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The Endgame of Court-Packing

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At several points in history, politicians and commentators have proposed adding seats to the Supreme Court to accomplish partisan ends. We explore the incentives for a political party to initiate “court-packing” and what the Supreme Court would look like in a world where political parties engage in repeated partisan court-packing. To do so, we use an Agent-Based Model and different data sources to calibrate the behaviors of Presidents, Congresses, and Supreme Court justices. We then simulate the future composition of the Court in worlds with and without court-packing. The simulations suggest that a political party with an initial minority of seats on the Court would meaningfully increase the share of years it controls the Court if it were to initiate a cycle of repeated court-packing, especially early on. However, although the number of seats would likely quadruple within 100 years, the simulations suggest there would be only a modest expansion during the likely time horizons of politicians who initiate court-packing. By putting structure on what the Supreme Court would look like in a world with and without court-packing, we hope to generate more careful reflection on the incentives to court-pack and the potential consequences of it.

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1. Introduction

After President Franklin Roosevelt saw parts of his New Deal agenda struck down by the U.S. Supreme Court, he put forward legislation in 1937 that would have effectively increased the number of justices on the Court, thus permitting him the opportunity to shift the Court’s ideological balance. But a series of events—including one justice supposedly changing his views in a key case and another’s timely retirement—caused Roosevelt’s “court-packing” legislation to fail (Ho and Quinn 2010; Glock 2019). For nearly eighty years afterward, court-packing was viewed by both major parties as a political third rail (Epps and Sitaraman 2019).

In 2016, however, activists and commentators on the political left began to call for court-packing to redress norm-breaking that occurred when the Republican-controlled Senate refused to consider President Obama’s nomination of Merrick Garland to the Supreme Court (e.g., Ayres and Witt 2018; Klarman 2018; Tushnet 2019). These calls intensified after Senate Republicans confirmed President Trump’s nominee, Amy Coney Barrett, days before the 2020 election. For instance, Senator Elizabeth Warren called for the Supreme Court to be expanded by four seats (Warren 2021). And after the Supreme Court overturned *Roe v. Wade*, several other high-profile Democratic politicians signaled their support for court-packing (Bolton 2022).

Critics of court-packing argue that it would produce escalating retaliations that would increase the size of the Court to untenable levels (Braver 2020). For example, one commentator worried that court-packing by one party would likely lead to a “tit-for-tat” that would result in “a Court of 87 justices in a few decades” (Mooney 2021). It would be a mistake, however, to dismiss court-packing as an irrational political strategy simply because it would increase the size of the Court. After all, the relevant question for a political party deciding whether to court-pack is not whether it would lead to a cycle of retaliation. The relevant question is instead whether the ideological balance and expected future growth of the size of the Court would be preferable to the balance of the Court in a world without court-packing.

In this article, we explore the incentives for political parties to pack the Supreme Court and the consequences of doing so. In particular, we study a game between two political parties, which we call an Initiating Party and a Responding Party. In the game, the Initiating Party must decide in the first year whether to pack the Court. We then assume that both parties play a tit-for-tat strategy and copy the strategy the other party took on the last move (Axelrod 1980). This means

that if the Initiating Party does not court-pack, the Responding Party also does not court-pack; but if the Initiating Party does court-pack, each party will take turns packing the Court to retake the majority every time it has the opportunity to do so.

We study this game using an Agent-Based Model to simulate the future composition of the Court in counterfactuals without and with court-packing. We begin by simulating the future of the Court in a counterfactual where the Initiating Party does not pack the Court. In the first year of the model, we assume that the Initiating Party controls the presidency and both chambers of Congress but has a 3-6 disadvantage on a nine-member Supreme Court. We then simulate the future of the Court by modeling the outcome of presidential elections, the timing of justices' departures from the Court due to death or retirement, and the appointment of new justices. In our preferred specification with no court-packing, the median outcome is that the Initiating Party obtains a majority of the Court for the first time after 44 years, and it will only control a majority in 29 out of the next 100 years. Because our starting assumptions reflect the state of the world at the beginning of the Biden administration, this suggests that the best estimate of the next time the Supreme Court is expected to have a majority of Democratic-leaning justices is in 2065. As a point of comparison, if we adjust our starting assumptions to reflect a world where either Justice Ginsburg retired before 2015, Merrick Garland was confirmed in 2016, or Justice Amy Comey Barrett was not confirmed in 2020, the median outcome is that Democratic-leaning justices would comprise a majority on the Supreme Court for the first time in 2029 and they would control a majority of the Court for about half of the next century.

We then simulate the future of the Court in a counterfactual where the Initiating Party initiates court-packing. To do so, we assume that the Initiating Party adds four seats the Court to achieve a 7-6 majority and that both parties then court-pack if it is able to under similar political conditions as the initial court-pack. These simulations suggest that, in a world with court-packing, the Initiating Party is likely to control the Court for 55 years out of the next 100, and the size of the Court would grow to 37 seats after 100 years. However, there is considerable variation in what the Court would look like across the simulations. For example, in 90 percent of our simulations, the Initiating Party controls a majority of the Court between 36 and 73 of the next 100 years, and the size of the Court would grow to between 23 and 61 seats after 100 years.

With a picture of what the Court would look like in worlds with and without court-packing, we then study the incentives for a party to initiate court-packing in the first place. We first lay out

a simple conceptual framework for understanding the tradeoffs associated with a party initiating court-packing. In the framework, political parties discount future periods and make the initial court-packing decision based on the benefits from the ideological balance of the Court, the political costs of court packing, and the costs of court-packing stemming from a larger court. Comparing the counterfactuals with and without court-packing, the results suggest that the time-discounted benefits are large and the time-discounted costs from the size of the Court are small. This is because, using reasonable assumptions on the discount rate, parties should overwhelmingly care about the years immediately following court-packing, where packing has a drastic impact on majority control but only a small impact on the size of the court. For example, in the 25 years after initiating court-packing, the Initiating Party would increase its number of years of majority control from 5 to 17 years and would likely produce only a 17-seat Court.

Beyond these primary results, we extend our model to study three additional questions about court-packing. First, we investigate the drivers of the considerable variation in the simulated control of the Court. We find that share of years the Initiating Party controls the presidency explains a substantial amount of the variation in the control of the Court, revealing that a key to controlling the Court is first controlling the presidency. Second, we investigate how court-packing would influence the incentives for justices to strategically retire and the resulting consequences for the size of the Court. We find that court-packing would decrease the incentives for strategic retirement, but we also find that changes in justices' retirement decisions would have little effect on the control or size of the Court. Third, we investigate what the Court would look like if one party initiates court-packing but there is not a cycle of retaliation.² We do so by assuming either just one court-packing event without a response by the other party or one court-packing event by each party. We find that an equilibrium with just one court-packing event without a response by the other party would create a noticeable advantage in control of the Court for the Initiating Party,

² It is important to note that equilibriums other than tit-for-tat responses are possible. For instance, two states recently expanded their Supreme Courts for political reasons: Republicans added seats to the Arizona Supreme Court in 2016 and Republicans added seats to the Georgia Supreme Court in 2016 (*see* Levy 2020). These expansions have not yet produced counter-expansions; however, only a few years have passed in each case. Additionally, some commentators have argued that an expanded Supreme Court could potentially produce a new equilibrium that exists for the foreseeable future (Epps and Sitaraman 2019); in contrast, other commentators have argued expanding the Court is a “nuclear option” that would produce a more dramatic response than tit-for-tat packing (Millhisser 2019). For instance, one instance of court-packing might prompt both sides to return to the bargaining table and agree to structural reforms of the Court to avoid escalation.

but that an equilibrium with one court-packing event by each party would result in roughly even control of the Court for the next 100 years.

In addition to these extensions, we also explore the sensitivity of our results to a range of plausible alternative modeling assumptions. We specifically assess the comparative statistics of our model when using different initial starting conditions, different assumptions about the behaviors of the actors in the model, and different assumptions about how court-packing is likely to occur. Across all our sensitivity analyses, we find that one party having a systematic electoral advantage in presidential elections would have substantial impact on control of the Court over the next century, but that other inputs have little impact on control of the Court. However, our estimates of the future size of the Court are sensitive to certain assumptions. For instance, the size of the Court would grow notably less if we assume that political parties will only court-pack when they enjoy large disadvantages on the Court, and that the size of the Court will grow notably more if we relax the assumption that parties that court-pack will only add as many seats needed to secure a simple majority. Overall, we view the set of numerical comparative statics that we run as evidence that our findings are not largely sensitive to reasonable parameter values.

This article contributes to several academic literatures. Notably, it adds to a recent body of articles that has explored reforms to the Supreme Court in light of the political developments of the last decade (e.g., Epps and Sitaraman 2019; Sprigman 2020; Doerfler and Moyn 2021; Hemel 2021; Chilton et al. 2021). Prior contributions have, however, been primarily based on historical, legal, or normative arguments. Our research helps ground these debates by connecting possible reform strategies to an analytic framework to assess their likely impact. Additionally, this article also contributes to the body of research on the appointment process and behavior of Supreme Court justices (e.g., Bailey and Yoon 2011; Katz and Spitzer 2014; Bustos and Jacobi 2015; Epstein and Posner 2016; Bonica et al. 2017a). For instance, our results illustrate how the incentives to retire strategically may be driven by expectations about the Court's future composition.

This article proceeds as follows. Section 2 provides a background on Supreme Court packing. Section 3 explains our use of ABMs to simulate court-packing. Section 4 presents the results of our simulations while using our preferred assumptions. Section 5 uses our model to explore several additional questions about how court-packing could impact behavior. Section 6 assesses the sensitivity of our results. Section 7 concludes.

2. Background

The U.S. Constitution provides that Supreme Court justices “shall hold their offices during good behaviour” (U.S. Const. art. III, § 1). This is traditionally understood to mean that justices may serve for life unless impeached by the House of Representatives and removed by a two-thirds vote of the Senate (Jackson 2007). But because the Constitution does not specify the *size* of the Supreme Court, Congress determines the number of seats via statute (Bradley and Seigel 2017).

Congress has exercised this ability several times. The First Congress set the size of the Court at six justices.³ In 1801, Congress reduced the Court’s size to five, but the change was repealed before it went into effect. During the nineteenth century, Congress expanded and reduced the Court’s size multiple times with the Court’s largest size being ten justices. The number stabilized at nine justices in 1869 and it has remained there since (Epps and Sitaraman 2019). Most scholars who have examined Congress’s manipulation of the Court’s size in the nineteenth century conclude that Congress was motivated by political or partisan considerations in at least some instances (e.g., Vermeule 2012), but there is some disagreement about the degree to which partisan motivations were responsible for prior changes to the Supreme Court’s size (Braver 2020).

The most well-known instance of attempted court-packing happened in 1937, after the Court had declared some key parts of President Roosevelt’s New Deal economic recovery package unconstitutional (*see generally* Alsop and Catledge 1938; Leuchtenburg 1995; Shesol 2011). Roosevelt proposed a reform that would have authorized new appointments to the Court for each justice or lower-court federal judge who did not retire within six months of turning 70. The provision would have allowed Roosevelt to name as many as six new justices, increasing the Court’s size to 15 members. The proposal generated political backlash and ultimately failed in Congress. The phrase “court-packing” was coined to describe Roosevelt’s proposal, and many legal commentators have even argued that the episode cemented a norm against changing the Court’s size for political reasons (e.g., Pozen 2014; Bradley and Seigel 2017; Grove 2018).⁴

³ For a brief history of the size of the Supreme Court, see Congressional Research Service (2020). A full account of the times the Court was expanded, and the responses to those expansions, is beyond the scope of this paper. But for an extended discussion of that topic, see Braver (2020).

⁴ This view is not universally shared among scholars. For instance, Amar (2012 at 335) argues that the “Constitution was designed precisely to allow Congress to . . . resize a Court that Congress believes has acted improperly.”

In the modern day, after the Republican-controlled Senate refused to consider President Obama’s nominee Merrick Garland to the Supreme Court in 2016, many left-of-center policymakers, pundits (e.g., Faris 2018; Millhiser 2019), and academics (e.g., Ayres and Witt 2018; Klarman 2018; Tushnet 2019) began to argue that Democrats should consider adding seats to the Supreme Court. In response to this new push for court-packing, skeptics have argued that expanding the Supreme Court violates the separation of powers, threatens the rule of law, and raises constitutional concerns (e.g., Yoo and Delahunty 2018; Henderson 2020).

Perhaps the most commonly advanced argument against court-packing is that it would generate a cycle of political reprisal in which each side would “pack back” in order to reclaim the majority (e.g., Seligman 2022; Shapiro 2021). This could in turn lead to an ever-expanding Supreme Court, and one that becomes too functionally unwieldy and symbolically unrecognizable as the nation’s highest court. In what is perhaps the most comprehensive recent academic treatment of court-packing, Braver (2020 at 2474) explained this argument by noting that: “Court-packing’s distinct danger is that it will lead to a tit-for-tat downward spiral of packing, ballooning the Court’s size so large that its legitimacy pops.” Or, as Senator Steve Daines explained the concern:

“Whichever President is in power, if they have the same party in power in the Senate, they could keep escalating the number of Justices. It would go from 11 to 13 to 15 to 17. It would absolutely spin out of control, and our Founding Fathers would be rolling over in their graves” (Congressional Record 2020).

Many of these objections have come from Republicans warning Democrats against court-packing (Hulse 2021), but even commentators sympathetic to Democrats have pointed to the possibility of tit-for-tat retaliation as a reason not to pursue court-packing (Ford 2019). Even if establishing an equilibrium of tit-for-tar court-packing would grow the size of the Court, however, it could still be in a party’s best interest. This is because the value of expanding the Court would not only depend on the expected costs of doing so, but also on the expected gains.

3. Methods

We study court-packing using a method known as an Agent-Based Model (ABM). Section 3.1 introduces ABMs and discusses their use in the social sciences. Section 3.2 explains the intuition of our approach. Section 3.3 describes the specific assumptions we use in our model. Section 3.4 provides illustrations of our simulations.

3.1. Agent-Based Models

ABMs are a class of models used to study systems with interacting agents where properties emerge out of the interactions in a way that does not flow from simply aggregating the behaviors of the individual agents (de Marchi and Page 2014; Heard et al. 2015). The basic idea of ABMs is to study complex systems by identifying a set of relevant agents (e.g., sitting justices, the president, and Congress), defining a set of rules about how those actors will behave (e.g., when justices are likely to retire or how many new seats may be added to the Court), make assumptions about how likely various actions are to occur (e.g., how often Congress will expand the Court), and then run a series of simulations where agents respond to the actions of other agents. ABMs make it possible to estimate outcomes of complex systems that otherwise may be nearly impossible to do so.⁵

The use of ABMs spans across social science disciplines. For instance, Axelrod's (1980) famous research showing that a tit-for-tat strategy was the best solution to the Iterated Prisoner's Dilemma relied on ABMs. In economics, the use of ABMs includes Schelling's (1978) work on the relationship between micro-decisions and macro-behaviors in the context of modeling residential mobility and segregation. ABMs have also been used in economics to study, among other things, market design (Gode and Sunder 1993; Wilson 2002), how political institutions affect individual contributions to public goods (Kollman et al. 1997), systemic risk in housing markets (Geanakoplos et al. 2012), the effects of market power on the matching process (Tesfatsion 2001), social interactions and crime (Glaeser et al. 1996), and the distributional effects of income tax policies (Hemel and Rozema 2021). In political science, topics ABMs have been used to study include voter turnout (Bendor et al. 2003) and the emergence of culture (Axelrod 1997). In public health, topics ABMs have been used to study include the epidemics of communicable diseases like the effects of social distancing policies on patterns of flu outbreaks and COVID (Ferguson et al. 2005) and the effects of taxes and restrictions on advertising to reduce smoking (Trochim et al. 2006). In law, topics ABMs have been used to study include the design of term limits (Chilton et al. 2017; Sundby and Sherry 2019) and tenure standards for law professors (Chilton et al. 2021).

3.2. Overview of Our ABM

Our model begins by assuming that there are two political parties: an *Initiating Party* and

⁵ Importantly, ABMs are a type of simulation, but not all simulations are ABMs. Instead, simulations require agents interacting based on a set of rules on their behavior to be ABMs.

a ***Responding Party***. We assume that the Initiating Party initially controls the presidency and both chambers in Congress and that a majority of Supreme Court justices are ideologically aligned with the Responding Party. Our model then has these two parties play a game where the Initiating Party must first decide whether to expand the Court. The parties could subsequently adopt any number of strategies, but we assume that they adopt the strategy that is most discussed in the context of court-packing: tit-for-tat. A tit-for-tat strategy is one where a party copies the last move by the other party (Axelrod 1980). This means that if the Initiating Party does not court-pack, the Responding Party does not court-pack; but if the Initiating Party does court-pack, then the Responding Party will court-pack when it has the opportunity to do so. We specifically assess what would happen in two situations: (1) the Initiating Party decides against court-packing and (2) the Initiating Party decides to court-pack.

Our model then has a set of baseline behaviors that are relevant in simulations with and without court-packing, and it also has a set of court-packing behaviors that are only relevant in simulations with court-packing. For all simulations, to model the baseline behaviors, we first simulate the results of presidential elections based on historical patterns. We then simulate whether any existing Supreme Court seat will be vacant in a given year due to death or retirement. To do so, for each sitting justice, we use actuarial data on federal judges' life expectancy to simulate the probability that they would die in a given year conditional on their age. We then use calibrated retirement probabilities to simulate whether each justice decides to retire in that year. For any seat that becomes vacant in a given year through death or retirement, we assume that the current president appoints a justice who initially shares her ideology. For justices on the court in a year, we then simulate whether they flip ideologically in that year.

If the Initiating Party decides to court-pack, we assume it initially adds enough seats to obtain a simple majority of the Court. In subsequent years, we assume that court-packing only happens if a *minority* of justices are ideologically aligned with the president. In these years, we then simulate the probability of sufficient support in Congress to add seats to the Court. If court-packing occurs, we assume that the president's party adds exactly enough new seats so that justices aligned with the president's party achieve a majority. This process continues iteratively 100 years

from initial court-packing.⁶ We then repeat this process 3,000 times for our primary results.⁷

3.3. Assumptions of Our ABM

Our model requires making a number of specific assumptions. Below we describe the assumptions we use in our primary specifications, but in Section 6 we report alternative specifications that test the sensitivity of our results to each of these starting assumptions. Table 1 summarizes the assumptions used in the primary and alternative specifications.

3.3.1. Initial Conditions

Initial Imbalance. We assume that the ideological balance of the Court is 3-6 at the start of the simulations, with a minority of justices sharing the ideology of the Initiating Party. We do so because the times that court-packing was particularly prominent in American history have been when the president's party faces a worse than 4-5 ideological disadvantage.

Initial Ages. We assume that the age profile of the initial sitting justices is the same as it was at the start of the Biden Administration (i.e., we assume that the 3 justices that share the ideology of the Initiating Party are the same ages as the three Democratic-appointed justices on the Court in January of 2021).

3.3.2. Assumptions About Baseline Behavior

Presidential Elections. We assume that presidential elections occur every four years as scheduled and that each election is won by either the Initiating Party or the Responding Party. Panel A of Figure 1 reports the historical election data from 1945 to 2020 that we use to model the advantages observed in presidential elections (e.g., Mayhew 2008). First, we model the advantage held by an incumbent president. Based on the historical data, we assume that the probability that an incumbent president wins reelection is 67 percent. Second, we model the advantage held by a party in an open election where the opposing party controlled the presidency for the previous two terms. Consistent with the historical data, we assume that the probability that a party that has been out of power for two terms wins the election is 86 percent.

⁶ The decision to allow the simulations to run for 100 years is admittedly arbitrary, but it is the approach followed by both Baily and Yoon (2011) and Katz and Spitzer (2014).

⁷ Because of the computational time, we run 1,000 simulations for the alternative specifications reported in Section 6. That said, we find evidence that the estimates converged in an economic sense by 1,000 simulations (e.g., taking random samples of 1,000 from our primary specification, the results are the same in an economic sense).

Work Lives of Justices. Following Bailey and Yoon (2011), we assume that all new justices are 55 years old when appointed. We assume that justice mortality rates at a given age correspond to the actual mortality rates of federal judges.⁸ Using data from the Federal Judicial Center, Panel B of Figure 1 reports the mortality rates of federal judges.

Retirement of Justices. To model retirement, we make four assumptions that are consistent with justices' recent retirement practices. First, we assume that justices retire only under presidents who share their ideology.⁹ Second, we assume that a justice's decision to retire is unrelated to whether her party is in the majority or minority on the Court. Third, we assume that a justice's decision to retire is unrelated to the size of the Court. Fourth, we calibrate a retirement curve that is linearly increasing to match an important moment in the data: the actual rate at which justices have died in office (50 percent of justices).¹⁰ Panel C of Figure 1 reports the linear calibrated probability of strategic retirement and reveals we assume no retirement for the first 18 years and then a probability of retirement with a slope of 0.02 after that.¹¹

Ideology of Justices. We assume that justices initially share the ideology of the president who appointed them, but we allow them to flip ideologically over time.¹² To model ideological flipping, we use historical data on the evolution of justices' ideology based on their Martin-Quinn

⁸ Bailey and Yoon (2011) use the mortality rates of the general U.S. population to simulate whether justices are likely to die at a given age. However, Chilton et al. (2021) argue that federal judges are likely to be pre-screened for their health and be of higher-than-average socio-economic status, and thus should be expected to live longer than average Americans. They thus argue that a better comparison for Supreme Court justices' likely mortality is that of other federal judges.

⁹ For justices who flip ideologically, we assume they retire only under a president of the party to which they flipped.

¹⁰ Panel A of Figure A1 in the Appendix shows that this assumption largely matches the retirement probabilities of justices since 1970. Another option would be to relax the linearity assumption and calibrate a non-linear retirement curve. Panel A of Figure A1 in the Appendix reports the status of justices as active, alive but retired, and dead at different ages. It also reports status unclear because the justice is still alive and have not reached a certain age yet. This curve is based on 19 justices who were confirmed since 1970 and who are no longer on the bench. Another option is to use court of appeals judges. Panel B of Figure A1 in the Appendix focuses on retirement of court of appeals judges. The figure shows estimated coefficients of interactions between age indicator variables and an indicator for shared party of judges and current presidents. We experimented with calibrating a non-linear curve in this way, but we decided to invoke the simplifying linearity assumption to model strategic retirement on the Supreme Court for two reasons. First, the retirement probabilities are much higher for court of appeals judges than for Supreme Court justices. Second, court of appeals judges have been much more likely to retire under presidents of the party that did not appoint them compared to Supreme Court justices.

¹¹ For example, the probability of retirement if the president is the same party as a justice is 0.02 in year 19, the probability of retirement if the president is the same party as a justice is 0.04 in year 20, and so on.

¹² There is evidence that most justices drift ideologically over time (e.g., Epstein et al. 2007; Owens and Wedeking 2012; Bonica et al. 2017b), and that some justices even flip from being reliable liberals to reliably conservatives (or vice versa). Additionally, politicians can anticipate that a potential justice may drift ideologically and thus have incentives to appoint justices that are sufficiently extreme that they are unlikely to flip ideologically even if they drift (Bailey and Spitzer 2018).

(“MQ”) scores.¹³ In particular, we define a justice as flipping ideologically if in any year their 5-year moving average MQ score crosses the average MQ score of justices appointed by the opposing-party president. If a justice flips, we assume they do not flip back and that all other actors treat them as being part of their new party’s coalition. We believe this approach is reasonable in part because it counts Justice Stevens as flipping ideology after 17 years on the Court and Justice Souter as flipping ideology after 11 years on the Court. Using this approach, we calibrate a flipping curve to match the percent of justices who have flipped conditional on being on the Court after some number of years. Based on these results, we assume that the probability of justices flipping is 0 for the first 10 years on the court. After their 10th year, we assume a constant probability, which is the slope of the line of best fit of the data.¹⁴ Panel D of Figure 1 reports this calibrated probability of flipping and reveals that the slope is 0.02, meaning that we assume that the probability of a sitting justice flipping ideology in any year after their tenth year is 2 percent.

3.3.2. Assumptions About Court-Packing Behavior

Conditions for Court-Packing. We assume that court-packing occurs only when a minority of justices share the ideology of the sitting president. This means we assume that any subsequent court-packing occurs regardless of the degree of ideological imbalance on the Court (e.g., court-packing is equally likely if the president’s party has a 6-7 minority or a 0-14 minority).

Probability of Court-Packing. Although we assume that court-packing occurs only when a minority of justices are ideologically aligned with the president, we do not assume that this is a sufficient condition. This reflects the reality that the president’s party may not have enough votes in Congress or be willing to expend political capital on court-packing. To model the probability of court-packing, we assume that there is probability p_t of court-packing in year t when the president’s party does not have a majority on the Supreme Court. To estimate p_t , we use historical data on the ideological leanings of the relevant political actors between 1950 and 2020 based on ideal points created by Bailey (2007, 2013). We use this measure of ideology for this exercise because it was specifically designed to place the president, congress, and Supreme Court

¹³ Martin-Quinn scores are a measure of justices’ ideology based on their voting behavior (Martin and Quinn 2022). However, these scores are available only since 1960. We thus base this analysis on the 14 justices that were appointed by 1960 and were no longer active as of 2020 so that we can observe their ideology throughout their entire careers.

¹⁴ Figure A2 in the Appendix graphs this data as well as the linear calibrated probability of ideological flipping.

on a common scale. In particular, we set p_t to match the percentage of Congressional sessions where the president, the median House member, and a filibuster-proof majority of the Senate are ideologically more extreme than the median justice on the Court. (We focus on Congressional sessions because the two years of a session are not independent events.) Figure 2 reports these actors' ideal points and reveals that these conditions are met in 24 percent of years. Because each Congressional session lasts two years, we thus assume $p_t = 0.12$ for a given year.¹⁵

Magnitude of Court-Packing. If court-packing occurs, we assume that the party packing the Court adds just enough new seats to obtain a simple majority on the Court. For example, our model with court-packing assumes that the Initiating Party adds four justices to its 3-6 minority so that it would enjoy a 7-6 majority. This is exactly the goal of a 2021 bill introduced by House and Senate Democrats that aimed to increase the size of the Court by 4 seats under a Biden presidency (Warren 2021; Hulse 2021).

3.4. Illustration of Our ABM

To illustrate how our model works, Figure 3 reports six example simulations in a counterfactual where the Initiating Party decides against court-packing. These example simulations illustrate several noteworthy dynamics of how the composition of the Court could evolve in this equilibrium. First, although every simulation uses the same assumptions, they produce considerably different results. Second, even if the Initiating Party continues to win presidential elections, it may be decades before a majority of the Court shares its ideology. For instance, in the top-left panel, it takes the Initiating Party more than 70 years to acquire a majority of the Court. Third, the Initiating Party may control the majority of the Court for a relatively small share of the next 100 years. For instance, in the middle-left panel, the Initiating Party briefly takes control of the Court after 12 years, but still controls a majority of the Court for only 20 out of the next 100 years. This illustrates that even if Initiating Party is able to net two seats in the short term, it does not necessarily mean that it will subsequently control the Court for an extended period.

Figure 4 reports six example simulations in a counterfactual with court-packing. It reveals several key dynamics of how tit-for-tat court-packing would affect the Court. First, the number

¹⁵ It is worth noting that p_t is set in a way that accounts for the probability that the president's party will control enough seats in Congress to expand the Court. In other words, although we model presidential elections, we do not separately model Congressional elections because they are captured by our method of estimating p_t using Bridge Ideal Points.

of court-packing events varies considerably (from 3 to 7 times in these six simulations). Second, there are often long periods without the addition of new justices. For instance, in the top-left panel, there is a period of more than 50 years without a court-packing event. Third, the number of seats added during court-packing events varies considerably. Many instances of court-packing add only 2 seats, whereas there is a rare court-packing event in the bottom-right simulation where 14 seats are added. Finally, long periods of one-party control typically cause more justices to be added in each court-packing event. This is because those long periods allow the party in control to build up a larger majority given that justices of the other party may die before having an opportunity to strategically retire under a president of their party. This in turn causes the number of justices that the other party must appoint to take a majority to increase, thus leading to larger court-packing events. In the top-left panel, for instance, the Initiating Party added 12 seats after an extended period where the Responding Party controlled the presidency and the Court.

4. Primary Results

This section investigates the consequences of, and incentives to, court-pack. Sections 4.1 and 4.2 report simulations with and without court-packing, and Section 4.3 investigates the incentives to court-pack. Discussions of court-packing focus on three main costs and benefits. First, the party that packs the Court may incur political costs. For instance, voters may be upset at the change in norms and vote differently in the next election. However, this is not something that our simulations allow us to investigate, so we leave studying this outcome to future research. Second, parties benefit from having ideological control of the Court. To explore these benefits, we focus on the number of years out of the next 100 that the Initiating Party controls a majority of the Court, the number of years until the control of the Court switches, and the average size of the majority over the next 100 years. Third, there may be costs associated with having a Court with more than 9 seats. For instance, a larger Court may be less productive or lose legitimacy. To explore this cost, we report the size of the court over the next 100 years. When discussing the results of our simulations, we focus on the median simulation outcome unless we note otherwise.

4.1. Counterfactual Without Court-Packing

Figure 5 reports the results of three sets of simulations that assume the Initiating Party decides against adding seats to the Court. For the simulation results reported in the left column

of Figure 5, we use the Initial Conditions and the Baseline Behavior assumptions from Table 1. For these simulations, Panel A reports the distribution of the number of years out of the next 100 that the Initiating Party is simulated to control a majority of the Court in a counterfactual without court-packing. It reveals that the median outcome is for the Initiating Party to control a majority of the Court in just 33 of the next 100 years. Panel D reports the distribution of the number of years until the Initiating Party controls a majority of the Court for the first time. It reveals that the median outcome is for the Initiating Party to take control of the Court for the first time in 24 years. Panel G reports the average size of the Initiating Party's share of the seats on the Court.¹⁶ It reveals that the median outcome is for the Initiating Party to hold a 5-percentage-point disadvantage on the number of seats on the Court (in a counterfactual without court-packing, this translates into 4 of 9 seats). It is important to note there is considerable variation in these results. For instance, in Panel A, the 10th and 90th percentiles of the simulations suggest that the Initiating Party controls a majority of the Court between 7 and 68 of the next 100 years.

For the simulation results reported in the middle column of Figure 5, we assume that the justices will not flip ideologically. Although our model allows for the possibility that justices may flip ideologically based on historical data on their ideological drift, the increased emphasis on ideologically sorting within the judicial selection process over time could mean that the current justices on the Court are less likely to flip going forward (Bonica and Sen 2021).¹⁷ We believe this is highly plausible, and these results are thus our preferred specification for a counterfactual without court-packing. The results reveal that, without ideological flipping, a party that begins with a 3-6 disadvantage on the Court may exercise very little control of it for the next century: the Initiating Party would control a majority of the Court in 28 of the next 100 years, retake control of the Court for the first time at 44 years, and have an average of a 6 percentage point disadvantage in the number of seats on the Court over the time period. Note that these initial conditions for this simulation reflect the reality of the Supreme Court at the start of the Biden Administration. They therefore suggest that in a counterfactual without court-packing and in the absence of

¹⁶ This is calculated by counting the average share of Initiating Party seats over 100 years, subtracting 0.5 (the share required for a bare majority), and then multiplying by 100. For instance, if the Initiating Party had an average of 3 of 9 seats over 100 years, this value would be -16.7 (e.g., $0.33 - 0.5 = -0.167$).

¹⁷ There is also recent evidence that only a small share of people, including members of the legal profession, shift in ideology over time (e.g., Chilton et al. 2020).

justices flipping ideologically, the next time the majority of justices will be appointed by a Democrat is likely to be around 2065.¹⁸

Finally, the simulation results reported in the right column of Figure 5 investigate a counterfactual where we assume that there is no ideological flipping and the Initiating Party begins at a 4-5 disadvantage rather than a 3-6 disadvantage.¹⁹ This captures a counterfactual in which either Ruth Bader Ginsburg had strategically retired during the Obama Administration, Merrick Garland's nomination in an election year was successful, or Amy Comey Barrett's nomination in an election year was unsuccessful. The results reveal that starting with one more seat would have profound differences on the expected control of the Court: the Initiating Party would control a majority of the Court in 47 of the next 100 years, retake control of the Court for the first time at 8 years, and they would neither have an advantage or a disadvantage in the number of seats on the Court over this time period. To the extent that these assumptions establish a reasonable counterfactual at the start of the Biden administration, comparing the results in the middle column and right column of Figure 5 suggests that the Democratic Party's failure either to confirm Garland or to retain Ginsburg's seat reduced its likely control of the Court by about 19 years out of the next 100 and increased the number of years until the party takes control again by 36 years.

4.2. Counterfactual with Court-Packing

Figure 6 reports the complete results of our simulations that assume the Initiating Party adds seats to the Court at the start of the simulations. Panel A reveals that the Initiating Party would control a majority of seats on the Court for 55 of the next 100 years. Panel B reveals that this slight advantage is driven by the Initiating Party controlling the Court for 12 years after initiating court-packing, but that both parties will subsequently pack and re-pack in a way that would create roughly even control. Panel C reveals that the median outcome is for the average size of the majority to be exactly even. Like with Figure 5, however, there is considerable variation

¹⁸ The intuition for why it is likely to take over 40 years for a majority of Court to have been appointed by Democratic presidents is that, given the current practice of strategic retirements, gaining seats requires unexpected vacancies. Since unplanned openings of seats held by liberal justices can also occur during Republican presidencies, a net gain of two unplanned openings for Democrats is unlikely to happen in the near future.

¹⁹ Figure A3 in the Appendix reports results where we assume that there is no court-packing and the Initiating Party starts at a 4-5 disadvantage, but that there is the possibility of ideological flipping. When assuming that ideological flipping will occur going forward at historical rates, the Democratic party's failure to either confirm Garland or retain Ginsburg's seat reduced the party's expected control of the Court by 13 years out of the next 100, and increased the number of years until the party is expected to take control again by 17 years.

in these results. For instance, in Panel A, the 10th and 90th percentile results suggest that the Initiating Party controls a majority of the Court between 36 and 73 of the next 100 years.

In addition to impacting the control of the Court, court-packing also necessarily increases the Court's size. Panel D thus also reports the estimated size of the Court. The results reveal that the Court's size may grow more slowly than some commentators have suggested. For instance, the median outcome is that there would be 17 justices after 25 years, 23 justices after 50 years, and 37 justices after 100 years. However, there is considerable variation in the size of the Court. For instance, the 10th percentile result is that the number of seats on the Supreme Court is 13 in 25 years, increases to 15 justices after 50 years, and increases to 23 justices after 100 years. On the other end of the distribution, the 90th percentile result is that the number of seats on the Supreme Court increases to 23 justices in 25 years, 33 justices in 50 years, and 61 justices in 100 years.

4.3. Incentives for Initial Court-Packing

The above simulations presented evidence of what the Court would look like in two equilibriums where political parties play a tit-for-tat strategy over court-packing. The next question is which equilibrium is more likely to occur. To shed light on this question, we use backward induction to study the incentives for a party to deviate by initiating court-packing.

To formalize the tradeoffs involved, let the utility of a party be a function of the costs and benefits described above. To help illustrate the tradeoffs involved, suppose that the Initiating Party is deciding to cooperate in the first period knowing that both political parties adopt a tit-for-tat strategy where they commit in the first period to copying their opponent's last move in subsequent periods. In particular, denoting c as an indicator for whether the Initiating Party cooperates in the first period, suppose the party chooses whether to initiate court-packing by maximizing discounted utility according to Equation (1).

$$Max_c \sum_t (1 - \beta^{t-1})(y_t - \gamma c - \kappa_t(c)) \quad (1)$$

where y_t is the payoffs from controlling the Court, γ is the political costs of packing, κ_t is the costs from a larger court, and β is the discount rate. Equation (1) simplifies court-packing to a one-shot game where the Initiating Party is deciding to initiate court-packing, but it does not include all factors that influence a party's decision to initiate court-packing. For instance, individual

politicians that must vote for court-packing may worry that they will enjoy relatively few of the benefits while risking substantial personal costs, and these agency problems could explain why a party chooses against court-packing.

With this simplified framework in mind, we use the simulation results to shed light on some of the important tradeoffs involved in a political party's decision to initiate court-packing. Specifically, we explore the payoff stemming from controlling the Court. We thus first assess the benefits of court-packing to the Initiating Party. Figure 7 reports two versions of y_t over time for simulations with and without court-packing: the share of the simulations where the Initiating Party controls the majority of the Court (Panel A) and the average size of the Initiating Party majority (Panel B).²⁰ It reveals that if the Initiating Party decides against court-packing, in the short term it is very unlikely to control the Court and will likely have a large minority of seats, and in the long term it still has a slight disadvantage in control and in number of seats held. In contrast, if the Initiating Party decides to court-pack, it holds a slight majority of the Court in the short term, but over time the control of the Court is balanced. The results in Figure 7 thus suggest a large benefit to court-packing, especially in the short term. For example, in the first 25 years, the Initiating Party would increase the number of years of majority control from 19 to 68 percent.

We next investigate how the timing of when the costs and benefits accrue affects incentives to initiate court-packing. Importantly, the results reported thus far have revealed that the costs and benefits are not spread equally over time. For instance, the results in Panel D of Figure 6 revealed that the costs of a larger Court likely occur in later years, and the results in Figure 7 revealed that the benefits from increased control of the Court are likely to occur in earlier years. But as Equation (1) suggests, the costs and benefits are not equally important in all years. Instead, political parties may place greater weight on the short term and discount future years. For example, politicians may care only about the costs and benefits that accrue during their likely political careers. Given this reality, we investigate how discounting impacts the expected benefit from controlling the Court. For each simulation, we compute $\sum_{t=1}^{100}(1 - \beta^{t-1})y_t$ after initial court-packing for discount rates from 0 to 20 percent. To be able to compare results across different discount rates, we divide the estimate by the maximum discounted share of years so that the

²⁰ In Figures 7 and 8, the simulations without court-packing assume ideological flipping is possible. Figures A4 and A5 in the Appendix recreate these figures under the assumption that there is no ideological flipping.

discounted share of years is on a 100 scale for all discount rates.

Figure 8 reports the results for the two measures of y_t (controlling a majority and the average size of the majority). Panels A and B report the discounted measures separately by whether court-packing occurs, and Panels C and D report the difference between the discounted measures with and without court-packing.²¹ Figure 8 reveals several noteworthy findings. First, at any discount rate, the median difference in discounted years of control is always positive. Second, although the median difference is always positive, the observed variation suggests that it is possible for the benefit of control of the Court to be zero or even net negative with discount rates in the 0 to 5 percent range. This means that although the likely outcome is that court-packing benefits the Initiating Party in terms of control, it is possible that there could be no meaningful benefit to court-packing. Third, the discount rate is a major driver of the incentives to court-pack, and there is a large range of possible benefits even at different reasonable discount rates. For instance, the OMB historical guidance for federal agencies doing benefit-cost analysis is to use a discount rate of both 3 percent and 7 percent, and OMB has recently proposed using a rate of 1.7 percent.²² Using these suggested discount rates, court-packing increases the discounted share of years of control of the Court by 30 years with a discount rate of 1.7 percent, 38 years with a discount rate of 3 percent, and 60 years with a discount rate of 7 percent. Moreover, court-packing increases the discounted size of the majority by 17 percentage points with a discount rate of 1.7 percent, 20 percentage points with a discount rate of 3 percent, and 28 percentage points with a discount rate of 7 percent. As one way to interpret these results, recall that the Initiating Party would hold control of the Court for 12 years before the Responding Party first regains a majority if it court-packs (see Panel B of Figure 6).²³ With a discount rate of 3 percent, for example, the first 12 years make up 34 percent of all the potential benefits from court-packing, and the potential benefits from the first 12 years are worth 2 times the aggregate potential benefits from years 50 to 100.

Finally, one important caveat to Equation (1) is that it models the potential costs and

²¹ To estimate the distribution of differences, we run simulations where we randomly pair simulations without court-packing with simulations with court-packing. For each pair, we then compute the discounted difference in each year and then sum over these discounted years to compute the simulation level discounted outcome. We do this 1,000 times for each of the 5,000 simulations and recover the distribution of the difference.

²² See OMB Circular A-4.

²³ To put a 12-year time horizon in context, the Pew Research Center studies the “12 year turnover rate” for members of Congress because that length of time serves as a reasonable proxy for a Congressional career (see Desilver 2022).

benefits for a risk-neutral political party. This is why our discussion thus far has primarily focused on the median outcome. However, political parties may be risk-averse. If so, the wide range of outcomes across simulations is also relevant for the incentives to court-pack. A risk-averse political party may be concerned that it could incur political costs associated with packing the Court but then either not meaningfully increase its control of the Court or have the size of the Court spiral out of control. In 10 percent of simulations where the Initiating Party court-packs, for instance, it gains control of the Court for only 36 years out of the next 100 (Panel A of Figure 6) and the Court has 61 members after 100 years (Panel D of Figure 6). The risks of these less likely, but possible, outcomes occurring may loom large in the eyes of a risk-averse party deciding whether to court-pack. Moreover, these costs and benefits could be correlated. For instance, it may be the case that counterfactuals where the Initiating Party controls the Court for relatively few years are those where the Court grows the largest. To explore this, Figure A6 in the Appendix reports within-simulation comparisons of the control of the Court and its size. It reveals a u-curve relationship, where the Court grows the largest in situations where control of the Court over the next 100 years is more evenly split. This may be partially reassuring to parties deciding to court-pack, because in situations where they control the Court for relatively few years, at least the Court will grow more modestly in size.

5. Extensions

We next explore three additional questions raised by our primary results: what explains the variation in the control of the Court; how court-packing would influence the incentives for justices to strategically retire; and what would occur if the parties did not adopt tit-for-tat strategies.

5.1. Drivers of the Variation in Control of the Court

Our simulations provide counterfactuals of what would happen without and with court-packing. However, the results in Figures 5 and 6 suggest that there is considerable variation in the likely control of the Court in both of these equilibriums. Given that the likely future control of the Court should be of interest to parties considering any kind of Court reform, a natural question

is what drives this variation.²⁴ We thus explore the extent to which three realizations of our assumptions about baseline behavior in individual simulations are possible drivers of the variation in control of the Court: the extent to which the different parties control presidency, the extent to which justices of different parties strategically retire, and the extent to which justices of different parties flip ideologically.²⁵

Figure 9 reports results exploring how differences across simulations in these three drivers are associated with differences in expected years of control of the Court. The results in the left column of Figure 9 explores these results for our simulations without court-packing (i.e., they explore the variation in Panel A of Figure 5).²⁶ If court-packing does not occur, we find that party control of the presidency explains 13 percent of the variation, a party’s advantage in strategic retirements explains 11 percent of the variation, and a party’s advantage in ideological flipping explains 1 percent of variation. The results in the right column of Figure 9 explore these results for our simulations with court-packing (i.e., they explore the variation in Panel A of Figure 6). If court-packing does not occur, we find that party control of the presidency explains 24 percent of variation, a party’s advantage in strategic retirements explains 4 percent of variation, and a party’s advantage in ideological flipping explains 1 percent of variation. What this analysis suggests is that, across simulations, a key to controlling the Court is first controlling the presidency. In a world without court-packing, the extent to which a party has an advantage in seats becoming

²⁴ Panel D of Figure 6 reveals there is also considerable variation in the size of the Court after 100 years. We do not investigate the drivers of the size of the Court because it is mechanically determined by the number of court-packing events and the number of seats added in each court packing event. In particular, the size of the Court 100 years after court-packing is initiated can be represented by Equation 2.

$$Seats_s = \sum_{i=1}^{I_s} \Delta_{is} \tag{2}$$

for the i -th court-pack out of I_s total court-packs for simulation s . $Seats_s$ is the number of seats after 100 years, and Δ_{is} is the number of seats added in the i -th court-pack in simulation s .

²⁵ Our model includes four assumptions about baseline behavior, but two of them—work lives of justices and strategic retirement—generate a single driver that we explore—whether justices in fact strategically retire. This is because there are only two ways for justices to leave the Court in our model: retire or die. As a result, the difference in strategic retirement between parties that we explore is perfectly colinear with the differences in death while on the bench between parties. In other words, our results on strategic retirement in Figure 10 could alternatively be interpreted as 1 minus the difference between deaths in office between parties, thus capturing the effect of differences in death while on the bench.

²⁶ Figure A7 in the Appendix reports this analysis for the other two sets of simulations without court-packing reported in Figure 5. These other sets of simulations did not allow for ideological flipping, so this analysis only explores the effect that differences in controlling the presidency and strategic retirement by party explain the variation in control of the Court.

vacant is also an important driver of the variation in the control of the Court.

5.2. Strategic Retirement

Our simulations assume that justices continue to strategically retire at their historical rate in a counterfactual with court-packing. But as a theoretical matter, it is hard to predict how an equilibrium of tit-for-tat court-packing would affect strategic retirement. To explore this issue, we study how often strategic retirements are “undone” by subsequent court-packing events. We define a strategic retirement as undone if it is followed by a court-packing event within some number of years. We do so because strategic retirements are intended to provide an advantage to the justice’s party, but subsequent court-packing could neutralize this intended advantage, thus eliminating the incentive to strategically retire.

Figure 10 reports strategic retirements that are undone by future court-packing in the years after retirement. The probability that a strategic retirement is undone within 5 years is 24 percent and within 10 years is 44 percent. If justices’ decisions to strategically retire perfectly tracked the probability of the strategic retirement being undone within 10 years, they would strategically retire roughly half as often as they currently do. Although we caution against this direct interpretation of these results, they nonetheless suggest that the incentives to strategically retire lessen substantially in a counterfactual with court-packing.

5.3. Equilibriums Other than Tit-for-Tat

Our simulations assume that the two parties adopt a tit-for-tat strategy. In the court-packing context, if one political party initially court-packs, then the other party will court-pack in similar situations. Although this is one possible equilibrium, other equilibriums are possible. We study two alternative equilibriums. First, we study a counterfactual where the Initiating Party court-packs and there is no subsequent court-packing. This equilibrium could be reached, for example, if the initial court-packing was viewed as a politically justifiable reaction to previous events, such that the Responding Party decided it was in its best interest to not court-pack. Second, we study a counterfactual where one party court-packs and then the other party packs a single time, but no packing occurs thereafter. This equilibrium could be reached, for example, if the Initiating Party wanted to re-set the balance of the Court, but it did not find it prudent to court-pack a third time after the Responding Party had the opportunity to expand the court once.

Figure 11 reports the results of simulations assuming these alternative equilibriums. Most

notably, Panel A reveals that a single court-packing event not only offsets the gap in deficit in control (compare with Panel A of Figure 5), but it would also create a gap in the opposite direction of 61 years. In contrast, Panel B reveals that two court-packing events results in the two parties controlling the Court for roughly the same number of years. Next, Panels C and D reveal that it would take 19 years for the Responding Party to regain a majority of the Court if it never packed in response to the initiating Party and 12 years if there are two court-packing events. Finally, Panel E reveals that the Initiating Party has a small, positive average majority on the Court if there is only one court-packing event; in contrast, Panel F reveals no gap in the average number of seats controlled by each party if there are two court-packing events. The results in Figure 11 suggest that the one court-packing event equilibrium would give an advantage to the Initiating Party; but if the two-court-packing-event equilibrium could be reached, it may be a possible way to reset the balance of the Supreme Court after events that radically altered its control.

6. Numerical Comparative Statics

This section reports numerical comparative statics of the inputs to our model. To do so, we use the assumptions listed in Table 1 for the primary specification, but we change a single parameter at a time to that listed as alternative specifications. Figure 12 reports letter-value plots that visualize the distributions of these results for the four outcomes from Figure 6.

6.1. Changing Initial Conditions

Initial Imbalance. Our primary specification assumed that the Initiating Party had a 3-6 disadvantage at the Court. However, we also simulate court-packing when the initial imbalance is 4-5, 2-7, and 1-8.²⁷ When using these alternative assumptions, we find that the initial imbalance has little impact on the control of the Court. This is because we assume that the initial court-pack gives the Initiating Party a simple majority and that the Responding Party will respond as soon as it can by taking back a simple majority. That said, the initial imbalance does impact the simulated size of the Court. For instance, a 4-5 initial imbalance results in the size of the Court growing less than under a 3-6 initial imbalance because fewer seats would be required to retake control of the

²⁷ Our initial conditions assume a 3-6 imbalance with the same initial ages of the justices as of 2021. To adjust these starting conditions for these simulations, for the 4-5 simulation, we assume a random Republican justice is a Democratic appointee; for the 2-7 simulation, we assume a random Democratic justice is a Republican appointee; and for the 1-8, simulation we assume two random Democratic justice are Republican appointees.

Court, but a 2-7 or 1-8 initial imbalance results in the size of the Court growing larger than under a 3-6 initial imbalance because more seats would be required to retake control of the Court.

Initial Ages. Our primary specification started with the age profile of the justices at the start of the Biden administration. However, the age profile of justices could influence the initial decision to court-pack because likely future control of the Court depends, in part, on the relative ages of the justices appointed by each party. To understand how much the age of justices at initial court-packing influences the results, we vary the age profile of justices in the first year of the model. We do so by compiling a set of all ages at the justice-year level since 1945 and then randomly assigning justices' ages from that set in the first year of court-packing. We find that using a random draw of initial ages has minimal impact on the simulated control or size of the Court.

6.2. Changing Assumptions About Baseline Behavior

Presidential Elections. Our primary specification used historical data to model the possibility of advantages in presidential elections. We assess the sensitivity of our results to those assumptions in two ways. First, following Bailey and Yoon (2011) and Katz and Spitzer (2014), we assume that there are no electoral advantages such that each party has a 50 percent chance of winning each election. We find that using this alternative assumption produces results that are similar to our primary simulations. Second, we assess the impact of one party having a systematic electoral advantage. We specifically assume that either the Initiating Party or the Responding Party has a 60 percent chance of winning every presidential election. We find that the Initiating Party having a systematic electoral advantage results in it controlling the Court for roughly 10 more years out of 100 and that the Responding Party having a systematic electoral advantage results in the Initiating Party controlling the Court for roughly 11 fewer years out of 100. However, either party having a systematic electoral advantage does not result in a meaningfully larger Court.

Work Lives of Justices. Our primary specification assumed that justices are appointed at 55 years old and that they have the same mortality rates as federal judges. But it is possible that justices will either be appointed younger or live longer.²⁸ Mechanically, younger appointments and longer lifespans are the same for our purposes: either mechanism, whether working independently

²⁸ It is also possible that justices will be appointed later or live shorter lives. We believe that these two scenarios are sufficiently unlikely, however, that we do not assess the sensitivity of our results to them.

or in concert, results in justices serving for more years.²⁹ We thus assess the sensitivity of our results to more years on the Court. To do so, we assume that the justices are appointed 10 years younger than in our primary analysis. We find that longer work lives would not noticeably change the simulated control or size of the Court.

Retirement of Justices. Our primary specification assumed that justices strategically retired at a rate calibrated to reflect the share of justices that die in office. However, Section 5.2 illustrated how court-packing could alter the incentives to strategically retire. We thus consider four alternative probabilities of strategic retirement: (1) no justices retire so all justices die in office; (2) a low level of strategic retirement such that twice as many justices die in office;³⁰ (3) a high level of strategic retirement such that only half as many justices die in office;³¹ and (4) justices always retire after 18 years on the Court if there is a president who shares their ideology.³² Perhaps surprisingly, all of these alternative rates of strategic retirement produce similar estimates.

Although this is perhaps puzzling to understand at first, the intuition is made clear in Figure A8 in the Appendix. As the results in these figures show, depending on the levels of strategic retirement, there are forces affecting the growth of Supreme Court seats that counterbalance each other. Importantly, high levels of strategic retirement ensure high levels of partisan continuity of these seats, which means that a president can reclaim the majority by adding just a few seats to the Court. This results in the need for more court-packing events, but with fewer seats needed to flip the majority each time. In contrast, when a higher share of justices dies on the bench, it is possible for one party to build up a larger majority on the Court. When this occurs, future court-packing events require adding more justices for the president's party to reclaim the majority. Taken together, these offsetting effects result in the level of strategic retirement having a negligible impact on the simulated control and size of the Court.

²⁹ This assumes that appointing younger justices does not alter the probability of strategic retirement. But it is possible that justices appointed younger could strategically retire at higher rates such that they do not serve for longer periods.

³⁰ As described in Section 3.3, we calibrated our rate of strategic retirement to have an equilibrium rate of death in office of 50 percent. For the low level of strategic retirement simulation, we calibrated our rate of retirement to have an equilibrium rate of death in office of 75 percent.

³¹ For the high level of strategic retirement simulation, we calibrated the rate of retirement to have an equilibrium rate of death in office of 25 percent.

³² For these simulations, justices can still die in office if simulated to do so before they are able to strategically retire.

Ideology of Justices. Our primary specification assumed that justices may flip ideologically. But it is possible that justices may share the ideological leanings of the presidents that appointed them in all years going forward. This may be realistic given the growing emphasis on ideological screening during the appointment process (Bonica and Sen 2021). We assess the sensitivity of the results under the assumption that justices do not flip ideologically over time. We find that a lack of ideological flipping would not noticeably change the simulated control or size of the Court. This is perhaps counter-intuitive given how much ideological flipping mattered in a counterfactual without court-packing (compare Panels A and B of Figure 5). This is because, in a counterfactual without court-packing, the only way for the Initiating Party to gain control of the Court is through replacement or ideological flipping, and that eliminating one of those channels thus can have profound effects. But in a counterfactual with court-packing, the occasional justice flipping ideologically has relatively little influence on the control or size of the Court.

6.2. Changing Assumptions About Court-Packing Behavior

Conditions for Court-Packing. Our primary specification assumed that the probability of court-packing occurring is equally likely in all years that the president’s party had appointed a minority of justices on the Court. However, the probability of court-packing may depend on the size of the president’s party disadvantage at the Court. For example, a president may be more likely to engage in court-packing when their party is at a 4-9 disadvantage than when it is at a 6-7 disadvantage. We model this possibility in three ways. First, we assume that court-packing occurs only if one third or less of the Court is controlled by one party (i.e., this is equivalent to a 3-6 imbalance on a nine-member Court).³³ Second, we assume that the likelihood of court-packing increases with the imbalance of the Court, capturing the possibility that the benefits in terms of the majority of the Court increases in the imbalance.³⁴ Third, we assume that the likelihood of court-packing decreases with the imbalance of the Court, capturing the possibility that the political

³³ For instance, this assumes there will be court-packing for a 13-member court only if one party does not have at least 5 justices ($3/9 * 13 = 4.3$). In terms of game theory, this may be reasonable because a tit-for-tat strategy means copying your opponent’s move, and an opponent’s move could be defined as court-packing when there is a 3-6 or greater disadvantage.

³⁴ In particular, we still assume that $p_i = 0.12$ if the imbalance is equivalent to between a 5-4 and 6-3 majority. But if the imbalance is greater than 50 percent but less than an equivalent to a 5-4 majority, we assume p_i is cut in half ($p_i = 0.06$); if the imbalance is greater than an equivalent to a 6-3 majority, we assume p_i is double ($p_i = 0.24$).

costs may increase in the number of seats added.³⁵ For each of these alternative specifications, the Initiating Party is simulated to have control of the Court for more years and the expansion of the Supreme Court is simulated to dramatically decrease. This is because requiring greater imbalance for court-packing to occur reduces the number of court-packs, which in turn increases the years of control for the Initiating Party and reduces Court expansion.

Probability of Court-Packing. Our primary specification bases the probability of court-packing on the share of Congresses where the president, the median House member, and a filibuster-proof majority of the Senate have an ideology more extreme than the median justice on the Court. That is, we initially assume that $p_t = 0.12$. However, given that there is no precedent for parties engaging in tit-for-tat court-packing of the Supreme Court, history offers little guidance on the most appropriate value of p_t . We thus assess the sensitivity of our results to two alternative probabilities of court-packing. First, we assume that the filibuster will not be maintained in the Senate, such that the probability of court-packing is based on the share of years where the president, the median House member, and the median Senator have an ideology more extreme than the median justice. This means that we assume $p_t = 0.19$. Second, we assume that the political costs of court-packing may be sufficiently high such that political parties do not pursue packing as often. To operationalize this, we cut the probability from the main specification in half, and we thus assume that $p_t = 0.06$. These results thus reveal that the assumed probability of court-packing has minimal impact on the simulated control of the Court. However, using it does dramatically affect the size of the Supreme Court. For instance, the median estimate of 37 seats after 100 years would increase to 53 seats with the higher probability of court-packing and decrease to 23 seats with the lower probability. These results suggest that predictions about the likely changes to the Court in a world of tit-for-tat court-packing meaningfully depend on how often parties will have the political capital and willingness to add seats to the Court.

Magnitude of Court-Packing. Our primary specification assumed that a party expanding the Court would add only as many seats as needed to secure a majority. However, it is possible that a party would add more seats than is strictly necessary. We thus explore three alternative

³⁵ In particular, we flip the probabilities from the prior robustness check: if the imbalance is greater than 50 percent but less than an equivalent to a 5-4 majority, we assume $p_t = 0.24$; if the imbalance is equivalent to between a 5-4 and 6-3 majority, we assume that $p_t = 0.12$, if the imbalance is greater than an equivalent to a 6-3 majority, we assume $p_t = 0.06$.

strategies. First, we assume that presidents add one more seat than is necessary for a majority. Second, we assume that presidents add two more seats than is necessary for a majority. Third, we assume court-packing initially starts at $N+1$, but then parties escalate by increasing the number of seats added on subsequent court-packs. In particular, we assume that the second court-pack is $N+2$, the third court-pack is $N+3$, and so on.³⁶ When using these alternative assumptions, we find the magnitude of court-packing has little impact on the simulated control of the Court, but it has a dramatic impact on the size of the Court. For instance, $N+1$ court-packing results in a median estimate of the Court having 46 justices after 100 years; $N+2$ court-packing results in a median estimate of the Court having 59 justices after 100 years; and an escalating magnitude of court-packing results in a median estimate of the Court having 53 justices after 100 years.

7. Conclusion

This article has explored the incentives for political parties to pack the Supreme Court and estimated the consequences if they do so. Overall, our findings suggest that a party with a minority of justices on the Court may potentially enjoy large benefits due to increased control of the Court if it initiates a cycle of court-packing.

Before concluding, three additional caveats to our analysis are worth highlighting. First, court-packing has benefits but also likely costs. However, our simulations do not allow us to study the political costs of court-packing, and we also cannot directly study the costs stemming from the size of the Court. For instance, having a very large Supreme Court would require the political branches of government to spend more time vetting and confirming justices. This may be impracticable, or it may simply require norms of Supreme Court confirmation to change to be more similar to confirmation processes for other federal courts. Given that a full exploration of these possible costs is beyond the scope of this article, we simply offer a picture of how the composition of the Court may evolve in a world with court-packing, but we cannot fully answer the question of whether a political party should and would attempt to expand the Supreme Court.

Second, although court-packing has been seen as a third rail in national politics in the United States, there have been recent expansions of state high courts in the U.S. (Levy 2020) and

³⁶ The type of escalation we model is between parties, not subsequent packing by the same party. For example, if the Initiating Party adds seats at the start of the simulations and loses their majority in ten years because of deaths in office, we would not expect it to “escalate” by adding one seat beyond what it needs for the majority.

of the apex courts in other countries (Kosař and Šípulova 2023). A complete analysis of those episodes is beyond the scope of this article, but any movements to expand the U.S. Supreme Court should, of course, try to learn from their experiences.

Finally, court-packing is not the only possible Court reform that a party in the minority could choose. For instance, a party with a minority of justices could instead try to impose term limits on the justices (Chilton et al. 2021), reshape the structure of the Court (Epps and Sitaram 2019), or try to alter the power of the Court (Doerfler and Moyn 2021). We take no position on whether court-packing would be preferable to these alternative reform options (or preferable to no reform at all). However, our analysis is relevant to any of these options because our simulations of a world without court-packing can also be understood as simply the best estimates of what would happen in the United States in a world without any Court reform.

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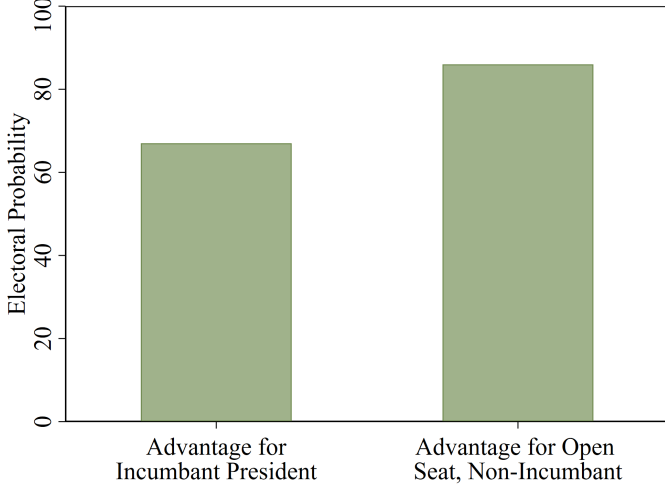
Tables and Figures

Table 1: Assumptions of the Agent Based Model

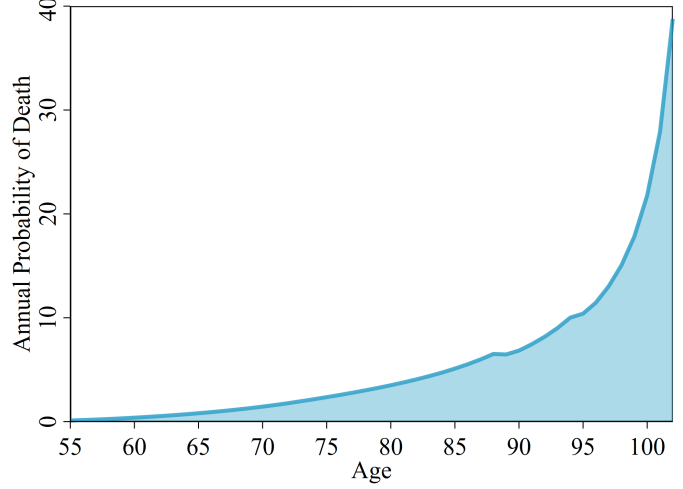
	Primary Specification	Alternative Specifications
A. Initial Conditions		
Initial Imbalance	3-6	4-5, 2-7, 1-8
Initial Ages of Justices	Same as Justices in 2021	Random
B. Baseline Behavior		
Presidential Elections	67-33 Incumbent Advantage & 86-14 Advantage for Open Seat	50-50 All Elections, 60-40 All Elections, 40-60 All Elections
Work Life of Justices	55 at appointment & Judges' Mortality Rates	45 at appointment & Judges' Mortality Rates
Retirement of Justices	2% at Year 18+	None, Less, More, Always
Ideology of Justices	2% Flip at Year 10+	No Flipping
C. Court-Packing Behavior		
Conditions for Court-Packing	Any Minority on Court	3-6 Equivalent, Increases with Imbalance
Probability of Court-Packing	0.12	0.06, 0.18
Magnitude of Court-Packing	Gap	Gap + 1, Gap + 2, Escalating

Figure 1: **Calibrating Baseline Behaviors**

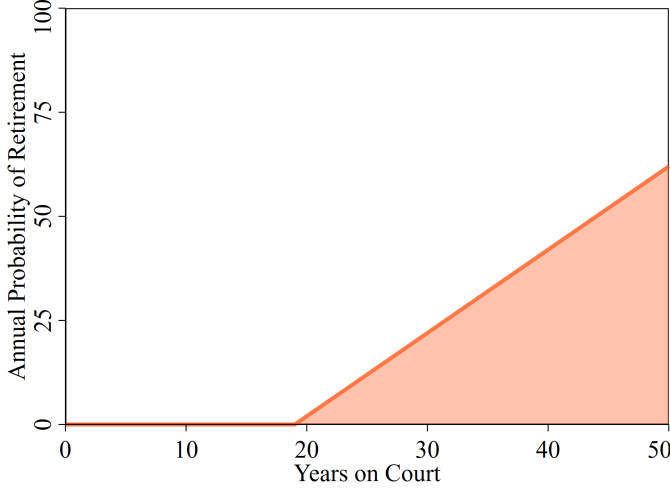
A. Presidential Elections



B. Mortality Rate



C. Strategic Retirement

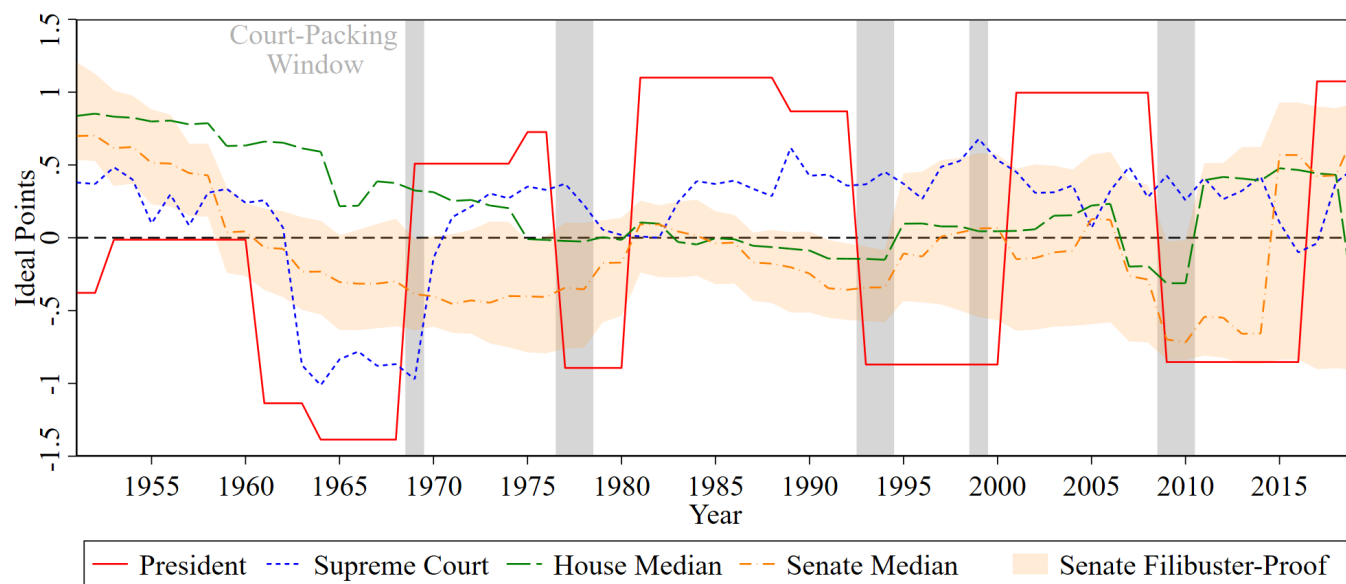


D. Ideological Flipping



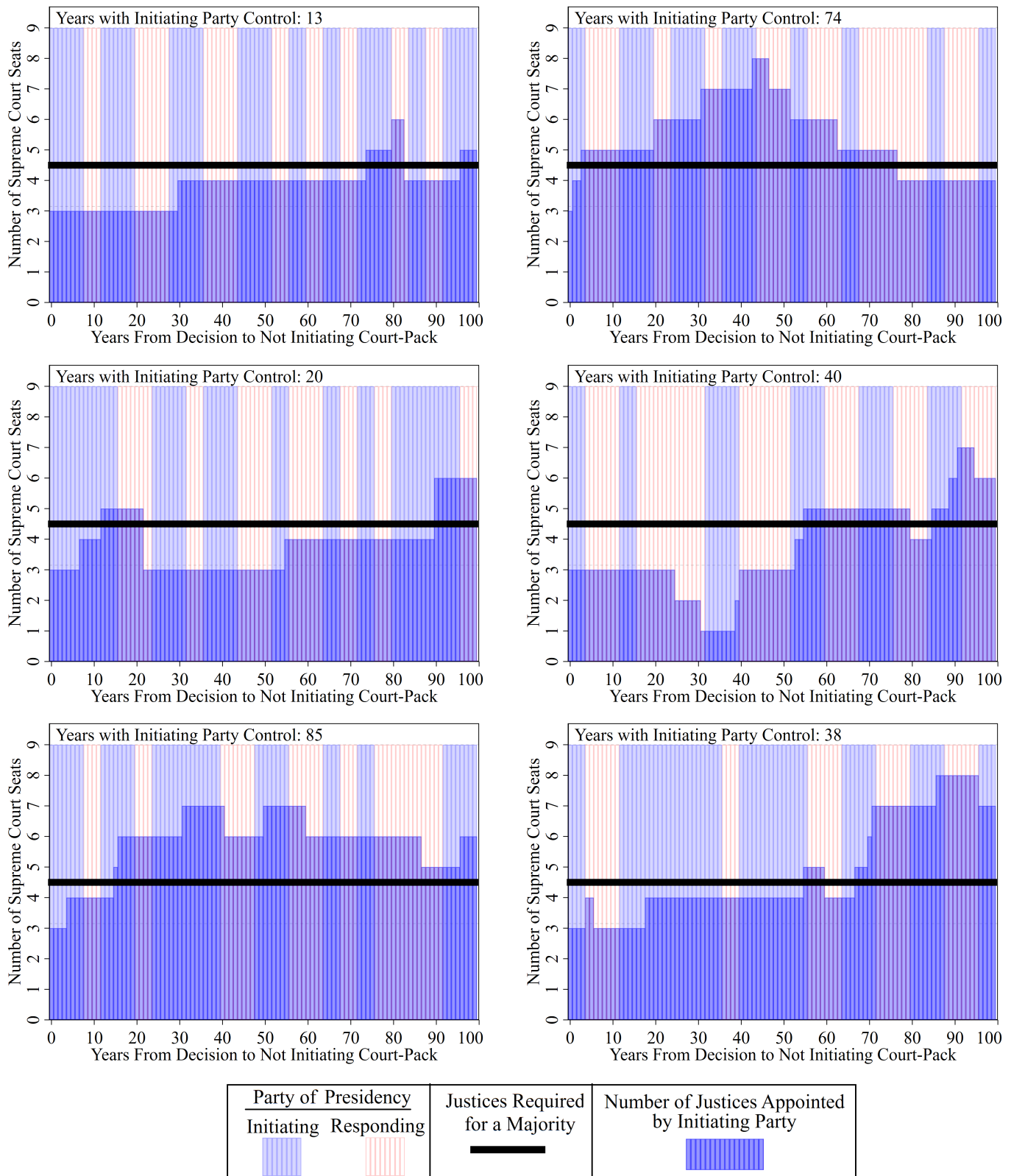
Note: This figure reports the historical data we use to calibrate our assumptions on baseline behaviors. Panel A uses election data from 1945 to 2020 to calculate the share of elections won by an incumbent, and the share of elections won by non-incumbents in open seat elections when the incumbent’s party has controlled the presidency for two-terms. Panel B uses data on the mortality of rates of federal judges to calibrate a mortality curve by age. Panel C uses data on the rate at which Supreme Court justices die in office to calibrate a retirement curve such that 50 percent of justices are estimated to die in office. Panel D uses data on Supreme Court justices’ Martin-Quinn to calibrate a curve of justices’ likelihood of flipping ideologically.

Figure 2: **Estimating Historical Probability of Court-Packing**



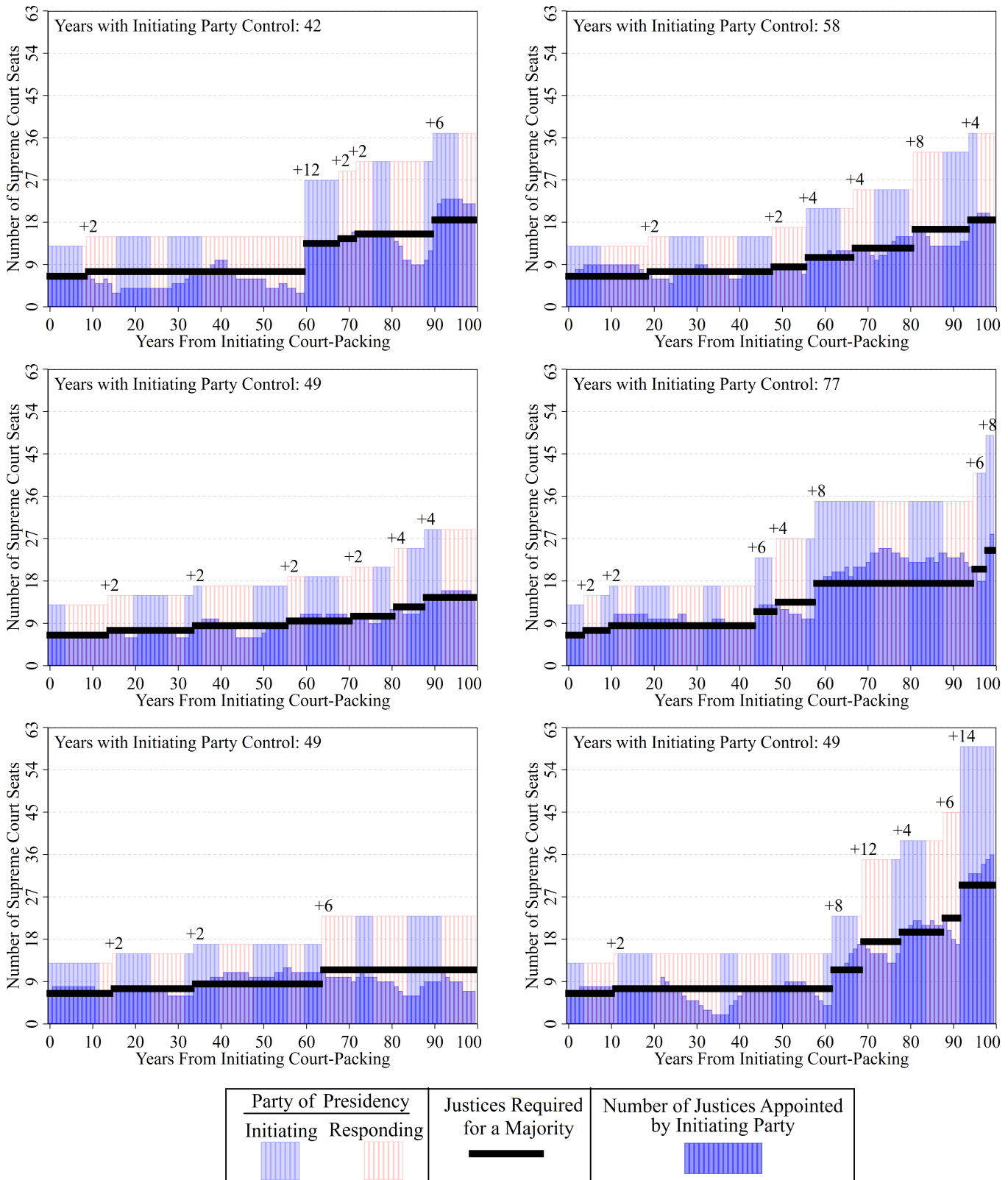
Note: This figure reports the ideology of each group in each year between 1950 and 2020. The figure specifically reports Ideal Points created by Bailey (2007, 2013) to provide a measure of political ideology on a common scale for various political actors. On this scale, more negative numbers are associated with increasing liberal political ideology and more positive numbers are associated with increasing conservative political ideology. The shaded gray regions identify possible historical court-packing windows, which we define as years where the president, the median House member, and a filibuster-proof majority of the Senate have an ideology more extreme than the median justice on the Supreme Court.

Figure 3: Example Simulations without Court-Packing



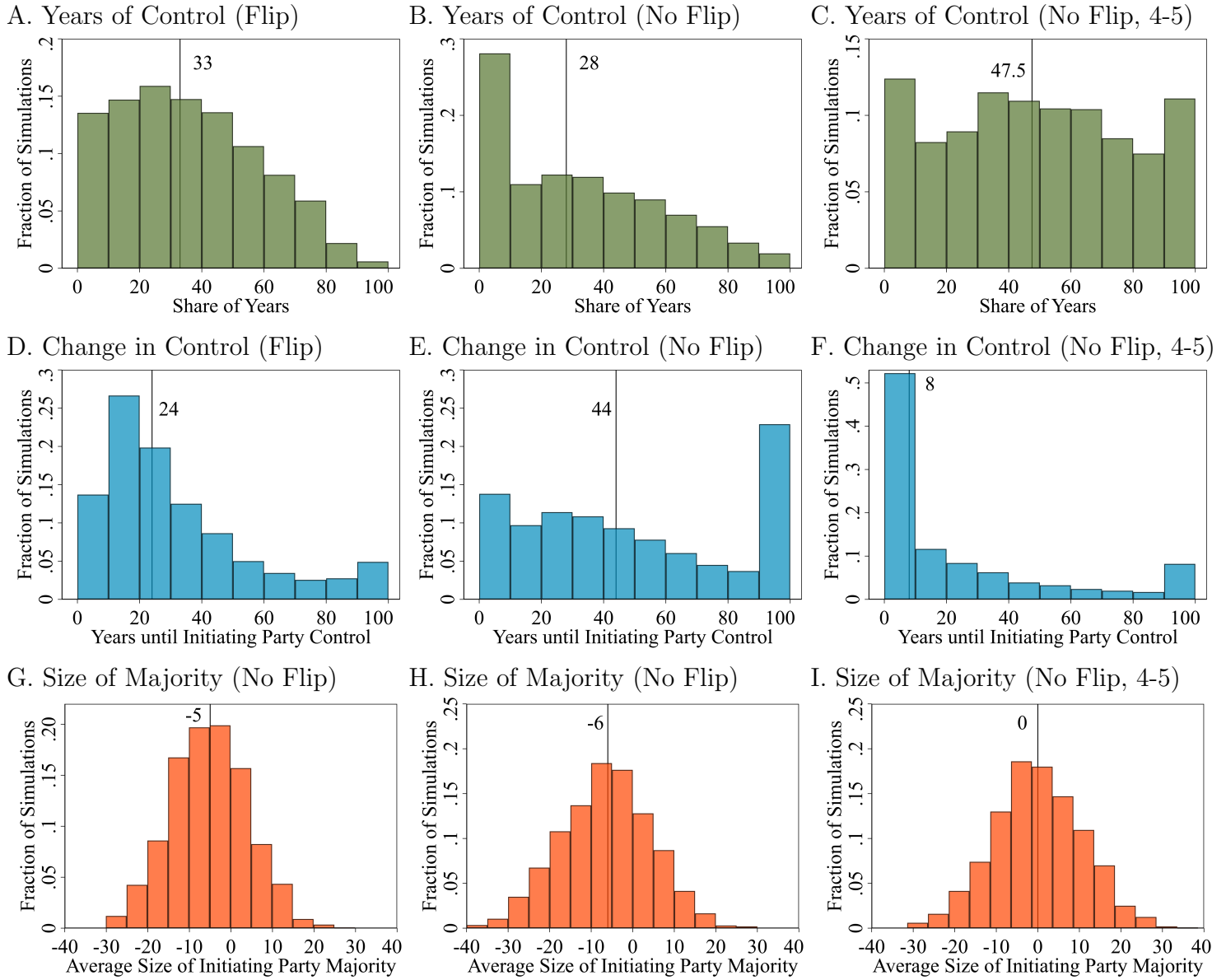
Note: This figure reports the results of six example simulations of our AMB without court-packing. The shading from the top to the bottom represents the party of the sitting president, which can be used to determine which party expanded the Court. The darker blue shading in the lower portion of the figures represents the number of justices that share the ideology of the Initiating Party. The black line represents the number of justices required for a majority. For instance, a majority of the Court shares the ideology of the Initiating Party when the darker blue shaded region at the bottom of the figure is above the black line.

Figure 4: Example Simulations with Court-Packing



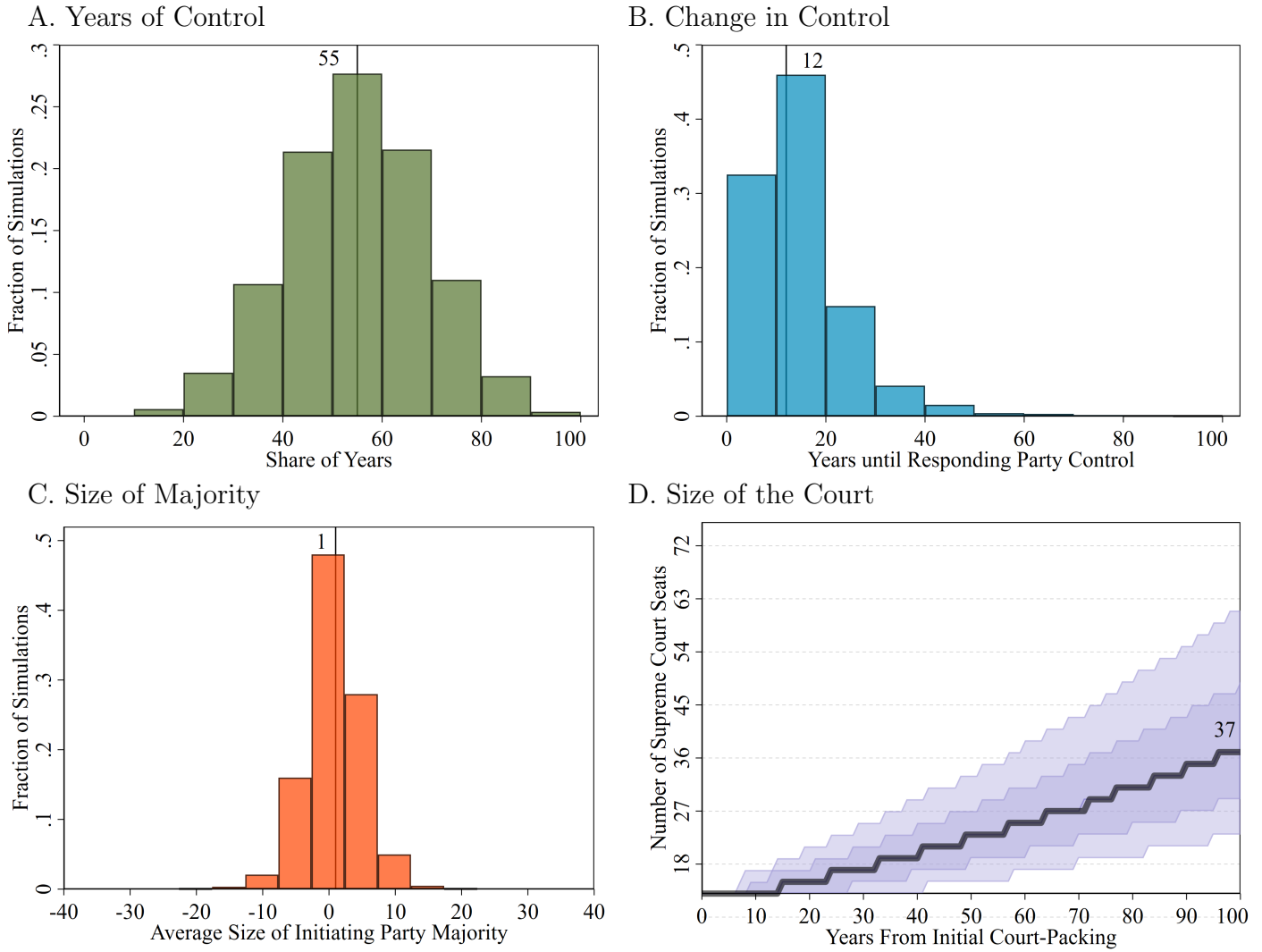
Note: This figure reports the results of six example simulations of our AMB with court-packing. The height of the bars is the total number of justices on the Court in the years after the initial court-packing. The “+N” represents how many justices were added during each instance of court-packing. The shading from the top to the bottom represents the party of the sitting president, which can be used to determine which party expanded the Court. The darker blue shading in the lower portion of the figures represents the number of justices that share the ideology of the Initiating Party. The black line represents the number of justices required for a majority. For instance, a majority of the Court shares the ideology of the Initiating Party when the darker blue shaded region at the bottom of the figure is above the black line.

Figure 5: **Simulation Results without Court-Packing**



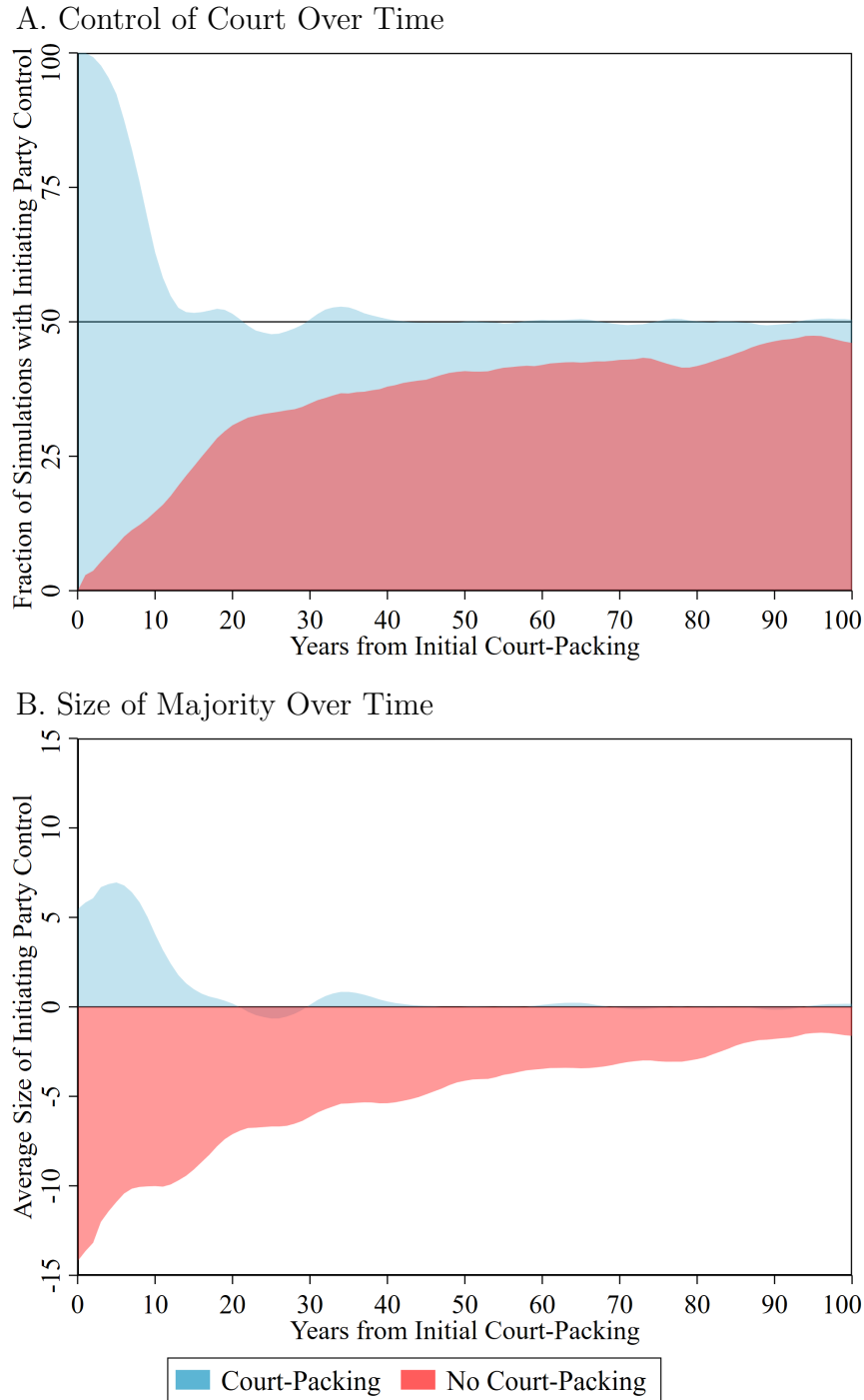
Note: This figure reports the results of three sets of simulations without court-packing. The panels in the left column use the assumptions listed in Panels A and B of Table 1. The panels in the middle column assume that the justices do not flip ideologically. The panels in the right column assume that the justices do not flip ideologically and the Initiating Party started with a 4-5 disadvantage in Supreme Court seats. The panels in the top row report the distribution from our simulations of the number of years the Initiating Party is expected to control the Court out of the next 100 years. The panels in the middle row report the distribution from our simulations of the number of years until the Initiating Party is expected to first take control of the Court. The panels in the bottom row report the distribution from our simulations of average size of the Initiating Party's majority of seats on the Court.

Figure 6: **Simulation Results with Court-Packing**



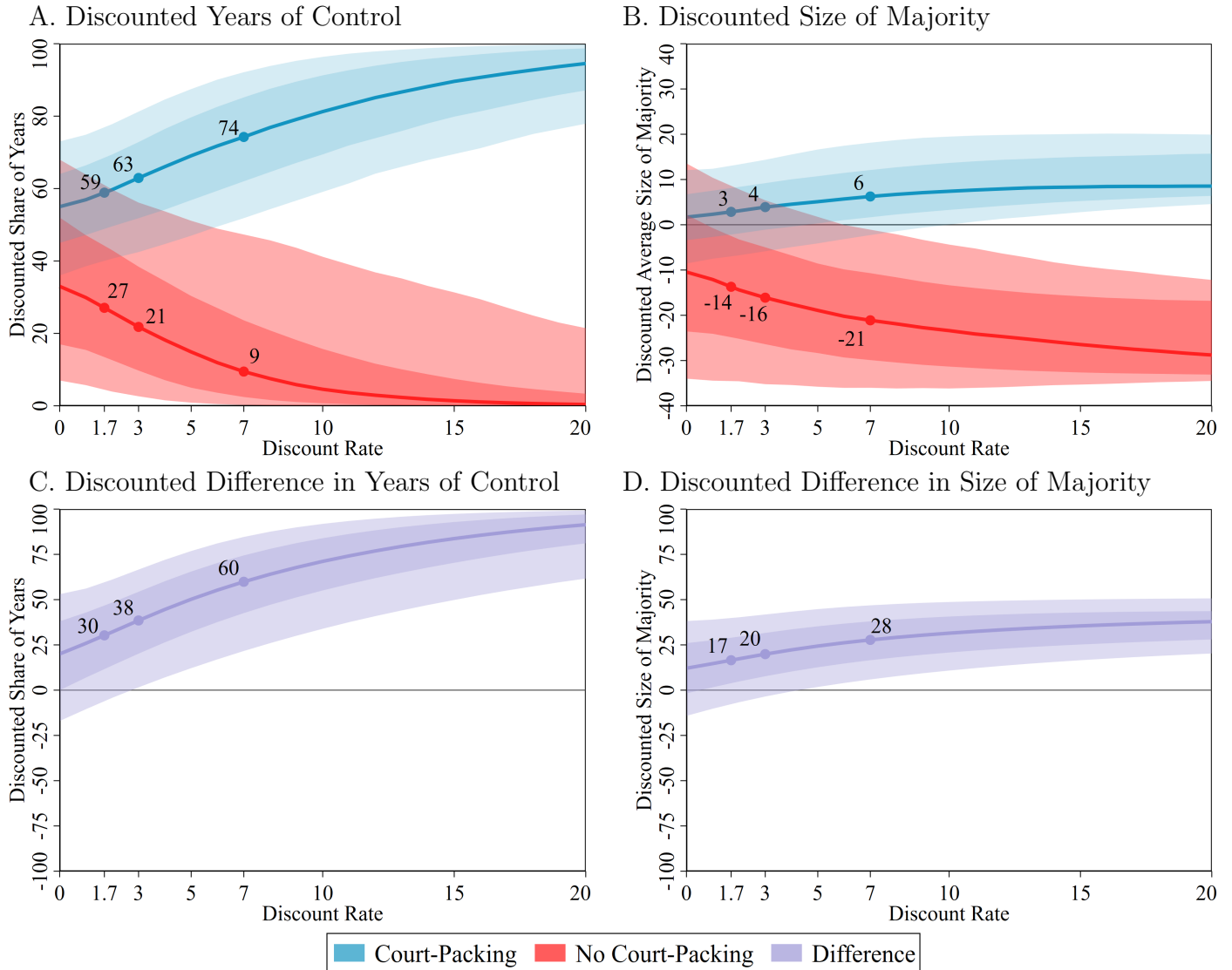
Note: This figure reports the results of simulations with court-packing. These simulations use the “Primary Specification” assumptions listed in Panels A, B, and C of Table 1. Panel A reports the distribution from our simulations of the number of years the Initiating Party is expected to control the Supreme Court out of the next 100 years. Panel B reports the distribution from our simulations of the number of years until the Initiating Party is expected to first take control of the Supreme Court. Panel C reports the distribution from our simulations of average size of the Initiating Party’s majority of seats on the Supreme Court. Panel D reports the distribution of estimated size of the Supreme Court. The solid line is the outcome for the median simulation, the dark shaded area represents 50 percent of the simulations (25th to 75th percentiles), and the light shaded area represents 90 percent of the simulations (10th to 90th percentiles).

Figure 7: **Incentives for Initiating Court-Packing: Control of the Court**



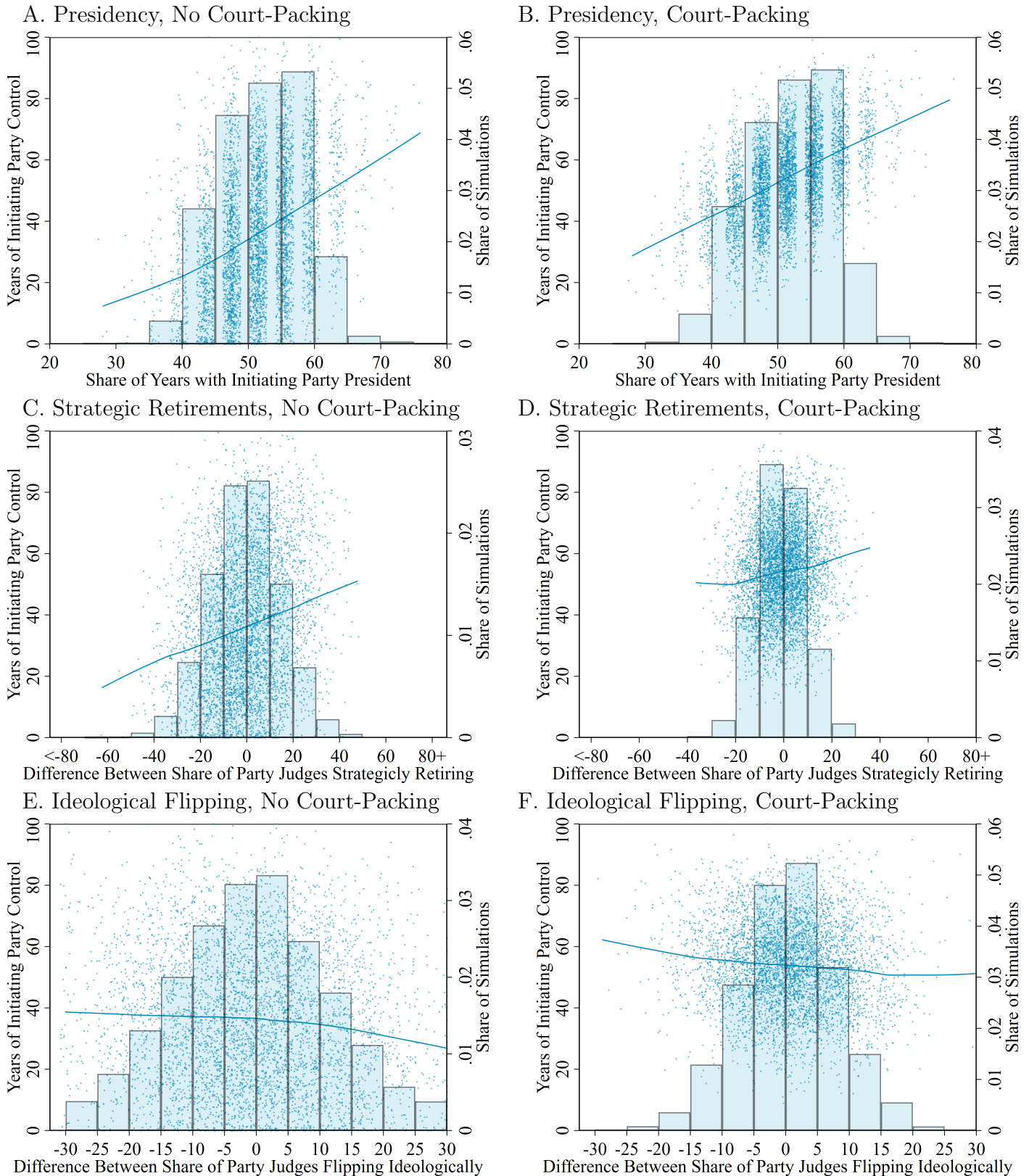
Note: This figure reports the control of the Court over time from simulations with and without court-packing. Panel A reports the share of simulations in each year where a majority of justices were either appointed by the Initiating Party or have flipped ideologically to side with the Initiating Party. Panel B Reports the average size of the Initiating Party’s share of Supreme Court seats over time.

Figure 8: **Incentives for Initiating Court-Packing: Discount Rate**



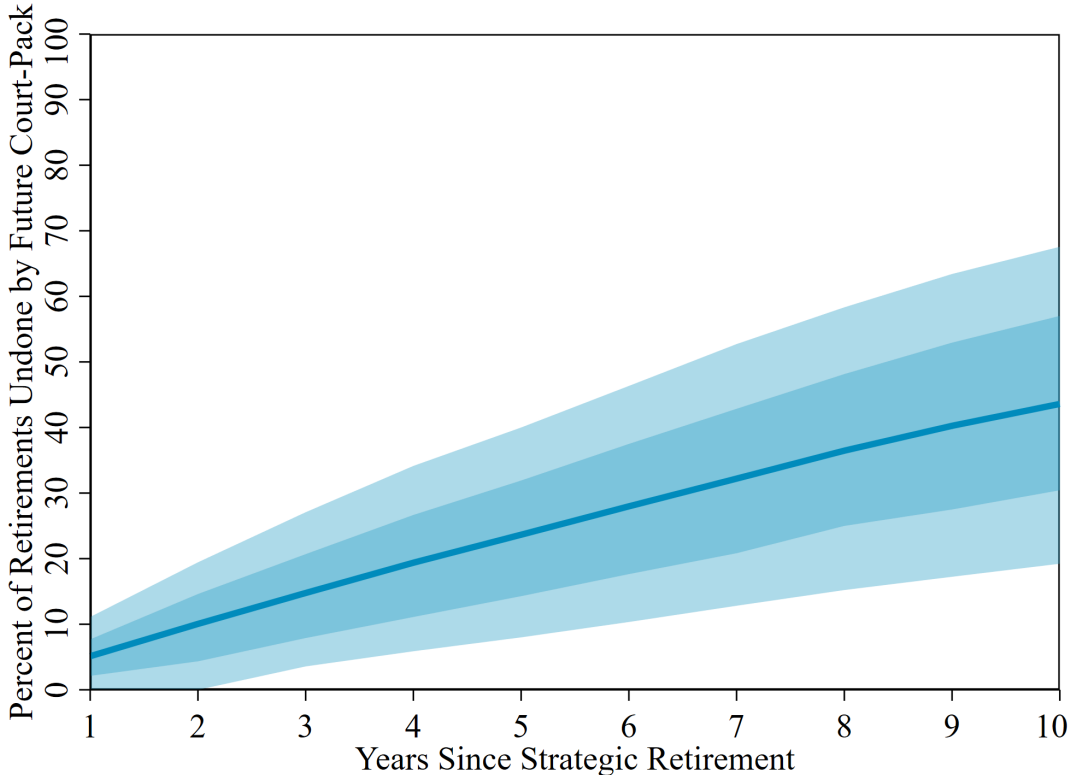
Note: This figure reports the discounted control of the Court. The x-axis refers to different discount rates, and the y-axis refers to the expected total control for the Initiating Party when applying that discount rate. To be able to compare results across different discount rates, we divide the estimate by the maximum discounted share of years so that the discounted share of years is on a 100 scale for all discount rates. Using this approach, we then estimate the 10th, 25th, 50th, 75th, and 90th percentiles separately for the simulations with and without court-packing. Panels A and B report the discounted measures separately by whether court-packing occurs for the years of control and average size of the majority, and Panels C and D report the difference between the discounted measures with and without court-packing for the years of control and average size of the majority. Following OMB recommendations on discount rates, the panels all report the values at discount rates of 1.7, 3, and 7 percent.

Figure 9: Drivers of the Variation in Control of the Court



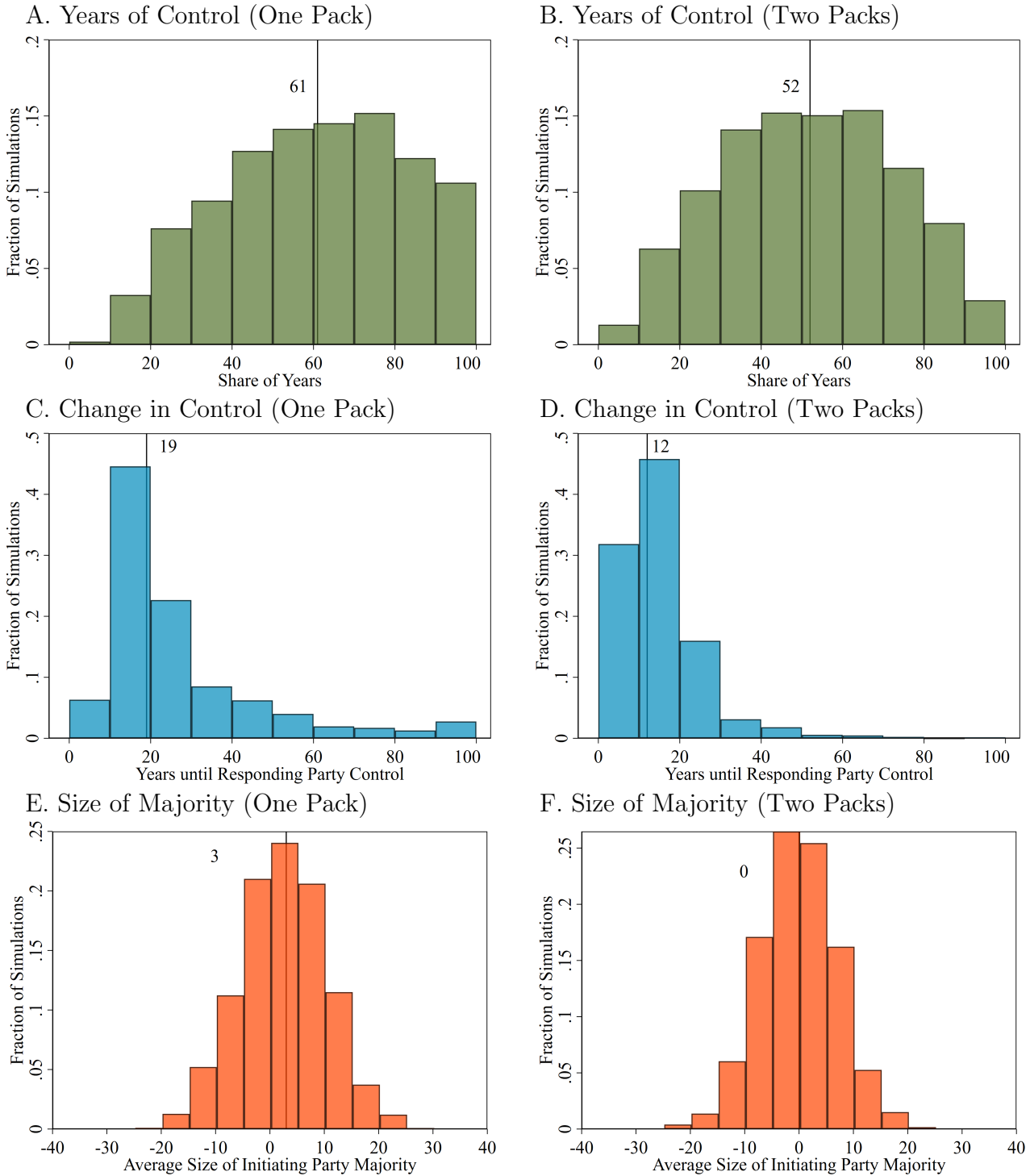
Note: The figure investigates three drivers of the control over the court in a world without and with court-packing. The panels in the left column report results with no court-packing. The panels in the right column report results with court-packing. The top row investigates the number of years the Initiating Party controlled the presidency. The middle row investigates strategic retirement of judges. As a measure of advantage for strategic retirement, for each simulation, we compute the share of judges who retire by party, and we estimate the difference between these shares. The bottom row investigates ideological flipping. As a measure of advantage for ideological flipping, for each simulation, we compute the share of judges who flip ideologically by party, and we estimate the difference between these shares. In each panel, the histogram shows the distribution of the driver across simulations, and the scatter plot and line of best fit shows the relationship between that driver and the outcome (the scatter plot is jittered to show the density).

Figure 10: Share of Strategic Retirements Followed by Subsequent Court-Packs



Note: The figure reports the share of strategic retirements that are followed by a court-packing event within a given number of years. The solid line is the outcome for the median simulation, the dark shaded area represents 50 percent of the simulations (25th to 75th percentiles), and the light shaded area represents 90 percent of the simulations (10th to 90th percentiles). Each curves is smoothed before plotting.

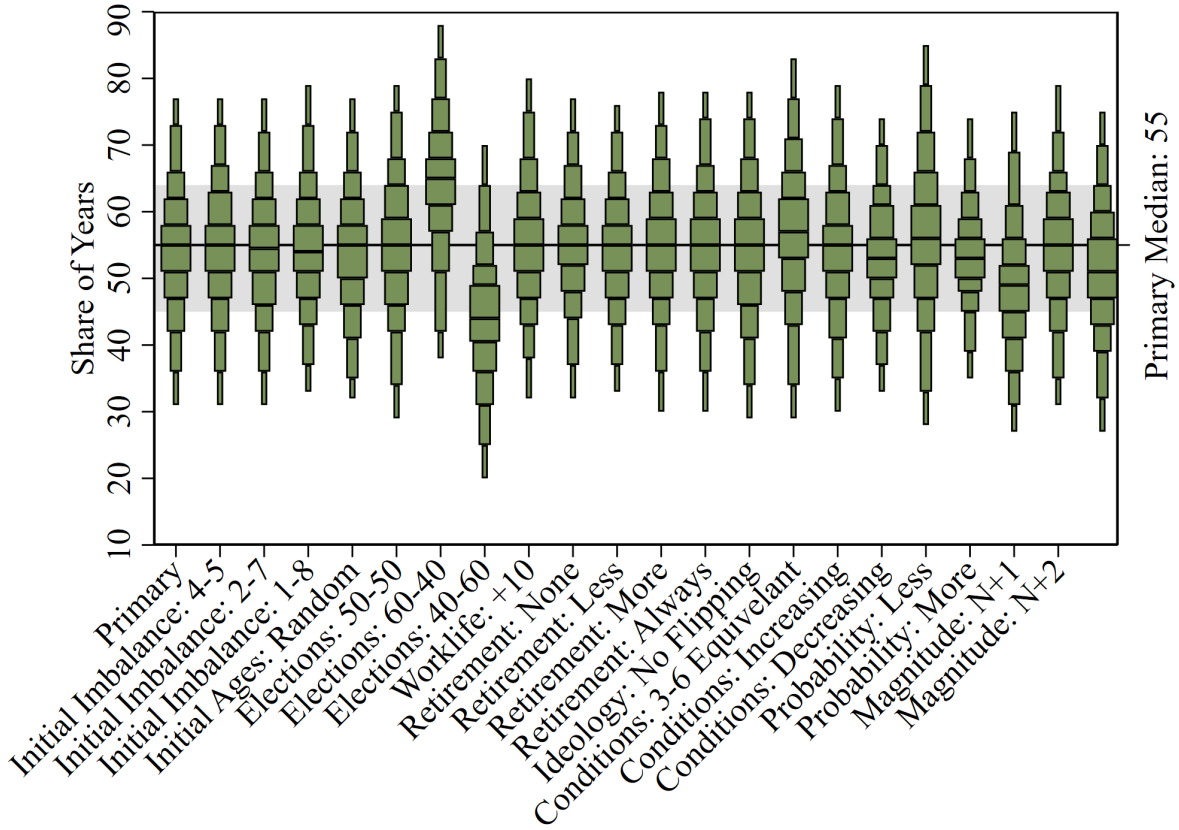
Figure 11: **Alternative Equilibriums**



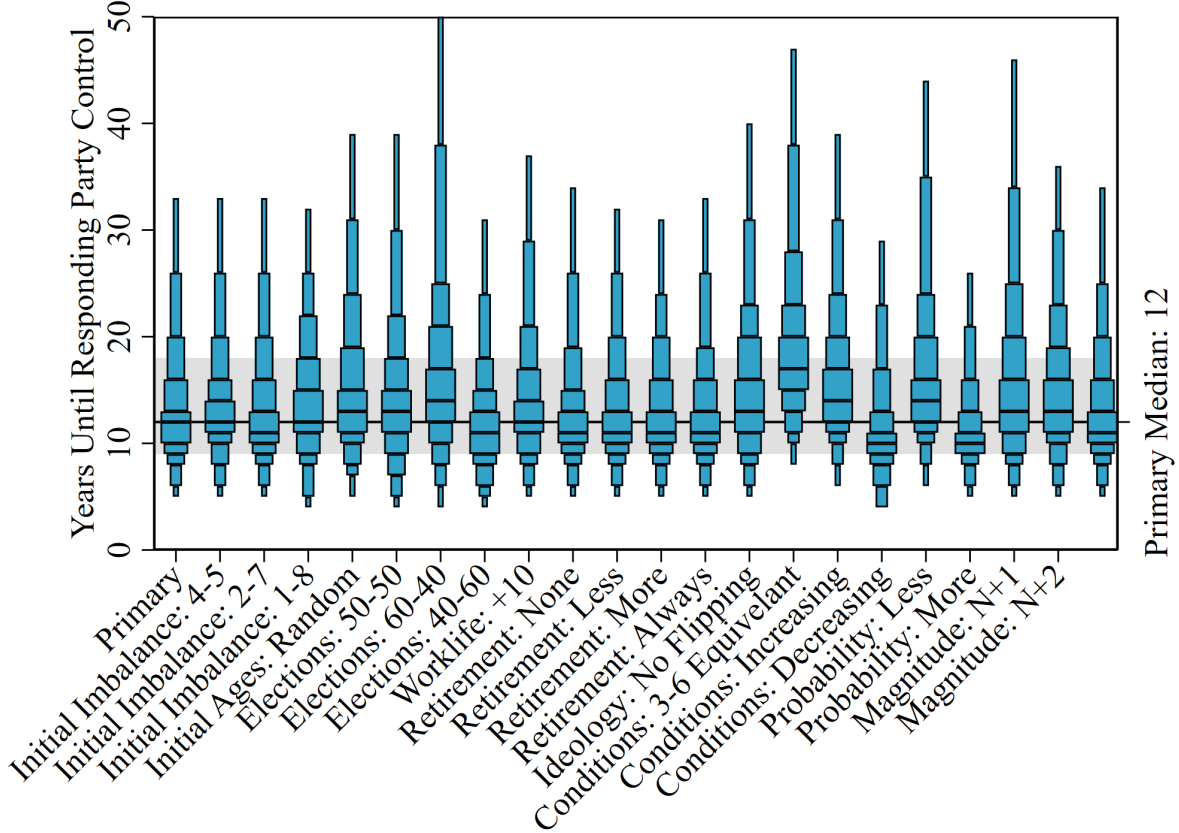
Note: This figure reports the results of simulations with court-packing. The simulations differ from Figure 7 in that they assume different equilibriums. The results on the left-side of the figure assume that the Initiating Party packs once and then there are no subsequent court-packing events. The results on the right-side of the figure assume that the Initiating Party packs once, the Responding Party packs once, and then there are no subsequent court-packing events.

Figure 12: Numerical Comparative Statistics

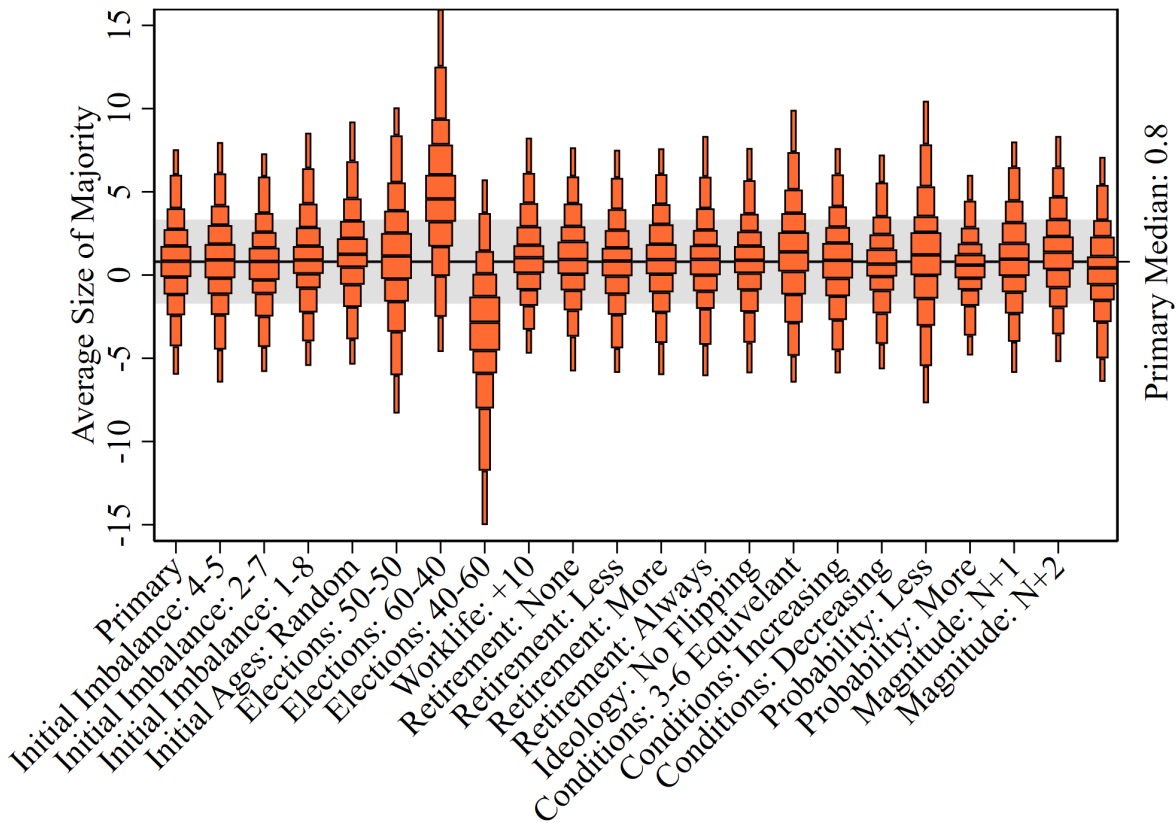
A. Years of Control



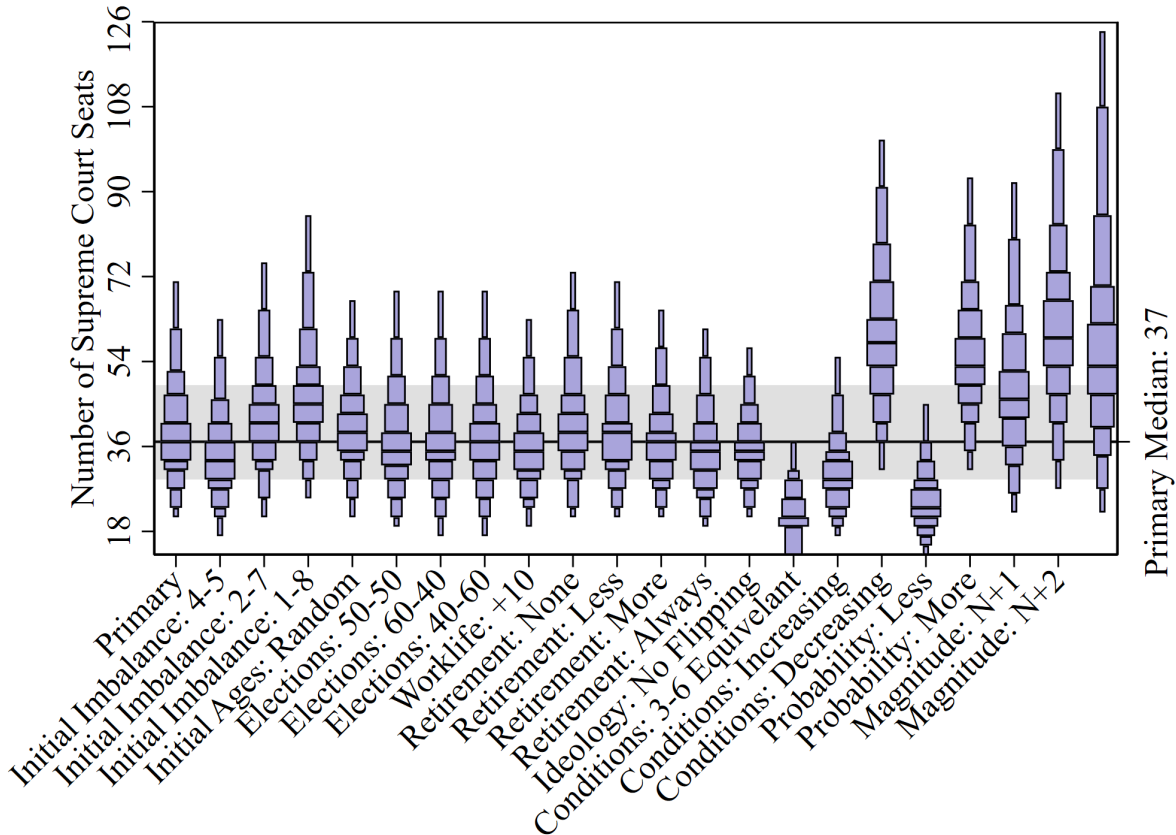
B. Change in Control



C. Size of Majority



D. Size of the Court

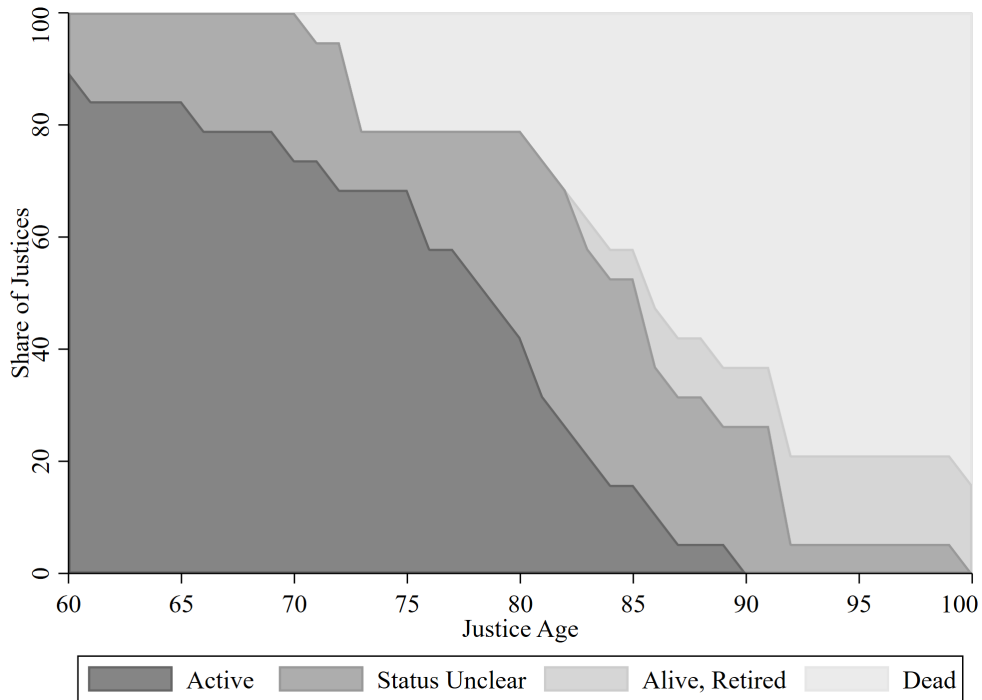


Note: The figure reports the results of simulations with court-packing. The “Primary” results recreate the results in Figure 6 as a baseline. The dark shaded area represents 50 percent of the simulations from the primary specifications (25th to 75th percentiles). The other results use the assumptions in the “Primary Specification” column of Table 1, but each uses one assumption from the “Alternative Specifications” column. The figure is a letter-value plot, which breaks down the distribution of results by decile.

Online Appendix

Figure A1: **Calibrating a Non-Linear Retirement Curve**

A. Status over Age for Supreme Court



B. Retirement of Federal Court of Appeals Judges

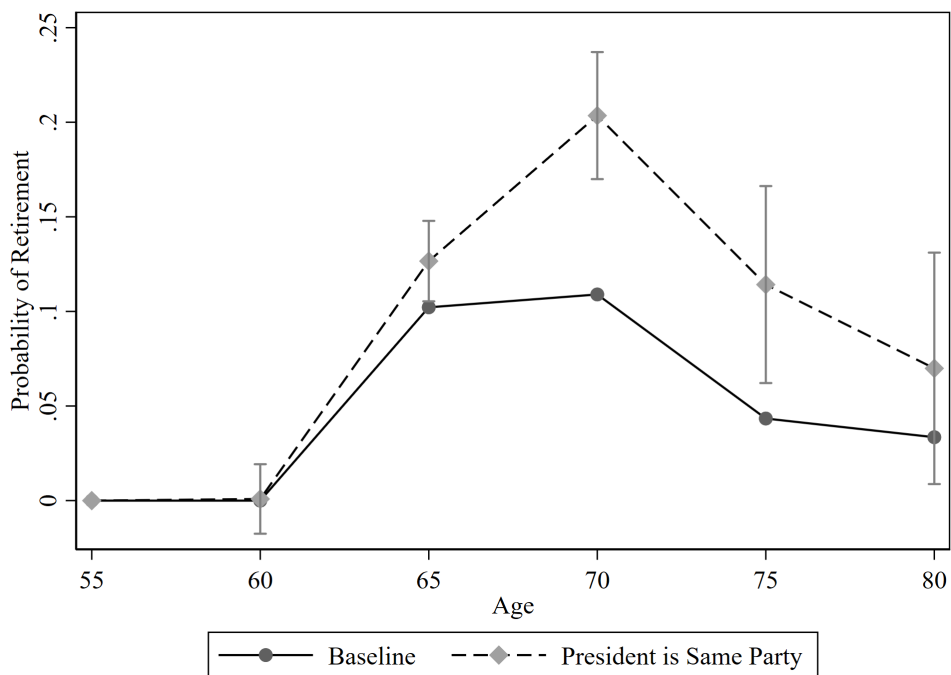


Figure A2: Calibrating Ideological Flipping Curve

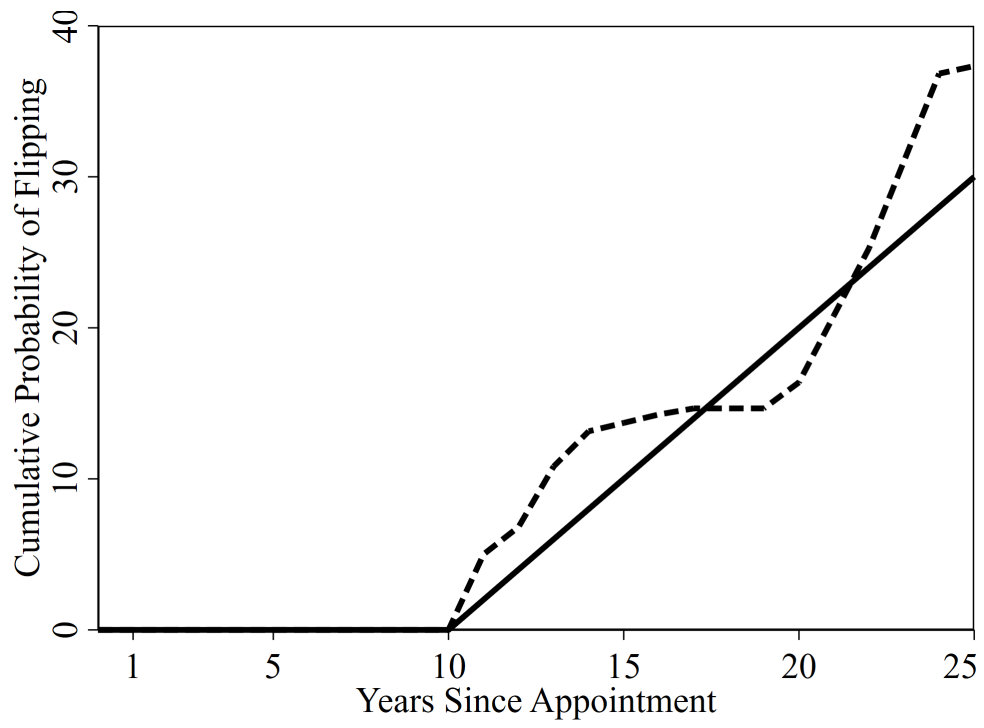
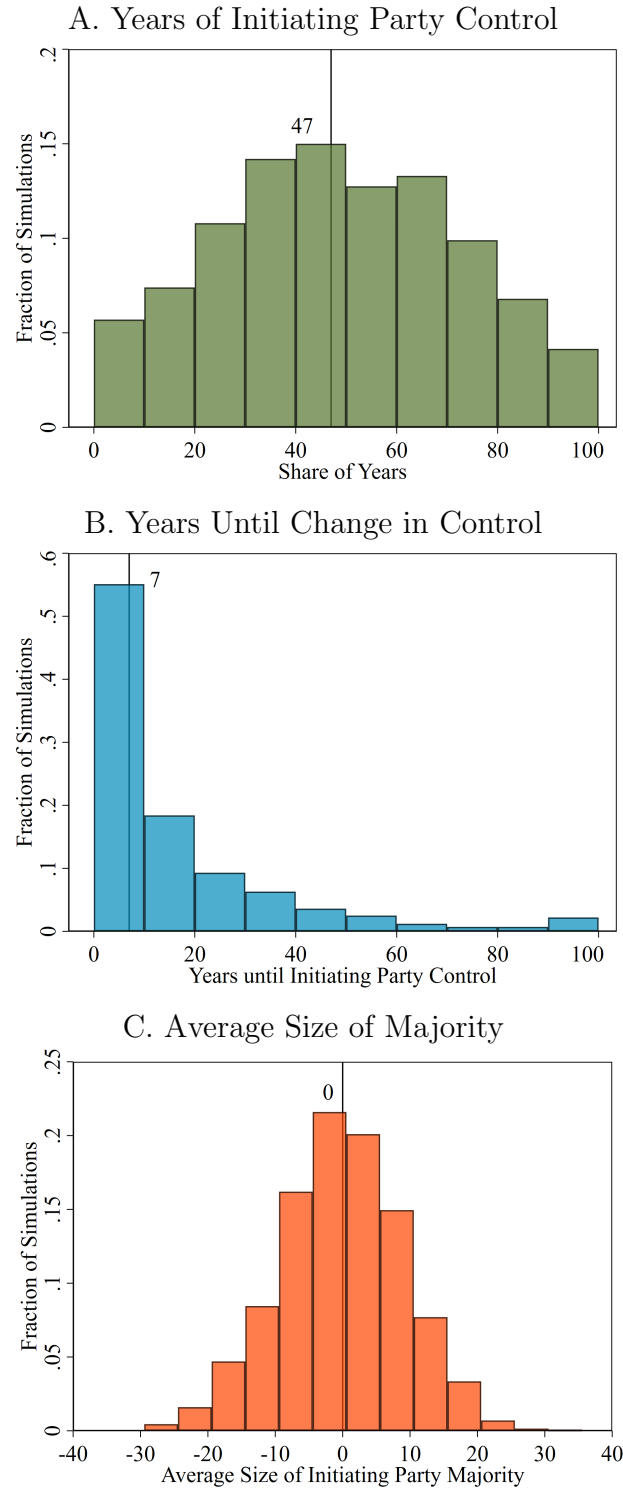
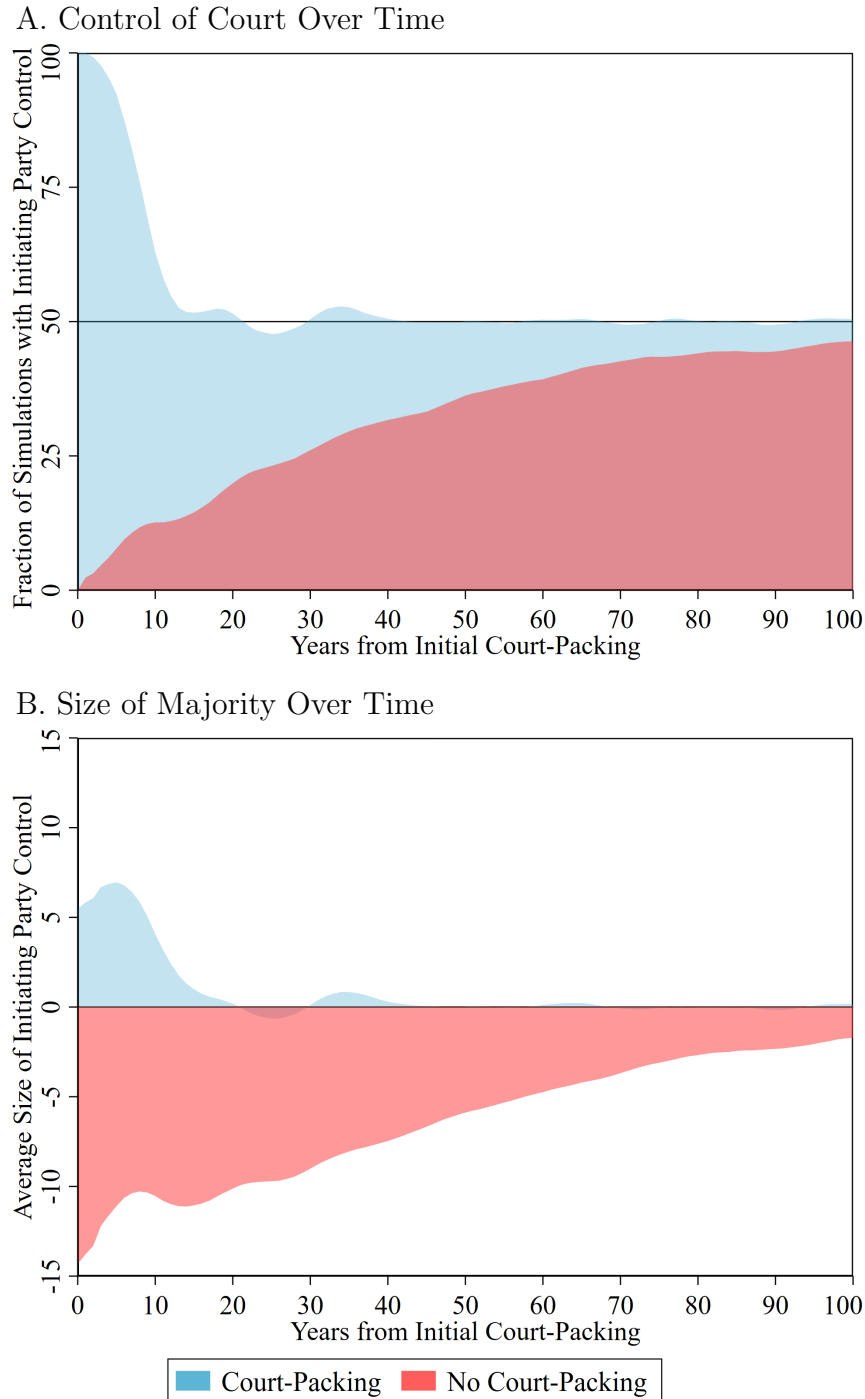


Figure A3: **Simulation Results without Court-Packing, 4-5 Imbalance**



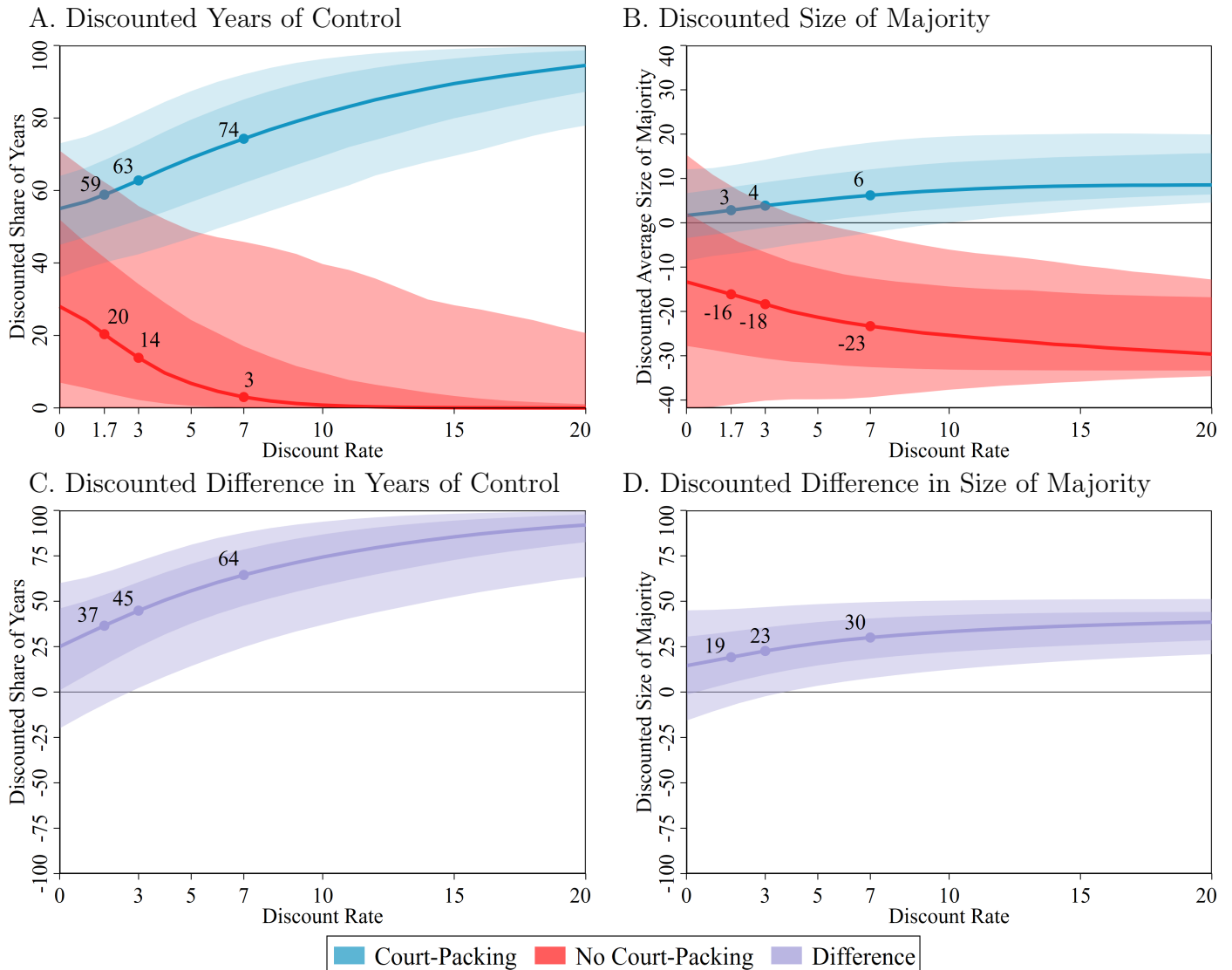
Note: This figure reports the results of simulations without court-packing where the Initiating Party is at a 4-5 disadvantage and there is no ideological flipping. Panel A reports the distribution from our simulations of the number of years the Initiating Party is expected to control the Supreme Court out of the next 100 years. Panel B reports the distribution from our simulations of the number of years until the Initiating Party is expected to first take control of the Supreme Court. Panel C reports the distribution from our simulations of average size of the Initiating Party’s majority of seats on the Supreme Court.

Figure A4: Incentives for Initiating Court-Packing: Control of the Court Without Ideological Flipping



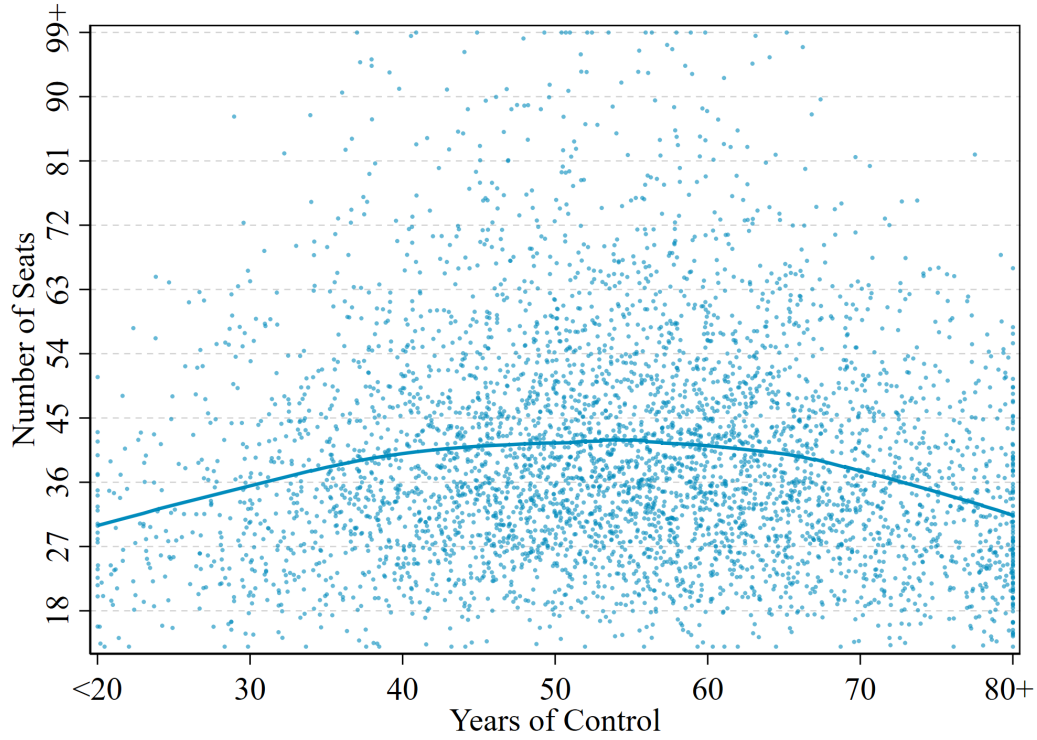
Note: This figure reports the control of the Court over time from simulations with and without court-packing under the assumption that there is no ideological flipping. Panel A reports the share of simulations in each year where a majority of justices were either appointed by the Initiating Party or have flipped ideologically to side with the Initiating Party. Panel B Reports the average size of the Initiating Party’s share of Supreme Court seats over time.

Figure A5: **Incentives for Initiating Court-Packing: Discount Rate Without Ideological Flipping**



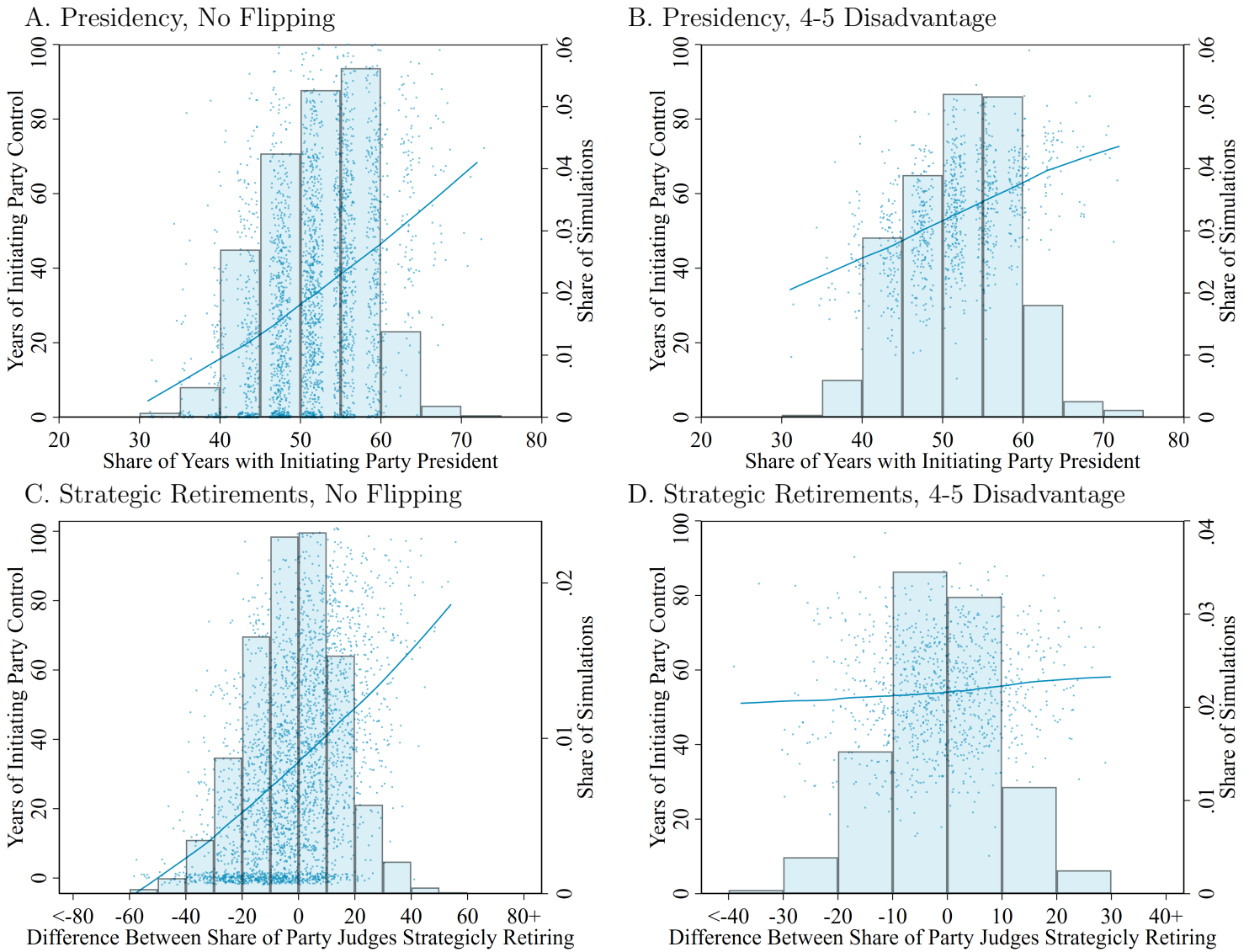
Note: This figure reports the discounted control of the Court under the assumption that there is no ideological flipping. The x-axis refers to different discount rates, and the y-axis refers to the expected total control for the Initiating Party when applying that discount rate. To be able to compare results across different discount rates, we divide the estimate by the maximum discounted share of years so that the discounted share of years is on a 100 scale for all discount rates. Using this approach, we then estimate the 10th, 25th, 50th, 75th, and 90th percentiles separately for the simulations with and without court-packing. Panels A and B report the discounted measures separately by whether court-packing occurs for the years of control and average size of the majority, and Panels C and D report the difference between the discounted measures with and without court-packing for the years of control and average size of the majority. The panels all report the values at discount rates of 3 and 7 percent.

Figure A6: Incentives for Initiating Court-Packing: Risk Aversion



Note: The figure reports the within-simulation estimates of the years of control of the Court for the Initiating Party over 100 years and the size of the Court after 100 years. Each dot represents one simulation result (the scatter plot is jittered to show the density). The line is a lowess curve.

Figure A7: Drivers of the Variation in Control of the Court: Alternate Assumptions for Simulations without Court-Packing



Note: The figure investigates three drivers of the control over the court in a world without and with court-packing. The panels in the left column report results with no court-packing and no ideological flipping. The panels in the right column report results with no court-packing, no flipping, and the Initiating Party started with a 4-5 disadvantage in Supreme Court seats. The top row investigates the number of years the Initiating Party controlled the presidency. The bottom row investigates strategic retirement of judges. As a measure of advantage for strategic retirement, for each simulation, we compute the share of judges who retire by party, and we estimate the difference between these shares. In each panel, the histogram shows the distribution of the driver across simulations, and the scatter plot and line of best fit shows the relationship between that driver and the outcome (the scatter plot is jittered to show the density).

Figure A8: Example Simulations with Different Levels of Strategic Retirement

