PRIMING IDEOLOGY II:

PRESIDENTIAL ELECTIONS INCREASINGLY AFFECT U.S. JUDGES

Daniel L. Chen*

Abstract This paper develops a theoretical model of salience of partisan identities during presidential elections affecting U.S. judges. Electoral cycles in judicial dissents are larger in close elections, non-existent in landslide elections, and reversed in wartime elections. Dissents are elevated for judges in states with a close popular vote when that state has more electoral votes. U.S. Senator elections, whose timing also varies by state, also elevate dissents. Dissents before elections appear on more marginal cases that cite discretionary miscellaneous issues and procedural rather than substantive arguments. The Supreme Court appears to recognize and only partly remedy the behavioral anomalies. Electoral cycles have been growing over time, which points to a more politically charged and polarized judiciary.

Keywords: Judicial Decision Making, Salience, Identity, JEL codes: D7, K0, Z1

^{*}Daniel L. Chen, daniel.chen@iast.fr, Toulouse School of Economics, Institute for Advanced Study in Toulouse, University of Toulouse Capitole, Toulouse, France. Work on this project was conducted while I received financial support from the Alfred P. Sloan Foundation (Grant No. 2018-11245), European Research Council (Grant No. 614708), Swiss National Science Foundation (Grant Nos. 100018-152678 and 106014-150820), Agence Nationale de la Recherche, John M. Olin Foundation, Ewing Marion Kauffman Foundation, and Templeton Foundation (Grant No. 22420). I acknowledge financial support from the Petrie-Flom Center, Program on the Legal Profession, and the Center for American Political Studies at Harvard.

1 Introduction

In today's polarized environment, where media saturation and political campaigns intensely target our deepest affiliations, understanding the undercurrents that guide our decisions has become increasingly critical. This study introduces a formal model that explores how latent group identities, often lying dormant, can be primed by the charged atmosphere of an election campaign, influencing decisions in profound ways. While Ansolabehere and Iyengar (1997) hinted at how chronic identities could be activated, this paper explores how these activations might affect judicial rulings, interrogating the impartiality of justice under partisan influence. The phenomenon, identified in the psychological literature by Bargh et al. (1995) as passive or implicit priming, reveals that once an identity is activated, it can significantly sway our conscious judgments. By mapping these invisible forces, this paper not only contributes to our understanding of cognitive biases but also offers a lens through which we can re-evaluate the judiciary in our society.

Just before elections, Courts of Appeals judges are twice as likely to dissent and vote along partisan lines—elections double the rate at which Democrats are more likely than Republicans to cast a liberal vote, and partisan voting doubles on unified panels (Berdejo and Chen 2017). A linear model implies elections drive a quarter of all dissents (Chen 2024). Berdejo and Chen 2017 present field evidence that aligns with experimental studies highlighting conditions and traits that increase individuals' susceptibility to priming. Their research indicates that judges on U.S. courts of appeals significantly increase their rate of dissent and partisan voting just before presidential elections, with a marked rise in such behaviors among less experienced judges and in highly polarized settings. Conversely, during periods of national unity, such as wartime, dissenting opinions are notably suppressed, particularly by less experienced judges or in polarized contexts. The study shows that the dissent rate gradually rises from 6% to nearly 12% in the quarter leading up to an election, returning immediately to 6% afterward. These findings suggest that even highly experienced professionals responsible for shaping common-law precedents can be influenced by political priming, raising concerns about the judiciary's

perceived impartiality.

Chen (2024) finds that dissents increase in response to campaign advertisements in the judges' states of residence. Elections explain 23% of all dissents. Chen rules out various incentive-based explanations, and the analysis is supported by examining dissent topics, replication in concurrences (disagreements about reasoning), and placebo checks using case development milestones. These findings indicate a transient priming effect. The research suggests that if elite U.S. judges are susceptible to priming through the partisan nature of electoral cycles, then highly trained professionals may be vulnerable to other forms of priming, despite their professional commitments to remain unbiased.

In this paper, I document that the variation in polarization is significantly more pronounced in scenarios where the state's popular vote margin is narrow and the state in question possesses a substantial number of electoral votes. This phenomenon is primarily driven by the judge issuing the dissent, rather than the other panel members. Specifically, the likelihood of a dissent correlates significantly with the electoral dynamics specific to the state of the dissenting judge. Additionally, I investigate a separate set of U.S. Senate elections, which occur at different times across states, and observe a similar pattern of increased dissents. These findings reinforce the notion that the polarization effect is distinctly associated with the state of the dissenting judge. Notably, increases in dissents before elections are twice as large in the time period since the 1970s—an increase similar to that found in other studies of the U.S. (McCarty et al. 2006).

The second part of the article focuses on Type I thinking, also referred to as System 1 thinking that is fast and unconscious (Kahneman 2011). First, previous associative links between legal enforcement and political decision-making—specifically, experience as a federal prosecutor (U.S. Attorneys or Assistant U.S. Attorneys)—magnify electoral cycles. Being a federal prosecutor involves exercising significant political discretion in law enforcement (Engstrom 1971, Gordon 2009). Second, the opinions being dissented on are more likely to mention highly discretionary, miscellaneous legal issues, and are less likely to be cited in future dissents, thus potentially less important. Third, dissents before elections are twice as likely to

be reasoned on procedural rather than substantive grounds than those made at other times. Together, these results suggest that more marginal cases receive dissents. Notably, cases with dissents are 2–3 times more likely to be heard in the U.S. Supreme Court.

These findings challenge the traditional view of judges as neutral decision-makers, suggesting that even life-tenured judges are not immune to politics. The results contribute to the structural literature, demonstrating that a significant portion of a judge's initial inclinations are shaped by their personal evaluation of a case (Iaryczower and Shum 2012). Additionally, the homogeneity of these initial biases can increase the likelihood of judicial deliberation errors (Iaryczower et al. 2018). If we interpret the priming of partisan identity as increasing the heterogeneity in judicial biases, and consider that the Supreme Court is less likely to reverse Circuit decisions made in the final quarter before an election, the findings align with the predictions of their model. The remainder of the article is organized as follows. Section 2 presents the setting and model, Section 3 data and Section 4 the specification, Section 5 the electoral cycles, Section 6 evidence for priming of identity, and Section 7 concluding remarks.

2 Setting and Model

2.1 Background on U.S. Federal Courts The U.S. Courts of Appeals, also referred to as the Federal Appellate Courts or Circuit Courts, are positioned near the top of the U.S. common law hierarchy. In this system, judges both interpret and create law. Their rulings set precedents that guide future decisions within the same court and influence lower courts within the same jurisdiction. The federal court system is structured into three levels: the U.S. District Courts, the Circuit Courts, and the Supreme Court. There are 94 District Courts, which act as the primary trial courts and can involve juries to resolve factual disputes. Should a decision be appealed, it moves to a Circuit Court, which focuses on legal issues without the use of juries and typically accepts the facts as established by the District Courts. The judges in the Courts of Appeals can either uphold or overturn the decisions from the District Courts, often sending cases back to the lower courts to ensure compliance with the legal interpretations determined by the Circuit Court.

Cases brought before the Courts of Appeal typically revolve around new interpretations or nuances of existing case law and statutes, thereby defining or redefining the boundaries within which individuals may operate. Judges on the Courts of Appeals are appointed for life by the President of the United States and must be confirmed by the Senate. These judges serve in one of the 12 U.S. Circuits, each having specific geographic regions known as duty stations where they primarily conduct their legal writing. For each case, three judges are selected randomly from a pool ranging from about 8 to 40 judges per Circuit by a staffing office. If a judge disagrees with the majority decision, they often write a dissenting opinion to outline their reasons. Similarly, a judge who agrees with the outcome but not the rationale may write a concurring opinion to detail their different reasoning. Neither dissents nor concurrences serve as binding precedent, and they are generally seen as costly in terms of both time and relationships among judges (Epstein et al. 2011). Only a small fraction, less than 1%, of Courts of Appeals decisions are reviewed by the U.S. Supreme Court. Thus, the approximately 170 influential judges of the Circuit Courts are responsible for deciding most cases that establish legal precedents, shape law school curricula, and influence economic conditions.

Several professional norms and institutional guidelines are in place to curb the influence of external factors, such as bias, on federal judges. These judges are required to avoid any appearance of impropriety. They are not allowed to accept honoraria or compensation for speeches, appearances, writing articles, or providing services to either for-profit or non-profit organizations, according to the Guide to Judiciary Policy Canon 4H. Furthermore, they cannot engage in political activities such as making speeches for political organizations, endorsing or opposing political candidates publicly, soliciting funds, making donations, or buying tickets for events held by political organizations or candidates as per Canon 5. They are also barred from engaging in personal fundraising activities, soliciting funds for any organization, or leveraging the prestige of their judicial office for fundraising purposes, detailed in Canon 4C. There is no historical evidence suggesting that U.S. federal judges participate in presidential elections or any other elections, with the notable exception of Bush v. Gore. In contrast, state judges—who

often face elections themselves and, if appointed, do not typically hold life tenure—have shown tendencies to have their rulings influenced by electoral cycles, likely driven by the pressures faced by elected judges, as discussed in studies by Huber and Gordon 2004; Gordon and Huber 2007; Berdejó and Yuchtman 2013.

The process of random assignment in the Courts of Appeals has been the subject of various studies. Research shows that the procedures for assigning cases to judges generally fall into two categories. In some Courts of Appeals, a computer program randomly assigns judges—who may include visiting judges from other Circuits or District Courts, and on rare occasions, other Federal judges—to panels two to three weeks before oral arguments. In other Courts, the random formation of panels happens annually; these panels are created by a computer program that also schedules their hearing dates. Sometimes, spots are left open in these panels to accommodate visiting judges. If a case returns to the Court of Appeals, such as after being remanded by the Supreme Court to address specific issues, it is often reassigned to the same panel of judges who previously handled it. Should a judge need to recuse themselves from a case, that case is removed from the calendar and reentered into the pool for reassignment.

Chen and Sethi (2016), utilizing data from Boyd et al. (2010) and Sunstein et al. (2006), analyzed 415 gender-discrimination cases within the Circuit Courts. Their findings suggest that the characteristics of cases, as determined by the lower court, show no correlation with the composition of the judicial panels. Additionally, their analysis indicates that both case and litigant characteristics remain consistent throughout the electoral cycle, supported by p-values from regression analysis of case characteristics against the time to election compared to the dissent cycle. Berdejo and Chen (2017) and Chen (2024) further explores the variation in court caseloads and the attributes of judges who author opinions or serve on panels, reinforcing these findings.

In the Circuit Courts, which operate without juries, each judicial case is handled by a trio of judges, known as a panel, drawn from the court's pool of judges. The panel is responsible for delivering a binary decision—either affirming or overturning the decision made by the lower

court. A majority, meaning at least two out of the three judges, is required to determine the verdict, historically referred to as the "disposition." Additionally, the panel crafts a written opinion that outlines the reasoning behind their decision. This opinion is significant as it sets a precedent for future cases, thereby exerting considerable influence on societal norms and policy.

When a judge on the panel disagrees with the majority's verdict or rationale, they must author a separate opinion. This can be a dissenting opinion if the judge votes against the majority's decision, or a concurring opinion if the judge agrees with the decision but for different reasons. Both dissenting and concurring opinions, while providing valuable insights, are costly in terms of time and can strain relationships among judges. Importantly, these opinions do not hold the weight of binding precedent. Engaging in dissent or concurrence represents a form of confrontation within the court, as each action expresses a judge's dissatisfaction with the panel's decision in some manner.

2.2 Ideology Consider a panel of three judges and denote each judge by a number. Let $Q_{0,i}$, $i \in \{1,2,3\}$, be each judge's ideology baseline. Let each judge belong to social group G, such as Republican or Democrat, and let Q_G denote the ideology of social group G. Let $Q_{0,i}$ and $Q_{G,i} \in \mathbb{R}$, where \mathbb{R}^- denotes political left and \mathbb{R}^+ denotes political right.¹

I assume that $|Q_{G,i}| > |Q_{0,i}|$; in other words, I assume that the ideology of the party is always more extreme than the baseline ideology of the judges. In the United States, judges are far more moderate than politicians who run for office, which is reflected in the fact that 2-1 decisions constitute only 8% of cases even though judges from both parties sit together 70% of the time. I assume that the ideologies of the two parties Q_G are equidistant from 0, and that the judge chooses the party that is closer to her baseline ideology $Q_{0,i}$. This implies that $Q_{0,i} \cdot Q_{G,i} \geq 0$; in other words, it implies that $Q_{0,i}$ and $Q_{G,i}$ always have the same sign.

Let s_i be strength of each judge's affiliation with her social group; $s_i \in [0, 1]$, where 0 represents non-affiliation and 1 represents complete affiliation. Finally, let each judge's actual

¹Assume also that $Q_{G,i} \neq 0$.

ideology Q_i be a weighted average of $Q_{0,i}$ and Q_G :

$$Q_i = (1 - s_i) \, Q_{0,i} + s_i Q_G$$

Assume Q_i is common knowledge; in other words, assume that each judge knows the ideological positioning of the other judges sitting on the panel. Furthermore, assume that a necessary condition for dissenting is being the judge whose ideology is the most distant from the ideologies of the other two judges. Mathematically, judge i is the judge whose ideology is the most distant from the other two judges if:

$$|Q_i - Q_j| + |Q_i - Q_k| \ge \max[|Q_j - Q_i| + |Q_j - Q_k|, |Q_k - Q_i| + |Q_k - Q_j|]$$

The two judges who are ideologically closer to each other are more likely to agree and form a coalition. Therefore, the ideological center of the panel is located closer to the two judges with similar ideology and farther from the judge whose ideology is the most distant. Judges dissent from particular agreements; therefore, the judge most likely to dissent is the one who is furthest from the ideological center of the panel. From this point forward, I analyze the judge who is most likely to dissent and refer to her as the decision-maker (DM) and her ideology as Q.

2.3 Dissent Consider the DM's decision about whether to dissent when sitting on a three-judge panel and hearing a case. Suppose that if the DM dissents, then she pays a cost $c \in \mathbb{R}^+$, and if she does not dissent, she pays a cost $(Q - \bar{Q})^2$, where Q is the DM's ideology as defined above and \bar{Q} is the average ideology of the other two judges on the panel $(\bar{Q} = \frac{Q_j + Q_k}{2})$. I assume that there is no bargaining between judges and that costs are quadratic for tractability. I assume that the DM sits with a random distribution of panel judges whose ideologies are drawn from a normal distribution. In particular, let $\bar{Q} = \frac{Q_j + Q_k}{2} \sim N(0, 1)$.

I assume that the DM wants to minimize costs, so pays min $\left[c,\left(Q-\bar{Q}\right)^2\right]$. Therefore, the DM acts as follows:

$$\begin{cases} Dissents & if \left(Q - \bar{Q}\right)^2 \ge c \\ Does \ not \ dissent & if \left(Q - \bar{Q}\right)^2 < c \end{cases}$$

Letting Φ denote the standard normal cumulative distribution function, I can calculate the probability that $(Q - \bar{Q})^2 \ge c$.

$$P\left[\left(Q - \bar{Q}\right)^{2} \ge c\right] = P\left(Q - \bar{Q} \le -\sqrt{c} \lor Q - \bar{Q} \ge \sqrt{c}\right) = P\left(Q - \bar{Q} \le -\sqrt{c}\right) + P\left(Q - \bar{Q} \ge \sqrt{c}\right) =$$

$$= P\left(\bar{Q} \ge Q + \sqrt{c}\right) + P\left(\bar{Q} \le Q - \sqrt{c}\right) = 1 - P\left(\bar{Q} < Q + \sqrt{c}\right) + P\left(\bar{Q} \le Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q + \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q - \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q - \sqrt{c}\right) + \Phi\left(Q - \sqrt{c}\right) = 1 - \Phi\left(Q -$$

Therefore, the DM dissents with probability:

$$P(Dissent) = 1 - \Phi(Q + \sqrt{c}) + \Phi(Q - \sqrt{c})$$

Substituting in $Q = (1 - s) Q_0 + s Q_G$, the DM dissents with probability:

$$P(Dissent) = 1 - \Phi((1-s)Q_0 + sQ_G + \sqrt{c}) + \Phi((1-s)Q_0 + sQ_G - \sqrt{c})$$

2.4 Comparative Statistics

2.4.1 Effect of c on the probability of dissent First, I analyze the effect of a change in c on the probability of dissenting.

$$\begin{split} \frac{\partial P\left(Dissent\right)}{\partial c} &= -\phi\left((1-s)\,Q_0 + sQ_G + \sqrt{c}\right)\frac{1}{2}c^{-\frac{1}{2}} - \phi\left((1-s)\,Q_0 + sQ_G - \sqrt{c}\right)\frac{1}{2}c^{-\frac{1}{2}} = \\ &= -\frac{1}{2}c^{-\frac{1}{2}}\frac{1}{\sqrt{2\pi}}e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G + \sqrt{c}\right)^2} - \frac{1}{2}c^{-\frac{1}{2}}\frac{1}{\sqrt{2\pi}}e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G - \sqrt{c}\right)^2} \\ &\propto -\frac{1}{\sqrt{c}}\left[e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G + \sqrt{c}\right)^2} + e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G - \sqrt{c}\right)^2}\right] \end{split}$$

From the expression above, note that $\frac{\partial P(Dissent)}{\partial c}$ is always negative; therefore, the probability of dissent decreases with c. The higher the cost of dissent, the less likely it is that the DM will dissent.

2.4.2 Effect of group identity salience on the probability of dissent Next, I examine whether the probability of dissent increases in s.

$$\frac{\partial P\left(Dissent\right)}{\partial s} = -\phi\left((1-s)Q_0 + sQ_G + \sqrt{c}\right)(Q_G - Q_0) + \phi\left((1-s)Q_0 + sQ_G - \sqrt{c}\right)(Q_G - Q_0) =
= -(Q_G - Q_0)\frac{1}{\sqrt{2\pi}}e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G + \sqrt{c}\right)^2} + (Q_G - Q_0)\frac{1}{\sqrt{2\pi}}e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G - \sqrt{c}\right)^2} =
= (Q_G - Q_0)\frac{1}{\sqrt{2\pi}}\left[e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G - \sqrt{c}\right)^2} - e^{-\frac{1}{2}\left((1-s)Q_0 + sQ_G + \sqrt{c}\right)^2}\right]$$

Rearranging the expression and substituting Q for $(1-s) Q_0 + sQ_G$ yields:

$$\frac{\partial P\left(Dissent\right)}{\partial s} \propto \left(Q_G - Q_0\right) \left(e^{\frac{1}{2}\left(Q + \sqrt{c}\right)^2} - e^{\frac{1}{2}\left(Q - \sqrt{c}\right)^2}\right)$$

First, consider the case in which $Q_G > 0$. I know from the assumptions that if $Q_G > 0$, then $Q_0 > 0$ as well and that $Q_G > Q_0$. If $Q_G > 0$ and $Q_0 > 0$, then $Q = (1-s)Q_0 +$ $sQ_G > 0$. Furthermore, if Q > 0, then $(Q + \sqrt{c})^2 > (Q - \sqrt{c})^2$. Finally, since the exponential function is a monotonic transformation, $e^{\frac{1}{2}(Q+\sqrt{c})^2} - e^{\frac{1}{2}(Q-\sqrt{c})^2} > 0$. Therefore, if $Q_G > 0$, then $\frac{\partial P(Dissent)}{\partial s} > 0.$

Now consider the case in which $Q_G < 0$. I know from the assumptions that if $Q_G < 0$, then $Q_0 < 0$ as well and that $Q_G < Q_0$. If $Q_G < 0$ and $Q_0 < 0$, then Q < 0. Furthermore, if Q < 0, then $(Q + \sqrt{c})^2 < (Q - \sqrt{c})^2$. Finally, again, since the exponential function is a monotonic transformation, $e^{\frac{1}{2}\left(Q+\sqrt{c}\right)^2} - e^{\frac{1}{2}\left(Q-\sqrt{c}\right)^2} < 0$. Therefore, if $Q_G < 0$, then $\frac{\partial P(Dissent)}{\partial s} > 0$.

Thus, no matter the sign of Q, given my assumptions, $\frac{\partial P(Dissent)}{\partial s} > 0$. In other words, priming always increases the probability of dissent.

Effect of priming on the effect of c on the probability of dissent

I examine the kind of dissent that increases with priming. I investigate the dynamics of

$$\frac{\partial P(Dissent)}{\partial s} \text{ with respect to } c. \frac{\partial \left(\frac{\partial P(Dissent)}{\partial s}\right)}{\partial c} = \frac{\left(Q_G - Q_0\right) \left(\frac{e^{-\frac{1}{2}\left(-\sqrt{c} + Q_0(1-s) + Q_G s\right)^2}\left(-\sqrt{c} + Q_0(1-s) + Q_G s\right)}{2\sqrt{c}} + \frac{e^{-\frac{1}{2}\left(\sqrt{c} + Q_0(1-s) + Q_G s\right)^2}\left(\sqrt{c} + Q_0(1-s) + Q_G s\right)}{2\sqrt{c}}\right)}{\sqrt{2\pi}}$$

Simplifying the expression and substituting Q for $(1-s)Q_0 + sQ_G$, I obtain:

$$\frac{\partial \left(\frac{\partial P(Dissent)}{\partial s}\right)}{\partial c} > 0 \iff \left(Q_G - Q_0\right) \left[e^{-\frac{1}{2}\left(Q - \sqrt{c}\right)^2} \left(Q - \sqrt{c}\right) + e^{-\frac{1}{2}\left(Q + \sqrt{c}\right)^2} \left(Q + \sqrt{c}\right)\right] > 0$$

First, consider the case in which $Q_G > 0$. If $Q_G > 0$, then I know by the assumptions that

 $Q_0 > 0$, $Q_G - Q_0 > 0$, and Q > 0. Thus, $Q > \sqrt{c}$ is a sufficient condition for the effect of priming on the probability that dissent will increase costs. That is, if the prime is large enough relative to the cost of dissent, then high-cost dissents increase more than low-cost dissents.

Now consider the case in which $Q_G < 0$. If $Q_G < 0$, then I know by the assumptions that $Q_0 < 0$, $Q_G - Q_0 < 0$, and Q < 0. But then, $-Q > \sqrt{c}$ is a sufficient condition for the effect of priming on the probability that dissent will increase costs.

In conclusion, regardless of the sign of Q_G , $|Q| > \sqrt{c}$ is a sufficient condition for priming to increase high-cost dissents more than low-cost dissents.

2.4.4 Effect of legal precedent on the effect of priming on the probability of dissent I now model which kinds of cases have costly dissents. I model the strength of legal precedent through the cost of dissent—the cost of dissent not only depends on c, but also on the strength of legal precedent ε . I now assume that the DM choice to dissent depends on $\min\left\{\frac{c}{\varepsilon}, \left(Q - \bar{Q}\right)^2\right\}$, where $\varepsilon \sim Unif(0,1)$. If the legal precedent is strong, then $\varepsilon \to 0$ and hence the net cost of dissent is high; if the legal precedent is weak, then $\varepsilon \to 1$ and hence the net cost of dissent is low. The parameters c and ε can also be thought of as capturing two different dimensions of the cost of dissent, with c capturing the time and effort cost of writing a dissent, collegiality costs, and (negatively) the benefit of expressing a policy opinion and potentially influencing the law, while ε captures legal precedent. Therefore, the DM acts as

$$\begin{cases} Dissents & if \left(Q - \bar{Q}\right)^2 \ge \frac{c}{\varepsilon} \\ Does \ not \ dissent & if \left(Q - \bar{Q}\right)^2 < \frac{c}{\varepsilon} \end{cases}$$

follows:

I can calculate the probability of dissenting, which is the probability that $(Q - \bar{Q})^2 \ge \frac{c}{\varepsilon}$. This can be rewritten as:

$$P(Dissent) = P\left[\left(Q - \bar{Q}\right)^2 \ge \frac{c}{\varepsilon}\right] = P\left[\varepsilon \ge \frac{c}{\left(Q - \bar{Q}\right)^2}\right] = 1 - P\left[\varepsilon < \frac{c}{\left(Q - \bar{Q}\right)^2}\right] = 1$$

$$=1-\frac{c}{\left(Q-\bar{Q}\right)^2}$$

It can be seen that: $\frac{\partial P(Dissent)}{\partial c} = -\frac{1}{\left(Q - \bar{Q}\right)^2} < 0$, $\frac{\partial P(Dissent)}{\partial s} = 2c\frac{\left(Q_G - Q_0\right)}{\left[Q - \bar{Q}\right]^3} > 0$, and $\frac{\partial \left(\frac{\partial P(Dissent)}{\partial s}\right)}{\partial c} = 2\frac{\left(Q_G - Q_0\right)}{\left[Q - \bar{Q}\right]^3} > 0$. In words, dissents generally occur more for cases with weak legal precedent.

The dynamics of $\frac{\partial P(Dissent)}{\partial s}$ with respect to ε are similar to what was solved earlier. The effect of priming on the probability of dissent increases the lower ε is, and priming increases dissents more for cases with strong legal precedent. If I consider citation by subsequent dissents as a sign of weak legal precedent, then judges will generally dissent on cases cited more often by subsequent dissents. But before elections, judges will increase their dissent on cases that are less likely to be cited by subsequent dissents (i.e., cases that are less likely to contribute to the development of legal innovations). Another measure of strength of legal precedent is whether the Supreme Court reverses the Courts of Appeals decision. Judges before elections will dissent on cases less likely to be reversed by the Supreme Court.

2.4.5 Effect of divided panels on the effect of priming on the probability of dis-

sent The model also provides a framework to understand which panels will be more likely to increase dissents during priming. Suppose a judge is Republican. When she is dissenting, the three possible types of panels are DDR, DRR, and RRR. Since \overline{Q} is closer to the judge on a politically unified panel (RRR), I should generally expect fewer dissents on a unified panel. With priming, the judge on a unified panel will move with the other two judges.² This indicates that dissents should increase more for divided panels than for unified panels when there is priming. As for who dissents on a politically divided panel, when the judge is in the majority of a divided panel (DRR), she will be less likely to dissent than when she is in the minority of a divided panel (DDR). This is because she is further away from \overline{Q} as a minority on a divided panel. With priming, she moves further away from \overline{Q} when the other two judges

²Derivation is omitted.

are from the opposing party than when the other two judges are from both parties. Thus, before elections, divided panels will increase their dissents more and minority judges on divided panels will be particularly likely to increase their dissents.

Type of dissent Suppose that there are two types of reasonings: substantive dis-2.4.6sents and procedural quibbles. Reflections by sitting judges indicate that they resent criticism by dissenters, and that dissents make it more difficult for the dissenter to persuade panelists to join his or her majority opinions in subsequent cases (Epstein et al. 2011). The main benefits of dissenting are the influence of the dissenting opinion, the self-expressive character of the judicial opinion, and the enhanced reputation of the judge who writes the dissent. Justice Scalia observed that "[w]hen history demonstrates that one of the Court's decisions has been a truly horrendous mistake, it is comforting . . . to look back and realize that at least some of the justices saw the danger clearly and gave voice, often eloquent voices, to their concern." In my data, dissents based purely on the merits occur 40% of the time, while dissents based solely on procedure occur 9% of the time, which suggests that substantive dissents do have some value. If I assume that substantive dissents are less costly because of the higher benefit a DM receives from a potentially citable reasoning (e.g., by future dissents seeking to change legal precedent), and if I assume that procedural quibbles are more costly because they only corrode judicial collegiality, then I expect, in general, to see more dissents based on substantive issues than on procedural quibbles. But I would also expect dissents based on procedural quibbles to increase more than substantive dissents before elections.

2.5 Remarks To apply the model to the data, the model should be interpreted as evaluating the proportion of dissents taking into account all possible panel compositions. Theoretically, the comparative statics apply prior to the resolution of uncertainty.³ Second, I have assumed that $\bar{Q} \sim N(0,1)$, but ignored the possibility that the realization of \bar{Q} is near Q, which would be inconsistent with the assumption that the judge considering dissenting is furthest away from the ideological center of the panel. Simulating three random draws of judges

The model does not evaluate an individual case of priming of three judges at the extreme Q_G , but incorporates this instance as one of the possible panel compositions.

and calculating the probability of dissent as it varies by cost of dissent and priming yields the same comparative statics as found above (plotted in Appendix Figure A). The x-axis represents the cost of dissent, while the y-axis represents the probability of dissent. The color scale represents the degree of priming. The figure shows that the greatest proportion of high-cost dissents occurs with significant priming. The darkest shade of red indicates the greatest proportion of colors along the vertical space when the dissent cost is high; when the dissent cost is low, shades of blue represent a relatively larger share of the dissents. Among low-cost dissents, only a small proportion of these occur with significant priming (i.e., the darkest red constitutes only a small fraction of the vertical distance under the curve when the cost is close to 0).

2.6 Predictions The model yields the following predictions:

- 1. Priming increases the probability of dissent, as agents put greater weight on the group identity norm (Akerlof and Kranton 2000).⁴
- 2. The more ideologically polarized the environment (during close elections or in the recent time period), the greater the priming effect, holding judges' ideological baseline constant.

 The opposite is true during reduced ideological polarization, such as during landslide elections or wartime.⁵
- 3. Politically divided panels should experience greater changes as priming moves judges further apart.
- 4. The greater the number of primes, the stronger the overall priming effect (the weight on group identity increases).
- 5. Experienced individuals would be less affected if conscious processing overrides the usual

⁴It may seem odd to offer a formal model of priming, but since this article uses the revealed preference approach, I follow the usual modeling of decision-makers' behavior as if they maximized an objective function and refrain from interpreting the function literally (Friedman and Savage 1948). More recently, and particularly in behavioral economics, models are understood in terms of an as-is component. For example, Fehr and Schmidt (1999) say that their "theory is motivated by the psychological evidence on social comparison and loss aversion," i.e., by evidence beyond behavior, in particular, the inner state of mind of the decision-maker. The greater weight can be due to Type I or Type II thinking. The increase in weight can be thought of as an increase in group cohesion (Chen 2010).

⁵Polarization can be modeled as extreme value differences (Esteban and Ray 1994; Duclos et al. 2004).

- or habitual response to priming (the weight does not increase as much).
- 6. Individuals with previous associative links could be more affected by priming if activated concepts spread faster (the weight increases more).
- 7. Minority judges on divided panels will be particularly likely to increase their dissents.
- 8. Cases on topics associated with the prime should experience greater changes (e.g., economic policy constitutes 70% of campaign ads during elections).
- 9. Dissents generally occur in cases with weak legal precedent, but priming increases dissents more for those with strong legal precedent (i.e., less likely to be cited by subsequent dissents, less likely to contribute to the development of legal innovations, and less likely to be reversed by the Supreme Court).
- 10. Dissents based on procedural quibbles should increase more when primed than the increase in substantive dissents.

3 Data

In my research, I have combined multiple datasets to analyze the identity, characteristics, and ideological leanings of judges, as well as their verdicts within the context of the U.S. Circuit Courts. This comprehensive approach enables a detailed examination of judicial behavior against the backdrop of political and ideological shifts. The cornerstone of my data collection is sourced from the U.S. Courts of Appeals Database Project, which offers a random sample covering about 5% of appellate decisions from 1925 to 2002. Additionally, I utilize detailed biographical data from the Appeals Court Attribute Data and the Federal Judicial Center. This information includes judges' identities, characteristics, and their specific assignments within Circuit Courts. My analysis pays particular attention to the presence of dissenting or concurring opinions and correlates these with the judges' backgrounds, such as their prior work experiences. Methodologically, my study predominantly focuses on three-judge panels and encompasses a significant body of decisions spanning several decades, totaling 18,686 decisions (56,058 votes) from 1925 to 2002. Approximately 8% of these decisions feature dissenting opinions. However, some limitations were encountered due to incomplete biographical data,

resulting in a 10% reduction in the sample size for some analyses, particularly those involving their previous roles as Assistant U.S. Attorney or U.S. Attorney. Using these datasets, I define 'divided panels' as those including at least one judge appointed by a Democrat and one by a Republican. Judges are classified into political groups: Republicans, Democrats (combined with liberals), and independents (aligned with the party of the appointing President).

My data contains the vote ideology of the judge on the court on a case at any particular time. The Courts of Appeals Database Project describes vote ideology (also referred to as valence) as generally aligning with the typical liberal-conservative spectrum noted in public law discussions for most issue categories, though not all. For instance, rulings that favor the defendant in criminal cases, uphold a plaintiff's First Amendment claim, or support a Secretary of Labor's lawsuit against a company for child labor violations are classified as liberal. The valence of a decision thereby captures the ideological direction of the court's rulings, with liberal decisions marked as 1, conservative as -1, and mixed or indeterminate decisions as 0. If a judge votes with the majority, their vote takes on the ideological valence of the decision; a dissenting vote takes on the opposite valence. Thus, this indicator is based on the ideological direction of the verdicts the judge supports, determined by whether or not the judge dissented.

The data also contains the reason for dissent (i.e., procedural or merit).⁶ When a judge decides a case on the merits, they are evaluating and making a judgment based on the actual facts and legal issues central to the case. This means looking at the evidence, the arguments presented by both sides, and how the law applies to these specifics. In contrast, deciding a case on procedural grounds involves making a judgment based on whether the legal process was followed correctly, such as whether the case was filed on time or if court rules were adhered to, without delving into the actual substance of the case. Therefore, a procedural decision could be construed as less substantive, as it does not delve into the actual merits and deeper issues of the case.

When a higher court reviews a decision made by a lower court, it has several options. It can

 $^{^6{}m The}$ Courts of Appeals Database codes whether the dissent addresses a procedural issue or addresses a merits issue.

affirm the decision, meaning it agrees with and upholds the lower court's ruling. Alternatively, it can reverse the decision, indicating disagreement and overturning the lower court's ruling. When a higher court reverses with remand, it not only disagrees with the lower court's decision but also sends the case back to the lower court for further action, such as a new trial or additional findings. In contrast, reversing without remand means the higher court takes the final action itself, without sending the case back. Therefore, a remand typically means less work for the higher court compared to reversing without remand, as the circuit court does not need to write the final opinion; instead, the lower court is tasked with further proceedings based on the higher court's guidance.

Beyond the core datasets previously mentioned, I have incorporated several additional sources to enrich my analysis. Data on subsequent outcomes in the Supreme Court, when relevant, are sourced from the Shepardized Courts of Appeals database. This linkage between the U.S. Courts of Appeals Database and the Supreme Court adds a crucial layer to understanding the appellate process. The variables in the Supreme Court database allow me to examine whether the Circuit Court decisions are reversed on appeal and whether the Supreme Court decided to "listen" to the case. Both of these are proxies of error. Typically a dissenter is viewed as a whistleblower, so this analysis also allows me to see whether the whistleblowing matters or whether the Supreme Court is less likely to view the case as needing to be reversed. Other metrics of quality of a Circuit court decision include overall citations and citations by subsequent dissents, which can be interpreted as contributing to an issue of potential legal innovation.⁷

To capture the political climate, besides using the date of the case, which allows me to construct electoral proximity for each quarter to the upcoming presidential election, I also sourced election information from the CQ Voting and Elections Collection.⁸ These data include, for

⁷I winsorize this variable at the 1% level. Citation data come from Lexis's *Shephards* service. Newer cases have less time to accumulate citations, but controlling for year fixed effects addresses this censoring. Data is not available to distinguish whether the dissent or the majority opinion is being cited.

⁸Table 30-1 Divided government, 1860–2006. (2008). In Guide to Congress, 6th ed. (Vol. 2). Washington: CQ Press. Retrieved May 12, 2010, from CQ Press Electronic Library, CQ Voting and Elections Collection, http://library.cqpress.com/elections/g2c6e2-973-36489-1842592. Document ID: g2c6e2-973-36489-1842592.

example, winning margin in the Electoral College, political environment such as the party of the incumbent President, the electoral vote count of the state where the judge resides, and the winning margin in the state where the judge resides. During a presidential election, voters in each state cast their ballots not directly for a presidential candidate. The candidate who wins the majority of votes in a state typically receives all of that state's electoral votes. The total number of electoral votes is 538, and this is distributed roughly by population of the state.

By integrating various datasets, I developed variables that encapsulate aspects such as dissent and its underlying reasons, the proximity to elections, composition of judicial panels, frequency of opinion citations, judicial backgrounds, and the prevailing political climate. This combined dataset provides a holistic view of the judicial process, illuminating the ways in which judges' backgrounds, ideologies, and the broader political context influence their decision-making and behavior within the U.S. legal system in the highest echelons of the judiciary.

4 Specification

4.1 Baseline Specification I begin with the basic specification. Consider the following specification for latent ideology Q, where electoral **Proximity**, perturbs s:

(1)
$$|Q_{cit}| = \alpha_1 \mathbf{Proximity}_t + \alpha_2 \mathbf{Z}_{cit} + \omega_{cit}$$

 $|Q_{cit}|$ represents ideology for judge i in time t on case c; **Proximity**_t is the set of quarter-to-election fixed effects; ¹⁰ \mathbf{Z}_{cit} contains dummy indicators for case characteristics, such as Circuit

⁹For notational ease, I suppress the transpose on coefficients, which are actually vectors of coefficients.

¹⁰I compare to quarter 16, i.e., the quarter immediately following an election, which is the omitted quarter, so the interpretation is akin to a regression discontinuity design. I also compare the quarter-before-an-election to all other quarters, compare the three-quarters-before-an-election to all other quarters, and report models that employ a linear proximity to election. The disadvantage of the more parsimonious regressions are that the non-linearities are not as clearly delineated.

and year of the decision, season,¹¹ the panel composition (whether it was politically divided),¹² and legal issue (criminal, civil rights, constitutional, labor relations, and economic activity); and ω_{cit} is the error term.

Ideology Q is latent, and as it becomes more extreme, the more likely I observe dissent. This motivates the following probit (reported in Appendix Table B of Chen (2024)) or linear probability (reported in all other tables) specification:

(2)
$$Y_{cit} = \beta_1 \mathbf{Proximity}_t + \beta_2' \mathbf{Z}_{cit} + \eta_{cit}$$

My outcome of interest Y_{cit} is an indicator variable equal to 1 if a dissent was filed on case c. I cluster standard errors at the quarter-year level.¹³

To compare with the existing literature on electoral cycles, I estimate a specification that replaces $\mathbf{Proximity}_t$ with a linear measure of time to election (Appendix Table C in Chen (2024)). I examine the presence of dissents at the case level and judges' dissent votes at the judge level. The latter allows me to exploit variation across states where the judges reside. In the vote-level analysis, I also include judge fixed effects, to even though they are not necessary for identification because cases are randomly assigned. For the same reason, fixed effects for each unique combination of three judges are not necessary in the case-level analysis. The robustness to judge fixed effects and the fact that the results are more salient among judges with 1-2 years of experience mitigates the concern that the tiny number of judges that retire around the election are driving the results. In some specifications, I replace $\mathbf{Proximity}_t$ with

¹¹Seasons are defined as winter (December-February), spring (March-May), summer (June-August), and fall (September-November). Appendix Table B of Chen (2024) shows that results are robust to alternative definitions of seasons, e.g., winter (January-March), spring (April-June), summer (July-September), and fall (October-December).

¹²Appendix Table B of Chen (2024) shows that results are robust to a full set of dummies for DDD, DDR, DRR, and RRR.

¹³Analyses of data collapsed to the quarter-year level do not cluster standard errors. See Chen (2024) for double-clustering results.

¹⁴Results are robust to state fixed effects.

¹⁵Analyses that have very few years of data exclude judge fixed effects.

the monthly increases in campaign advertisements in different states, since different states are important at different points in the presidential election cycle. I use changes in campaign advertisements rather than levels to address the high degree of persistence in a serial measurement. This specification exploits additional variation across states and over time within the electoral season. In other specifications, I augment $\mathbf{Proximity}_t$ with proximity to Senate and gubernatorial (State Governor) elections, which also exploits variation across states and over time.

4.2 Additional Specifications I assess heterogeneous treatment effects in various subsamples (by Circuit, by appointing President, by legal issue, by state's electoral importance, by birth cohort, and by experience). Analyses are presented at the case level when examining the influence of environmental factors common to all judges on the panel, and at the vote level when examining the influence of judge-specific factors. If separate sub-samples are presented for ease of interpretation, the critical tests are also presented in interaction models. Identification comes from comparing judicial behavior just before elections (September and October) with just after elections (November), within legal case categories, within the set of divided or non-divided panels, within a Circuit, and within a year.

I use alternative dates t for the case representing every available significant event in a case's history to assess when the mental decision to dissent may have occurred. I also conduct randomization inference (randomizing cases to other quarters) and present plots of whether case, litigant, or judge characteristics vary during the election, and compare all the t-statistics from the other regressions with the true t-statistic of dissent regression.¹⁷

Additional outcomes characterize the extent and nature of these electoral cycles. I replace Y_{cit} with counts of news articles mentioning Republican and Democrat in the same article and counts of newsarticles that mention Courts of Appeals decisions and their dissents. I also

¹⁶Taking first-differences is standard in panel data analysis since the insights of Arellano–Bond.

 $^{^{17}\}mathrm{I}$ also rerun Berdejo and Chen (2017), which introduced a prime for consensus—wartime—rather than dissensus. Dates come from the International Crisis Behavior Project. Michael Brecher & Jonathan Wilkenfeld, International Crisis Behavior Project, 1918–2001 (ICPSR Study No. 9286, 2004), at http://www.icpsr.umich.edu. I consider the following wars: World War II: 12/7/41-8/14/45; Korea: 6/27/50-7/27/53; Vietnam: 2/7/65-1/27/73; Gulf: 1/16/91-4/11/91; Afghanistan: 10/7/01-3/14/02.

replace Y_{cit} with reason for dissent (procedure or merit based) and how the case treats the lower court decisions (reversals and remands).¹⁸ A remand indicates that the lower court has to re-evaluate the facts of the case (perhaps with a new trial) to be sure that the outcome conforms to the law set out by the Circuit Court. Sometimes Courts of Appeals will reverse a lower court decision but not remand; this requires the Circuit Court panel to be more specific about the outcome of the case, as it has not only decided on the law but also evaluated the facts and deemed it unnecessary for the lower court to do so, in effect determining the final outcome for the original plaintiff and defendant in the case. Reversals without remand might be interpreted as a measure of effort.

I further characterize the cases by examining how they are subsequently handled by the Supreme Court (whether an appeal was made, whether the Supreme Court decided to accept the appeal and hear the case, and whether the Supreme Court reversed), and how future judges treat the case (citation counts and citations by subsequent dissents):

(3)
$$Y_{ct} = \zeta_1 LastQuarter_t + \zeta_2 LastQuarter_t * Dissent_{ct} + \zeta_3 Dissent_{ct} + \zeta_4 \mathbf{Z}_{ct} + \kappa_{ct}$$

The empirical evidence for this model is presented in Berdejo and Chen (2017), Chen (2024), and this paper.

5 Electoral Cycles in Judicial Behavior

5.1 Legal Outcomes and Summary Justice Having explored the nuances of voting valence and its shifts in relation to electoral cycles in Berdejo and Chen (2017) and Chen (2024), this section turns our attention to the broader legal implications of these findings. Specifically, I examine how these electoral influences extend beyond individual voting behavior to impact the lower District Courts. The previous papers investigate the tendency of judicial panels to render decisions that align with their political affiliations, particularly as presidential

¹⁸Berdejo and Chen (2017) examined affirmations and reversals, but not reversal with remands, nor the reason for reversal.

elections draw near. I analyze the direct consequences of such partianship on the nature of legal outcomes, considering the decisions' direct influence on lower court rulings. By doing so, I aim to understand not only the ideological shifts within the judiciary but also the tangible effects these shifts have on the legal landscape and the development of law.

Berdejo and Chen (2017) shows that Courts of Appeals judges are 10% less likely to affirm and 20% more likely to reverse lower court decisions in the quarter before an election. Notably, judges' decisions appear to be increasing in the type of reversal that requires less work: reversals with remand increase by 25% before presidential elections, while those without remand do not (see Table 1). Reversals without remand require Courts of Appeals judges to be specific about the outcome of the case—such that the District Court no longer needs to adjudicate it. The majority of reversals have remands, which means the lower court has to decide the case again. A reversal without remand might be likened to a referee report that finalizes the article on behalf of the author, occurring in approximately 6.5% of cases. In contrast, a reversal with remand, which occurs in about 20% of cases, can be compared to a report that suggests revisions in accordance with specific guidelines. The former scenario generally demands more effort than the latter.

5.2 Decision Quality Having thoroughly examined the influence of electoral cycles on various aspects of judicial behavior (Berdejo and Chen 2017; Chen 2024) – from the increased likelihood of dissents and shifts in voting valence to the impact on legal outcomes and precedents – Section 5.2 shifts the focus towards an underexplored yet crucial dimension: the quality of judicial decisions. This section studies whether the observed electoral cycle effects extend beyond mere quantitative changes in judicial behavior, influencing the very substance and nature of judicial reasoning. Specifically, it probes whether the increased frequency of dissents and ideological shifts in decision-making around elections are reflective of more hasty or procedurally focused judgments, potentially impacting the depth and robustness of judicial reasoning. Thus, Section 5.2 aims to explore the ramifications of electoral cycles on the foundational quality of justice administration, examining if and how the proximity to elections

might affect the substantive soundness of judicial decisions.

• H1: Dissents based on procedural quibbles should increase more when primed than the increase in substantive dissents.

Do the reasonings reflect more hasty decisions? Table 2 Panel A, Columns 3-4, shows that before elections, judges dissent more on issues related to procedure than merit. On average, 9% of dissents mention procedural (but not merit) reasons for the dissent. In the quarter immediately before an election, this motivation increases by 10 percentage points, a doubling of the baseline, when compared to all other quarters. However, the database only codes the reasoning for dissent between 1997–2002. For the entire 1925–2002 time period, I find that only four case characteristics significantly varied with the electoral cycle: (1) whether there were "other issues" related to juries, (2) whether some "other evidence" besides confession and evidence obtained through search and seizure was inadmissible, (3) whether the attorneys' fees favored the appellant, and (4) whether there was some "other issue" of civil law. About 1-6\% of the cases mention these issues. What is notable about all four of these issues is that they are highly discretionary (e.g., attorneys' fees are only to be awarded to the appellant in exceptional circumstances (Rolax v. Atlantic C. L. R. Co. 186 F2d 473)). This is consistent with judges, consciously or subconsciously, looking for easier, less direct reasons to dissent before elections. If judges do appear to be dissenting based on procedural issues, in particular on miscellaneous procedural issues, these decisions could happen at the last minute and be of lower quality.

• H2: Dissents generally occur in cases with weak legal precedent, but priming increases dissents more for those with strong legal precedent (i.e., less likely to be cited by subsequent dissents, less likely to contribute to the development of legal innovations, and less likely to be reversed by the Supreme Court).

(4)
$$Y_{cit} = \beta_1 \mathbf{Proximity}_t * Dissent_c + \beta_2 \mathbf{Proximity}_t + \beta_3 Dissent_c + \beta_4' \mathbf{Z}_{cit} + \eta_{cit}$$

My outcome of interest Y_{cit} is citation count of case c in Circuit i and time t. **Proximity** is the set of quarter-to-election fixed effects or simply the last quarter before the election.

Dissent_c is whether the case has a dissent or not. The analyses presented in Table 2 Panel A show how dissents before presidential elections are subsequently treated by the courts. I first examine citations by subsequent dissents, which suggest legal ambiguity or legal innovation when dissenting opinions seek to follow a new precedent. Cases with dissents are cited more often in subsequent opinions and dissents. Opinions with dissents written in the quarter preceding an election, however, are cited less often by subsequent dissents than similar cases decided in other quarters.¹⁹ This reduction is equivalent to 70% of the typical association between dissents and citations by subsequent dissents. These results are consistent with judges dissenting on less controversial cases before elections or reducing their quality.²⁰

5.3 Does the Supreme Court Notice and Adjust for Lower Decision Quality? Having investigated the quality of judicial decisions in Section 5.2, Section 5.3 presents a critical examination of how these behavioral patterns are perceived and potentially adjusted by the U.S. Supreme Court. This section addresses a fundamental question: Does the Supreme Court recognize and compensate for the variations in decision quality that emerge in lower courts around election times? By analyzing how cases with dissents prior to elections are treated by the Supreme Court, this section seeks to understand if the highest court in the land acts as a corrective force, adjusting for lower courts' potentially election-influenced decisions. This analysis is crucial for comprehending the broader implications of electoral cycle effects, not just within individual circuits or districts but across the entire judicial hierarchy, thereby shedding light on the systemic checks and balances at play in the American judiciary.

Table 2 Panel B reports how cases with dissents are subsequently treated by the U.S. Supreme Court. My outcome of interest Y_{cit} is future Supreme Court treatment of case c in Circuit i and time t. Unlike Courts of Appeals, which must hear all appeals from District Courts, the Supreme Court can choose whether to take the case. Only 2–3% of published Circuit Court cases are heard in the Supreme Court, but cases with dissents are two to three

¹⁹Year fixed effects ensure that the results are not simply due to censoring, for example, when newer dissents have had less time to accumulate citations.

 $^{^{20}}$ The citation data does not distinguish between citation to the majority opinion or the citation to the dissent.

times more likely to be heard. This increase is the same regardless of whether the dissent occurs before an election. Dissents before elections thus appear to crowd the court docket, which can have a long-run impact. Crowding the court docket can be welfare-decreasing, as it has been documented (in Circuit Courts) to decrease the attention judges are able to spend on cases, and change their decisions on unrelated cases (Huang 2011).

Does the Supreme Court recognize that cases with dissents before elections may be different, potentially less controversial, and use more discretionary reasons for the dissent? The rationale for this test is similar to a concept in experimental economics. In this framework, if a sender perceives a bias in the response of a receiver and adjusts their strategy accordingly (for instance, by altering their offer in an ultimatum game), then this adjustment lends support to the existence of the bias in the respondent. Columns 3 and 4 suggest that the Supreme Court partially corrects for the behavioral anomalies due to elections. I link the 607 appealed (out of 18,686) Courts of Appeals cases to their outcomes in the Supreme Court. The Supreme Court reverses 71% of its cases, and this reversal rate is generally the same for cases with a dissent, but cases with dissents before elections are significantly less likely to be reversed: It reverses only 30% of cases with dissents before elections (Column 3). These results are consistent with Circuit Court judges dissenting on cases with stronger legal precedent before elections, since the Supreme Court is more likely to affirm the majority opinion when there is strong legal precedent. If I assume that the doubling of the dissent rate means that half of these dissents receive the typical 71% reversal rate and the other half face almost 0% reversal, the average would be roughly the 30% reversal that I observe in the raw data. Under this calculation, the Supreme Court seems to recognize which cases have potentially spurious dissents.

This result does not undermine the policy impacts of this behavioral bias. I already discussed the vote ideology may be more significantly impacted than the decision to dissent. The content of opinions can change. The presence of a dissent still affects court crowding. Courts of Appeals reversals of District Court decisions that do not have dissents do not seem to be easily overturned: I investigate whether the Supreme Court reverses the reversals made by

Courts of Appeals before elections, and whether the Supreme Court corrects for and reverses cases decided by unified panels that issue partisan precedent before an election (Column 4). No significant effects are found.²¹ In sum, the Supreme Court does not appear to notice the potentially spurious dissents when deciding to hear the case, does appear to notice and fully correct for them after hearing the case, and does not address other behavioral effects, such as the Circuit Court decisions to reverse or issue partisan precedent before elections.

In summary, Section 5 offers a detailed examination of the complex effects of electoral cycles on judicial behavior in the U.S. legal system. Section 5.1 analyzes the broader legal implications, uncovering how these electoral influences not only affect individual voting behavior but also shape lower court rulings. Sections 5.2 and 5.3 explore the quality of judicial decisions and the Supreme Court's role in addressing potential decision-quality variations. The results presented in these sections reveal a nuanced understanding of how the approach of elections subtly, yet markedly, influences judicial behavior, affecting the fundamental aspects of legal decision-making in the U.S. justice system.

6 Priming

6.1 Political Debate Across States and Across Presidential Elections Building upon the exploration in Chen (2024), which illuminated how the intensity of political debate across states influences judicial behavior, Section 6.1 digs deeper into the dynamics of this phenomenon across various presidential elections. This section extends the analysis to assess how the political climate in specific elections, particularly those with tight popular vote margins, interplays with the electoral significance of states, as denoted by their electoral vote counts. The hypothesis is that states with higher electoral stakes and closely contested races become focal points for heightened political debate, which in turn may have a more pronounced effect on judicial dissent.

²¹The sample size is particularly small for the analysis of how precedents issued by unified panels are treated. Only 183 decisions issued by unified panels from 1925-2002 in the 5% dataset were heard in the Supreme Court, which necessitated the removal of year fixed effects in Column 4. More parsimonious specifications with fewer controls yield similar insignificant results.

• H3: The greater the number of primes, the stronger the overall priming effect (the weight on group identity increases).

I utilize an interaction model that considers both the tightness of a state's popular vote and its electoral vote count:

(5)
$$Y_{sjt} = \beta_1 \mathbf{PopularVoteTightness}_t * ElectoralVoteCount_s + \beta_2 \mathbf{PopularVoteTightness}_t$$

(6)
$$+\beta_3 Electoral Vote Count_s + \beta_4' \mathbf{Z}_{st} + \eta_{sit}$$

My outcome of interest Y_{sjt} is dissent for the three quarters before an election by judge j in state s and election t. I anticipate the environment to be more political in tight presidential races, and I expect states with high electoral vote counts to be the target of more campaign ads. The idea is that campaign advertisements would be focused on competitive large states. To make the regression easier to interpret, I construct a measure of election competitiveness, where positive values indicate a closer presidential race. Next, I construct a state-level measure of the impact of presidential elections on dissents—the average dissent rate in the three quarters before the election. I construct a separate measure for each state and each election, and I use the number of votes as regression weights. Table 7 presents an analysis of the impact on the average dissent rate, conditioning on Circuit and election fixed effects and double-clustering standard errors at the election and state levels. I find that dissents are more elevated for judges residing in states with high electoral vote counts when their states have close presidential races.

To interpret the magnitude of 0.0024 in Table 3, Column 1, going from a popular vote tightness of 5% to 0% (statistical tie) for a large state with 30 electoral votes would result in an increase of 0.4 percentage points in the dissent rate above the baseline of 2.4%, roughly

²²I calculate the tightness of a state's popular vote by taking the negative of the absolute difference in the fraction of votes received by the Republican candidate and the Democratic candidate for the presidential election, so this number ranges from 0 to 1.

a 20% increase. The interaction term is statistically significant at the 5% level. Notably, it is the political environment of the dissenting judge, not the environment of the author of the majority opinion or the third panel member, that is significantly associated with dissent (contrast Column 1 with Columns 2 and 3). The absence of significant correlations in Columns 2 and 3 suggests that the dissenting judges' local environment is driving the electoral cycles (though the point estimates suggest that the majority author may also be less willing to compromise with the dissenter). Each column presents the reduced form relationship between the local political environment of one peer and the presence of a panel dissent.

6.2 Political Debate Across States and Across Types of Elections Expanding upon the insights gained in Section 6.1 about the influence of presidential elections on judicial dissent, Section 5.2 explores the impact of political debate across states in the context of various types of elections, including U.S. Senate and gubernatorial races. The regression model introduced in this section thus differentiates between the proximity to Senate, governor, and presidential elections, offering a more comprehensive view of how local electoral climates, shaped by different electoral contests, can influence judicial dissent across the United States:

(7)

 $Y_{csjt} = \beta_1 \mathbf{PresidentialProximity}_t + \beta_2 \mathbf{SenatorProximity}_{st} + \beta_3 \mathbf{GovernorProximity}_{st} + \beta_4' \mathbf{Z}_{cst} + \eta_{csjt}$

My outcome of interest Y_{csjt} is dissent by judge j on case c in state s and time t. PresidentialProximity is the quarter before the presidential election, SenatorProximity $_{st}$ is the quarter before a state's Senator election, and GovernorProximity $_{st}$ is the quarter before a state's governor election. Senators have six-year terms, and only one-third of states have Senate elections at a time. Using this variation, I can separately distinguish the effects of U.S. Senate elections in Table 4. The effect of Senate elections is equivalent to half the effect of presidential elec-

tions.²³ In Column 4, which includes both elections, the coefficients become more similar. In the full set of coefficients, the dummy for the 9th quarter-to-election is insignificant, which suggests a negligible role of U.S. House elections relative to U.S. Senate elections in explaining the midterm effect. The larger effect of U.S. Senate elections relative to House elections is consistent with the much larger amount of money spent on U.S. Senate elections.²⁴ Elections for state governor are held every four years (only nine states hold them at the same time as presidential elections). No effect is found before state governor elections. One reason for this may be that spending for a U.S. Senate election is roughly 50% more than spending for a gubernatorial election.²⁵

Political Environment 6.3 Section 6.3 addresses the landscape of political polarization in the U.S. correlates with changes in judicial decision-making patterns. Many studies document that politics in the United States has become more polarized (McCarty et al. 2006; Bernhard et al. 2012; Gentzkow et al. 2015). There have been significant changes over the periods covered by the dataset that could influence judicial behavior. To name but a few, the advent of television, the internet, and social media has greatly amplified the reach and intensity of political messages compared to earlier times, which primarily relied on newspapers and radio. The evolution of media technology has not only expanded the dissemination of information but has also transformed the nature of political communication. Political polarization has notably intensified in recent decades, leading to a more charged atmosphere in presidential elections. This polarization is evident not only between major parties, such as Democrats and Republicans, but also within parties, particularly during primary elections. The escalation in polarization has been accompanied by an increase in aggressive campaign tactics, including the prevalence of negative campaigning and attack ads. These factors collectively suggest that the influence of external variables on judicial behavior may vary significantly across different

²³Comparing with the midterm effects estimated in Chen (2024) further supports view that the local political environment of the dissenter is driving the dissent.

²⁴https://www.opensecrets.org/overview/topraces.php

 $^{^{25}\}mathrm{According}$ to a report by Center for Public Integrity Analysis, spending in 36 Governors' races was almost the same as the spending in 36 Senator races (http://time.com/3558262/governors-elections-spending/). However, there are roughly 12 Governor races per year and roughly 34 Senator races per two years.

historical contexts.

Cross (2003) finds evidence that the Reagan and George W. Bush judicial appointees have been the most ideological of any judicial appointees since the late 1940s. Consistent with their findings, Table 5 shows that Reagan, George W. Bush, and Clinton appointees are the most likely to display electoral cycles. The increase in the dissent rate three quarters before a presidential election has been growing sharply: close to 0 and statistically insignificant for every appointee before Reagan; then increasing to 2%, 5%, and 5% for the last three sets of appointees; and statistically significant at the 1%, 1%, and 10% levels, respectively.

• H4: The more ideologically polarized the environment (in the recent time period), the greater the priming effect, holding judges' ideological baseline constant.

Figures 1 and 2 display the moving average correlation between last quarter and judicial behavior. In Figure 1, each year on the x-axis represents the center point for four elections. Electoral cycles in dissents were quite small during the 1940s, and increase around 1960. After 1975, four-election moving averages of the electoral cycle become statistically significant. Accordingly, I divide the cases into two groups, those decided on or prior to December 31, 1975, and those decided afterwards.

(8)
$$Y_{cit} = \beta_1 \mathbf{Proximity}_t * Post1975_t + \beta_2 \mathbf{Proximity}_t + \beta_4' \mathbf{Z}_{cit} + \eta_{cit}$$

My outcome of interest Y_{cit} is dissent on case c in Circuit i and time t. **Proximity**_t is a dummy indicator for the last quarter before an election. $Post1975_t$ is a dummy indicator for the decision being after 1975. The electoral cycle before 1975 is quite strong and statistically significant, but it is roughly 100% larger in the recent time period, a difference that is statistically significant (Table 6). This finding is robust to controls for a judge's birth cohort. For example, if I control for whether the vote was cast by a judge born after the 1940s (roughly 15% of the sample) and its interaction with **Proximity**_t, the result suggests that judges'

susceptibility to political priming is not due to cohort-specific experience. Rather, all judges, regardless of the year of their, become more primeable in the recent time period (Column 2).

Figure 2 presents visualizations of the regression analysis to support the polarization interpretation of these electoral cycles. Changes in dissent cycles over time coincide with changes in partisan voting cycles. Each year on the x-axis represents the mid-point in a 10-year moving average correlation. To validate that the more recent time period is, in fact, more polarized politically in the judiciary, I investigate the correlation between liberal vote and the juge's party of appointment. Regression analyses including controls indicate that the influence of party of appointment on voting valence is 90% larger since 1975 (Column 3) and robust to controls for birth cohort (Column 4). Younger judges are also more polarized, as indicated by the larger coefficient on the interaction with birth cohort than on the interaction with the post-1975 dummy. These results indicate that the judiciary is as polarized now if not more than even at the very beginning of the dataset, as early as 1934, when President Roosevelt attempted to fill the judiciary with judges who would vote for his New Deal programs.

- **6.4 Former Federal Prosecutors** Section 6.4 focuses on 'Former Federal Prosecutors', examining whether judges with prosecutorial backgrounds exhibit distinct patterns in response to political priming, given their unique professional experiences.
 - H5: Individuals with previous associative links could be more affected by priming if activated concepts spread faster (the weight increases more).

I run the following regression:

(9)

 $Y_{cijt} = \beta_1 \mathbf{Proximity}_t * Biographical Feature_j + \beta_2 \mathbf{Proximity}_t + \beta_3 Biographical Feature_j + \beta_4' \mathbf{Z}_{cit} + \eta_{cijt}$

My outcome of interest Y_{cijt} is dissent vote by judge j on case c in Circuit i and time t. **Proximity**_t is the set of quarter-to-election fixed effects or simply the last quarter before the election. $BiographicalFeature_i$ is a biographical feature of the judge.

Certain types of experience can strengthen the priming mechanism. Lab research suggests that activation will only spread if an associative link has been formed, and the stronger the association the wider and faster the activation will spread (Bargh and Chartrand 2000; Kimball 2005). A natural candidate to use to examine the associative link is former federal prosecutors, since this role involves advocating on behalf of the government in Federal Courts. Prosecutors have tremendous amounts of power in the courtroom and beyond: they can choose whether to press charges, and how harshly or how leniently to pursue cases; when federal laws issue guidelines, there is no power of enforcement except through prosecutors, and they act under very little regulation. The fact that they are politically appointed makes their roles more political, as they may be under pressure from elected officials to prioritize certain types of criminal enforcement (Lantigua-Williams 2016). U.S Attorneys are the top-ranked tier of prosecutors; they are appointed by the President and confirmed by the Senate, and they play a large role in setting the law enforcement priorities for their jurisdiction. Significant political motivation has been documented in the behavior of federal prosecutors (Nyhan and Rehavi 2015). They can choose to enforce different aspects of federal law (or not); they can also choose to pursue litigation in specific types of criminal categories—health care fraud, obscenity, immigration cases—the choice to enforce and litigate is a political choice (Perry Jr. 1998). Federal prosecutors have displayed behavior reflecting party politics in federal public corruption prosecutions (Gordon 2009), and they often run for higher office (Engstrom 1971).²⁶ The role of Assistant U.S. Attorneys has also become increasingly political. During the study period, judges came of age at a time when even Assistant U.S. Attorneys would leave with a change in presidential administration, and 23% of U.S. Attorneys eventually became Federal judges (Lochner 2002). In sum, the Department of Justice has no power of enforcement after it issues guidelines—prosecutors can choose what charges to file and wield enormous power in the courtroom.

²⁶For a well-known contemporary example, Rudy Giuliani was a U.S. Attorney for the Southern District of New York before becoming Mayor of New York City and ran for U.S. President in 2008.

Table 7 shows that judges who were previous U.S. Attorneys or Assistant U.S. Attorneys are more likely to display electoral cycles. This effect is statistically significant at the 5% level with the inclusion of judge fixed effects (Column 10). Parsimonious specifications that exclude all controls and keep only previous federal prosecution experience, last quarter, and their interaction reveal the same relationship in the probit specification. Notably, this is the only experience that remains statistically significant when other controls are included. It is stronger, for example, than the influence of divided panels and being a minority judge on a divided panel. It is possible that individuals with other political experience are also primed more than other individuals, but either they are few in number or their behavior does not vary significantly from other judges before the election.

In summary, Section 6 not only explores the relationship between judicial behavior and the surrounding political context, but also identifies particular professional backgrounds as significant in shaping judges' chronic identities. This section provides insights into how changes in the political and social environment influence judicial conduct, highlighting the social construction of judicial decision-making and the necessity of considering these factors when assessing the judiciary's impartiality and efficacy.

7 Conclusion

In today's polarized climate, characterized by intense media saturation and targeted political campaigns, it is increasingly important to comprehend the subconscious currents that influence our decisions. This study presents a model that studies how dormant group identities can be activated by the charged atmosphere of an election campaign, profoundly shaping judicial decisions. Building on the foundational ideas of chronic identity activation, this paper examine their instantiation in judicial behavior, scrutinizing the impartiality of justice under partisan influence. The research reveals how these activated identities can dramatically affect our conscious judgments. By exploring these subtle yet powerful forces, this study not only deepens our understanding of cognitive biases but also provides a critical perspective on the judiciary's role in society.

My findings indicate that judges are not immune to these dynamics; like other professionals, they can be swayed by external factors such as elections. This susceptibility raises significant concerns about the fairness and legitimacy of judicial decisions, especially in an era where institutional trust is waning. The potential for judges to make ideologically biased decisions poses a threat to the foundational principles of democratic governance and may lead to various societal repercussions, including decreased compliance with the law and increased enforcement costs.

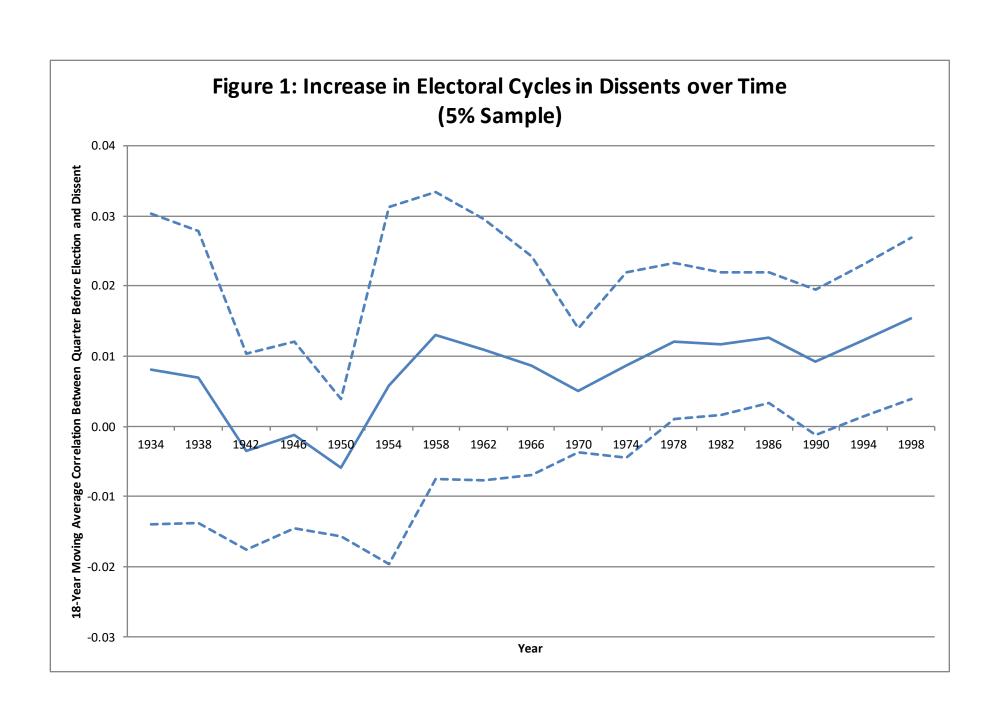
The analysis within focuses on the U.S. Courts of Appeals, which play a pivotal role in shaping U.S. law. It demonstrates how electoral cycles significantly influence judicial behaviors, notably in terms of dissent rates and decisions to overturn lower court rulings. This dissent elevation is particularly pronounced in electorally sensitive states, suggesting that the political stakes associated with elections have a tangible effect on judicial decisions. Moreover, the findings highlight how U.S. Senate elections further increase dissent rates, with personal and associative ties among judges amplifying these effects. Judicial polarization around elections has been growing over time.

Through a priming model, this study explicates the rise in dissent, particularly in marginal cases, and illustrates a causal relationship between group identity and ideological leanings in these high-stakes scenarios. Despite their lifetime appointments and ethical standards, the observed electoral influences on Courts of Appeals judges suggest that partisanship in judicial decisions extends beyond philosophical differences, pointing to a broader vulnerability to bias that could be reflective of other professional settings. This paper not only explores the intersection between group identity and ideological bias but also underscores the profound impact of these dynamics on judicial decision-making, providing a crucial lens through which to reassess the role of the judiciary in democratic societies.

References

- Akerlof, George A., and Rachel E. Kranton, 2000, Economics and Identity, *The Quarterly Journal of Economics* 115, 715–753.
- Ansolabehere, Stephen, and Shanto Iyengar, 1997, Going Negative (Simon & Schuster).
- Bargh, John A., and Tanya L. Chartrand, 2000, Studying the Mind in the Middle: A Practical Guide to Priming and Automaticity Research, in Harry T. Reis, and Charles M. Judd, eds., *Handbook of Research Methods in Social and Personality Psychology*, chapter 10, 253–285 (Cambridge University Press, New York).
- Bargh, John A., Paula Raymond, John B. Pryor, and Fritz Strack, 1995, The Attractiveness of the Underling: An Automatic Power Association and its Consequences for Sexual Harassment and Aggression, *Journal of Personality and Social Pyschology* 68, 768–781.
- Berdejo, Carlos, and Daniel L Chen, 2017, Electoral Cycles Among US Courts of Appeals Judges, *The Journal of Law and Economics* 60, 479–496.
- Berdejó, Carlos, and Noam M. Yuchtman, 2013, Crime, Punishment and Politics: An Analysis of Political Cycles in Criminal Sentencing, *The Review of Economics and Statistics* 95, 741–756.
- Bernhard, William, Timothy P. Nokken, and Brian R. Sala, 2012, Strategic Shifting: Reelection Seeking and Ideological Adjustment in the US Senate, 1952-98.
- Boyd, Christina, Lee Epstein, and Andrew D. Martin, 2010, Untangling the Causal Effects of Sex on Judging, American Journal of Political Science 54, 389–411.
- Chen, Daniel L., 2010, Club Goods and Group Identity: Evidence from Islamic Resurgence during the Indonesian Financial Crisis, *The Journal of Political Economy* 118, 300–354.
- Chen, Daniel L, 2024, Priming ideology I: Why do presidential elections affect US judges, *European Economic Review* 169, 104835.
- Chen, Daniel L., and Jasmin K. Sethi, 2016, Insiders, Outsiders, and Involuntary Unemployment: Sexual Harassment Exacerbates Gender Inequality, invited to resubmit, TSE Working Paper No. 16-687.
- Cross, Frank B., 2003, Decisionmaking in the U.S. Circuit Courts of Appeals, *California Law Review* 91, 1457–1515.
- Duclos, Jean-Yves, Joan Esteban, and Debraj Ray, 2004, Polarization: Concepts, Measurement, Estimation, Econometrica 72, 1737–1772.
- Engstrom, Richard L., 1971, Political Ambitions and the Prosecutorial Office, *The Journal of Politics* 33, 190–194.
- Epstein, Lee, William M. Landes, and Richard A. Posner, 2011, Why (and When) Judges Dissent: A Theoretical and Empirical Analysis, *Journal of Legal Analysis* 3, 101–137.

- Esteban, Joan-María, and Debraj Ray, 1994, On the Measurement of Polarization, Econometrica 62, 819–851.
- Fehr, Ernst, and Klaus M. Schmidt, 1999, A Theory of Fairness, Competition, and Cooperation, *The Quarterly Journal of Economics* 114, 817–868.
- Friedman, Milton, and Leonard J. Savage, 1948, The Utility Analysis of Choices Involving Risk, *The Journal of Political Economy* 56, 279–304.
- Gentzkow, Matthew, Jesse M Shapiro, and Matt Taddy, 2015, Measuring Polarization in High-dimensional Data: Method and Application to Congressional Speech.
- Gordon, Sanford C., 2009, Assessing Partisan Bias in Federal Public Corruption Prosecutions, *The American Political Science Review* 103, 534–554.
- Gordon, Sanford C., and Gregory A. Huber, 2007, The Effect of Electoral Competitiveness on Incumbent Behavior, Quarterly Journal of Political Science 2, 107–138.
- Huang, Bert I., 2011, Deference Drift? Evidence from a Surge in Federal Appeals, *Harvard Law Review* 124, 1121–1126.
- Huber, Gregory A., and Sanford C. Gordon, 2004, Accountability and Coercion: Is Justice Blind When It Runs for Office?, American Journal of Political Science 48, 247–263.
- Iaryczower, Matias, Xiaoxia Shi, and Matthew Shum, 2018, Can words get in the way? The effect of deliberation in collective decision making, *Journal of Political Economy* 126, 688–734.
- Iaryczower, Matias, and Matthew Shum, 2012, The value of information in the court: Get it right, keep it tight, American Economic Review 102, 202–237.
- Kahneman, Daniel, 2011, Thinking, Fast and Slow (Farrar, Straus and Giroux).
- Kimball, David C., 2005, Priming Partisan Evaluations of Congress, Legislative Studies Quarterly 30, 63–84.
- Lantigua-Williams, Juleyka, 2016, Are Prosecutors the Key to Justice Reform?, The Atlantic, May 18, 2016.
- Lochner, Todd, 2002, Strategic Behavior and Prosecutorial Agenda Setting in United States Attorneys' Offices: The Role of U.S. Attorneys and Their Assistants, *The Justice System Journal* 23, 271–294.
- McCarty, Nolan M., Keith T. Poole, and Howard Rosenthal, 2006, *Polarized America: The Dance of Ideology and Unequal Riches*, Walras-Pareto lectures (The MIT Press).
- Nyhan, B, and M Rehavi, 2015, Tipping the Scales? Testing for Political Motives in Prosecution, Technical report, Vancouver School of Economics.
- Perry Jr., H. W., 1998, United States Attorneys: Whom Shall They Serve?, Law and Contemporary Problems 61, 129–148.
- Sunstein, Cass R., David Schkade, Lisa M. Ellman, and Andres Sawicki, 2006, Are Judges Political?: An Empirical Analysis of the Federal Judiciary (Brookings Institution Press).



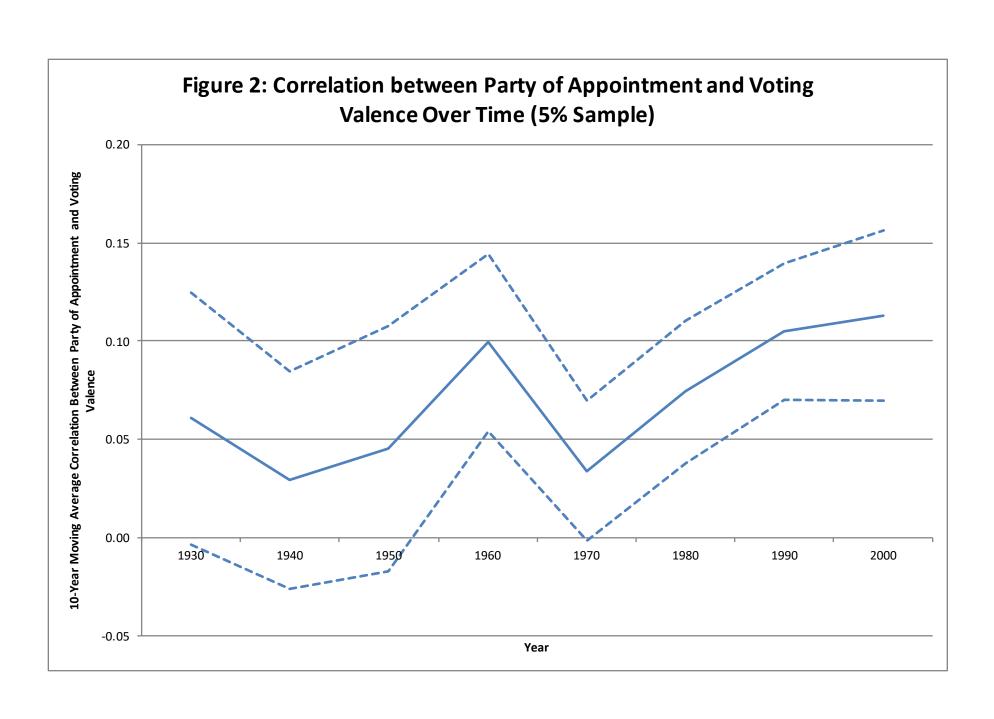


Table 1: Electoral Cycles in Treatment of Lower Courts

-	(1)	(2)	(3)	(4)	
Mean of dep. var.	Reverse and Remand 0.204		Reverse without Remand 0.065		
Last Quarter	0.0265* (0.0136)	0.0505*** (0.0187)	0.000325 (0.00977)	0.00135 (0.0132)	
Year FE	Yes	Yes	Yes	Yes	
Circuit FE	Yes	Yes Yes		Yes	
Season FE	No Yes		No	Yes	
Legal Issue FE	No	Yes	No	Yes	
Divided (RDD or DRR) FE	No	Yes	No	Yes	
Quarter-to-Election FE	No	Yes	No	Yes	
Observations	18686	18686	18686	18686	
R-squared	0.013	0.021	0.013	0.016	

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (* p < 0.10; ** p < 0.05; *** p < 0.01). Outcome is how the circuit court treated the lower court in the appeal decision. Remand means the court requested the lower court to re-evaluate (perhaps with a new trial); No Remand means the court determined the final outcome of the litigants in the original case. Data is organized at the case level.

Table 2: Characteristics of Opinions before Presidential Elections								
Panel A: Quality	anel A: Quality (1)		(2) (3)					
	5% Sample (1925-2002)							
	Citations by Subsequent Opinions	Citations by Subsequent Dissents	Dissent for Non-Merit,	, Procedural Grounds				
Mean of dep. var.	6.142	0.549	0.0	93				
Last Quarter	0.575	-0.0201	0.0785**	0.100**				
	(0.519)	(0.0435)	(0.0289)	(0.0469)				
Dissent	2.090***	0.415***						
	(0.254)	(0.0362)						
Last Quarter * Dissent	-0.211	-0.281**						
	(1.210)	(0.113)						
Year FE	Yes	Yes	No	Yes				
Circuit FE	Yes	Yes	No	Yes				
Season FE	Yes	Yes	No	Yes				
Legal Issue FE	Yes	Yes	No	Yes				
Divided (RDD or DRR) FE	Yes	Yes	No	Yes				
Quarter-to-Election FE	Yes	Yes	No	Yes				
Observations	18684	18684	227	227				
R-squared	0.164	0.076	0.038	0.204				
Panel B: Treatment by			e (1925-2002)					
Supreme Court	Appeal Made to	Supreme Court	Supreme Court	Supreme Court				
	Supreme Court	Takes Case	Reverses	Reverses				
Mean of dep. var.	0.252	0.029	0.712	0.705				
Last Quarter	0.0176	0.00655	-0.206	-0.151				
	(0.0217)	(0.00905)	(0.146)	(0.336)				
Dissent	0.139***	0.0446***	0.0102					
	(0.0131)	(0.00729)	(0.0642)					
Last Quarter * Dissent	0.0131	0.00961	-0.340*					
	(0.0434)	(0.0324)	(0.194)					
Partisan Precedent				-0.0157				
				(0.0838)				
Last Quarter * Partisan				0.0345				
Precedent				(0.316)				
Year FE	Yes	Yes	Yes	No				
Circuit FE	Yes	Yes	Yes	Yes				
Season FE	Yes	Yes	Yes	Yes				
Legal Issue FE	Yes	Yes	Yes	Yes				
Divided (RDD or DRR) FE	Yes	Yes	Yes	Yes				
Quarter-to-Election FE	Yes	Yes	Yes	Yes				
Observations	18686	18686	549	183				
R-squared	0.040	0.019	0.217	0.129				

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (* p < 0.10; ** p < 0.05; *** p < 0.01). Panel A: The outcome variables are the total number of times the case has been cited in subsequent opinions winsorized at the 1% level (Column 1), the total number of time the case has been cited in subsequent dissents winsorized at the 1% level (Column 2), and a dummy variable equal to 1 if the dissenting opinion focused on procedural rather than merit issues (Columns 3-4). Panel B: The outcome variables are whether the appellate case was subsequently appealed to the Supreme Court (Column 1), whether the Supreme Court actually took the case (Column 2), and whether the Supreme Court reversed any part of the case (Columns 3-4). The sample in Column 4 is restricted to politically unified panels (DDD or RRR). Partisan Precedent is 1 if the panel was appointed by Democrats and made a liberal decision or if the panel was appointed by Republicans and made a conservative decision. Data is organized at the case level.

Table 3: Electoral Cycles in Dissents by Electoral Vote Count and Competitiveness of Judge's Duty Location

•	(1)	(2)	(3)				
	Dissent Rate in the Three Quarters Before Election						
	5% Sample (1925-2002)						
Mean of dep. var.	0.023	0.027	0.033				
State of Dissenting Judge							
Electoral Vote Count	-0.00193*						
	(0.00100)						
Popular Vote Tightness	-0.0335						
	(0.0305)						
Electoral Vote Count	0.00239**						
* Popular Vote Tightness	(0.00115)						
State of Majority Author	, ,						
Electoral Vote Count		-0.00194*					
		(0.00114)					
Popular Vote Tightness		-0.00950					
		(0.0261)					
Electoral Vote Count		0.00200					
* Popular Vote Tightness		(0.00134)					
State of Third Panel Member							
Electoral Vote Count			-0.000994				
			(0.00223)				
Popular Vote Tightness			-0.0202				
			(0.0270)				
Electoral Vote Count			0.000859				
* Popular Vote Tightness			(0.00237)				
Election FE	Yes	Yes	Yes				
Circuit FE	Yes	Yes	Yes				
Observations	804	804	804				
R-squared	0.075	0.087	0.083				

Notes: Robust OLS standard errors double-clustered at the election and state level in parentheses (* p < 0.10; *** p < 0.05; **** p < 0.05). Each election-state is a separate observation. Dissent rate in the three quarters before the election is winsorized at the 1% level. Dissent rate is the proportion of cases where the judge dissents (Column 1), authors the majority opinion and someone else dissents (Column 2), and sits on a case with a dissent, but was neither the author nor dissenter (Column 3). Regressions are weighted by the number of judgments used to compute the average dissent rate. Electoral vote count is the number of electoral college votes for a given state where a judge resides in a given election, which ranges from 3 to 55. Popular vote tightness is 1 minus the absolute value of the difference in the popular vote fraction won by Republicans vs. won by Democrats. Values that are more positive indicate a tighter

Table 4: Electoral Cycles in Dissents by Type of Election

	(1)	(2)	(3)	(4)				
		Dissent Vote						
	5% Sample (1925-2002)							
Mean of dep. var.	0.024							
Quarter before Presidential Election	0.0152***			0.0101**				
	(0.00417)			(0.00476)				
Quarter before Senator Election	, ,	0.00801**		0.00901**				
		(0.00402)		(0.00434)				
Quarter before Governor Election			-0.00146	-0.00176				
			(0.00393)	(0.00428)				
Year FE	Yes	Yes	Yes	Yes				
Circuit FE	Yes	Yes	Yes	Yes				
Season FE	Yes	Yes	Yes	Yes				
Legal Issue FE	Yes	Yes	Yes	Yes				
Divided (RDD or DRR) FE	Yes	Yes	Yes	Yes				
Quarter-to-Election FE	Yes	Yes	Yes	Yes				
Judge FE	Yes	Yes	Yes	Yes				
Observations	56058	56058	56058	56058				
R-squared	0.039	0.039	0.039	0.039				

Notes: Robust OLS standard errors clustered at quarter-year level in parentheses (* p < 0.10; ** p < 0.05; *** p < 0.01). Senator Elections occur every six years with roughly one-third of states having elections at the same time. Governor Elections are every four years (only nine states hold them at the same time as Presidential elections). Senator and Governor Elections are almost always held in November.

Table 5: Electoral Cycles in Dissents by Presidential Appointment

14010 01 21	(1)	(2)
-	Dissent '	
Keep 1 set of presidential	5% Sample (1925-2002)	N
appointees at a time	Each coefficient represents	a separate regression
T. Roosevelt	-0.00465	315
1. Rooseven	(0.00390)	313
Taft	-0.0220	154
	(0.0352)	
Wilson	0.00285	1567
	(0.0137)	
Harding	-0.00260	353
E	(0.00840)	
Coolidge	-0.00925	2366
C	(0.00953)	
Hoover	0.00488	2585
	(0.0107)	
F. Roosevelt	-0.00221	6055
	(0.00603)	
Truman	0.0110	3006
	(0.00908)	
Eisenhower	-0.00115	6109
	(0.00638)	
Kennedy	0.0156	2585
	(0.0136)	
Johnson	0.00336	5563
	(0.00915)	
Nixon	0.0127	4836
	(0.00903)	
Ford	-0.0154	1239
	(0.0293)	
Carter	0.00389	5320
	(0.0116)	
Reagan	0.0225***	6185
	(0.00699)	
Bush	0.0463***	2011
	(0.0109)	
Clinton	0.0463*	1091
	(0.0260)	
Year FE	Yes	
Circuit FE	Yes	
Season FE	Yes	
Legal Issue FE	Yes	
Divided (RDD or DRR) FE	Yes	

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (* p < 0.10; ** p < 0.05; *** p < 0.01). The explanatory variable of interest is a dummy indicator for last 3 quarters before an election. Data is organized at the vote level.

Table 6: Electoral Cycles in Dissents and Influence of Party of Appointment on Voting Valence Across Time

Table 6: Electoral Cycles ii	(1)	(2)	(3)	(4)		
	()	1 Decision)	Liberal Vote			
	· ·	ample	5% Sample			
	(1925-					
Mean of dep. var.	,	079	(1925-2002) -0.157			
-			-0.137			
Last Quarter	0.0429**	0.0429**				
	(0.0178)	(0.0178)				
Year > 1975 * Last Quarter	0.0439**	0.0480**				
	(0.0201)	(0.0222)				
Democrat Appointee			0.0523***	0.0513***		
			(0.0106)	(0.0110)		
Democrat Appointee			0.0462***	0.0398**		
* Year > 1975			(0.0159)	(0.0171)		
Born on or after 1940		0.00560		-0.0334*		
		(0.0163)		(0.0200)		
Born on or after 1940		-0.0254		, ,		
* Last Quarter		(0.0689)				
Born on or after 1940		,		0.0714**		
* Democrat Appointee				(0.0320)		
Year FE	Yes	Yes	Yes	Yes		
Circuit FE	Yes	Yes	Yes	Yes		
Season FE	Yes	Yes	Yes	Yes		
Legal Issue FE	Yes	Yes	Yes	Yes		
Divided (RDD or DRR) FE	Yes	Yes	Yes	Yes		
Quarter-to-Election FE	Yes	Yes	Yes	Yes		
Observations	18686	18686	56058	51460		
R-squared	0.022	0.022	0.087	0.088		

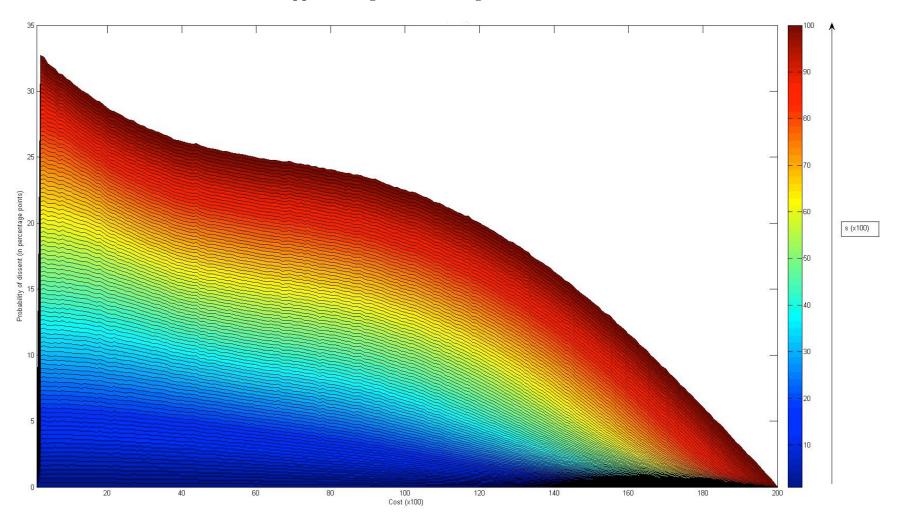
Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (* p < 0.10; *** p < 0.05; **** p < 0.01). In Column 2, Born on or after 1940 refers to the percent of panel members born on or after 1940, whereas in Column 4, it refers to the judge's birth year. Columns 1 and 2 have data organized at the case level. Columns 3 and 4 have data organized at the vote level. See Tables 1 and 2 for additional notes.

Table 7: Judicial Characteristics and Electoral Cycles in Dissents

	Table 7: Judicial Characteristics and Electoral Cycles in Dissents									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Dissent Vote (5% Sample, 1925-2002)									
Mean of dep. var.					0.0)24				
		OLS						Pr	Probit	
Divided * Last Quarter	0.0126*							0.00699	0.135	0.129
	(0.00680)							(0.00950)	(0.159)	(0.166)
Minority (D of DRR or R of RDD)		0.0191*						0.0191	0.197	0.189
* Last Quarter		(0.0103)						(0.0124)	(0.144)	(0.154)
Federal Prosecution Experience			0.0202					0.0206	0.214*	0.280**
* Last Quarter			(0.0134)					(0.0130)	(0.125)	(0.140)
Elevated * Last Quarter				-0.0318***				-0.0333***		
				(0.00750)				(0.0107)		
Potential Nominee					-0.00550			0.00190	-0.0510	-0.0147
* Last Quarter					(0.00890)			(0.00925)	(0.126)	(0.136)
Retire or Resign Next Year						0.00625		0.00685	0.136	0.0814
* Last Quarter						(0.0223)		(0.0215)	(0.251)	(0.249)
Presidential Party Candidate Wins							-0.00332	-0.0000104	0.00293	0.000750
* Last Quarter							(0.00625)	(0.00552)	(0.0784)	(0.0829)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Season FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Legal Issue FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Divided (RDD or DRR) FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter-to-Election FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Judge FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Observations	56058	56058	51086	51460	56058	56058	56058	51086	51052	42719
R-squared	0.039	0.040	0.025	0.025	0.039	0.039	0.039	0.026		

Notes: Robust standard errors clustered at the quarter-year in parentheses (* p < 0.10; *** p < 0.05; **** p < 0.01). Federal prosecution experience is an indicator variable equal to 1 if the judge was previously a U.S. Attorney or Assistant U.S. Attorney. Elevated is an indicator variable equal to 1 if the judge was eventually elevated to higher office. Potential nominee is an indicator variable equal to 1 if the judge was on the a shortlist for the Supreme Court. Data is organized at the vote level.

Appendix Figure A: Priming Model Simulation



Notes: Cost of dissent is on the x-axis, probability of dissent is on the y-axis. The color scale on the right represents the degree of priming of group identity.