy swiftly or to delay in filling the vacancy (Binder and Maltzman, 2004; Massie, Hansford and Songer, 2004). I code the time remaining in the president's term, *Time President*, measured in months. I also code whether the president is in his second term, *Second Term*. The president's approval rating may also affect the timing until nomination. I code the approval rating in the month, *Approval*, using information from The American Presidency Project (Peters and Wooley, 2013). I use the president job approval data, which comes from Gallup. For months with multiple polling observations, I take the mean of all polls conducted in the month. If there is no polling data for a particular month, I use the mean of polls conducted in the

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<sup>17</sup>For circuit courts, because the president has some discretion when it comes to selecting judges, which might allow him to potentially avoid selecting a judge from a state where a blue slip is likely, the blue slip score is equal to the score that is closest to the president's ideology from the states in the circuit. For Supreme Court appointments, and all other courts for which there are no geographic restrictions, or where nominees are likely to come from a geographic region for which there is no representation in the Senate, such as courts in the District of Columbia or Puerto Rico, the blue slip Senator score is always equal to the President's ideology score.

month before and after the missing month. If there is no polling data for the first or last month of a presidency, I use the data from the second or second to last month of the presidency for the missing month. I also include a variable measuring the time remaining in the congressional term, *Time Congress*, measured in months. Finally, I include a variable that measures whether the nomination opportunity is closed by reappointing the same nominee after a nomination was returned by the Senate, *Reappointment*. I include this variable, because often when a renomination is made, this type of nomination occurs very swiftly.

Time is incorporated into the model using a quadratic formulation for the duration dependence. Duration is measured as the number of months that the vacancy has been open. *Duration* and *Duration*<sup>2</sup> are incorporated into the model to control for the time effect on the hazard rate.

### ***Results***

The results for the models using both constraint and the distance between the president and the Senate to measure the political environment are shown in Table 4.1.



	Constraint	Elite Distance
(Intercept)	-2.93*	-2.94*
	(0.23)	(0.23)
Circuit Court	0.21*	0.20*
	(0.08)	(0.08)
Supreme Court	6.33*	6.31*
	(0.98)	(0.98)
Constraint	-0.16*	
	(0.08)	
Elite Distance		-0.19*
		(0.09)
$ P - SQ $	-0.16	-0.14
	(0.19)	(0.19)
Time Congress	0.02*	0.02*
	(0.00)	(0.00)
Time President	-0.02*	-0.02*
	(0.00)	(0.00)
Approval	-0.00	-0.00
	(0.00)	(0.00)
Second Term	0.16	0.16
	(0.08)	(0.08)
New President	0.57*	0.57*
	(0.15)	(0.15)
Senatorial Courtesy	0.12	0.12
	(0.15)	(0.15)
Lag Vacancies	-0.02*	-0.02*
	(0.01)	(0.01)
Reappointment	2.86*	2.86*
	(0.12)	(0.12)
New Pres×Vac	-0.04	-0.04
	(0.02)	(0.02)
Duration	0.21*	0.21*
	(0.01)	(0.02)
Duration <sup>2</sup>	-0.00*	-0.00*
	(0.00)	(0.00)
$N$	16964	16964
AIC	10569	10569
BIC	10701	10569
$\log L$	-5268	-5268
Random Effects		
Opportunity (Std. Dev.):	0.65	0.65
President (Std. Dev.):	0.29	0.30

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Table 4.1: These are the results from the discrete time duration models using the blue slip senator for Senate ideology measured using both constraint and elite distance. The dependent variable is measured as whether a nomination opportunity ends in a given month.

The first notable result from these models is that nominations to higher courts are filled more swiftly. While the effect is statistically significant for both levels, the substantive effect is much larger for vacancies to the Supreme Court than those to circuit courts. The hazard rate increases from 0.097 to 0.117, an increase of 19.8% for appointments to circuit courts over district courts when the president is unconstrained and from 0.084 to 0.101, an increase of 20.4%, when the president is constrained.<sup>18</sup> For the Supreme Court, the hazard rate increases to 0.984 when the president is unconstrained, a 900.2% increase over district court vacancies, and 0.981 when the president is constrained, a 1057.9% increase over district court appointments.

A number of the hypotheses stemming from the theoretical model in Chapter 2 are supported in these results. The results for inherited vacancies and the presence of a new president are both consistent with the predictions from the theoretical model. As the number of inherited vacancies in the geographic region increases, the hazard rate decreases, meaning that a swift nomination is less likely. This gives support to the primary motivation for the matching model: that vacancies should be considered together, not separately. The presence of vacancies on courts for which the talent pool of potential judges is shared affects the timing to nomination.<sup>19</sup> The result for *New President* is also consistent with the results of the model in Chapter 2. New presidents have higher hazard rates, meaning they fill more vacancies in the first year, or when they first pay attention to vacancies, as the theoretical model suggests.<sup>20</sup>

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<sup>18</sup>These predictions are estimated using the results of the constraint model through stochastic simulations (King, Tomz and Wittenberg, 2000) with all other variables set at their mean values.

<sup>19</sup>This result is robust to using court vacancies rather than geographic vacancies. The result is also robust to substituting the inherited vacancies for a contemporaneous measure of vacancies on either the court or in the geographic region. The result for geographic vacancies is also robust to including both court and geographic vacancies. When including both, the coefficient for court vacancies is positive, but is not statistically significant.

<sup>20</sup>Some might question whether that this has more to do with the fact that it is the beginning of a presidential term rather than a new president effect, especially since the coefficient on time remaining in the president's term is negative. There are two things to note on this point. First, if instead of the latter half of the first year of the Presidency, *New President* is measured as the full first year of the Presidency, this

The political environment result is consistent with results from the model in Chapter 2 using the blue slip Senator's ideology score. When the blue slip Senator, who is generally viewed as a constraint on the president's ability to select nominees to lower courts, constrains the president, or is located further from the president, ideologically, the hazard rate decreases.<sup>21</sup> For district courts, this leads to a decrease of around 14% in the hazard rate, about 13% for circuit courts, and 0.2% for the Supreme Court.<sup>22</sup> The positive results for the political environment variables using other ideology scores suggest that other members of the Senate do not constrain the president in the same way as the blue slip Senator. Only this Senator constrains the president in a manner consistent with the theoretical model presented in Chapter 2. Primo, Binder and Maltzman (2008) consider which pivots are controlling in the judicial confirmation process, finding that some Senators are more pivotal than others. The results from these empirical tests suggest that the same is true with respect to when the president nominates judges. Future research should further examine the dynamics of how different pivotal Senators affect time to nomination.

The result for the interaction between *New President* and *Inherited Vacancies* is not consistent with the results of the model and shows the opposite effect of what the model predicts. The theoretical model suggests that new presidents will have a smaller inherited vacancy effect than continuing presidents. The negative coefficient on the interaction term, however, suggests that new presidents have a larger negative effect, or a stronger negative effect for inherited vacancies than continuing presidents. This result is not, however, statis-

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coefficient is negative. Additionally, when the first half of the first year is included as a separate variable, the effect for this variable is negative while the latter sixth month effect remains positive. Second, this is a measure of the presidency as a whole, so for Ronald Reagan, Bill Clinton, and George W. Bush, this is only the latter six months of the first year of their first term. As a result, this is not a second measure of a time in term effect, but a pure measure of a new presidency effect.

<sup>21</sup>Using the court ideology scores without senior judges, this result is still negative, but falls just short of statistical significance at the .05 level using a two-tailed test. It is, however, significant using a one-tailed test. The result is also not statistically significant using a conditional logit approach to handle the duration effect. The results are robust to any other parametrization for the time effect.

<sup>22</sup>These differences in the hazard rates are roughly equal using either the constraint variable or the elite distance variable.

tically significant. While this result is inconsistent with the predictions from the theoretical model, as I noted previously, the model inherently assumes that the president is only concerned with filling vacancies in the judiciary. Because the first year of a presidency is often busy, when there are numerous vacancies to fill that have carried over from a president's predecessor, he delays filling the vacancies (which is consistent with the results of the theoretical model, since the model predicts a negative vacancy effect for both new and continuing presidents). The substantive effects of these variables reveal the interplay between new presidents and the inherited vacancy effect. For new presidents the vacancy effect is larger, and varies at the different levels of the judiciary. For district court vacancies, the hazard rate changes from 0.106, when *Inherited Vacancies* is one standard deviation below its mean, to 0.088, when the variable is one standard deviation above its mean, a 17.8% decrease, for continuing presidents and from 0.174 to 0.104, a 40.3% decrease, for new presidents.<sup>23</sup> A similar pattern holds for circuit court appointments, with a change in the hazard rate from 0.128 to 0.106, a 17.5% decrease, for continuing presidents and a change from 0.206 to 0.125, a 39.3% decrease, for new presidents. On the Supreme Court, the effect for the number of vacancies is much smaller, and is nearly indistinguishable between continuing and new presidents. For Supreme Court vacancies, the hazard rate changes from 0.985 for vacancies one standard deviation below the mean to 0.982 for vacancies one standard deviation above the mean, a 0.3% decrease, for continuing presidents, and from 0.991 to 0.984, and a 0.6% decrease, for new presidents.<sup>24</sup> Presidents on average still fill vacancies more quickly in the last six months of their first year in office than the rest of their presidency, however. Again, this effect varies for the level of the court and for the number of inherited vacancies. For

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<sup>23</sup>The percentage change in the hazard rate is roughly similar when the president is constrained and unconstrained. The hazard rates presented are for when the president is unconstrained. All other variables are held at their means.

<sup>24</sup>Though substantively small, these differences are statistically significant. The hazard rate is already exceptionally high for the Supreme Court, even in the face of vacancies more than one standard deviation above the mean. The hazard rate is consistently above 0.98 for vacancies to the Supreme Court, regardless of the size of the *Inherited Vacancies* variable.

district courts, there is a 38.5% increase in the hazard rate (from 0.106 to 0.174) for new presidents when the number of inherited vacancies is low, a 29% increase (0.097 to 0.138) when *Inherited Vacancies* is at its mean, and no statistically significant difference between continuing and new presidents for high vacancies.<sup>25</sup> For circuit courts, there is a 37.6% increase in the hazard rate (from 0.128 to 0.206) for new presidents for low vacancies, 28.7% for mean vacancies (from 0.117 to 0.165), and no difference for high vacancies. Again for the Supreme Court, the substantive differences are small, 0.5% increase (from 0.983 to 0.989) for new presidents when there is a mean score for vacancies, 0.6% increase for low vacancies (from 0.985 to 0.991), and no difference for high vacancies.

These results suggest an interesting normative implication about the persistence of vacancies in the judiciary. These persistent vacancies are an often criticized part of American politics. Judges often complain about workloads and the Supreme Court Chief Justice routinely talks about the state of the justice system in the United States being hurt by the persistence of vacancies in the judiciary in his annual report, such as the one from which the quote at the beginning of this chapter was taken. The president and Senate often point fingers at one another to place the blame for why vacancies persist. What this result seems to indicate is that the presence of vacancies begets more vacancies. When a president is faced with vacancies that were “inherited”, either because he has allowed vacancies to build up within his own presidency, or because the vacancies have carried over from the president’s predecessor, it takes him longer to fill the vacancies. The added vacancies add to the president’s workload, thereby making it more difficult for him to find judges to fill each vacant position.

The data do not confirm the distance between the president and the status quo effect that the theoretical model predicts. The model predicts that when the president is further removed from the status quo, he fills more vacancies, which translates to a swifter nomination

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<sup>25</sup>Low vacancies refers to when the *Inherited Vacancies* variable is one standard deviation below its mean and high vacancies refers to when the variable is one standard deviation above its mean.

when examining duration. I find no evidence that this relationship exists. One explanation for why I do not find evidence of this effect could be that the president is not attentive to the expected location of court output, which is how I have measured the court ideologies. Instead, the president might care more about the variance of the court's decisions or some other component of court output than the expected location. Alternatively, it could be a matter of the measurement used for the judge's ideologies. The Judicial Common Space scores are fixed for the judge's tenure in office and are determined based on the ideology of the actors involved in the nomination and confirmation process. To the extent that the ideologies of judges do not perfectly reflect the actors who appoint them, or do not remain constant while on the bench, this error may make finding this distance effect more difficult since presidents would have better information about the judges' and courts' ideological positions.

## Promotions

I turn now to the empirical test of hypotheses 6 and 7. The data for this test consist of all nomination opportunities to the Courts of Appeals and the Supreme Court which end in a nomination. The outcome variable is binary: 1 if the nominated judge served on a federal court prior to the nomination and 0 otherwise. There are 461 nominations to the Courts of Appeals or the Supreme Court from 1977 to 2008. Because the dependent variable is binary, I estimate a hierarchical logistic regression model with random intercepts for each president.

The primary variables of interest are the level of court, *Supreme Court*, and the relationships between the Senate, president, and the courts to which the nominations are made: *Constraint* and *Elite Distance*. The level of court is measured as a binary variable, it is equal to 1 for nominations to the Supreme Court and 0 for nominations to the Courts of Appeals. I use the same conceptualization of constraint that I use in discussing the results of the model. Because previous literature has not looked at the factors that contribute to the incidence of promotion, except for a couple of articles looking at qualities of judges that

are promoted (Black and Owens, 2012; Epstein, Landes and Posner, 2013; Savchak et al., 2006), there is no clear Senate ideology that should constrain the president's promotion decisions. Unlike the test for duration, where previous literature indicates the importance of home-state Senators for this process, there is no similar indication of which Senators might be pivotal for promotion decisions. As a result, I take an approach similar to Primo, Binder and Maltzman (2008) and present the results of models using each measure of Senate ideology to gauge which Senators are pivotal.<sup>26</sup> For *Constraint* and *Elite Distance*, I use the value for the month the nomination is made.

I also include some of the same control variables that I used in the last section. I include the time remaining in the congressional session, *Time Congress*, and the time remaining in the presidential term, *Time President*, both measured in months. I also include the measure of the president's approval rating, *Approval*. For these variables, I use the score for the month that the nomination is made.<sup>27</sup>

I include a few additional control variables that were not in the duration model above. I include a variable indicating the number of months that the position was vacant before it was filled, *Months Open*, as well as a binary variable indicating whether the nomination is the president's first opportunity to fill the position, *First Open*. The first opportunity variable is equal to 1 if the president has not previously nominated anyone to the position and 0 if the president has appointed someone to the position previously and the nomination was returned to the president or withdrawn. Because the promotion result from the theoretical model indicates that the president promotes because current judges have higher qualifications and will be more likely to be approved by the Senate, even if they are not ideologically preferential

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<sup>26</sup>I do not include a measure for Senatorial Courtesy, because the value is always equal to the president's ideology for the Supreme Court by design and for the Courts of Appeals in practice.

<sup>27</sup>I do not include a measure of the president's distance from the status quo, because there is no reason to expect that this distance will affect whether a vacancy is filled through promotion. The president can likely find both a new judge and a judge to promote who are roughly equidistant from his own ideology.

to the Senate, I include a measure of the distance between the Senate and the court location,  $|S-SQ|$ .

## Results

The results of these models are in Tables 4.2 and 4.3.

	Median	Maj Party	Jud Cmte	Jud Cmte Chr	Filibuster	Blue Slip
Intercept	-2.40*	-1.13	-2.19	-0.86	-0.84	-0.14
	(0.92)	(0.70)	(1.28)	(0.70)	(0.65)	(0.70)
Semi-Constrained	1.37	0.73	1.49	0.29		
	(0.70)	(0.38)	(1.13)	(0.52)		
Fully-Constrained	1.69*	0.67*	1.71	0.66*	-0.07	0.36
	(0.71)	(0.30)	(1.13)	(0.30)	(0.30)	(0.59)
$ S-SQ $	1.80	1.28	0.49	0.36	1.17	-0.93
	(1.03)	(0.87)	(0.89)	(0.73)	(0.81)	(0.68)
Supreme Court	2.44*	2.31*	2.20*	2.38*	2.26*	2.31*
	(0.85)	(0.80)	(0.80)	(0.81)	(0.81)	(0.81)
Months Open	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
First Open	0.45	0.39	0.36	0.36	0.38	0.32
	(0.27)	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)
Approval	0.00	-0.00	-0.00	-0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Second Term	-0.16	-0.11	-0.09	-0.21	-0.04	-0.04
	(0.23)	(0.23)	(0.24)	(0.25)	(0.25)	(0.24)
Time Congress	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Time President	0.01	0.01	0.01	0.01	0.00	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
$N$	461	461	461	461	461	461
AIC	582.4	584.1	585.5	583.8	585.1	583.3
BIC	632.0	633.7	635.1	633.4	630.6	628.8
$\log L$	-279.2	-280.0	-280.7	-279.9	-281.6	-280.7
Random Effects						
Intercept (Std. Dev.):	0.18	0.24	0.35	0.32	0.33	0.38

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Table 4.2: These are the results of the hierarchical logistic regression models using constraint measured with each of 6 measures of Senate ideology. The dependent variable measures whether the nominee served as a federal judge prior to nomination. The columns correspond to the ideology for different pivotal members of the Senate. From left to right the pivotal members are: the median member, the median of the majority party, the judiciary committee median, the judiciary committee chair, the filibuster pivot, and the blue slip Senator.



	Median	Maj Party	Jud Cmte	Jud Cmte Chr	Filibuster	Blue Slip
Intercept	-2.52 (0.73)	-0.65 (0.64)	-1.22 (0.74)	-0.84 (0.67)	-2.12 (1.26)	-0.13 (0.70)
P-S	4.59* (1.32)	0.88 (0.47)	1.83 (1.02)	0.84* (0.39)	2.22 (1.96)	0.40 (0.70)
S-SQ	1.13 (0.95)	0.17 (0.69)	-0.10 (0.87)	0.21 (0.66)	1.01 (0.80)	-0.94 (0.68)
Supreme Court	2.33* (0.80)	2.28* (0.80)	2.36* (0.81)	2.31* (0.80)	2.31* (0.80)	2.31* (0.81)
Months Open	-0.03 (0.02)	-0.03 (0.02)	-0.03 (0.02)	-0.03 (0.02)	-0.03 (0.02)	-0.03 (0.02)
First Open	0.38 (0.26)	0.33 (0.28)	0.31 (0.28)	0.34 (0.28)	0.41 (0.28)	0.32 (0.28)
Approval	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)
Second Term	-0.25 (0.23)	-0.08 (0.23)	-0.04 (0.24)	-0.17 (0.25)	-0.17 (0.26)	-0.04 (0.24)
Time Congress	-0.03 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)
Time President	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
<i>N</i>	461	461	461	461	461	461
AIC	577.0	584.0	583.8	582.6	583.9	583.4
BIC	622.5	629.5	629.3	628.1	629.4	628.9
log <i>L</i>	-277.5	-281.0	-280.9	-280.3	-281.0	-280.7
Random Effects						
Intercept (Std. Dev.):	0.00	0.28	0.40	0.32	0.31	0.38

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Table 4.3: These are the results of the hierarchical logistic regression models using elite distance measured with each of 6 measures of Senate ideology. The dependent variable measures whether the nominee served as a federal judge prior to nomination. The columns correspond to the ideology for different pivotal members of the Senate. From left to right the pivotal members are: the median member, the median of the majority party, the judiciary committee median, the judiciary committee chair, the filibuster pivot, and the blue slip Senator.

These results largely support the predictions from the theoretical model. First, promotions to the Supreme Court are more likely than promotions to the Courts of Appeals. This result is consistent with the results of the theoretical model, as well as general knowledge about appointments. When the president is unconstrained, promotions to the Supreme Court are 392.2% more likely than to circuit courts (from a predicted probability of promotion of 0.107 for circuit court nominations to 0.577 for Supreme Court nominations). When the president is semi-constrained, promotions are 158.2% more likely (from 0.317 to 0.840)

to the Supreme Court and 119.6% (from 0.391 to 0.878) more likely when the president is fully-constrained.<sup>28</sup>

Second, for the most part, when the president is further away from the Senate, or when he is fully constrained by the Senate, he is more likely to promote. This result is consistent with the expectations from the theoretical model. Because judges with previous experience are considered better qualified, if the president chooses to promote within the judiciary, he likely gains concessions from the Senate with regard to ideology. What is particularly interesting from these results is the differences between the different Senate ideologies. The results for the judiciary committee chair and the median of the Senate are statistically significant and positive in both the constraint and the distance models,<sup>29</sup> the results for the filibuster pivot, the judiciary committee median, and the blue slip senator's ideology are not significant in either the constraint or distance models, and the ideology for the median of the majority party is significant in the constraint model, but not the distance model.

The ideology results reveal an interesting underlying dynamic to judicial appointments. Different pivotal players seem to matter for different parts of the appointment process. While the blue slip senator plays a vital role in the appointment process, the presence of a blue slip senator does not affect the likelihood that the president will fill a vacancy through promotion. This is likely because the president has some leeway when it comes to appointments to higher courts. There is no blue slip process for the Supreme Court, and for circuit courts, the blue slip process relies on the senators in the state from which the judge is selected. While some seats are associated with particular states, there is more flexibility on the president's part to potentially avoid a Senator who might submit a blue slip by selecting a judge from a different state in the circuit (which has been built into the blue slip score). As a result, the presence of a blue slip senator need not affect the type of judge chosen. Additionally,

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<sup>28</sup>The substantive effects given are determined from the model using the median member's ideology. All other variables are set at their means.

<sup>29</sup>The constraint result is not robust to using the measure without senior judges. The distance result is robust to this measure.

while the filibuster pivot is a vital part of congressional action, there is no evidence that the filibuster pivot matters for promotion decisions. This might suggest that the likelihood of a filibuster does not differ for a promoted judge versus a new judge. This is consistent with a wide range of congressional literature that suggests members of Congress behave differently on procedural matters than they do on final passage votes (Ansolabehere, Snyder and Stewart, 2001; Cox and Poole, 2002; Froman and Ripley, 1965; Rohde, 1991; Theriault, 2008; Turner and Schneier, 1970). While the increased qualifications make Senators more likely to approve the nominee, it might not make them more likely to change the procedural hurdles that stand in the way of confirmation.

These results are consistent with the president's promotion decisions being made with respect to getting the nomination to and passing a final confirmation vote. As the judiciary committee chair, who can affect whether the nomination passes through the committee, and the median Senator, who can affect the ability of the judge to pass the floor vote, move farther from the president, a vacancy is more likely to be filled through promotion. Constraint has a more pronounced substantive effect for circuit courts than the Supreme Court. On the circuit courts, the probability of promotion increases from 0.107 when the president is unconstrained to 0.391 when the president is fully-constrained, an increase of 265%.<sup>30</sup> For the Supreme Court, the probability increases from 0.577 when unconstrained to 0.878 when fully-constrained, an increase of 49%.

## Discussion and Conclusion

In Chapter 2, I created a model that predicted the portfolio of judges who are appointed to the United States Judiciary. This model was the first to consider the interdependence of appointment decisions. In this chapter, I have focused on the predictions from the model

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<sup>30</sup>These predictions are calculated using the model estimated with the median member's ideology. All other variables are set at their means.

that pertain to delay in filling vacancies and promotions. I have empirically tested a number of the predictions from the model that pertain to these two components of the appointment process. I find that both of the model's predictions about promotions are supported in the empirical tests and three out of five of the predictions are supported about delay in filling vacant positions.

Many of these results highlight, as with the results of the theoretical model, the interdependence between vacancies in the judiciary. As the number of vacancies that the president must fill increases, the speed with which he fills each vacancy decreases. A change in the vacancy variable from one standard deviation below to one standard deviation above the mean yields at least a 17% decrease in the hazard rate, or a 17% decrease in the probability that a vacancy will be filled in a given month for district and circuit courts. The effect on the Supreme Court is substantively small, though still statistically significant.

Future research should further explore some of the results from these empirical tests. First, for delay in filling vacant positions, the results differ depending on which Senate ideology is used. Further examination of the role of Senate constraint might give a better sense of why the president delays his nomination decisions. Second, future research should look more at why vacancies persist in the judiciary. The results from these empirical tests seem to indicate that the more vacancies that the president "inherits" the longer he will take to fill vacant positions. Finally, future research should further examine the incidence of promotion within the judiciary. The results of these empirical tests indicate that the president makes these decisions largely to ease the confirmation of the judge. This is consistent with the results of the theoretical model: judges already in the judiciary have higher qualification scores making the Senate pay a higher cost for rejecting them. The results from the empirical models using various pivotal players in the Senate indicate that final confirmation is likely the motivating consideration for promotion decisions. Future research should look more at these decisions, and especially the interplay of different members in the Senate.

# Chapter 5

## Conclusion

This dissertation project presents a new way to think about judicial selection. In this dissertation, I have created a model of appointments to the United States Federal Judiciary that considers appointment decisions to be interdependent rather than independent. In Chapter 3, I modified this model to match four additional selection mechanisms to see how the judges selected under different mechanisms differ. In the final chapter, I presented the results of empirical tests of the model from Chapter 2's testable predictions, which provide support for the predictions from that model.

This interdependent approach allows me to better anticipate the president's behavior with respect to appointments at each level of the judiciary. The results from Chapter 2 suggest that both the composition of the judiciary, the group of individuals who could be appointed, and the elite actors' ideologies help to explain the president's appointment decisions. The model confirms a number of results from previous literature, which has looked separately at each stage of the process and at appointments to each level. This suggests that a single process determines action at multiple stages of the appointment process.

Chapter 3 shows how the judges selected would differ under different selection mechanisms that are utilized in the American states. From these models, it is clear that there are tradeoffs

inherent in any mechanism. Some mechanisms lead to more qualified judges, while other mechanisms yield more favorable vacancy rates. What this chapter shows is that the type of mechanism dictates the judges that are selected.

The final chapter, Chapter 4, empirically tests Chapter 2's testable predictions. The results are, for the most part, consistent with the predictions from the model. This lends some credibility to the results of the model that are untestable. Between the consistency of the results with previous research and the confirmation of the model's testable predictions in this chapter, the approach that I have taken in this project seems justified.

This project approaches judicial selection in a new way, providing a number of new and novel findings, as well as confirming results from previous research. Future research examining judicial selection should consider the interdependency that is inherent in the decisions that are being made in selecting judges.

# Chapter 6

## Appendices

### Appendix A: Model Specification

I programmed the model using Mathematica 8.0 Student Edition. In this technical appendix, I will describe the program and give a complete overview of the parameters involved in the model

#### Choice Set

To begin, I create a talent pool of potential judges and the four district, two circuit, and one supreme court. The model is simulated using talent pools of 500, 1000, and 2000 potential judges. For each potential judge and each judge on a court in the judiciary, certain pieces of information are stored. I randomly assign each judge or potential judge ideology and qualification scores. For each ideology score, I use a random number generator to assign any real number in  $[-1,1]$ . For each qualification score, I randomly assign each judge a score between 1 and 8 for the talent pool, 3-10 for the district court judges, 4-11 for circuit court judges, and 5-12 for supreme court judges, measured in increments of .5. That individual

score is then divided by 12 (the highest possible qualification score a judge can have). For each potential judge, a geographic district is randomly selected from the four district courts.<sup>1</sup>

## Payoff Functions

The payoff functions are programmed using the components described in the development of the model. The weights assigned to each level are 3 for the supreme court, 2 for circuit courts, and 1 for district courts. The weighted costs are the same for both accepting unqualified judges and rejecting qualified judges and are .3, .2, and .1 for supreme, circuit, and district court vacancies respectively. The weighted cost is multiplied by 0 if the judge's qualification score meets the threshold, or the inverse of the qualification score if it is below the threshold, for appointment costs and 0 if the judge's qualification score is below the threshold, or the judge's qualification score if the qualifications are above the threshold, for rejection costs. The threshold levels for the appointment costs are:  $\frac{2}{12}$  for district court vacancies,  $\frac{4}{12}$  for circuit court vacancies, and  $\frac{5}{12}$  for supreme court vacancies. The threshold levels for the rejection costs are:  $\frac{5}{12}$  for district court vacancies,  $\frac{7}{12}$  for circuit court vacancies, and  $\frac{8}{12}$  for supreme court vacancies. Each function has an input for each court ideology, the judge's qualifications, and the respective elite ideology.

## Yearly Matching Process

I run the appointment process for 5000 years, saving the nominations from the latter 3000 simulations. At the start of the year, I evaluate whether it is a Senate and/or presidential election year. The first election occurs in year one. When an election occurs, the president and Senate ideologies are selected. In the first year, ideologies for the president and Senate are randomly selected from any real number in  $[-1,1]$ . For each subsequent year, if it is not an election year, the elite ideologies from the previous year carry over to the current year.

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<sup>1</sup>Because each district is in a particular circuit, the circuit is also assigned this way.



If it is a presidential election year, with probability .25, the president is reelected, and with probability .75, he is replaced by a new president. If the president is reelected, the same presidential ideology will carry over to the next four years. If the president is not reelected, a new president is selected, and a new ideology randomly chosen. If it is a Senate election year, with probability .5, the same party maintains control of the Senate. If this occurs, the ideology of the Senate will move only slightly (to determine the new ideology of the Senate, a random number is selected from  $[-.1, .1]$  and added to the current Senate score). Alternatively, with probability .5, a new ideology is randomly chosen from  $[-1, 1]$ .

Next, vacancies occur at each level of the judiciary through a Poisson process. The parameter for the rate of vacancies is equal to .05 times the number of judges on the court. Once the number of judges who will leave is generated, the judges are randomly selected from the court and removed.

The status quo values are calculated for each court using the rule that is associated with the decision rule for the court. The judges that are between the president and the status quo are compiled into a list for each court. All of the court lists are compiled into one master list and sorted based on their distance from the president.

The algorithm starts. For each judge starting with the closest judge to the president, the algorithm determines each court for which she is eligible and located between the new president and the status quo. A judge is eligible for a court if the court is higher than the court she currently serves on and she lives in the district or circuit in which the court is located. The president's payoff is calculated for assigning the judge to each eligible court. To determine the new court location, the judge is added to the court and the court location is calculated using the rule determined for the court's decision rule. The new court location as well as the location of the other courts, as determined by the ideology given the judges remaining on the court, plus any judges that have already been selected for that court in the matching process, minus judges who have been promoted from the court earlier in the matching process, are run through the president's payoff function. If the judge is already

on a court, the judge is removed from the court they are currently on and both court scores are calculated to enter the president's payoff function. Any individual costs for that judge for that position are also entered into the payoff function along with any costs the president has already paid in the matching process. Next, the Senate's payoff is calculated for both confirming and rejecting the judge to each position.

If appointing the judge to at least one position improves the president's payoff, the Senate's payoffs for accepting and rejecting the judge are compared. Starting with the president's most preferred position for the judge, the position that gives the president the highest payoff, if the Senate has a higher payoff for accepting the nomination, the match is made. If the Senate has a higher payoff for rejecting the judge, the payoffs are compared for appointing the judge to the president's next preferred position. This continues until either the judge is selected to a position or has been considered for all positions. If the judge is selected for a position, the number of vacancies on that court is reduced by 1. If the judge is promoted from another court the number of vacancies on the court from which she is promoted increases by 1. If the president does not want to appoint the judge to any position, the president moves on to the next closest judge and the previous steps repeat. If the Senate would reject any appointment, the cost for blocking the appointment is added to the Senate's continuing costs and the president moves on to the next closest judge and the process repeats. The cost is equal to the maximum cost that the Senate would pay to reject the judge. These steps are repeated until either all judges and potential judges have been considered for all positions or all vacancies are filled.

At the end of the matching algorithm, the newly appointed judges are each placed on their new court. The judge's qualification scores are increased commensurate with the court on which they are placed. If the judge is placed on a district court, her score increases  $\frac{2}{12}$  points, if she is placed on a circuit court, her score increases  $\frac{3}{12}$  if she is a new judge and  $\frac{1}{12}$  if she was promoted from a district court, and if she is placed on the supreme court, her

score increases  $\frac{4}{12}$  if she is a new judge,  $\frac{2}{12}$  if she was a district court judge, and  $\frac{1}{12}$  if she was a circuit court judge.

At the end of each iteration of the model, some judges leave the talent pool and are replaced with new talent. When the new judges enter, their ideologies are centered around the president's ideal point: Their ideologies are drawn from a normal distribution with a mean equal to the president's ideology and a standard deviation of .15. The ideology scores are truncated in  $[-1,1]$ . Both the number of judges leaving and the number entering are drawn from a Poisson distribution. The rate parameter for the judges leaving is larger than the rate parameter for the replenishing set of judges. The number that reenter is truncated to ensure that the talent pool does decrease below nine-tenths its original size.

## **Appendix B: Robustness**

	Med	Med Maj Pty	Fil	Sen Ctsy	Jud Cmte	Jud Cmte Chr
(Intercept)	-3.43*	-2.98*	-3.47*	-2.99*	-3.18*	-3.00*
	(0.27)	(0.24)	(0.27)	(0.23)	(0.25)	(0.24)
Circuit Court	0.26*	0.26	0.26*	0.26*	0.26*	0.26*
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Supreme Court	6.32*	6.39*	6.36*	6.36*	6.37*	6.36*
	(0.98)	(0.98)	(0.97)	(0.97)	(0.98)	(0.97)
Constrained	0.35*	0.14	0.37*	0.15	0.17	0.06
	(0.10)	(0.08)	(0.10)	(0.22)	(0.09)	(0.08)
$ P - SQ $	0.49	-0.16	0.35	-0.18	0.08	-0.19
	(0.27)	(0.19)	(0.25)	(0.20)	(0.25)	(0.19)
Time Congress	0.02*	0.02*	0.02*	0.02*	0.02*	0.02*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Time President	-0.02*	-0.02*	-0.02*	-0.02*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Approval	-0.01*	-0.01*	-0.01*	-0.00	-0.01	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Second Term	0.11	0.13	0.10	0.15	0.13	0.12
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.09)
New President	0.57*	0.57*	0.58*	0.58*	0.57*	0.56*
	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
Inherit Vacancies	-0.02*	-0.02*	-0.02*	-0.02*	-0.02*	-0.02*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Reappointment	2.85*	2.85*	2.85*	2.85*	2.85*	2.85*
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
New Pres×Vac	-0.04	-0.04	-0.04*	-0.04	-0.04	-0.04
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Duration	0.21*	0.21*	0.21*	0.21*	0.21*	0.21*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Duration <sup>2</sup>	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
<i>N</i>	16964	16964	16964	16964	16964	16964
AIC	10561	10571	10561	10573	10570	10573
BIC	10693	10702	10693	10705	10702	10705
log <i>L</i>	-5263	-5268	-5264	-5270	-5268	-5270
Random Effects						
Opportunity (Std. Dev.):	0.64	0.64	0.65	0.65	0.65	0.65
President (Std. Dev.):	0.31	0.32	0.28	0.29	0.29	0.30

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Table 6.1: These are the results of the discrete time duration models using constraint measured with 6 different pivotal Senate ideologies. The dependent variable is measured as whether a nomination opportunity ends in a given month. The columns correspond to the ideology for different pivotal members of the Senate. From left to right the pivotal members are: the median member, the median of the majority party, the filibuster pivot, senatorial courtesy Senators, the judiciary committee median, and the judiciary committee chair.

	Med	Med Maj Pty	Fil	Sen Ctsy	Jud Cmte	Jud Cmte Chr
(Intercept)	-3.72*	-3.00*	-4.43*	-2.98*	-3.03*	-3.01*
	(0.32)	(0.24)	(0.44)	(0.23)	(0.27)	(0.24)
Circuit Court	0.26*	0.26*	0.25*	0.30*	0.26*	0.26*
	(0.08)	(0.08)	(0.08)	(0.09)	(0.08)	(0.08)
Supreme Court	6.46*	6.40*	6.33*	6.44*	6.37*	6.34*
	(0.98)	(0.98)	(0.98)	(0.98)	(0.97)	(0.97)
Elite Distance	1.83*	0.30*	2.46*	0.23	0.15	0.12
	(0.50)	(0.14)	(0.63)	(0.23)	(0.32)	(0.12)
$ P - SQ $	-0.20	-0.20	-0.20	-0.27	-0.22	-0.21
	(0.19)	(0.19)	(0.19)	(0.20)	(0.19)	(0.19)
Time Congress	0.02*	0.02*	0.01*	0.02*	0.02*	0.02*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Time President	-0.01*	-0.02*	-0.01*	-0.02*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Approval	-0.01*	-0.01*	-0.01*	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Second Term	0.04	0.12	0.00	0.15	0.14	0.12
	(0.09)	(0.08)	(0.09)	(0.08)	(0.08)	(0.09)
New President	0.56*	0.56*	0.56*	0.58*	0.57*	0.56*
	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
Inherit Vacancies	-0.02*	-0.02*	-0.02*	-0.02*	-0.02*	-0.02*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Reappointment	2.85*	2.84*	2.84*	2.85*	2.85*	2.85*
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
New Pres $\times$ Vac	-0.04	-0.04	-0.03	-0.04*	-0.04	-0.04
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Duration	0.21*	0.21*	0.21*	0.21*	0.21*	0.21*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Duration <sup>2</sup>	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
$N$	16964	16964	16964	16964	16964	16964
AIC	10561	10570	10558	10573	10574	10573
BIC	10692	10701	10690	10704	10705	10704
$\log L$	-5263	-5268	-5262	-5269	-5270	-5269
Random Effects						
Opportunity (Std. Dev.):	0.66	0.64	0.65	0.65	0.65	0.65
President (Std. Dev.):	0.35	0.32	0.32	0.29	0.29	0.30

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Table 6.2: These are the results of the discrete time duration models using elite distance measured with 6 different pivotal Senate ideologies. The dependent variable is measured as whether a nomination opportunity ends in a given month. The columns correspond to the ideology for different pivotal members of the Senate. From left to right the pivotal members are: the median member, the median of the majority party, the filibuster pivot, senatorial courtesy Senators, the judiciary committee median, and the judiciary committee chair.

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