

# PRIMING IDEOLOGY? ELECTORAL CYCLES WITHOUT ELECTORAL INCENTIVES AMONG U.S. JUDGES

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## Abstract

Using a detailed, hand-coded, 5% random sample of U.S. Circuit Court cases from 1925 to 2002, we show that dissents, voting, and setting precedent along partisan lines, all double, and reversal rates of District Court decisions increase by 20% just before presidential elections. The changes in behavior are not attributable to shifts over the electoral cycle in case or litigant characteristics nor to shifts in characteristics of judges authoring or sitting on cases. Career concerns, getting-out-the-vote, and reputational capital are unlikely to explain these patterns. We propose a formal model of priming and find evidence consistent with the priming of political ideology. Behavioral changes are concentrated among judges sitting in electorally pivotal states and in media markets where campaign advertisements are greatest. Dissents by judges coincide with the monthly increase of campaign advertisements in their states of residence and with the closeness of their state's popular vote when that state has more electoral votes. Ideologically polarized environments and inexperience magnify the effect of proximity to presidential elections, while wartime has a unifying effect, especially in polarized environments and among inexperienced judges. Dissents increase more on the topics of campaign advertisements and cite procedural rather than substantive reasons for dissent twice as often. Administrative case calendar data suggests that the decision to dissent occurs very late just before publication. Dissents peak three months before the presidential election during the presidential primaries when parties cater to more extreme ideologies, especially for states elevated in importance during the primary season. These electoral cycles replicate in a machine-coded universe from 1950 to 2007, impact Supreme Court caseload and development of law, and are larger than previously-documented electoral cycles among elected judges running for re-election.

**Keywords:** Salience, Polarization, Normative Commitments, Identity

**JEL codes:** D72, D83, K40

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## 1 Introduction

Group polarization is an important social problem<sup>1</sup> that has received increasing attention by social scientists since 9/11. A growing body of experiments documents causal links between group identity and social preferences,<sup>2</sup> economic decisions,<sup>3</sup> charitable decisions,<sup>4</sup> and public opinion,<sup>5</sup> particularly in expressing preferences that favor in-group members.<sup>6</sup> These studies primarily document causal links in a laboratory setting by priming group identity. This paper examines the causal link between group identity and another outcome more closely aligned with the concerns raised by 9/11, namely ideology,<sup>7</sup> and does so in the field. While market pressures may drive identity effects in economic behavior towards the rational model<sup>8</sup> and drive out other forms and sources of ideological bias such as media slant,<sup>9</sup> behavioral anomalies in a context such as judicial decision-making can have more permanent consequences through the establishment of precedent,<sup>10</sup> development of law,<sup>11</sup> and legal compliance.<sup>12</sup> Courtrooms, and in particular, the U.S. Federal Courts, provide a policy-relevant environment in which to study ideological bias. Only 3% of Federal Circuit Court cases reach the U.S. Supreme Court, so Federal Circuit judges decide the vast majority of cases that set new legal precedent and write opinions that constitute the bulk of law school curricula and impact economic outcomes.<sup>13</sup>

Most U.S. judges believe that there is no such thing as ideological bias. Federal Circuit judges publicly state that few cases (5-15%) are legally indeterminate and, even in these difficult cases, judges understand which arguments have greater plausibility.<sup>14</sup> Yet the view of judges as impartial and unbiased decision-makers has been questioned by studies showing that demographic and other background characteristics predict judicial decision-making over a range of legal issues<sup>15</sup> and, in particular, that judges' voting behavior reflects partisan preferences.<sup>16</sup> Furthermore, laboratory studies document that even when parties have the same information, they come to different conclusions about what a fair judicial decision should be and suggest that they do so for self-serving reasons.<sup>17</sup> The interpretation of correlations between judges' decisions and their demographic characteristics remains an open question.<sup>18</sup> Does partisan voting simply reflect judges following different legal philosophies—the preferred interpretation by judges—rather than demonstrating bias, per se? For instance, a judge

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<sup>1</sup>Montalvo and Reynal-Querol 2005; Bénabou 2012; Golub and Jackson 2012

<sup>2</sup>Chen and Li 2009; Fong and Luttmer 2009

<sup>3</sup>Benjamin et al. 2010b

<sup>4</sup>Benjamin et al. 2010a

<sup>5</sup>Gerber et al. 2010

<sup>6</sup>Shayo and Zussman 2011

<sup>7</sup>Atran et al. 2007

<sup>8</sup>List 2003

<sup>9</sup>Gentzkow and Shapiro 2010; Mullainathan and Shleifer 2005; Groseclose and Milyo 2005; DellaVigna and Kaplan 2007

<sup>10</sup>Gennaioli and Shleifer 2007; Baker and Mezzetti 2012

<sup>11</sup>Chen et al. 2014a

<sup>12</sup>Chen 2013; Chen et al. 2011; Chen and Yeh 2012

<sup>13</sup>Chen and Yeh 2014b; Chen and Sethi 2011

<sup>14</sup>Edwards and Livermore 2008

<sup>15</sup>See, e.g., Peresie 2005; Sunstein et al. 2006

<sup>16</sup>See, e.g., Segal and Spaeth 2002; Sunstein et al. 2004

<sup>17</sup>Babcock et al. 1995

<sup>18</sup>Posner 1973; Cameron 1993; Kornhauser 1999

can derive from first principles an adherence to a strict interpretation of the Constitution, while not necessarily hewing to the preferences of a political party for a certain policy outcome. Further, if there is judicial bias, whether the bias is unconscious (automatic) or conscious (reflective) is another policy-relevant question. A finding of automatic rather than reflective bias would suggest different remedies for judicial partisanship.<sup>19</sup>

This paper identifies a channel for judicial partisanship that appears neither based on legal philosophy nor completely conscious. Using the universe of 293,868 cases from 1950 to 2007 and a random sample of 18,686 cases with detailed case and judge characteristics from 1925 to 2002, we present evidence that the presidential election cycle affects judicial decision-making in the second highest U.S. courts, even though Federal Circuit judges (and their legal philosophies) should be immune from electoral incentives. U.S. Federal Circuit judges are appointed for life and rarely move or leave their position (except to retire) and are forbidden from any semblance of impropriety or political involvement (e.g., fund-raising, speeches, and honoraria for appearances or public statements). There is little reason to think that these judges would be part of or benefit from presidential elections. A variety of institutional mechanisms also minimize the possibility of extrajudicial factors.<sup>20</sup> They are nominated by the U.S. President, but confirmed by the Senate. They are appointed to permanent seats (called duty stations) at a geographic location within the Circuit—where they do most of their writing. Judges are randomly assigned from different duty stations within the Circuit, typically to a panel of three, for each case. Because the party of the appointing president changes over time and judges are appointed for life, the panels can be expected to bring together judges with different points of view. Seventy percent of panels have both Republicans and Democrats—yet only 8% of panels—not 70%—have dissents (2-1 decision), and these dissents occur among both politically divided and unified panels,<sup>21</sup> suggesting that most of the time, judges do agree on what is the right thing to do.

Our basic results indicate that in the quarters leading up to a presidential election, Circuit Court judges are twice as likely to dissent and vote along partisan lines<sup>22</sup> and 20% more likely to reverse District Court decisions. To a first approximation, these behaviors impact the development of law: Cases with dissents are 2 to 3 times more likely to be heard in the U.S. Supreme Court, which reverses 71% of its cases. Panels with all three judges appointed from the same political party are 125% more likely to decide along partisan lines. While judges may, of course, interpret the facts and the law using different legal philosophies and reach partisan conclusions, there is no obvious reason for judges' legal philosophies to change before presidential elections.

The changes in judicial behavior we document are robust and, in magnitudes, larger than previously documented electoral cycles of elected judges with electoral incentives. Among decisions by elected judges running for re-election, 6% of criminal sentencing lengths have been attributed to a judges'

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<sup>19</sup>Sunstein and Thaler 2008

<sup>20</sup>Chen and Spamann 2014; Chen et al. 2014b

<sup>21</sup>Politically unified panels are panels with three Democrats or three Republicans.

<sup>22</sup>As shorthand, we will refer to partisan voting as when a judge casts a liberal (conservative) vote and the judge was appointed by a Democrat (Republican). The liberal or conservative valence of each vote was hand-coded by researchers collecting the 1925-2002 sample.

electoral proximity;<sup>23</sup> using an equivalent methodology, 23% of dissents from unelected Circuit judges would be attributed to a president’s electoral proximity. A one-decile shift in judicial ideology score has been found in elected state judges during election years;<sup>24</sup> we estimate, at minimum, an equivalent one-decile shift in Circuit judges’ ideology score reflected in the increase in partisan voting before presidential elections. The magnitudes also suggest that presidential elections affect the totality of what judges estimate to be legally indeterminate (5-15%).<sup>25</sup> Three-judge Republican panels are 16 percentage points more likely to make conservative decisions, and Democratic panels are 8 percentage points more likely to make liberal decisions.

We consider and rule out a number of mechanical and incentive-based reasons for the electoral cycles. These results are not due to shifts over the electoral cycle in any of over 100 case and litigant characteristics, nor to shifts in any of over 50 characteristics of judges either authoring or sitting on the case. Nor is this behavior explained by career concerns (those elevated to or considered for the Supreme Court are less likely to dissent before presidential elections) or reputational capital (newspapers are no more likely to report on Circuit Court decisions or their dissents before presidential elections). If judges are motivated to get out the vote, behavioral changes should be observed in all states within a Circuit since decisions are promulgated at the Circuit—not state—level. However, changes in behavior are concentrated in electorally pivotal states where popular votes count heavily in the presidential election and in media markets where campaign advertisements are greatest. Within elections, dissent rates coincide with monthly increases in campaign advertisements. Across elections, dissents are elevated in states when their electoral vote count is high and their popular vote is close. Presidential elections are not the only stimulus: Increases in dissents are also detected before midterm elections<sup>26</sup> and U.S. Senator elections whose timing varies across states. Moreover, political candidates from the dissenting judges’ party are no more likely to win.

Having ruled out electoral incentives as a likely explanation for the electoral cycles, we interpret our results as a natural experiment in priming—the priming of political ideology leading to increasing polarization and dissensus in judicial decisions. Priming is an implicit memory effect in which exposure to a stimulus influences a response to a later stimulus. For example, media information can temporarily increase (i.e., prime) the accessibility of certain knowledge units in the memory of an individual, thus making it more likely that these knowledge units are used in the reception, interpretation, and judgment of subsequent external information.<sup>27</sup> Judges have professional and conscious commitments to be unbiased, yet during the period preceding an election, the media is saturated with political debate: Newspaper articles mention both “Republican” and “Democrat” more often and campaign advertisements increase throughout the presidential primary season. Campaign messages can activate chronic identities,<sup>28</sup> so if judges have partisan identities, priming may influence judges’ perception of cases brought before them. Such influence may be implicit and subconscious. In electroencephalogram

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<sup>23</sup>Huber and Gordon 2004; Gordon and Huber 2007

<sup>24</sup>Hollibaugh Jr. 2011

<sup>25</sup>Edwards and Livermore 2008

<sup>26</sup>Congressmen have two-year terms.

<sup>27</sup>Bargh and Chartrand 2000; Storms 1958; Higgins and Chaires, 1980

<sup>28</sup>Ansolahehere and Iyengar 1997

studies of political priming, subjects do not recall the stimulus;<sup>29</sup> neurocorrelates of behavioral change in individuals are activated by advertisements that affect population behavior, even when individuals do not believe these advertisements would change people’s behavior;<sup>30</sup> and when judges are explicitly primed, they control the influence of unconscious bias.<sup>31</sup>

The ideal empirical strategy to detect priming in a field setting follows individual behavior over time as well as individual demographic characteristics before a prime, to see if individuals from different groups diverge after the prime. Detailed data on the contexts and characteristics of judges making decisions also allows us to examine whether the contexts and characteristics that make individuals more susceptible to priming in the lab<sup>32</sup> are found in the field. Ideologically polarized environments magnify the effect of presidential elections: Changes in behavior before elections are 3 times larger in close elections, non-existent in landslide elections, and reversed in wartime elections. They are 2.5 times larger in politically divided panels and have increased over time in tandem with increasing ideological polarization in the U.S. Inexperience magnifies behavioral changes. Previous associative links between highly political and highly legal decision-making facilitates electoral cycles. Judges who previously served as federal prosecutors (U.S. Attorneys or Assistant U.S. Attorneys) are more likely to display electoral cycles. Federal prosecutors are uniquely empowered to enforce or not to enforce various aspects of federal law and these positions are frequently a platform for higher office.<sup>33</sup> Notably, periods of national reconciliation—such as wartime—reduce dissents and, especially by judges more prone to priming: those sitting on divided panels and those with less experience. During wartime, Circuit judges are also 10% less likely to reverse and 10% more likely to affirm District Court decisions.

Consistent with a priming mechanism, the dissent appears to be last-minute and, to a first approximation, less reflective and more arbitrary, occurring on more marginal cases. Using administrative data that provides important milestones for all Circuit Court cases, we find that electoral cycles in judicial behavior do not appear when we substitute the publication date with dates for any of seven earlier stages of a case. This suggests that the exact time at which a judge makes the mental decision to dissent during presidential elections occurs shortly before the publication of an opinion, not after oral arguments as is conventionally believed. Comparing dissents before presidential elections with dissents outside this time, they are twice as likely to be reasoned on non-merit, procedural grounds. The opinions are more likely to mention highly discretionary, miscellaneous legal issues, and are less likely to be cited by future dissents. Being cited by future dissents is an indicator of whether the cases are truly controversial and momentous, which means that judges dissent on cases less likely to contribute to legal innovation.<sup>34</sup>

Moreover, dissents increase most on topics mentioned in campaign advertisements. Seventy percent of campaign ads mention economic policy and 50% mention taxes. Economic activity cases, which

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<sup>29</sup>Morris et al. 2003

<sup>30</sup>Falk et al. 2012

<sup>31</sup>Rachlinski et al. 2009

<sup>32</sup>Srull and Wyer 1979; Iyengar et al. 1982; Krosnick and Kinder 1990

<sup>33</sup>Engstrom 1971; Gordon 2009

<sup>34</sup>Chen 2014

typically do not divide along political lines in Circuit Courts, display the sharpest increase in dissents, with economic property cases tripling its average rate of dissent. Topics, like civil rights and due process, that receive less campaign coverage do not increase dissents before elections, even if these topics are politically divisive; discourse on civil rights and civil liberties together constitute only 0.26% of campaign advertisements. These results provide field evidence that media information can temporarily increase the accessibility of certain knowledge units in the memory of trained professionals with strong commitments to be unbiased.

The potential role of campaign advertisements also helps explain a puzzle in the data: Dissents peak three months before the presidential election. The third month before the election is the nominating convention, when political parties allocate delegates to determine who will run for the general election. During the primaries, candidates need to energize party loyalists who vote for the nominee. Some states are elevated in importance during the primaries. Electorally non-pivotal states are relatively more important during the primary season because a proportional rather than plurality system is often used to allocate delegates.<sup>35</sup> Consistent with this, dissents decline precipitously after the nominating convention for judges sitting in smaller states, whereas dissents remain high for judges sitting in large states.

Several additional pieces of evidence are consistent with priming of latent partisan identities<sup>36</sup> rather than simply a shift in mood,<sup>37</sup> which would affect all judges. When judges who are close in ideology sit together but are from different parties, the rate at which they disagree triples before a presidential election, and when judges appointed from the same party sit together, if one dissents, the judge with the ideology score more distant from the other party dissents more. Nor are the results about learning.<sup>38</sup> In the first instance, judges are not supposed to be learning from elections nor are judges supposed to base their decisions on what they learn about political parties. Even if judges learn from elections, then behavioral changes should persist, but they do not.

Our results raise questions regarding the independence and partisanship of the federal judiciary. U.S. judges have a strong professional and conscious commitment to be unbiased, yet they display behavior indicating that judicial partisanship is not simply about differences in legal philosophy. If unelected Circuit judges are in fact susceptible to priming via the partisan nature of electoral cycles, then they may also be susceptible to other forms of priming regardless of their professional commitments to be unbiased. Our results contribute to a growing literature in economics that examines media and political persuasion;<sup>39</sup> ideological polarization;<sup>40</sup> psychology in the field,<sup>41</sup> and normative commitments.<sup>42</sup> Social scientists have long speculated on whether groups inculcate ideology or

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<sup>35</sup>The conventional story for why Barack Obama won the Democratic nomination over Hillary Clinton in 2008 is that he focused more on the smaller states while she focused only on the big states during the primary season.

<sup>36</sup>Ansolahehere and Iyengar 1997

<sup>37</sup>Saunders Jr. 1993; Edmans et al. 2007; Simonsohn 2010; Card and Dahl 2011; Chen and Spamann 2014

<sup>38</sup>Lenz 2009

<sup>39</sup>Enikolopov et al. 2011; DellaVigna and Gentzkow 2010

<sup>40</sup>Gentzkow and Shapiro 2010; McCarty et al. 2006

<sup>41</sup>Bertrand et al. 2010; Card and Dahl 2011

<sup>42</sup>Chen and Schonger 2013, 2014; Chen 2012

whether people choose the same group because of shared ideologies.<sup>43</sup> If priming of group identity has occurred in Circuit Courts, then our evidence complements the experimental literature that uses priming to document the causal impact of group identity in the lab—our empirical framework isolates the causal impact of group identity on ideology in a naturally occurring setting. The remainder of the paper is structured as follows: Section 2 provides background on priming and Circuit Courts; Section 3 presents the model; Section 4 describes the estimation framework and data; Section 5 presents our main results; Section 6 considers incentive-based mechanisms; Section 7 examines priming; Section 8 evaluates the role of identity; and Section 9 concludes.

## 2 Background and Data

**2.1 Priming** To fix concepts, we summarize several canonical experiments on priming conducted by psychologists: When secondary school students taking a math exam were reminded of their gender in a word problem, the reminder caused girls to perform less well than boys;<sup>44</sup> when a recovering drug addict walks by a subway station where he once bought drugs, the subway station functioned as a stimulus that triggered physical withdrawal symptoms;<sup>45</sup> and when participants identified as likely to be sexual harassers were primed with the concept of power in a pronunciation task, they were more attracted to a female confederate.<sup>46</sup> The literature also refers to these phenomenon as passive, conceptual, or implicit priming. The key mechanism is that an activated concept becomes more likely than before to influence conscious judgments.

Priming research in social psychology has come under increasing criticism<sup>47</sup> for lack of replicability.<sup>48</sup> Economic theories have incorporated these cognitive effects into models,<sup>49</sup> yet field evidence on priming is scarce.<sup>50</sup> This paper provides field evidence using a natural experiment for the existence and power of priming. We overcome several challenges which make the detection of priming effects in naturally occurring data difficult. First, priming needs to be cleanly isolated from incentives or learning as the causal mechanism. Second, relatively high-frequency data is needed as primes are believed to be extremely short-lived: The longest laboratory study documents priming effects one week after the initial stimulus.<sup>51</sup> Third, a large sample of individuals is needed because individuals are very heterogeneous: Conscious processing, directed by an individual’s intentions and goals, can override the usual or habitual response to priming; novices are more easily primed by news coverage.<sup>52</sup> Furthermore, activation will only spread if an associative link has been formed, and the stronger the

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<sup>43</sup>Bénabou 2012; Bénabou and Tirole 2012

<sup>44</sup>Spencer et al. 1999

<sup>45</sup>Laibson 2001

<sup>46</sup>Bargh et al. 1995

<sup>47</sup>“The Sin of Bad Science,” *Financial Times*, December 21, 2012.

<sup>48</sup>Daniel Kahneman, even though he is a “general believer” in priming effects, goes so far as to say that a “train wreck” is looming about the robustness of priming results. “Nobel Laureate Challenges Psychologists to Clean Up Their Act,” *Nature*, October 3, 2012.

<sup>49</sup>Laibson 2001; Bernheim and Rangel 2004

<sup>50</sup>John List said, “I believe in priming. Psychologists have shown us the power of priming,” and he tried “everything” to induce priming in field experiments, but could not. “Interview: John A. List,” *Federal Reserve Bank of Richmond Region Focus*, Second/Third Quarter 2012.

<sup>51</sup>Tulving et al. 1982; Ostergaard 1994; Hassin et al. 2007

<sup>52</sup>Krosnick and Kinder 1990

association the wider and faster the activation will spread.<sup>53</sup> The greater the concentration or number of primes, the stronger is the overall priming effect.<sup>54</sup> The ideal empirical strategy follows individual behavior over time as well as individual demographic characteristics before a prime, to see if individuals from different groups diverge after the prime. Detailed data on the contexts and characteristics of judges making these decisions further allows us to examine whether the contexts and characteristics that make individuals more susceptible to priming in the lab are found in the field. Data on the strength and timing of primes and the unique institutional environment help isolate priming from other explanations like incentives or learning.

A sizeable experimental literature on judges suggests that heuristics (e.g., anchoring, status quo bias, availability) play a large role in judicial decision-making.<sup>55</sup> However, these papers rely on vignette studies, typically surveying sitting judges at judicial conferences or mailing surveys to judges. Other studies related to priming document the role of mood or arousal in decision-making such as soccer outcomes and stock returns,<sup>56</sup> cloudy weather and stock prices,<sup>57</sup> weather and college decisions,<sup>58</sup> terrorism and small claims adjudication,<sup>59</sup> and football outcomes and family violence.<sup>60</sup> One study documents a correlation between polling locations and voting behavior.<sup>61</sup> Our study differs from those in scope and context, yet these studies confirm that psychological factors can be expected to play a role in judicial behavior. There is also a political science literature<sup>62</sup> that examines priming; this literature generally examines whether an increase in the prominence of an issue leads individuals to increase the weight given to the issue in regression analyses of self-reported voting preferences. The increase, however, could simply be about learning<sup>63</sup> as increases have been found to only occur for individuals who learn about parties' positions. Our research design is completely different. In the first instance, judges should not be learning from elections about how they should decide cases; and if it is learning, the effects should persist, but they do not.

**2.2 U.S. Circuit Courts** The U.S. Circuit Courts (also known as the federal appellate courts) rest near the apex of the U.S. common law system, where judges not only apply the law but also make the law. This is because decisions in current cases become precedent for future cases in the same court and in lower courts of the same jurisdiction. There are three layers of federal courts: District, Circuit, and the U.S. Supreme Court. The 94 U.S. District Courts serve as the general trial courts, where a jury is drawn to decide *issues of facts*. If a party appeals the decision, the case goes up to a Circuit Court, which decides *issues of law*; they take facts as given from District Courts and have no juries. Circuit Court judges affirm or reverse the District Court decision, and often remand (send the case

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<sup>53</sup>Bargh and Chartrand 2000; Kimball 2005

<sup>54</sup>Srull and Wyer 1979

<sup>55</sup>See, e.g., Mussweiler and Strack 2000; English et al. 2005; Guthrie et al. 2007; English and Soder 2009; Mussweiler and English 2005

<sup>56</sup>Edmans et al. 2007

<sup>57</sup>Saunders Jr. 1993

<sup>58</sup>Simonsohn 2010

<sup>59</sup>Shayo and Zussman 2011

<sup>60</sup>Card and Dahl 2011

<sup>61</sup>Berger et al. 2008

<sup>62</sup>See Druckman 2004 for a summary.

<sup>63</sup>Lenz 2009



back to the lower court) for the lower court to decide in a manner consistent with the law set out in the Circuit decision. The 12 U.S. Circuit Courts, also known as Courts of Appeals or federal appellate courts, are only to hear cases presenting new legal issues (only 10-20% of District Court opinions are appealed). Cases that reach the Circuit Courts are the more challenging and controversial cases with the greatest likelihood to set new precedent. Here, there are neither juries nor re-evaluations of evidence. These courts focus on new interpretations or distinctions<sup>64</sup> of preceding cases or statutes. The following example highlights the power of the U.S. Federal Courts in determining what is the law in both judicial and legislative matters. When the Fifth Circuit in March 2014 upheld a Texas statute requiring doctors in abortion clinics to obtain admitting privileges at local hospitals, one-third of Texas abortion clinics shut down, leaving only 22. A subsequent Texas statute required abortion clinics to meet the building standards of ambulatory surgery centers; the statute was allowed by the Fifth Circuit in the Fall of 2014 while it considered an appeal to invalidate the new statute. If upheld, the new statute would reduce the number of Texas abortion clinics to fewer than 10.<sup>65</sup>

A variety of professional norms and institutional mechanisms are designed to limit the influence of extrajudicial factors such as priming. Circuit judges are appointed for life by the U.S. President and are confirmed by the Senate. They preside in one of 12 U.S. Circuits and are appointed to particular geographic locations within the Circuit (called duty stations), where they do most of their writing. Three judges, out of a pool of 8 to 40 judges in a Circuit, are randomly assigned to a panel for each case through a staffing office. Because the party of the appointing president changes over time and judges are appointed for life, the panels can be expected to be politically divided, bringing together judges with different points of view. Seventy percent of panels have both Republicans and Democrats. Judges disagree only a fraction as often—7.9% of panels have dissents and these dissents occur among both politically divided and unified panels. Part of the reason for the low rate of dissent is that dissents are costly in terms of collegiality and the time it takes to write the separate opinion and dissents cannot be cited as binding precedent.<sup>66</sup> Only 3% of Circuit cases are heard again in the U.S. Supreme Court, so the roughly 170 elite judges decide much of what constitutes law in the U.S. and the bulk of law school curricula. Discovering whether these judges are susceptible to priming would be notable as these judges have explicit and professional commitments to be unbiased. Overt political behavior shortly before presidential elections would suggest that if highly trained professionals in even these environments are susceptible to priming, then others may be as well despite their commitments to be unbiased.

Federal judges are restricted from any semblance of impropriety. Judges are prohibited from receiving honoraria for speeches, appearances, or articles and are prohibited from receiving compensation for their service to a profit or non-profit organization (*Guide to Judiciary Policy* Canon 4H).<sup>67</sup> They

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<sup>64</sup>These distinctions expand or contract the space under which an actor is allowed to act (Gennaioli and Shleifer 2007).

<sup>65</sup>Chen et al. 2011

<sup>66</sup>Dissents are one way for judges to express their separate views. They can also concur, which means they agree with the majority opinion but for a different reason. Like dissents, concurrences are costly and concurrences also cannot be cited as binding precedent. We focus on dissents for the majority of the following discussion, though we show empirically that concurrences also display electoral cycles.

<sup>67</sup><http://www.uscourts.gov/uscourts/rulesandpolicies/conduct/vol02a-ch02.pdf>

are also prohibited from making speeches for political organizations, publicly endorsing or opposing candidates, soliciting funds, making contributions, or attending or purchasing tickets for events sponsored by political organizations or candidates (*Guide to Judiciary Policy* Canon 5). They are further prohibited from personally participating in any fund-raising activities, soliciting funds for any organization, or using or permitting the use of the prestige of their judicial office for fund-raising purposes (*Guide to Judiciary Policy* Canon 4C). There is little reason to think that judges would be part of presidential elections or of any election. Federal judges can be contrasted with state judges. A parallel state court system handles issues of state rather than federal law. Studies have documented electoral cycles in state courts, where judges are often elected and, if appointed, rarely have life tenure, but these electoral cycles have been attributed to electoral incentives. Electoral cycles that are as pronounced among unelected judges would be somewhat surprising.

Some scholars argue that courts do not follow random assignment.<sup>68</sup> Chen and Sethi (2011) surveyed Circuit Courts and found variations in their procedures. In some courts, two to three weeks before oral arguments, a computer program randomly assigns available judges (occasionally including any visiting judges from other Circuits or District Courts and, in rare instances, other federal judges) to panels that will hear cases. In other courts, random assignment of panels occurs before the random assignment of cases—panels of judges are set up to hear cases on a yearly basis, randomly assigned together by computer program and given dates for hearings. There are “holes” left in some of the panels by the program where visiting judges are inserted. Occasionally, if a panel of judges has previously looked at a case, it will be sent back to them (for example, if it was remanded by the Supreme Court to resolve one issue). If a judge must recuse himself, the case is taken off the calendar and placed back in the pool for reassignment. Chen and Sethi (2011) use data from Boyd et al. (2010) and Sunstein et al. (2006), which code 19 case characteristics as determined by the lower court for 415 gender-discrimination Circuit cases, and find that case characteristics are uncorrelated with judicial panel composition. Several papers<sup>69</sup> examine whether the sequence of judges assigned to cases in each Circuit Court is like a random process. We refer the reader to those papers for tests of random assignment. In this paper, we report tests of whether case and litigant characteristics, caseload, and characteristics of judges authoring or sitting on the panel vary over the electoral cycle.

### 3 Model

We motivate our analysis with a formal model of priming in application to judicial dissents. In our model, we assume that the decision-maker (DM)’s ideology is a weighted average of her baseline ideology and of the ideology of the social group to which she belongs.<sup>70</sup> We focus the model on the choice by the judge to dissent and the type of case being dissented on.

**3.1 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  $Q_G \in \mathbb{R}$ ,

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<sup>68</sup>Hall 2010

<sup>69</sup>Chen and Yeh 2014b, 2012; Chen et al. 2011

<sup>70</sup>Benjamin et al. 2010b

where  $\mathbb{R}^-$  denotes political left and  $\mathbb{R}^+$  denotes political right.<sup>71</sup>

We assume that  $|Q_{G,i}| > |Q_{0,i}|$ ; in other words, we assume that the ideology of the party is always more extreme than the baseline ideology of the judges. Judges are plausibly more moderate than politicians who run for office. Judges only dissent in 8% of cases even though judges from both parties sit together 70% of the time. We also 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 to her social group;  $s_i \in [0, 1]$ , where, in the spectrum, 0 represents non-affiliation and 1 represents complete affiliation. Finally, let each judge's actual 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:

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

The two judges who are closer to each other in terms of ideology are more likely to agree and form a coalition.<sup>72</sup> 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 some agreement; therefore, the judge who may dissent is the judge who is furthest away from the ideological center of the panel. From this point forward, we analyze the judge who can dissent and refer to her as the Decision Maker (DM) and her ideology as  $Q$ .

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

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

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<sup>71</sup> Assume also that  $Q_{G,i} \neq 0$ .

<sup>72</sup> Chen et al. 2015

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

Letting  $\Phi$  denote the standard normal CDF, we can calculate the probability that  $(Q - \bar{Q})^2 \geq c$ .

$$\begin{aligned} P\left[(Q - \bar{Q})^2 \geq c\right] &= P(Q - \bar{Q} \leq -\sqrt{c} \vee Q - \bar{Q} \geq \sqrt{c}) = P(Q - \bar{Q} \leq -\sqrt{c}) + P(Q - \bar{Q} \geq \sqrt{c}) = \\ &= P(\bar{Q} \geq Q + \sqrt{c}) + P(\bar{Q} \leq Q - \sqrt{c}) = 1 - P(\bar{Q} < Q + \sqrt{c}) + P(\bar{Q} \leq Q - \sqrt{c}) = 1 - \Phi(Q + \sqrt{c}) + \Phi(Q - \sqrt{c}) \end{aligned}$$

Therefore, the DM dissents with probability:

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

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

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

### 3.3 Comparative Statistics

#### 3.3.1 Effect of $c$ on the probability of dissent

First, we analyze the effect of a change in

$c$  on the probability of dissenting.

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

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

#### 3.3.2 Effect of priming on the probability of dissent

Next, we examine whether the

probability of dissent increases in  $s$ .

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

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

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

First, consider the case in which  $Q_G > 0$ . We know from our assumptions that if  $Q_G > 0$ ,  $Q_0 > 0$  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  $Q_G > 0$ ,  $\frac{\partial P(Dissent)}{\partial s} > 0$ .

Now consider the case in which  $Q_G < 0$ . We know from our assumptions that if  $Q_G < 0$ ,  $Q_0 < 0$  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,  $e^{\frac{1}{2}(Q+\sqrt{c})^2} - e^{\frac{1}{2}(Q-\sqrt{c})^2} < 0$ . Therefore, if  $Q_G < 0$ ,  $\frac{\partial P(Dissent)}{\partial s} > 0$ .

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

**3.3.3 Effect of priming on the effect of  $c$  on the probability of dissent** Now, we examine the kind of dissent that increases with priming. We investigate the dynamics of  $\frac{\partial P(Dissent)}{\partial s}$  with respect to  $c$ .  $\frac{\partial \left( \frac{\partial P(Dissent)}{\partial s} \right)}{\partial c} =$

$$\frac{(Q_G - Q_0) \left( \frac{e^{-\frac{1}{2}(-\sqrt{c}+Q_0(1-s)+Q_Gs)^2}(-\sqrt{c}+Q_0(1-s)+Q_Gs)}{2\sqrt{c}} + \frac{e^{-\frac{1}{2}(\sqrt{c}+Q_0(1-s)+Q_Gs)^2}(\sqrt{c}+Q_0(1-s)+Q_Gs)}{2\sqrt{c}} \right)}{\sqrt{2\pi}}$$

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

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

First, consider the case in which  $Q_G > 0$ . If  $Q_G > 0$ , we know by our assumptions that  $Q_0 > 0$ ,  $Q_G - Q_0 > 0$  and  $Q > 0$ . Then,  $Q > \sqrt{c}$  is a sufficient condition for the effect of priming on the probability of dissent to increase in 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  $Q_G < 0$ , we know by our 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 of dissent to increase in costs.

In conclusion, no matter the sign of  $Q_G$ ,  $|Q| > \sqrt{c}$  is a sufficient condition for priming to increase high cost dissents more than low cost dissents.

**3.3.4 Effect of legal precedent on the effect of priming on the probability of dissent** We now model which kinds of cases have costly dissents. We 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  $\varepsilon$ ; we now assume that the DM choice to dissent depends on  $\min \left\{ \frac{c}{\varepsilon}, (Q - \bar{Q})^2 \right\}$ , where  $\varepsilon \sim Unif(0, 1)$ . If the legal precedent is strong, then  $\varepsilon \rightarrow 0$  and hence the net cost of dissent is high; if the legal precedent is weak, then  $\varepsilon \rightarrow 1$  and hence the net cost of dissent is low. Therefore, the DM acts as follows:

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

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

$$\begin{aligned} P(\text{Dissent}) &= P\left[(Q - \bar{Q})^2 \geq \frac{c}{\varepsilon}\right] = P\left[\varepsilon \geq \frac{c}{(Q - \bar{Q})^2}\right] = 1 - P\left[\varepsilon < \frac{c}{(Q - \bar{Q})^2}\right] = \\ &= 1 - \frac{c}{(Q - \bar{Q})^2} \end{aligned}$$

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

The dynamics of  $\frac{\partial P(\text{Dissent})}{\partial s}$  with respect to  $\varepsilon$  are similar to what was solved earlier. The effect of priming on the probability of dissent increases the lower is  $\varepsilon$ : Priming increases dissents more for cases with strong legal precedent. If we 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 judges before elections will increase their dissent on cases that are less likely to be cited by subsequent dissents. They will dissent on cases less likely to contribute to the development of legal innovations. Another measure of strength of legal precedent is whether the Supreme Court reverses the Circuit Court decision. Judges before elections will dissent on cases less likely to be reversed by the Supreme Court.

### 3.3.5 Effect of divided panels on the effect of priming on the probability of dissent

The model also provides a framework to understand which panels will be more likely to increase dissents during priming. Suppose a judge is Republican. Then, when she is dissenting, the three types of panels are DDR, DRR, and RRR. Since  $\bar{Q}$  is closer to the judge on a politically unified panel (RRR), we should generally expect fewer dissents on a unified panel. With priming, the judge on a unified panel will move with the other two judges. 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  $\bar{Q}$  as a minority on a divided panel. With priming, she moves further away from  $\bar{Q}$  when the other two judges 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.

**3.3.6 Discussion** We now use the model to motivate additional empirical relationships. First, additional insights from the social psychology literature can fit into this framework. The greater the number of primes, the stronger the overall priming effect (the weight on group identity  $s$  increases). Experienced individuals would be less affected if conscious processing can override the usual or habitual response to priming ( $s$  does not increase as much). Individuals with previous associative links could be more affected by priming, if activated concepts spread faster ( $s$  increases more). The more ideologically polarized the environment, the greater is  $|Q_R - Q_D|$ <sup>73</sup> and the greater is the priming effect ( $sQ_G$  is larger) holding fixed judges' ideological baseline.

Second, the reasoning in the dissents may also reflect priming and correspond with the model. Suppose there are two types of reasonings: substantive dissents and procedural quibbles. If we assume that substantive dissents have a net low cost because of the benefit a DM receives from a potentially citeable reasoning (e.g., by future dissents seeking to change legal precedent), and procedural quibbles be high-cost dissents because they only corrode judicial collegiality, then we expect, in general, to see more dissents based on substantive issues than dissents based on procedural quibbles. This assumes that the additional time cost of writing is smaller in absolute terms than the additional benefit in policy impact for substantive dissents. Reflections by sitting judges<sup>74</sup> support this assumption: Judges resent criticism by dissenters, and dissents make it more difficult for the dissenter to persuade panelists to join a dissenter's majority opinions in subsequent cases. The main benefit from dissenting is 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 has 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.” Moreover, in our data, dissents based purely on the merits occur 40% of the time, while dissents based solely on procedure occur 9% of the time. This quantitatively supports the assumption that substantive dissents are net low-cost dissents, as low-cost dissents should be more likely to occur in general. From our model, however, we would also expect dissents based on procedural quibbles to increase more before elections than the increase in substantive dissents.

We conclude our discussion with a few comments about the model. First, the model should be interpreted as a consideration of all possible panel compositions, and the data allows estimating the proportion of dissents that occur. That is, comparative statics apply prior to the resolution of uncertainty.<sup>75</sup> Second, we 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 to dissent is furthest away from the ideological center of the panel. We can simulate three random draws of judges and calculate the probability of dissent as it varies by cost of dissent and priming, which yield the same comparative statics as found above. Appendix Figure A plots the dissents and

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<sup>73</sup>Polarization has been modeled as extreme value differences (Esteban and Ray 1994; Duclos et al. 2004).

<sup>74</sup>Epstein et al. 2011

<sup>75</sup>The model does not evaluate an individual case of priming of three judges at the extreme  $Q_G$ , but incorporates this instance one of the possible panel compositions.

shows that the greatest proportion of high-cost dissents occur with significant priming, while among low-cost dissents only a small proportion occur with significant priming.

## 4 Estimation

**4.1 Specification** With the previous section’s conceptual framework in mind, consider the following specification for ideology  $Q$ , where electoral **Proximity** $_t$  perturbs  $s$ :

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

$Q_{cit}$  represents ideology for judge  $i$  in time  $t$  on case  $c$ ; **Proximity** $_t$ <sup>76</sup> is the set of quarter-to-election fixed effects;<sup>77</sup>  $\mathbf{Z}_{cit}$  contains dummy indicators for case characteristics, such as Circuit and year of the decision, season,<sup>78</sup> the panel composition (whether it was politically divided<sup>79</sup>), and legal issue (criminal, civil rights, constitutional, labor relations, and economic activity); and  $\omega_{cit}$  is the error term. The model motivates interaction specifications since the impact of the prime may be larger if the judge is inexperienced, has previous associative links (e.g., was a former federal prosecutor), experiences many primes (e.g., sitting in an electorally pivotal state with many campaign advertisements), decides on a case in a legal topic related to the prime (e.g., economic policy), or decides on a panel that is politically divided. Moreover, ideological polarization may be greater during a close election or the recent time period and smaller during landslide elections or wartime.

Ideology  $Q$  is latent, and what we observe is dissent, which increases in probability as latent ideology becomes more extreme. This motivates the following probit<sup>80</sup> or linear probability specification:

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

where,  $Y_{cit}$ , our outcome of interest, is an indicator variable equal to 1 if a dissent was filed on case  $c$ . We cluster standard errors at the quarter-year level.<sup>81</sup> To compare with existing literature on electoral cycles, we estimate a specification that replaces **Proximity** $_t$  with a linear measure of time-to-election.<sup>82</sup> We examine dissents at the case level and dissent votes at the judge level. The latter allows us to exploit variation across states where the judges reside. In the vote-level analysis, we also include

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<sup>76</sup>In the regressions presented in the tables that follow, the omitted quarter is quarter 16, i.e., the quarter immediately following an election. Sometimes the coefficients are suppressed due to space constraints. Some specifications use a more parsimonious measure, such as simply the last quarter before the election or a dummy indicator combining the last three quarters before the election. Results with additional dummy indicators are available on request.

<sup>77</sup>For notational ease, we suppress the transpose on coefficients, which are actually vectors of coefficients.

<sup>78</sup>Seasons are defined as winter (December-February), spring (March-May), summer (June-August), and fall (September-November). Appendix Table B 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).

<sup>79</sup>Appendix Table B shows that results are robust to a full set of dummies for DDD, DDR, DRR, and RRR.

<sup>80</sup>Appendix Table B.

<sup>81</sup>Analyses of data collapsed to the quarter-year level do not cluster standard errors. Appendix Table B shows that results are robust to different levels of clustering.

<sup>82</sup>Appendix Table C.



judge fixed effects.<sup>83</sup> In some specifications, we replace **Proximity**<sub>*t*</sub> with the monthly increases in campaign advertisements in different states, since different states are important at different points during the presidential election cycle. This specification exploits additional variation across states and across time within the electoral season. In other specifications, we augment **Proximity**<sub>*t*</sub> with proximity to senator and governor elections, which also exploits additional variation across states and across time.

We conduct our analysis with another measure of ideology—voting valence—which also measures legal precedent and therefore legal outcomes. Voting valence and dissents are separate phenomena. For example, a panel with three Democratic may vote conservatively when its session is not held prior to an election because of a prevailing precedent; it may choose to vote liberally when its session is held prior to an election; and it may make a unanimous decision in both situations. *Valence*<sub>*cit*</sub> represents voting valence where 1 indicates liberal; -1, conservative; and 0, mixed. Priming social categories, such as party affiliation, shifts  $Q^*$  to be closer to  $Q_G$ , and will cause voting to be more aligned along partisan lines. We would test:

$$(3) \quad \textit{Valence}_{cit} = \gamma_1 \mathbf{Proximity}_t + \gamma_2 \mathbf{Proximity}_t * \textit{Democrat}_i + \gamma_3 \textit{Democrat}_i + \gamma_4 \mathbf{Z}_{cit} + \nu_{cit}$$

We also run regressions restricting the sample to panels with three Democrats or three Republicans, which tests whether proximity to a presidential election affects the establishment of precedent in a partisan manner.<sup>84</sup>

We assess heterogeneous treatment effects in various sub-samples (by Circuit, by appointing president, by legal issue, by state’s electoral importance, by birth cohort, as well as by experience). In our most stringent tests, our 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, within a year, and, potentially, within judge. We 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. We also conduct randomization inference (randomizing cases to other quarters) and check whether case, litigant, or judge characteristics vary over the election, plotting the true t-statistic in comparison to all the t-statistics from the other regressions. We also estimate specifications with a prime for consensus rather than dissensus, namely wartime.<sup>85</sup> We interact wartime with factors where we might expect larger effects such as whether the judge was inexperienced or sat in a divided panel.

Additional outcomes allow us to explore the extent and nature of these electoral cycles. We replace

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<sup>83</sup>Results are robust to state fixed effects and are available on request. Analyses that have very few years of data exclude judge fixed effects. Note that when we include judge fixed effects we can still include Circuit fixed effects since judges occasionally visit and sit on cases in other Circuits.

<sup>84</sup>Our tables present regression analyses where **Proximity**<sub>*t*</sub> only includes the last quarter before the election. Figure 3A includes the full set of quarters-to-election in **Proximity**<sub>*t*</sub>.

<sup>85</sup>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>. We 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.

$Y_{cit}$  with reason for dissent (procedural or merit-based), and how the case treats the lower court decisions (affirmations, reversals, and remands). A remand means the lower court has to re-evaluate the facts of the case (perhaps with a new trial) to be sure that the outcome conforms with the law set out by the Circuit Court. Sometimes Circuit Courts will reverse the lower court but not remand: This requires the Circuit Court 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. We can interpret this as a measure of effort. We also replace  $Y_{cit}$  with counts of newsarticles mentioning Republican and Democrat in the same article and counts of newsarticles that mention Circuit Court decisions and their dissents. We 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 reverses), and how future judges treat the case (citation counts and citations by subsequent dissents):

$$(4) \quad Y_{ct} = \zeta_1 LastQuarter_t + \zeta_2 LastQuarter_t * Dissent_{ct} + \zeta_3 Dissent_{ct} + \zeta_4' \mathbf{Z}_{ct} + \kappa_{ct}$$

Finally, we analyze aggregate dissent rates and their relation to the competitiveness of the presidential election. First, we estimate the dissent spike—the difference in the dissent rate in the three quarters before the election with the dissent rate in the three quarters after the election—for each Circuit and each election and we examine its correlation with the percent of the electoral college that went to the winner.<sup>86</sup> In a second test, we estimate for each state and each election, the dissent rate for judges in that state for the three quarters before a presidential election. We also estimate the percentage of cases where a state’s judge is assigned that resulted in the judge authoring the decision and someone else dissented, and we estimate a similar number for cases that resulted in a dissent but the state’s judge was neither the author nor the dissenter. We estimate the relationship between these measures and the intensity of political debate proxied for by the number of electoral votes a state contributes in the electoral college and the tightness of the popular vote in that state.<sup>87</sup> This helps to assess which judge on the three-judge panel was responsible for the increase in dissents around election time: Is the dissent more attributable to the political atmosphere in the state of the dissenter or the state of the majority author?<sup>88</sup> Aggregating the dissent rates also allows us to examine another interpretation of the data: Are judges displacing their dissents from after the election to before? We calculate the dissent increase and the dissent decrease in the three quarters before and after the election relative to the dissent rate in the remainder of the election cycle. If dissents are

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<sup>86</sup>We condition on Circuit fixed effects, weight the regression by the number of judgments used in constructing the average dissent rate, and cluster standard errors at the election level. Results are robust to alternative specifications and are available on request.

<sup>87</sup>Popular vote tightness is 1 minus the absolute difference in the popular vote fraction won by Republicans vs. won by Democrats. A more positive value indicates a more competitive election. The tightness variable ranges from 0 to 1.

<sup>88</sup>We condition on Circuit and election fixed effects, weight the regression by the number of judgments used in constructing the average dissent rate, and double-cluster standard errors at the election and state level. Results are robust to alternative specifications and are available on request.

displaced, we should see a positive correlation between the size of the increase in dissent rate before the election with the size of the decrease in dissent rate after the election.<sup>89</sup>

**4.2 Data** Data on cases from 1925 to 2002 come from the U.S. Courts of Appeals Database Project.<sup>90</sup> This database includes information on opinion-specific variables (including the identity of judges sitting on each panel) for a random sample of roughly 5% of cases.<sup>91</sup> Biographical information for the judges in the database was obtained from the Multi-User Data Base on the Attributes of U.S. Appeals Court Judges.<sup>92</sup> Data on subsequent outcomes in the Supreme Court, if any, come from the Shepardized Courts of Appeals database, which provides a link from the U.S. Courts of Appeals Database to the U.S. Supreme Court. Significant dates for all cases filed in Federal Courts come from the Administrative Office of the U.S. Courts. Election information come from CQ Voting and Elections Collection.<sup>93</sup> Aggregate number of presidential campaign advertisements in the 75 largest media markets for the 1996 election and daily presidential campaign advertisements in all 210 media markets for the 2008 election come from the Wisconsin Ads project.<sup>94</sup> Judicial ideology scores, a summary measure using the voting patterns of the appointing president and home state senators, come from the Judicial Common Space database.<sup>95</sup> A shortlist of the 71 Circuit judges considered for the Supreme Court come from historical sources.<sup>96</sup> Using ProQuest, we collect all 230,709 *New York Times* articles from 1900 to 2007 mentioning both “Republican” and “Democrat” in the same article. Using Newsbank, we do the same from 1981-2013 for articles mentioning Federal Circuit decisions or their dissents.<sup>97</sup> We collect all cases from 1950 to 2007 using Openjurist.<sup>98</sup>

Using these datasets, we construct the variables for dissent, reason for dissent (procedural or merit reasons),<sup>99</sup> electoral proximity (linear or nonlinear—a full set of indicator variables for each quarter to the upcoming presidential election), divided (panels having at least one Democrat and one Republican),<sup>100</sup> legal issue,<sup>101</sup> opinion quality (overall citations and citations by subsequent dissents),<sup>102</sup>

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<sup>89</sup>In construction of all aggregate dissent rates, we winsorize at the 1% level. The results are similar when we do not winsorize.

<sup>90</sup>Documentation and data available at <http://www.cas.sc.edu/poli/juri/appctdata.htm>.

<sup>91</sup>The database was constructed in a stratified manner. A set number of cases was collected per Circuit-year. The data collection yielded approximately 5% of the total sample. Appendix Table B reports that the electoral cycle is robust to re-weighting the analysis.

<sup>92</sup>Documentation and data available at <http://www.cas.sc.edu/poli/juri/auburndata.htm>.

<sup>93</sup>Table 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.

<sup>94</sup>The results are robust to using the 2004 election data, which is only available for the 100 largest media markets. Results are available on request.

<sup>95</sup>Epstein et al. 2007

<sup>96</sup>Nemacheck 2007

<sup>97</sup>The ProQuest database can no longer run the same search going back to 1900, so we had to switch to Newsbank.

<sup>98</sup><http://openjurist.org>

<sup>99</sup>The Courts of Appeals Database codes whether the dissent addresses a procedural issue or addresses a merits issue.

<sup>100</sup>The database assigns each judge to one of the following parties: republican, democrat, liberal, conservatives and independents. We group liberal judges with Democratic judges, conservative judges with Republican judges and independent judges with the party of the appointing president.

<sup>101</sup>We use the following 1-digit classification: criminal, civil rights, constitutional (i.e., First Amendment, due process and privacy cases), labor relations, economic activity and regulation, and miscellaneous. We also use finer 2-digit categories of legal issues for robustness checks.

<sup>102</sup>We winsorize this variable at the 1% level, that is, we censor all observations outside of 1% to 1%. Citation data

judicial background (age, previous work experience, judicial experience), political environment (incumbent president, electoral vote count), decision valence (liberal = 1, conservative = -1, and mixed or unable to code<sup>103</sup> = 0),<sup>104</sup> and treatment of lower court (affirm or reverse, reverse with remand, reverse without remand).

We restrict our analysis to cases decided by panels composed of three judges. The sample size in some analyses is further reduced due to lack of biographical information for some of the judges.<sup>105</sup> Our sample contains 18,686 decisions (56,058 votes) for the period 1925 to 2002 and 293,868 decisions for 1950 to 2007. Appendix Table A displays summary statistics. Overall, 7.9% of opinions from 1925 to 2002 have dissents. Our data contains only published decisions. Until the mid-1970s, all decisions were published<sup>106</sup> and our results are robust to restricting the data to the time period when all decisions are published in both datasets.<sup>107</sup>

From 1950 to 2007, we obtain dates (97.5%), circuits (94%), and whether there was a dissenting opinion in Openjurist. Not all dissents have dissenting opinions. 6.2% of opinions from 1950 to 2007 have dissents with dissenting opinions. Our analyses of the Openjurist data are provisional in nature because of the missing data, slightly different way of coding dissents, and lack of political variables such as judges' party of appointment.<sup>108</sup> In this paper, we present an analysis of dissents by time (elections, wartime, and winning margin in the electoral college). We also link Openjurist to the administrative data on case calendaring. The Appeals Court database only has a 38% match rate to the Administrative Office of the U.S. Courts database because, for the fraction of opinions that did not record the two-digit portion of the docket number (two-digit year followed by five-digit number), the Appeals Court database assigned the two-digit year of publication. This match disproportionately reflects cases docketed in the same year as the publication date. For our Openjurist sample, limited to 1971-2006, we match 164,591 cases out of 218,683 cases (75% match rate). We achieve a much higher match by successively attempting to match with the two-digit portions of docket numbers assigned to years preceding the publication date.

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come from Lexis's *Shephards* service.

<sup>103</sup>Our results are robust to dropping the votes that are unable to be coded.

<sup>104</sup>The Courts of Appeals Database Project states that for most, but not all issue categories, these will correspond to notions of "liberal" and "conservative" that are commonly used in the public law literature. For example, decisions supporting the position of the defendant in a criminal procedure case, the plaintiff who asserts a violation of her First Amendment rights, and the Secretary of Labor who sues a corporation for violation of child labor regulations are all coded as "liberal."

<sup>105</sup>Missing data include elevation to the Supreme Court and previous service as Assistant U.S. Attorney or U.S. Attorney. The regressions that use this data have a reduction in sample size of 10%. In addition, we exclude the votes by judges sitting on cases when they have less than 0 years of experience or greater than 35 years of experience as these experience measures are likely with error. These regressions have a 13% reduction in sample size.

<sup>106</sup>Cleveland 2010

<sup>107</sup>Table 11 Column 1.

<sup>108</sup>Analysis of the full data, including the text and extended back to 1891, is the subject of a paper by one of the authors.

## 5 Electoral Cycles in Judicial Behavior

**5.1 Dissents** Figure 1A shows that the average dissent rate fluctuates across the presidential electoral cycle.<sup>109</sup> Dissents are most frequent in the months preceding a presidential election and lowest in the months that immediately follow it, ranging from a low of 6% to a high of 11% in the quarter before the election. Table 1 shows that these patterns are robust to including fixed effects for panel composition, year, and Circuit (Column 1) as well as legal issue and seasonality (Column 2) and to using the 1950-2007 sample (Columns 3-4). The rate of dissent is elevated two and three quarters before an election and is highest in the quarter immediately preceding an election. Columns 1-2 report the final quarter experiences roughly a 100% increase over the baseline average dissent rate. Politically divided panels are 1.5% more likely to have a dissent. Panels in the quarter before an election are 6.4% more likely to have a dissent. Moreover, dissents in each quarter-to-election in the two years before an election is elevated relative to the two years after an election: The coefficients are all positive and larger than the coefficients after an election. In the 100% sample, a noticeable increase also appears nine quarters before the presidential election (Columns 3-4); this time period is during the midterm elections, when U.S. House and Senate seats are up for election.

Figures 1B and 1C show that this effect remains statistically significant when broken down to the monthly level. Dissents are elevated for roughly nine months leading up to the presidential election. The peak appears three months before the election. Before elections, the news cycle is amplified along partisan lines: Figure 2A shows that the number of *New York Times* articles mentioning both “Republican” and “Democrat” in the same article increases in the quarter before presidential and—to a lesser extent—midterm elections, and Figure 2B shows that the number of articles is elevated for about nine months leading up to the presidential election. Notably, the monthly increase in newsarticles and dissents track the electoral cycle together. Nine months before the presidential election is roughly when the presidential primaries occur, when each party chooses the candidate to compete in the general election and when candidates cater to the more ideological members of their party.

Table 1 shows that the increase in dissent is roughly six times larger in the Appeals Court Database. To investigate this, we construct as sampling weights—the fraction of published cases by Circuit-year in our 100% sample contained in the Appeals Court Database.<sup>110</sup> When we rerun our analyses using these weights, the magnitude of the electoral cycle remains the same (Appendix Table B Column 2). We attribute the larger effects in the Appeals Court Database to the fact that the Appeals Court Database records dissents even if there are no opinions explaining the reasoning behind the dissent, and these types of dissents may be particularly likely to increase before presidential elections.

Appendix Table B reports that the results are robust to shifting seasonality controls by one month (January through March, etc.) (Column 3), including dummy indicators for each type of panel composition (DDD, DDR, RRD, RRR) (Column 4), using a probit specification (Column 5),<sup>111</sup> clustering standard errors at the Circuit level (Column 6), and controlling for the presence of a

<sup>109</sup>Figure 1A presents raw data. All other figures that present standard errors are visualizations of regression coefficients.

<sup>110</sup>The U.S. Courts of Appeals Database selects 15 cases per Circuit-year before 1960 and 30 cases per Circuit-year after 1960.

<sup>111</sup>Notably, the OLS coefficients are similar in magnitude to the marginal effects of the probit specification.

concurrence (Column 7), which is important since concurrences also display electoral cycles (Column 8); concurrences increase 50% above the baseline for two quarters preceding the election. Appendix Table C shows that our results are robust to using quarters to election linearly and dropping one Circuit at a time. We discuss these results in more detail later.

**5.2 Interpreting Magnitudes** The electoral cycles in dissent that we uncover for unelected judges with life tenure are larger and more statistically significant than electoral cycles by judges running for re-election. A study by one of the co-authors documents that among a sample of 276,119 decisions by Washington state judges, criminal sentencing lengths increase by 10% and deviations from criminal sentencing guidelines increase by 50% in the two quarters before a judicial election.<sup>112</sup> Among our sample of 18,686 cases, the ratio of coefficients to standard errors is twice as large as in the Washington state sample.

A sizeable share of dissents also appears attributable to electoral proximity and this share is larger than the share of prison time that has been attributed to electoral proximity. Using a linear measure of proximity to election, an estimated 5.9% of total prison time of sentenced criminals is attributed to electoral proximity.<sup>113</sup> In our sample, an estimated 23% of all dissents would be attributed to electoral proximity. Each quarter-to-an-election reduces the dissent rate by 0.24% (Appendix Table C Column 1). Since the average case is 7.5 quarters before the next election, multiplying 7.5 by 0.24% and dividing by the average dissent rate of 7.9% results in 23%. Our electoral cycles are also larger than political business cycles<sup>114</sup> and robust to controlling for these cycles.<sup>115</sup> Admittedly, there is no reason to think that dissents are comparable with criminal sentencing, so we turn to a measure of ideological voting next.

**5.3 Voting Valence** Voting valence measures a behavior different from dissents. For example, if legal precedent dictates a liberal decision, a unified Republican panel should make a liberal vote. Before a presidential election, however, such a panel may actually cast a conservative vote instead. There would be no dissent observed, but an alignment between the decision and the judges' party of appointment would be observed.

Table 2 shows that Democratic appointees typically cast more liberal votes than Republican appointees, as the positive coefficient in the first row reveals. The interpretation of the coefficient on political party in Column 4 indicates that Democratic appointees are 3.5% more likely to cast a liberal vote relative to a neutral or conservative vote. The ideological difference between Democratic appointees and Republican appointees doubles in magnitude in the quarter before an election. Column 1 shows that these estimates are robust to maintaining only a parsimonious set of controls (party of appointment, last quarter before the election, and their interaction) and Column 2 shows that the results are similar from a saturated model (all quarter-to-election dummies in **Proximity<sub>t</sub>**). Figure

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<sup>112</sup>Berdej6 and Yuchtman 2013

<sup>113</sup>Huber and Gordon 2004; Gordon and Huber 2007

<sup>114</sup>Political business cycles are actually weak or non-existent (Drazen 2001; Alesina et al. 1997; Alt and Chrystal 1983; McCallum 1978).

<sup>115</sup>We consider GDP, GDP growth, GNP, GNP growth, unemployment, and unemployment growth. Since the data is available by year and quarter, not quarter-before-an-election, our calculations are necessarily somewhat approximate. Economic data one quarter before the presidential election is a weighted average that puts one-third weight on economic data from the last quarter of the year and two-thirds weight on data from the third quarter.

3A displays the interaction coefficients of all quarter-to-election dummies with party of appointment in an even more saturated model. This figure reveals that midterm elections also increase ideological polarization. In magnitudes, the correlation between party of appointment and voting valence increases by 100%. The results also survive a number of robustness checks: ordered probit estimates for Columns 1-2 and probit estimates for Columns 3-4. The results are robust to including judge fixed effects, though Table 2 excludes them for ease of interpretation of the coefficient on party of appointment. Notably, the point estimates in Columns 3 and 4 add up to the point estimates in Column 2, which suggests that judges switch their vote valence from conservative to liberal (and vice versa) rather than to or from a neutral or hard-to-code valence.

Figure 3B summarizes the role of ideology in a manner comparable to other studies. The flatter line indicates the average voting valence by ideology score quintile when it is not the last quarter before a presidential election, while the steeper line indicates the average voting valence by score quintile during the last quarter. Judges to the left of the median score are voting more liberally while judges to the right of the median are voting more conservatively. The most conservative quintile may be libertarian, which makes coding voting valence difficult (difficult to code votes are coded as 0). These judges, nevertheless, also become more conservative in the last quarter before the presidential election. The vertical shift for judges in quintiles 2 and 3 represent perhaps a one decile shift in ideology score while judges in quintiles 1, 4, and 5 shift by one quintile away from the median.<sup>116</sup> The one-decile shift is similar to that found by Hollibaugh Jr. (2011), which finds that the extent to which state supreme court judges in competitive partisan elections exhibit polarizing behavior in election years is equivalent to a shift of 8%-10% in ideology score. Our magnitudes are similar if not slightly larger on average.

**5.4 Legal Outcomes** Table 2 Panel B reports that decisions issued by unified panels (three Republicans or three Democrats) are more likely to be partisan before presidential elections. Because case types should be evenly distributed across panel composition and across the electoral cycle, one might expect no correlation between the panel’s party of appointment and the case outcome. Precedent dictating a liberal outcome should be just as likely to appear before Democratic panels as Republican panels. In the quarter before a presidential election, however, unified panels are 125% more likely to issue partisan opinions. The magnitudes are equivalent to the proportion of cases that judges estimate to be legally indeterminate. Columns 3 and 4 show that panels appointed by Democrats are 10% more likely to make liberal precedent relative to panels appointed by Republicans in the last quarter before an election.<sup>117</sup> Only 5-15% of cases are legally indeterminate according to judges’ estimates.<sup>118</sup> The party of appointment shifts the vote valence in a large fraction of the cases that are deemed legally indeterminate, or vote valence may even shift in cases with little legal

<sup>116</sup>To obtain the horizontal shift, we compare the vertical shift against the slope represented in quintiles 1-4.

<sup>117</sup>In results available on request, this pattern does not appear for decisions issued by divided panels; that is, RRD and DDR panels are not significantly more likely to issue decisions that reflect the party of appointment of the majority of the panel, at least in the 5% sample for which vote valence is already coded. Whether this null finding is due to sample size or due to divided panels actually refraining from issuing more partisan precedent before elections remains to be seen in future analysis.

<sup>118</sup>Edwards and Livermore 2008

ambiguity. The fact that summing the point estimates on the interaction terms in Columns 3 and 4 yields the point estimate on the interaction term in Column 2 again suggests that judges switch the conservative/liberal vote valence rather than to or from a neutral valence.

Valence of vote and precedent are one way the judges' decisions impact development of law. Table 3 shows that judges Circuit Courts are 10% less likely to affirm<sup>119</sup> and 20% more likely to reverse the lower courts in the quarter before an election. These results are robust to specifications with fewer controls and become larger with more controls. Notably, judges are increasing in the type of reversal that requires less work: Reversals with remand increase before presidential elections, while reversals without remands do not. Reversals without remand require the Circuit judges to be more specific about the outcome of the case—in the same way that dissents with dissenting opinions would—whereas a reversal with remand means the lower court has to decide the case again. Reverse and remand increases by 25%.

**5.5 Type of Case** Table 4 shows that dissents increase in a variety of legal categories.<sup>120</sup> Criminal cases and economic activity cases show more accentuated electoral cycles. These results may partly be due to the larger sample size for some case categories. When we break the sample into finer case categories,<sup>121</sup> however, electoral cycles are greatest for federal criminal cases, commercial cases (e.g., contract breach), and property cases (e.g., eminent domain), which also have small sample sizes. Notably, legal areas—such as civil rights and due process—that are typically politically divisive insofar as dissents are 4% to 10% more likely when politically divided panels are present, do not increase in dissents before elections, whereas legal areas—like economic activity—which typically do not divide along political lines, do display electoral cycles.<sup>122</sup> Seventy percent of campaign ads mention economic policy while only 0.26% of ads mention civil rights or civil liberties. When we examine vote valence, no 1-digit legal category displays statistically significant increase in partisan voting.<sup>123</sup> As for affirming, reversing, and remanding to the lower court, only economic activity cases display statistically significant changes in the quarter before the election.<sup>124</sup>

**5.6 Development of Law** Table 5 examines how dissents before presidential elections are subsequently treated by the courts. We first examine citations by subsequent dissents, which can 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. This reduction is equivalent to 70% of the typical association between dissents and citations by subsequent dissents. Similar results are found with log citation counts. These results are consistent with judges dissenting on less controversial cases before

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<sup>119</sup>5.8 percentage points out of the baseline of 56.8% translates to about 10%.

<sup>120</sup>The listed groupings are the 1-digit case category provided in the 5% sample.

<sup>121</sup>The 5% sample provides 2-digit legal case categories. We consider each 2-digit sub-category within the 1-digit category of criminal cases and economic activity.

<sup>122</sup>Criminal cases are 2.5% more likely to dissent with divided panels and also increase in dissents before elections.

<sup>123</sup>This provisional result remains to be probed in future analysis.

<sup>124</sup>These results are available on request.



elections.<sup>125</sup>

Before elections, judges also dissent more on procedural, but not merit issues. 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% points, a doubling of the baseline, when compared to all other quarters. This result is provisional since the database only codes the reasoning for dissent between 1997-2002. For the entire 1925-2002 time period, we 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% to 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 suggests that judges may be consciously or subconsciously looking for easier, less direct reasons to dissent before elections.

Panel B reports how cases with dissents are subsequently treated by the U.S. Supreme Court. Unlike Circuit Courts, which must hear all appeals from District Courts, the Supreme Court can choose to take the case or not. Only 3% of cases are heard in the Supreme Court, but cases with dissents are two to three times more likely to be heard. This increase is the same regardless of whether the dissent occurs before the election. Dissents before elections thus appear to crowd the court docket.<sup>126</sup> We also find no significant differences in the rate at which cases are reheard en banc (i.e., by the entire court), which suggests that electoral cycles in dissents crowd the Circuit docket as well.<sup>127</sup>

Does the Supreme Court recognize that cases with dissents before elections may be different, potentially less controversial and using more discretionary reasons for the dissent? Columns 3 and 4 suggest that the Supreme Court only partially corrects for the behavioral anomalies due to elections. We link the 607 (out of 18,686) appealed 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 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 we 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 we observe in the raw data. Under this calculation, the Supreme Court appears to recognize which cases have potentially spurious dissents, but this inference warrants probing in future analysis because of the small sample size. Even if the result is robust, the Supreme Court affirming the majority opinion

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<sup>125</sup>We cannot distinguish between the dissents causing fewer citations or the dissents occurring on cases that would collect fewer citations.

<sup>126</sup>Crowding of the court docket can be deleterious to the extent it decreases the attention that judges are able to spend on cases (Huang 2011).

<sup>127</sup>Results are available on request.

does not address all the potential spillovers from the presence of a dissent on court crowding and its subsequent treatment by the lower courts. Finally, we probe whether the Supreme Court corrects for and reverses cases decided by unified panels that issue partisan precedent before the election (Column 4) and whether the Supreme Court reverses the reversals made by Circuit Courts before elections.<sup>128</sup> No significant effects are found, though we have no way to isolate the abnormal reversals, which are only 20% above the baseline,<sup>129</sup> nor the abnormal partisan precedent.<sup>130</sup>

**5.7 Plausible Exogeneity** This sub-section reports randomization tests. First, we rerun our basic specification with each quarter randomly assigned to a different quarter-to-election (a natural bootstrap with 200 draws); the 95% interval for t-statistics is between positive and negative 2.62. Figure 4A shows that our true t-statistic of 4.01 lies far to the right of all the other simulated t-statistics. Several other simulated t-statistics are close to the true t-statistic, but this is to be expected since the second and third quarter before an election also display significant increases in dissents.

Figure 4B displays the t-statistics for significant changes in the quarter before presidential elections for over 106 case and litigant characteristics coded in the database. We find no increase or decrease before presidential elections along substantive legal issues, including whether there was an issue of constitutionality; whether the court engaged in statutory interpretation; whether the issue involved state or local law, an executive order or administrative regulation, summary judgment, alternative dispute resolution, conflict of laws, international law, or agency discretion. We also find no difference before elections in litigant type or strategy, including how many appellants or respondents were persons, businesses, public interest groups, or government actors, and so on. Along four procedural issues—issues in the “other” category—we find some evidence of an increase before the presidential election. Our results are robust to the inclusion of controls for these four procedural issues.

Figures 4C and 4D conduct the same randomization check for over 50 characteristics coded for the opinion writer and for the two other panelists. In all of these tests, the t-statistic of the dissent is far to the right of the other t-statistics. These results are consistent with related work finding that the sequence of judges assigned to cases in each Circuit Court is like a random process,<sup>131</sup> and moreover suggests that the authors of opinions do not systematically change before the election.<sup>132</sup>

Appendix Table D shows that type, caseload, and composition of the three-judge panels do not vary over the electoral cycle. The proportion of panels with judges from both parties is evenly distributed across the political cycle (Column 1). The number of cases in each of five broad legal categories do not systematically change in the quarter before presidential elections (Columns 2-6). When we

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<sup>128</sup>Results available on request.

<sup>129</sup>Dissents are 100% above the baseline, which may explain why significant effects are found in Column 3.

<sup>130</sup>The sample size is particularly small for the analysis of how precedent issued by unified panels are treated. Only 183 decisions issued by unified panels from 1925-2002 are heard in the Supreme Court, which necessitated the removal of year fixed effects in Column 4. More parsimonious specifications with fewer controls yield similar results.

<sup>131</sup>Chen and Sethi 2011

<sup>132</sup>The decision of who authors an opinion is typically made several months before publication around the time of oral argument if there is an oral argument. Later, we present additional evidence suggesting that, if there is priming, it does not occur at the time of oral argument. We also present evidence that the environment of the state of the dissenter—rather than the author—is more strongly associated with dissents.

count up the monthly number of cases in each Circuit in the AOC, we also observe no electoral cycle in caseload (Column 7).<sup>133</sup> Appendix Table E Column 5 shows that the fraction of cases published does not significantly increase in the quarter before the presidential election. This table comes from Berdejó (2012), which constructs and conducts extensive analysis of a database linking the universe of Ninth Circuit cases and the AOC beginning from 1990. The table also shows that there is no systematic difference in time spent between docket and judgment (Columns 6-8) or time between hearing and judgment before the election (Columns 9-11). The monthly number of cases filed is also not systematically different before elections (Column 4). In summary, this sub-section suggests that the electoral cycles that we document are unlikely to be due to judges having more or less time on their hands or differences in unobservable case types. The large variation in length of time to resolve the case also suggests that it would be very difficult for lower court appellants to time their filing so that Circuit decisions occur in a particular month.

## 6 Incentives

This section considers whether incentive-based mechanisms plausibly explain the electoral cycles. First, the conventional mechanism to explain electoral cycles is re-election concerns. This is ruled out by the fact that these judges are appointed for life. We next consider three groups of incentive mechanisms: career concerns, reputational capital (including legacy concerns and collegiality norms), and getting-out-the-vote.

The higher office that Circuit judges primarily aspire to is the U.S. Supreme Court. However, it is not theoretically clear whether dissenting is a good strategy to get promoted to the Supreme Court: Dissenting could also signal an inability to persuade colleagues and forge a majority coalition on the Supreme Court. Empirically, we will show that in our 5% sample, not a single judge elevated to the Supreme Court chose to dissent before the election. Using a shortlist of 71 Circuit judges considered for the Supreme Court,<sup>134</sup> there is also no partial correlation between dissenting before election and being a potential nominee. It may be possible that judges mistakenly believe that dissenting helps with promotion, but these mistaken beliefs should be held uniformly by all judges. As the following section will show, dissents by judges coincide with increases in campaign advertisements in the state where a judge resides and with the closeness of their state’s popular vote when that state has more electoral votes. We will also see that judges with less than two years of experience respond more to the presidential election, but these judges are unlikely to be candidates for the Supreme Court.

Perhaps judges gain reputational capital for dissenting before the election. However, newspapers are no more likely to report on Circuit Court decisions or their dissents before presidential elections (Table 15) and judges aren’t supposed to talk about their decisions. Judges also appear to dissent for highly discretionary, procedural reasons; and various citation measures for an opinion’s impact or quality suggest that dissents attributable to electoral cycles are not strongly contributing to the development of law, which is inconsistent with judges seeking to build a reputation. Perhaps judges

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<sup>133</sup>The large standard errors in this column is attributable to the tremendous variation in the monthly number of cases recorded in the AOC.

<sup>134</sup>Nemacheck 2007

seek to influence precedent when they or their colleagues retire. But we will see that judges who are about to retire or resign after the election are not significantly more likely to dissent. Perhaps collegiality norms breakdown during the election, but a shift in collegiality norms and retirement of colleagues should uniformly affect all judges.

Perhaps judges have electoral incentives to get out the vote despite professional rules that forbid semblance of political involvement. Getting out the vote for the president is, however, unlikely to explain these electoral cycles. Theoretically, it is unclear that casting a partisan vote will be persuasive, since undecided voters may backlash to partisan behavior. Even if the electorate pays attention to the dissents, since case decisions are promulgated at the Circuit—not state—level, judges in all states would have an interest in getting out the vote. Judges sitting in electorally pivotal states are assigned with judges sitting in electorally non-pivotal states to cases. As documented in the following section, changes in behavior are concentrated in electorally pivotal states where popular votes count heavily in the presidential election and in media markets where campaign advertisements are greatest. Second, if judges are trying to get out the vote, dissents would not peak in the third month before the presidential election. Moreover, as presidential primaries involve competition within the same party to be the nominee for the general election, dissents during the presidential primary season do not obviously draw voters to vote for a specific candidate. Also, presidential elections are not the only stimulus: Increases in dissents are detected also before U.S. Senate elections (Table 16).<sup>135</sup> It would be difficult to argue that judges seek to get out the vote for all of these elections. Finally, political candidates from the dissenting judges’ party are no more likely to win.

Do other parties have incentives to bring certain types of cases to the courts before the election? It is extremely difficult to time when the case resolves. Moreover, all judges would be affected, but they are not. In sum, heterogeneity across states and across judges suggests that electoral incentives are likely not the main mechanism underlying the electoral cycles that we document. A final mechanism related to timing is whether judges shift their attention to cases that require dissent and away from other cases before an election. However, the dissent rate also decreases after landslide elections, which as we shall see, there is no pre-election prime. Appendix Table G presents a formal test of displacement using all of the data. It shows that the dissent increase in the three months before an election is negatively correlated with the dissent decrease in the three months after. If dissents are simply displaced, we should expect a positive correlation. A negative correlation suggests that polarizing elections elevate dissents even after the election is over.<sup>136</sup> Finally, displacing controversial cases to a later time does not apply to the wartime results in the next section; wars can last for several years, and court guidelines limit the ability to delay cases for that long.

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<sup>135</sup>Members of the U.S. House have two-year terms. Senators have six-year terms and only one-third of states have Senator elections at a time. Table 1 shows no midterm effect in the coefficient on Quarter-to-election 9, which suggests that judicial dissents are more influenced by Senator races than House races. No effect is found before gubernatorial elections. Elections for state governor are every four years (only nine states hold them at the same time as Presidential elections).

<sup>136</sup>Appendix Table G shows that the results are robust to using different definitions of the election cycle that form the baseline for the dissent increase/decrease around the election.

## 7 Priming

**7.1 Campaign Advertisements** Some regions of the country are likely to be more saturated with political debate before presidential elections. For example, electorally pivotal states are the target of campaign ads, as indicated by Figures 5A and 5B. Large states count heavily in the presidential election since the winner of a plurality of a state’s votes wins all of that state’s electoral votes, which makes these states’ media markets an attractive target for campaigns. As *prima facie* evidence that judges dissent more in larger states, Appendix Table C Column 4 shows that electoral cycles are larger in Circuits with electorally pivotal states and in Washington, D.C. (Figure 5C shows which states belong to which Circuits). In both data samples, electoral cycles are more pronounced in Circuit 6, which includes the bellweather states of Ohio and Michigan.

Table 6 reports that in the eight states ranked highest in electoral vote count<sup>137</sup> and the District of Columbia, judges have electoral cycles that are three times larger than in other regions of the country. Their increase in dissents is 2.9% points compared to 0.8% points. States likely to be electorally pivotal<sup>138</sup> and the District of Columbia also display electoral cycles 3 to 4 times as large. These states have on average 1,790 more campaign advertisements and 900 more negative campaign advertisements per media market during the election<sup>139</sup> and this difference is statistically significant at the 1% level. States in the top quartile of campaign ads display electoral cycles twice as large as other states. Notably, the increase in dissents in the last quarter before the election is not statistically significant in states outside of the states with the highest electoral vote count and Washington, D.C. (Column 2). Moreover, as indicated by the coefficient on the divided dummy, judges from these states are more likely to dissent when there is a divided panel, suggesting that these judges may be more ideological to begin with. Yet the results hold with or without judge fixed effects.<sup>140</sup>

Using variation across elections and across states, Table 7 shows that electoral cycles are more pronounced in states with high electoral vote count when these states have tight presidential races. We 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. We then calculate for each state in each presidential election, the average dissent rate in the three quarters before the election. Using each election-state as an observation, the average dissent rate is 2.4%, which weighs more heavily the smaller states. To address this, we use as regression weights the number of votes used in constructing the mean dissent rate. To interpret the magnitude of 0.0024 in Column 1, for a large state with 30 electoral votes, going from a popular vote tightness of 5% to 0% (statistical tie) would result in an increase of 0.4% points in the dissent rate above the baseline of 2.4%, roughly a 20% increase. The negative coefficient on electoral vote count suggests that dissents decrease more in large states during landslide elections. The interaction term is statistically significant at the 5% level. Column 2 indicates

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<sup>137</sup>These states are California, Texas, New York, Florida, Illinois, Pennsylvania, Ohio, and Michigan. We rank states according to electoral vote counts during the recent time period when polarization has been greatest.

<sup>138</sup>These states are Michigan, Ohio, Pennsylvania, Florida, and California.

<sup>139</sup>We report statistics from the 1996 election, which is the earliest available dataset from the Wisconsin Ads project and more overlapping with the data time frame.

<sup>140</sup>Results without judge fixed effects are available on request.

that the political environment of the author of the majority opinion is less strongly associated with the presence of a dissent. However, the coefficient is similar in magnitude. In Column 3, the environment of the third panel member who is neither the author nor the dissenter is much more weakly associated with the presence of a dissent.

**7.2 Timing Puzzle** Figures 1B and 1C report a robust finding that the dissent rate peaks in the third month before the presidential election. The third month before the election is the nominating convention, when parties choose the candidate that will represent them in the general election. Primary voters are more ideologically extreme than general-election voters, so candidates cater to these sequentially, moving back to the middle ground after winning the primary.<sup>141</sup> Moreover, unlike the general elections, many states use a proportional system to allocate delegates for the nominating convention, so the relative importance of electorally non-pivotal states is likely to decrease precipitously after the nominating conventions.<sup>142</sup> Indeed, campaign advertisements only double from their peak before the nominating convention for non-pivotal states, while they increase five-fold for pivotal states (Figures 5A and 5B). Priming effects have only been documented one week after the stimulus;<sup>143</sup> though studies like ours, which evaluate many stimuli over a long period, are rare. Figures 6A and 6B show that dissents begin declining three months before presidential elections in electorally non-pivotal states but remain elevated in electorally pivotal states.

The role of the presidential primaries is further corroborated using variation in the timing and magnitude of campaign advertisements in the states where judges reside. Table 8 shows that dissent rates of judges coincide with increases in campaign advertisements in the state of their duty station. Because we only have daily campaign advertisement data for the 2008 election, we assign the monthly increase in campaign advertisements for some month before November 2008 to the same month before the respective prior elections. The importance of different states at different points in time during the 2008 electoral cycle predicts the months of stimulus in different states for other elections. Table 8 reports that an increase in 10,000 campaign advertisements in the previous month corresponds to 0.5 percentage point increase in dissent rate by the judge in that state (Column 1). This coefficient is significant at the 5% level and is robust, becoming larger, when adding lags and leads. The one-month lag displays quantitatively similar associations and is less statistically significant than the contemporaneous month. Similar effects are found with the inclusion of fixed effects for Circuit, year, and judge (Columns 4-5). The inclusion of quarter-to-election fixed effects reduces the statistical significance, but the point estimates in Column 6 are similar to the point estimates in the other columns. We take this as tentative evidence that within quarter-to-elections, judges dissent more in states that experience greater increases in campaign ads, but this interpretation warrants some caution.

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<sup>141</sup>Brady et al. 2007

<sup>142</sup>The conventional story for why Barack Obama won the Democratic nomination over Hillary Clinton in 2008 is that he focused more on the smaller states while she focused only on the big states during the primary season. She won states like New York, California, Texas, Pennsylvania, and Florida, while he won many of the small states in the mountain west and in the south.

<sup>143</sup>Tulving et al. 1982; Ostergaard 1994; Hassin et al. 2007

**7.3 Summary Justice** Using administrative data on all important milestones of a Federal Court case’s development, we find evidence suggesting that the exact time at which a judge makes the mental decision to dissent may be shortly before publication of an opinion. We cannot precisely pinpoint when the decision to dissent occurs, however, as we only have the date of publication in our main dataset, so we merge the Appeals Court database with the Administrative Office of the U.S. Courts database. First, we substitute the publication date with dates for any of seven earlier milestones of the case. These earlier milestones include the docketing date, the date of filed in District Courts, the date the notice of appeal was filed, the date the original notice of the brief got issued, the date of the last brief filing, the date the appeal was submitted on the merits, and the date the appeal was orally argued. If electoral cycles correspond to these “placebo” dates, for example, on the date of filing, this could suggest that litigants file more controversial cases during the presidential election, or if electoral cycles appear for the date of oral argument, this could suggest that the priming associated with elections cause judges to dissent when the case is heard rather than when the case is published. We find no electoral cycles for those dates (Table 9).<sup>144</sup> This null finding suggests that judges make the mental decision to dissent very near the publication date rather than around oral arguments, which occur on average two or three months before the publication date. Therefore, the view of judges convening right after the hearing to decide who votes in which way and whether someone will write a dissent may be incomplete. In at least some cases, judges may decide at the last minute to dissent or they may decide in the last minute *not* to dissent and this last-minute decision could be less likely to occur before an election. We take this as suggestive evidence that the decision to dissent or not may occur quite late in the opinion-writing process. If judges do appear to be dissenting on procedural issues, in particular on miscellaneous procedural issues, these decisions could happen at the last minute.

## 8 Identity

This section presents several pieces of evidence consistent with priming of latent partisan identities rather than simply a shift in mood, which would affect all judges.

**8.1 Latent Partisan Identities** Campaign messages can activate latent partisan identities,<sup>145</sup> so if judges have partisan identities, priming may influence judges’ perception of cases brought before them. The raw data presented in Rows 1-4 of Figure 7A indicates that a large proportion of the increase in dissents comes from ideologically divided panels. For unified panels, the dissent vote rate is 1.9% increasing to 2.2% before presidential elections, while for divided panels, the dissent vote rate is 2.4% increasing to 3.9%. Moreover, Rows 6 and 8 focus on divided panels and shows that a significant proportion of these increases come from minority judges (D on DRR panels or R on RDD panels), who almost double their rate of dissent, while Rows 5 and 7 show that majority judges increase their dissent rate by 50%. Analyses of the vote valence confirm that when judges dissent, their vote is politically liberal if appointed by Democrat and conservative if appointed by Republican.

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<sup>144</sup>This null finding along with the randomization tests reported above also indicates that our main specification is not spuriously reporting statistically significant findings.

<sup>145</sup>Ansolahehere and Iyengar 1997

Rows 1-4 of Figure 7B show that the increase in dissent by the majority judge is largely due to the majority judge with the more extreme ideology score (ranked first or third when the ideology scores are sorted from left to right). This is consistent with the median judge usually determining the outcome of the case.<sup>146</sup> Finally, Rows 5 and 7 show that when the minority judges share the same ideology score as a judge in the political majority, this minority judge triples the dissent rate in the quarter before a presidential election from a typical dissent rate that is lower than average. Notably, in the quarter before the presidential election, they dissent at the same rate as those with a different ideology score (Row 6).

**8.2 Type of Election** Partisan identities are more likely to be aroused in close presidential elections. Table 10 Panel A shows that close elections—defined as the winning party achieving less than 55% of the electoral college vote—increase the rate of dissent during the contested period before an election by 200% (Column 1).<sup>147</sup> Landslide elections—when the winning party achieves more than 95% of the electoral college vote—reduce the increase in the rate of dissent before an election by 80% (Column 2).<sup>148</sup> Wartime elections are actually unifying, reducing the dissent rate by 0.6 percentage points (Column 3).<sup>149</sup>

In Panel B, we use the universe of cases from 1950 to 2007 and construct circuit-by-election electoral dissent spikes by taking the difference between the dissent rate in the three quarters before an election with the dissent rate in the three quarters after an election. As the electoral college percent drops from 100 to 50, the dissent spike increases 1.0 percentage points, roughly 1.5 times the average dissent spike, which is 0.7 percentage points. Together, the evidence in Table 10 further supports the finding in Table 7 that dissents are elevated in states with many electoral votes when the presidential election is close in that state.

**8.3 Political Environment** There is growing evidence that politics in the United States has become more polarized.<sup>150</sup> Cross (2003) finds evidence that the Reagan and Bush judicial appointees have been the most ideological relative to any judicial appointee since the late 1940s. Appendix Table F shows that Reagan, Bush, and Clinton appointees are the ones 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% level, respectively.

Figure 8 displays the moving average correlation between last quarter and judicial behavior. In Figure 8A, each year on the x-axis represents the center point for four elections. Electoral cycles in dissents were actually quite small during the 1940s, but the cycles increase around 1960. After 1975, four-election moving averages of the electoral cycle become statistically significant. Accordingly, we

<sup>146</sup>The influence of the median judge is supported in other analyses. For example, the vote valence of the final decision is strongly correlated with the ideology score of the median judge and uncorrelated with either of the other two judges' ideology scores (Chen et al. 2015).

<sup>147</sup> $0.039 + 0.085 = 0.124$ ; 0.12 over the baseline of 0.039 is roughly 200%.

<sup>148</sup>0.04 out of 0.05 is roughly 80%.

<sup>149</sup> $-0.061 + 0.055 = -0.006$

<sup>150</sup>McCarty et al. 2006; Bernhard et al. 2012



divide the cases into two groups, those cases decided on or prior to December 31, 1975, and those decided afterwards. The electoral cycle before 1975 is quite strong and statistically significant, but the electoral cycle is roughly 100% larger in the recent time period (Table 11). This finding is robust to controls for a judge’s birth cohort. For example, if we control for whether the vote was cast by a judge born after the 1940s (roughly 15% of the sample), the result suggests that the political primeability of judges is not due to cohort-specific experience. Rather, all judges, regardless of birth, become more primeable in the recent time period (Column 2). Figure 8B presents further evidence supporting the polarization interpretation of these electoral cycles. Changes in dissent cycles over time coincide with changes in partisan voting cycles.<sup>151</sup> Regression analyses including controls indicate that the influence of party of appointment on voting valence is 90% larger in the recent time period (Column 3)<sup>152</sup> and robust to controls for birth cohort (Column 4).<sup>153</sup> Figure 8C replicates the increase in dissent cycles over time in the 100% sample. These results indicate that the judiciary is more polarized now 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. We document additional evidence of growing polarization of the judiciary in the Appendix.

**8.4 Previous Experience** We now turn to the role of past experience to further investigate whether the characteristics that make individuals more susceptible to priming in the lab are found in the field. Experimental research has found that inexperience magnifies priming effects.<sup>154</sup> Table 12 re-estimates our basic specification for sub-samples of judges grouped by the number of years they have served as Circuit judges. Overall, judges are 1.7% points more likely to cast a dissenting vote before a presidential election (Row 1). For judges with 1 or 2 years of experience, the magnitude of this effect is a considerably larger 3.4% points.<sup>155</sup> The point estimates are positive and sometimes statistically significant for other experience groups, e.g., 7-8 years of experience.<sup>156</sup> The inference is not simply due to sample size. When we examine judges with exactly 1 or exactly 2 years of experience, these judges significantly increase their dissents before elections.

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.<sup>157</sup> A natural candidate to examine the associative link is former federal prosecutors, since these positions involve advocating on behalf of the government in Federal Courts. This position is highly political and legal. Former federal prosecutors have displayed behavior reflecting party politics in federal public corruption prosecutions.<sup>158</sup> They can also choose to enforce or not different aspects of federal law: Giving priority to specific types of criminal cat-

<sup>151</sup>Each year on the x-axis represents the mid-point in a 10-year moving average correlation.

<sup>152</sup>We suppress judge fixed effects for ease of interpretation; results with judge fixed effects are available on request.

<sup>153</sup>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.

<sup>154</sup>Krosnick and Kinder 1990

<sup>155</sup>Our estimates are robust to the inclusion of judge fixed effects and more parsimonious specifications.

<sup>156</sup>The fact that inexperienced judges are more likely to dissent before a presidential election is consistent with judges taking awhile to develop the strong professional, conscious commitments that would otherwise control the influence of unconscious bias (Rachlinski et al. 2009).

<sup>157</sup>Bargh and Chartrand 2000; Kimball 2005

<sup>158</sup>Gordon 2009

egories—health care fraud, obscenity, immigration cases—is often a political choice.<sup>159</sup> Working in this office frequently leads to higher office.<sup>160</sup> For well-known contemporary examples, 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. During the time period of our study, judges came of age in 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.<sup>161</sup> Table 13 shows that judges who are previous U.S. Attorneys or Assistant U.S. Attorneys are more likely to display electoral cycles and this effect is statistically significant at the 5% level with the inclusion of judge fixed effects (Column 10).<sup>162</sup> Parsimonious specifications that excludes all controls and keeps 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 and is stronger than, for example, the influence of divided panels and being a minority judge on a divided panel.

Table 13 also shows that judges who are elevated to the Supreme Court, on the shortlist as a potential Supreme Court candidate, or about to retire after the election are not more likely to dissent before elections. Moreover, there is no correlation between dissenting before the election and the candidate from one’s party winning the presidential election. These results are more consistent with a priming—rather than incentives—interpretation of the electoral cycles.

**8.5 Wartime** If elections prime partisan identities, what about wartime, which can prime national identity? Figure 9 shows that dissents decrease during wars, whose official dates are indicated by the vertical lines. This result is robust to regression controls and sample (Table 14).<sup>163</sup> Notably, the decrease in dissent rates during wartime is almost entirely due to attributed to divided panels (Column 2) and inexperience (Column 4).<sup>164</sup> The coefficient on the non-interacted term, war, is insignificant, while the coefficients on the interaction terms are large and negative. Since 70% of panels are divided, the average effect of wartime is also negative.<sup>165</sup> Moreover, divided panels, which are usually 2% more likely to dissent, are 0.6% *less* likely to dissent during war. In sum, judges who are less experienced and sitting on divided panels are both more likely to dissent before presidential elections and more likely to *not* dissent during wartime.

During wartime judges are also more likely to affirm and less likely to reverse lower court decisions (Columns 5-6) and these effects are statistically significant at the 1% level. Notably, the influence of war is 2 to 3 times the influence of a divided panel on affirmation and reversals. The effect of wartime is about half the size of the effect of electoral proximity in absolute magnitudes. Our results are robust to using the 100% Openjurist sample (Column 7) and to randomization inference, where

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<sup>159</sup>Perry Jr. 1998

<sup>160</sup>Engstrom 1971

<sup>161</sup>Lochner 2002

<sup>162</sup>Column 9 indicates that the results are robust to not including judge fixed effects.

<sup>163</sup>The decrease is somewhat stronger during the first half of a war.

<sup>164</sup>We display results using 10 years of experience as the cut-off, but the finding is robust to other experience thresholds.

<sup>165</sup>We can see this by observing:  $0.7 * (-0.026 + 0.01) * 0.3(0.01) < 0$ .

we randomly assign the dates of the case to another date (Figure 9).<sup>166</sup>

## 9 Conclusion

Using newly collected data on U.S. Circuit Courts and a detailed random sample of cases, we present evidence that in the quarters leading up to a presidential election, U.S. Circuit Court judges are twice as likely to dissent, vote along partisan lines, and set precedent along partisan lines. Circuit Courts are also 20% more likely to reverse the District Courts. Cases with dissents are two to three times more likely to be heard in the Supreme Court, where 71% of cases are reversed. We consider and rule out a number of incentive-based reasons for these electoral cycles. Circuit Court judges are appointed for life and are forbidden from any semblance of impropriety or political involvement. They are randomly assigned together from geographic locations across the Circuit to three-judge panels. Across states, dissents increase more for judges sitting in electorally pivotal states with greater campaign advertisements. Within states, dissents coincide with the increase in campaign advertisements and with the closeness of the state's popular vote when that state has more electoral votes. Across judges, ideologically polarized environments, inexperience, and previous associative links magnify the electoral cycle. Wartime reduces dissents, and this reduction is exhibited especially in ideologically polarized environments and inexperienced judges. The electoral cycles we document are large and economically significant, and equivalent in magnitude to previously-documented electoral cycles of elected judges running for re-election. Our results suggest that partisan decision-making in courts is not simply about differences in legal philosophy, since legal philosophy is arguably a deontological commitment and should not fluctuate over the electoral cycle. The U.S. Circuit Courts decide the vast majority of cases that constitute the law in the U.S. common law system. Dissents, partisan voting, and impact on the higher and lower courts all shape the development of law.

Part of the effect we find might be attributable to priming of people around the judge, such as family members or clerks, who can have indirect effects on the judge, which we cannot isolate in this paper.<sup>167</sup> This does not diminish the economic importance of priming. If even half the priming was due to such indirect pathways, the direct priming of judges and the susceptibility of judges to these other parties would still be statistically and economically significant. We also only analyze court outcomes and a proper welfare calculation would need a counterfactual. What is the optimal amount of dissents? Are judges generally suppressing dissents too much?<sup>168</sup> Does the increase in dissents and partisan voting simply indicate that judges are making decisions more reflective of the constituencies they indirectly represent? Nor can we affirmatively say the behavioral stimuli are completely extrajudicial; perhaps campaign ads, like anything else in the daily life of judges, make momentarily more salient certain legal issues, and society may consider the other daily influences to be legitimate. Regardless of the optimal amount of dissent and the legal interpretation of electoral cycles, if electoral cycles undermine the legitimacy of the court and rule of law, then consequences may be large in both the

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<sup>166</sup>We also conduct randomization checks of judicial and case characteristics. Some characteristics are statistically significant. Accordingly, we check and confirm the wartime results are robust to controlling for these characteristics.

<sup>167</sup>But see, Chen and Spamann (2014).

<sup>168</sup>Chen et al. 2015

direct economic impacts of the court decisions and changes in legal compliance.<sup>169</sup>

Taken together, our results contribute to a literature on endogenous normative commitments or ideology.<sup>170</sup> Priming of group identity often allows social scientists to infer the causal impact of group identity in laboratory experiments. Social scientists have long speculated on whether group identity imparts ideology or whether people choose the same group because of shared ideology. If priming of group identity has occurred, then our results isolate the first channel in a naturally occurring setting. Moreover, since Federal Circuit judges have strong commitments to be unbiased, these electoral cycles suggest that even highly trained professionals may unconsciously express their ideological commitments and that highly trained professionals may be primeable in other contexts as well. Future research can investigate whether these electoral cycles can be reduced simply by making judges aware of electoral cycles, whether decision-making on certain cases should be deferred to certain time periods, or whether there should be other policy mechanisms (and even if there should be one at all).

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<sup>169</sup>La Porta et al. 1998; Chen and Yeh 2014a

<sup>170</sup>Bénabou and Ok 2001; Chen and Lind 2007, 2014

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## A Evolution of the Judiciary Over Time

We document additional evidence of polarization in the judiciary growing over time. First, we show that Circuit judges are *less* likely to retire in each of the three quarters preceding a presidential election when the party of the president at the time the judge leaves is *different* from the party of the U.S. President who appointed the judge. Retiring (taking senior status) results in a reduced caseload for the judge assuming such status and, most importantly, allows an incumbent President to appoint a new judge. Judges are also *more* likely to resign in each of the four quarters after a presidential election, when the party of the President at the time the judge leaves is the *same* as the party of the President that appointed the judge. The sclerotization of the normal churning of judges to reflect the preferences of the electorate may cause the judiciary to become more polarized over time. Recent studies of the relationship between politics and judicial retirements in Circuit Courts have conducted the analysis at a yearly level rather than quarter-to-election dummies, so they have not found electoral cycles in judicial turnover rates.<sup>171</sup> These results suggest that electoral cycles need not be completely unconscious while being ideologically motivated.

For our analysis in this section we use the entire data from 1802 to 2004 from the Multi-User Database on the Attributes of U.S. Appeals Court Judges to sum up the number of retirements (resignations) per month. The rate for retirements fluctuates across the political cycle. In particular, this rate is relatively low in the months immediately

<sup>171</sup>Yoon 2006; Spriggs II. and Wahlbeck 1995; Stolzenberg and Lindgren 2010; Zuk et al. 1993

preceding a presidential election and relatively high in the months immediately following such an election. On average, 0.14 judges voluntarily leave the bench each month in our sample; of these, 0.12 are retirements and 0.02 are resignations (Appendix Table A). In each of the three quarters before a presidential election, the number of retirements for judges when the party in power is different drops by 0.08-0.10 per month (Appendix Table F Column 2). These effects are statistically significant at the 1% or 5% level and much larger in magnitude than the other quarters.<sup>172</sup> In each of the four quarters after a presidential election, the number of resignations for judges when the party in power is the same increases by 0.02-0.04 per month (Column 3).<sup>173</sup> These effects are therefore substantial relative to the average rate of judicial exits per month. The patterns are robust to the same set of checks as in Appendix Table B. These checks include alternative measures of electoral proximity, dropping one Circuit at a time, and disaggregating the data to the number of retirements per month and by Circuit and including circuit fixed effects and clustering the standard errors at the Circuit level.<sup>174</sup>

These patterns in the number of judges voluntarily leaving at the beginning or end of a presidential electoral cycle is likely to be driven by political considerations (e.g., a judge may expect the President-elect to appoint someone from the President's own party). We find that these electoral cycles have been increasing after 1975. We estimate:

$$(5) \quad \text{Retire}_i = F(t) + \beta_1 \text{After}_i * \text{Recent}_i + \beta_2 \text{After}_i + \beta_3 \text{Recent}_i + \varepsilon_i$$

where  $F(t)$  are year and quarter fixed effects;  $\text{After}_i$  is an indicator equal to 1 for the three months immediately following a presidential election; and  $\text{Recent}_i$  is an indicator variable equal to 1 for the period of time after 1975. The higher rate of voluntary retirements following an election appears entirely attributable to the post-1980 period. In fact, the 20-year moving average correlation between retirement decision and whether it is after an election (Appendix Figure B) suggests that the electoral cycles we observe in judicial retirement decisions may be entirely a recent phenomenon.

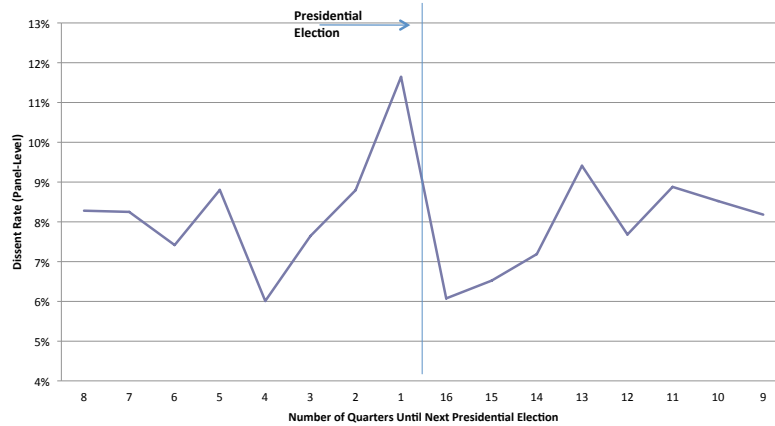
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<sup>172</sup>There is one other quarter that is significant at the 10% level.

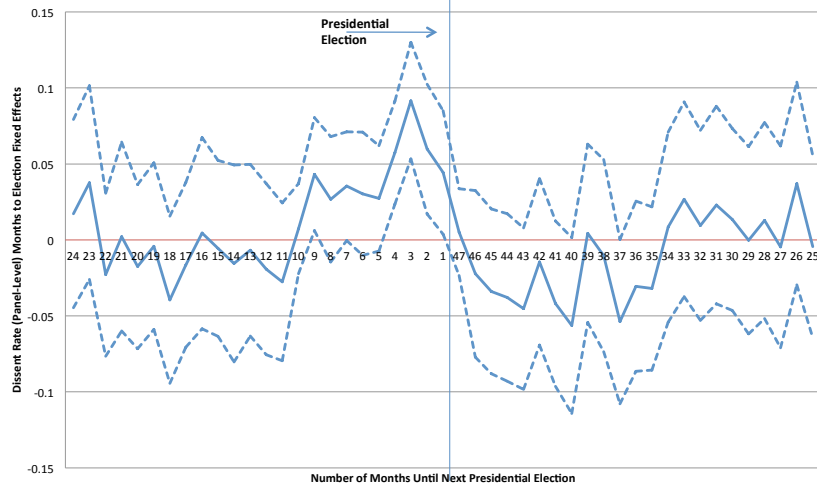
<sup>173</sup>It is important to note that quarter 16, which contains parts of November, December, January, and part of February is the omitted quarter, which has a coefficient of 0. Thus the coefficients on quarters 12-15 are estimated to be significant relative to the quarter right after, not relative to the election date. When we omit quarter 1 instead of quarter 16, the coefficients on quarters 12-15 are still statistically significant and increase somewhat in magnitude.

<sup>174</sup>These patterns are slightly more pronounced for Republican appointees.

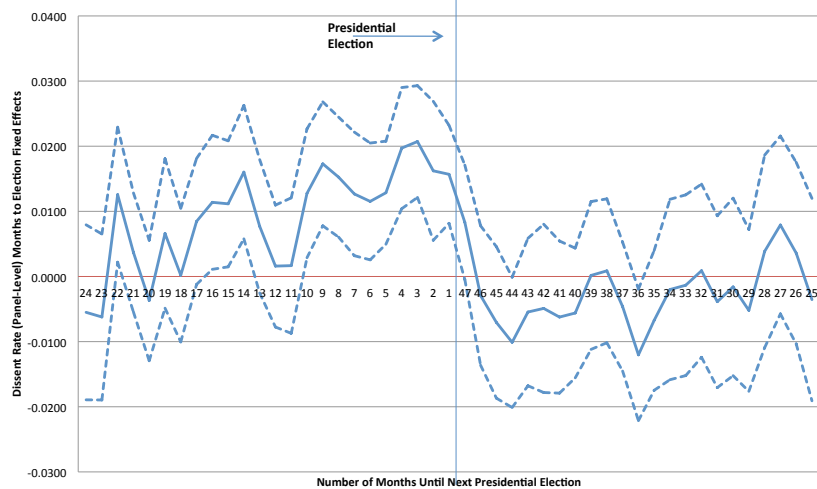
**Figure 1A: Dissent Rate across the Political Cycle (Quarterly)**  
**5% Sample (1925-2002)**



**Figure 1B: Dissent Rate across the Political Cycle (Monthly)**  
**5% Sample (1925-2002)**

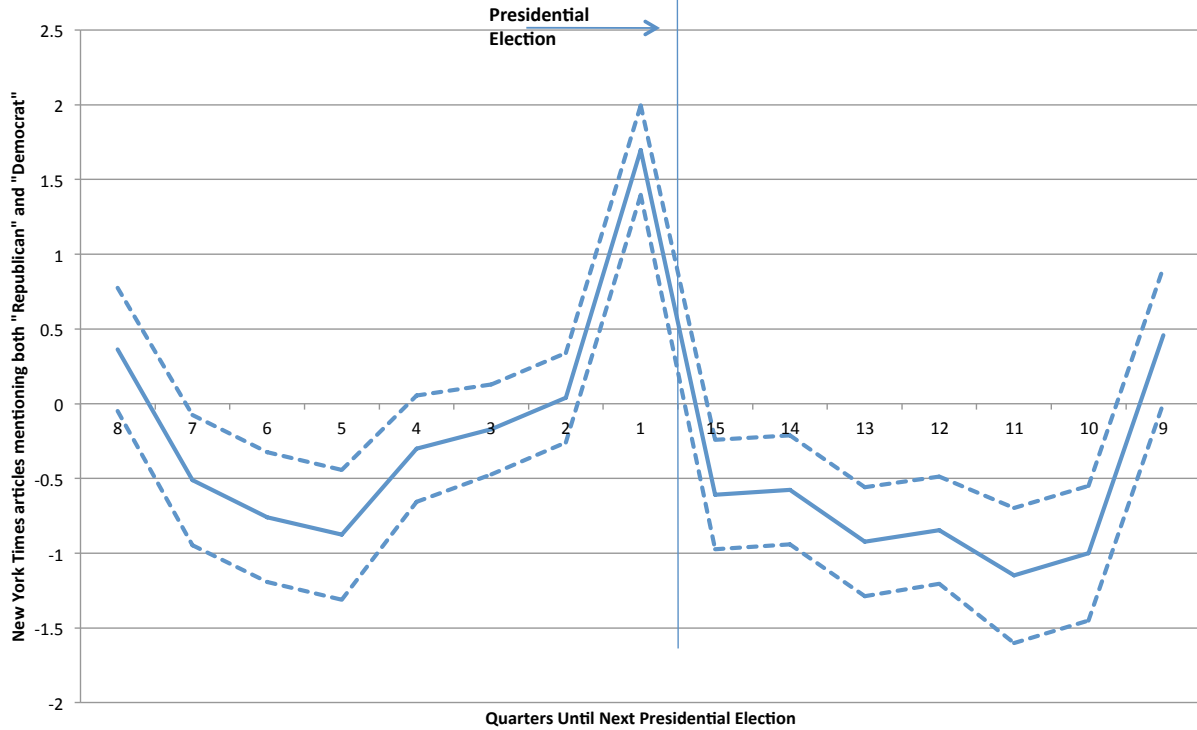


**Figure 1C: Dissent Rate across the Political Cycle (Monthly)**  
**100% Sample (1950-2007)**

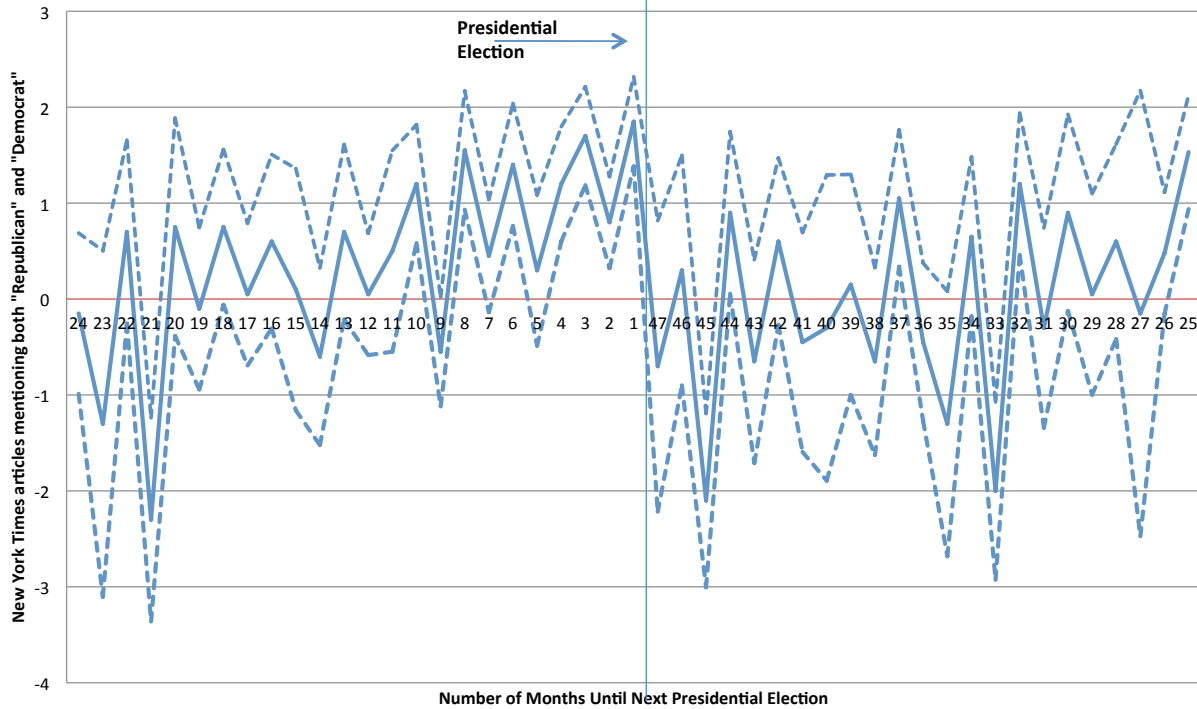


Notes: Figures 1A and 1B display dissents with or without dissenting opinions  
 Figure 1C displays dissents with dissenting opinions

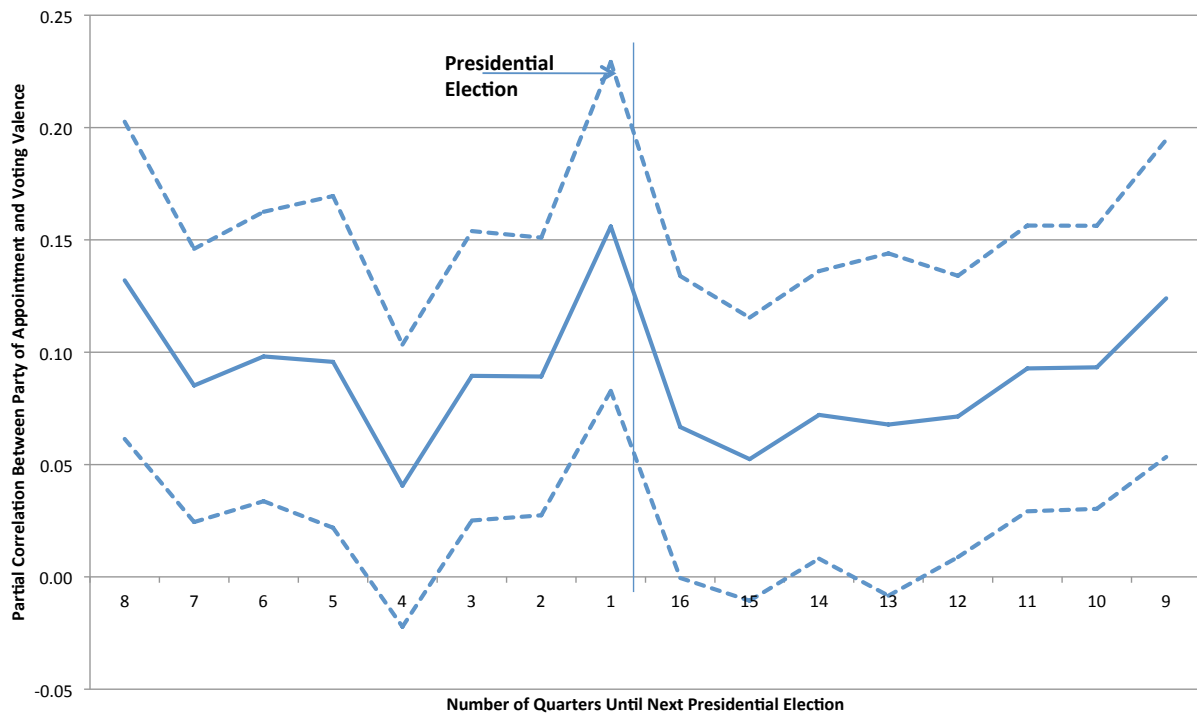
**Figure 2A: Political News Articles across Political Cycle (Quarterly)**  
**New York Times 1900-2007**



**Figure 2B: Political News Articles across Political Cycle (Monthly)**  
**New York Times 1900-2007**



**Figure 3A: Influence of Party of Appointment on Voting Valence across Political Cycle (Quarterly)**



**Figure 3B: Electoral Cycles in Voting Valence by Ideology Score**

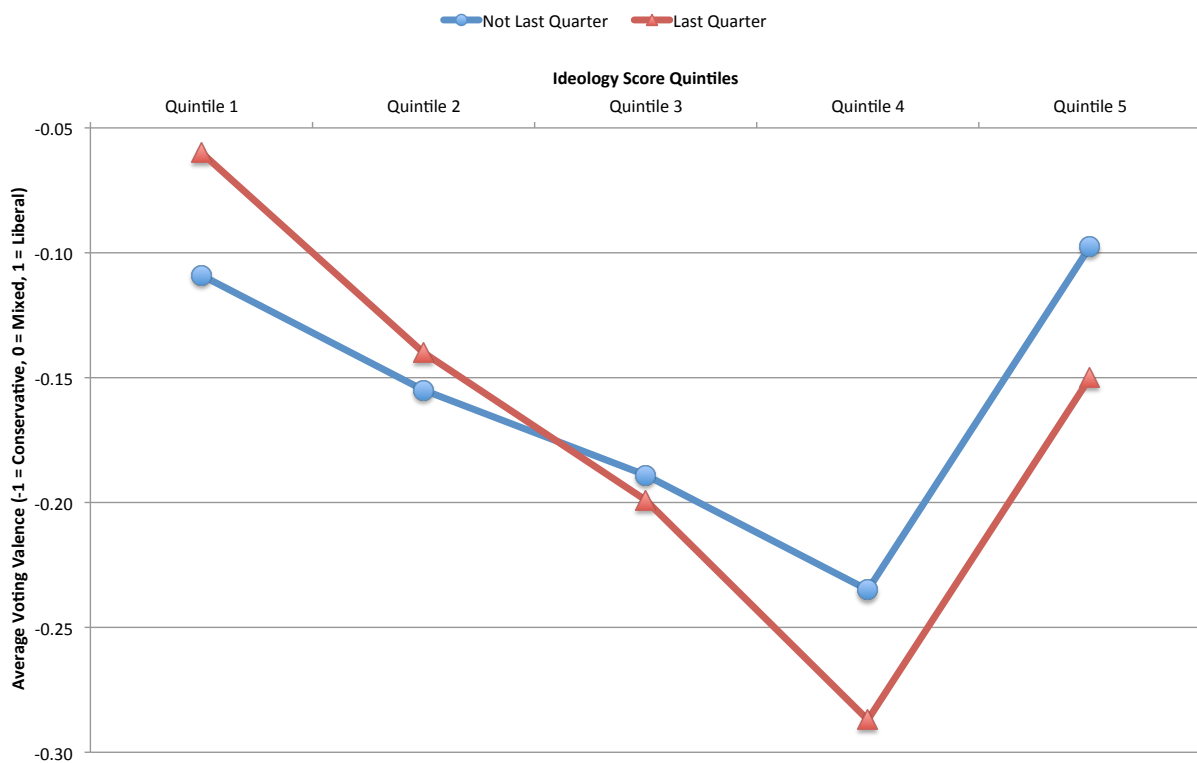


Figure 4: Randomization Inference and Randomization Checks

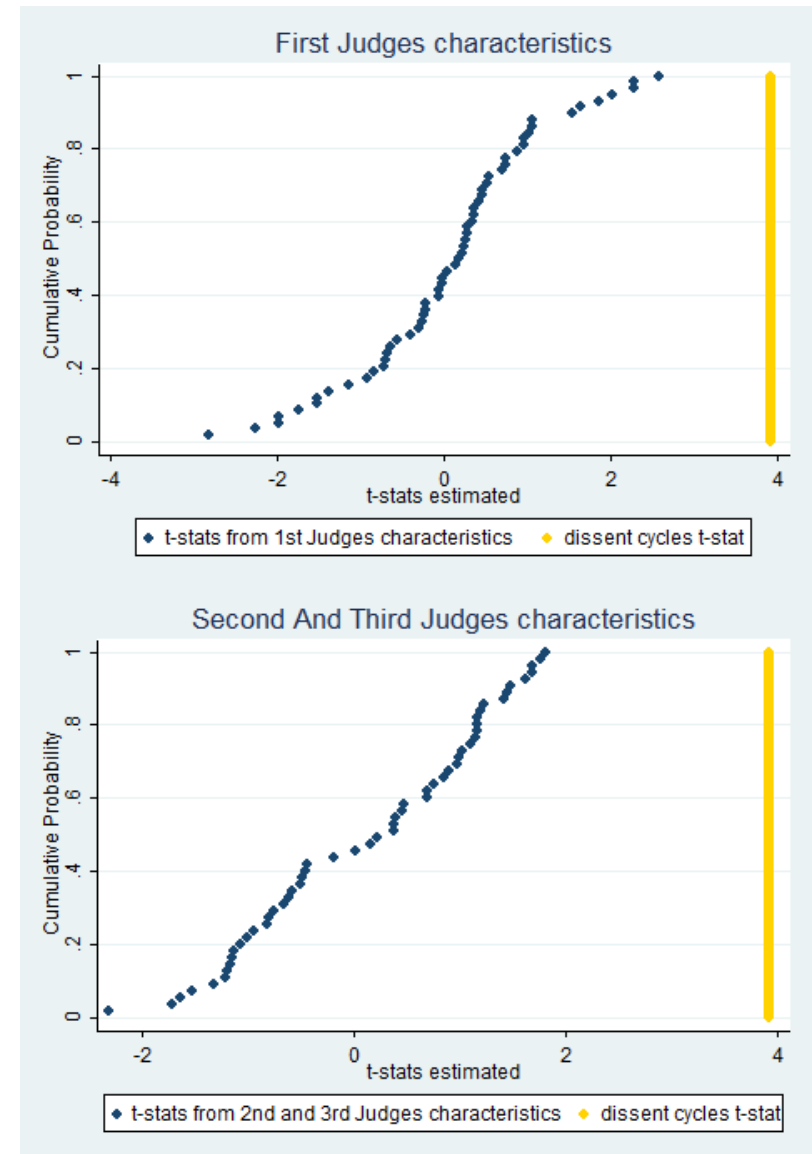
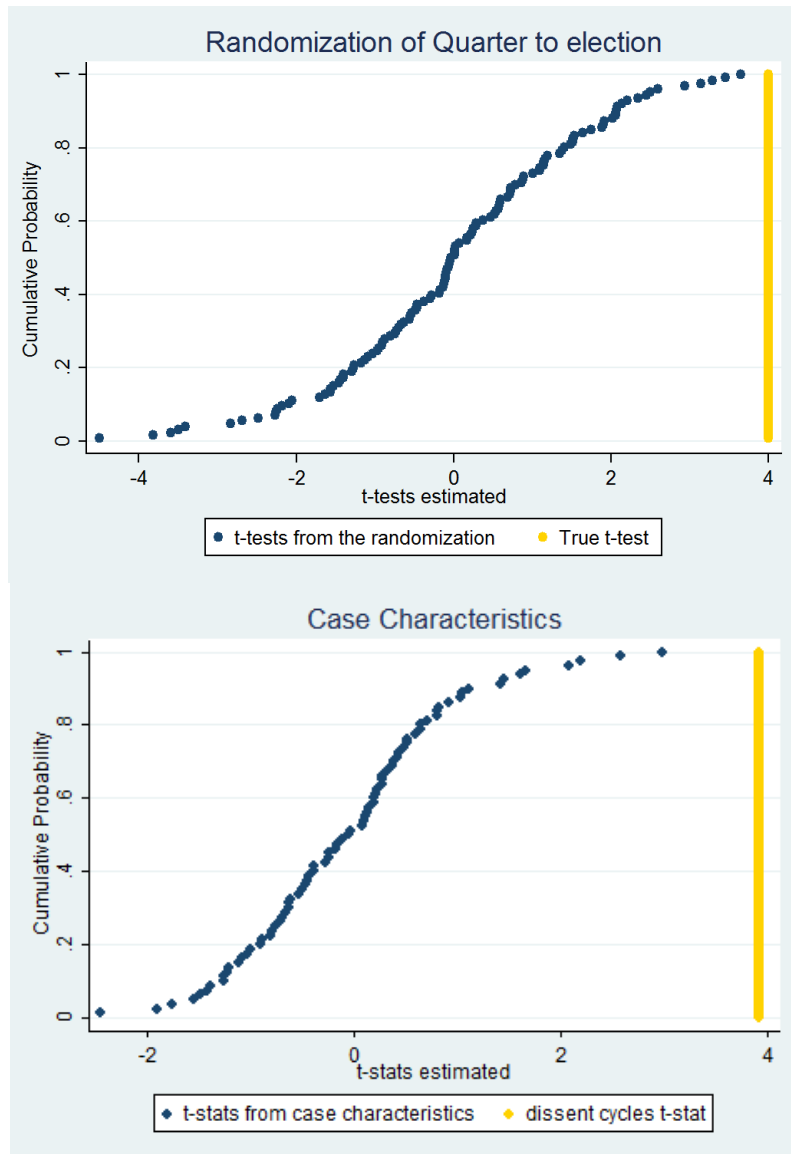


Figure 5: Campaign Advertisements across Political Cycle (Weekly)

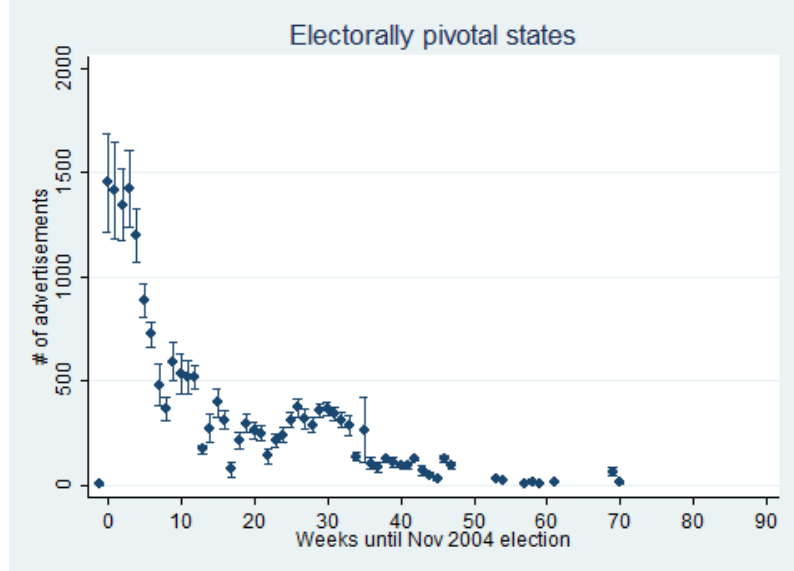


Figure 5A

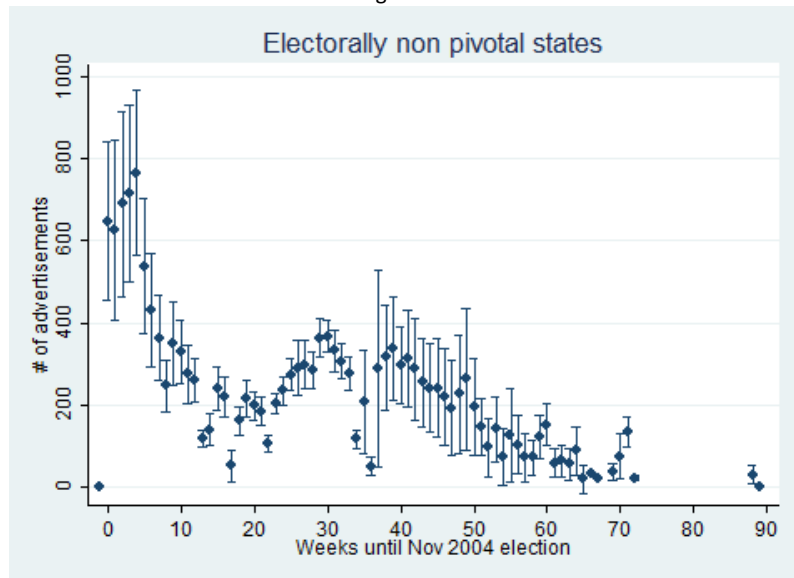


Figure 5B

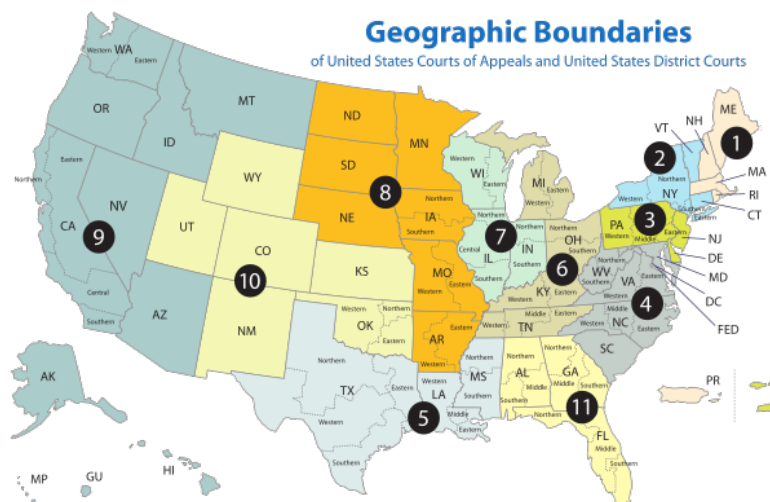
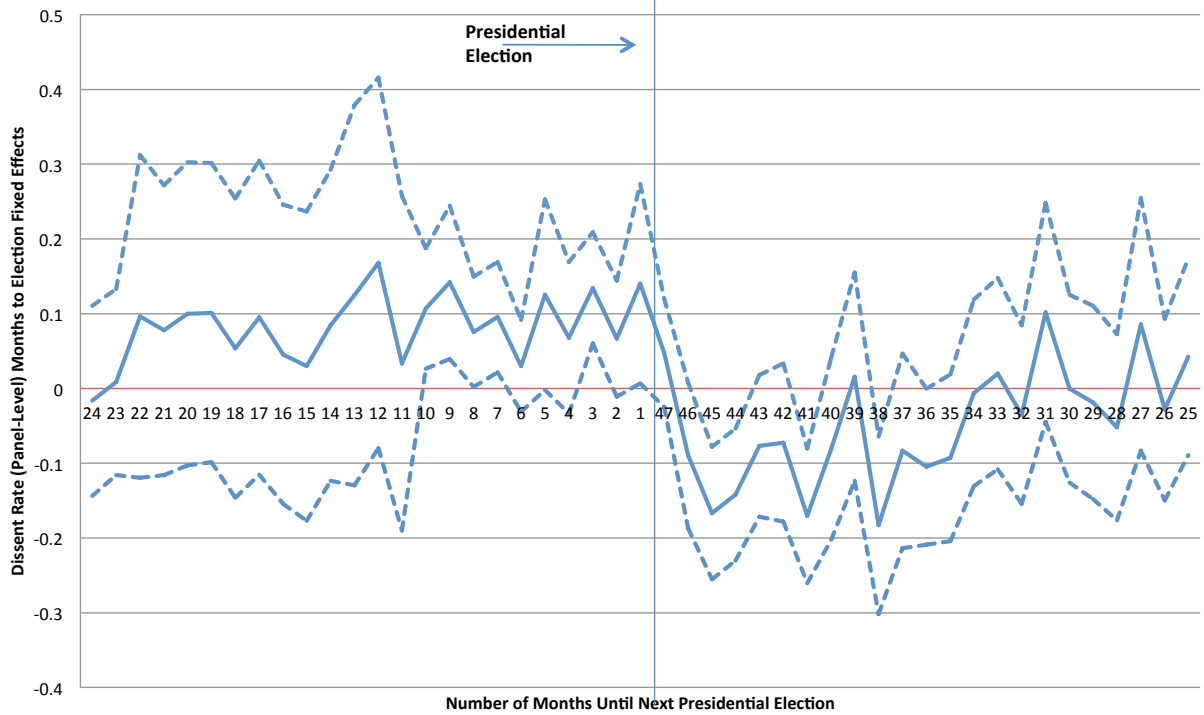
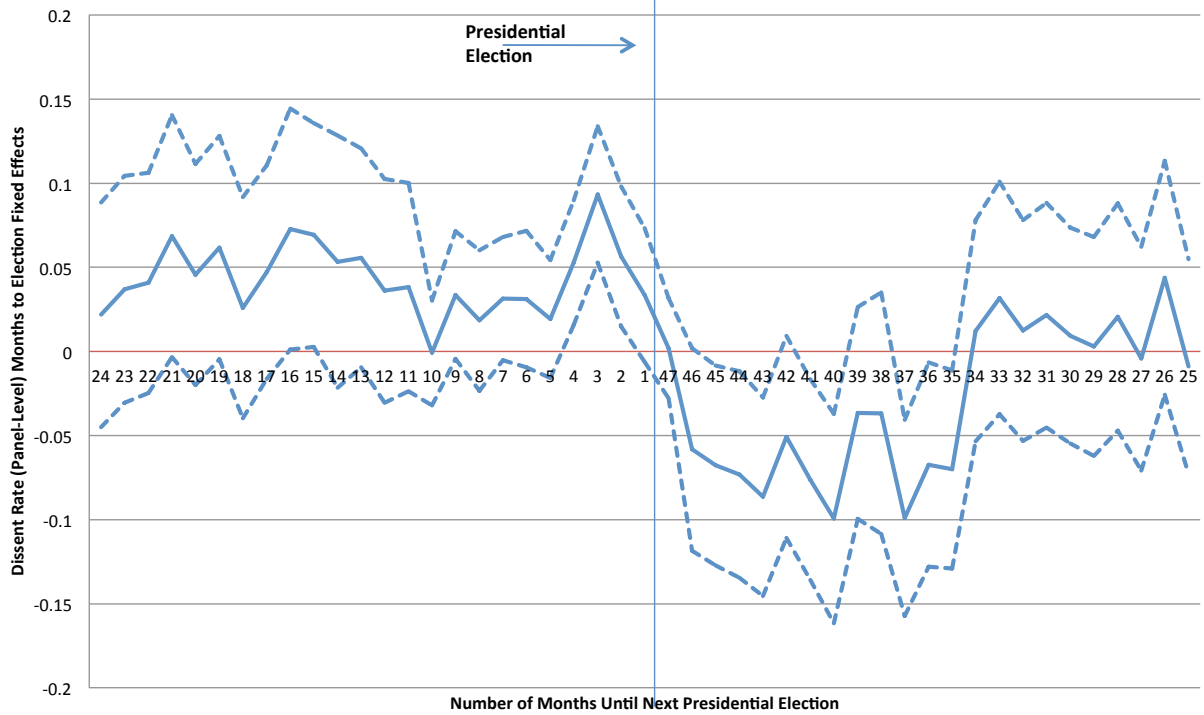


Figure 5C

**Figure 6A: Dissent Rate across the Political Cycle (Monthly)  
Electorally Pivotal States**

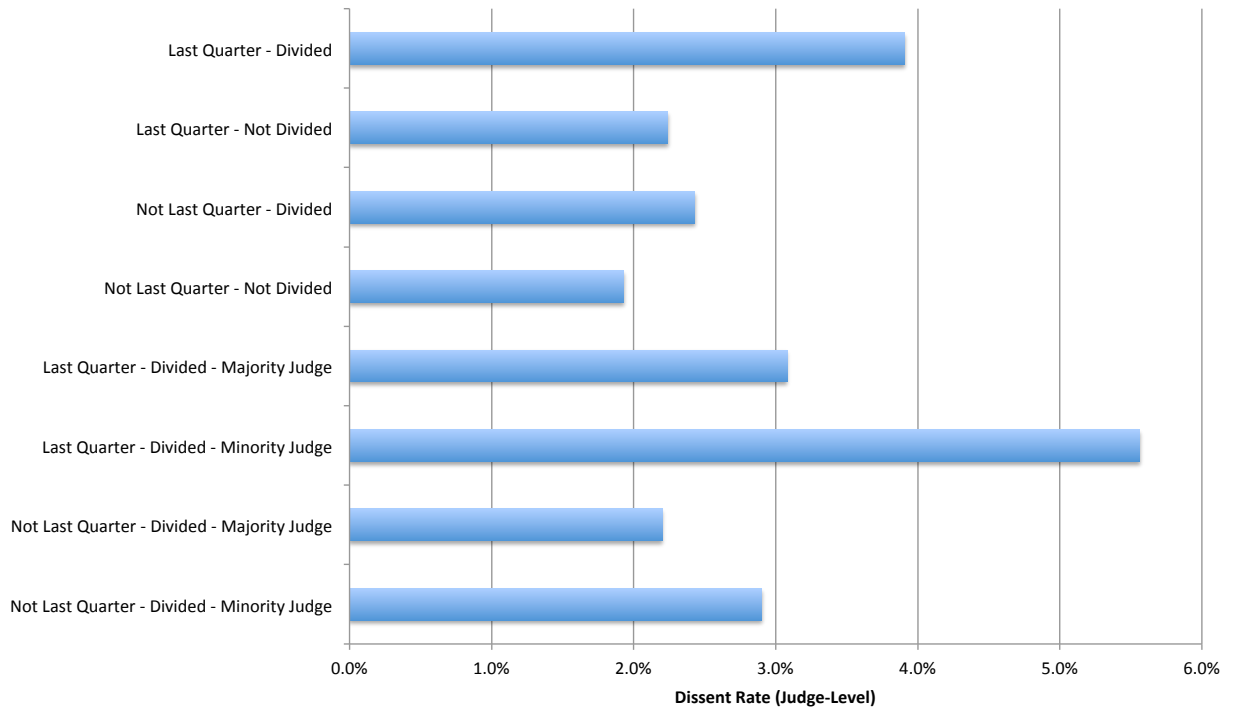


**Figure 6B: Dissent Rate across the Political Cycle (Monthly)  
Electorally Non-Pivotal States**

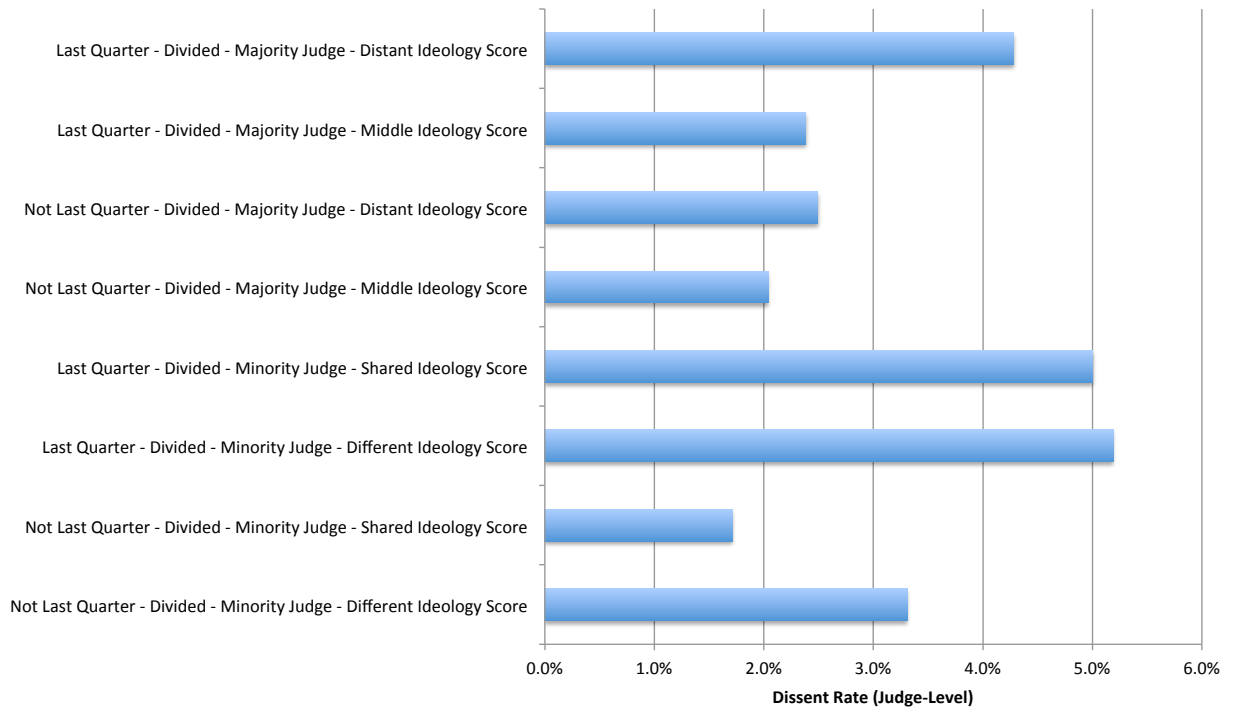




**Figure 7A: The Role of Judicial Panel Characteristics in Electoral Cycles in Dissents**

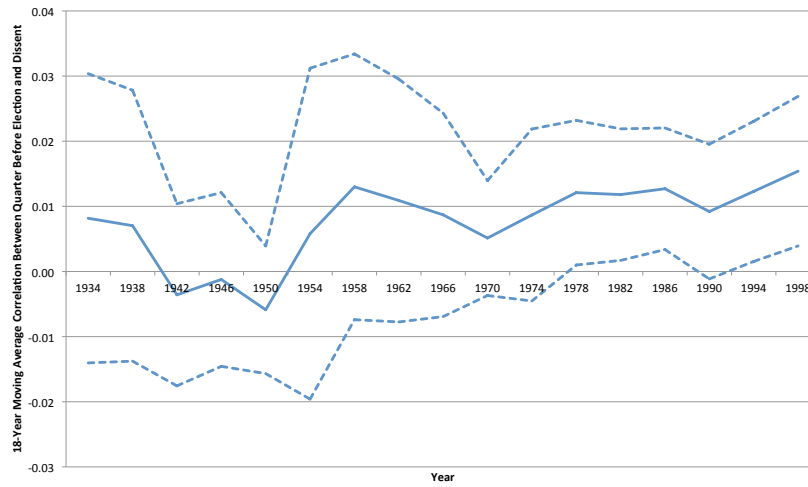


**Figure 7B: The Role of Judicial Ideology Score in Electoral Cycles in Dissents**

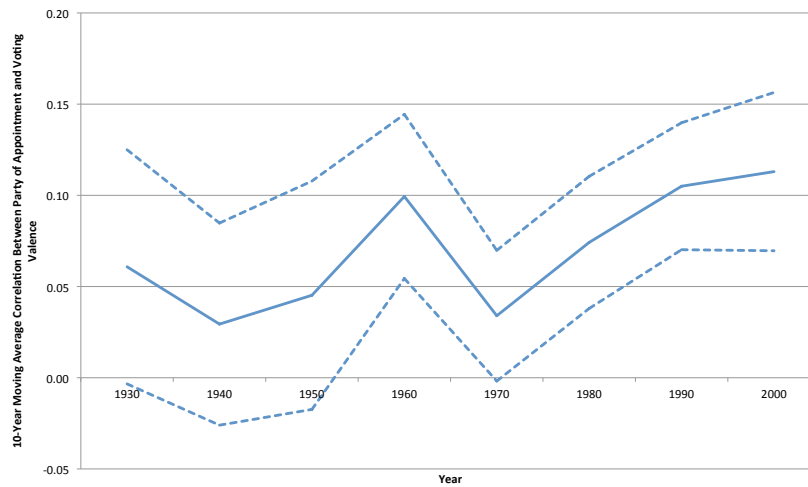


Notes: Politically Divided Panels are RRD or DDR; Non-Divided Panels are DDD or RRR.  
 Majority Judge is R in RRD panels and D in DDR panels; Minority Judge is D in RRD and R in DDR panels.

**Figure 8A: Increase in Electoral Cycles in Dissents over Time  
(5% Sample)**



**Figure 8B: Influence of Party of Appointment on Voting Valence Over Time (5% Sample)**



**Figure 8C: Increase in Electoral Cycles in Dissents over Time  
(100% Sample)**

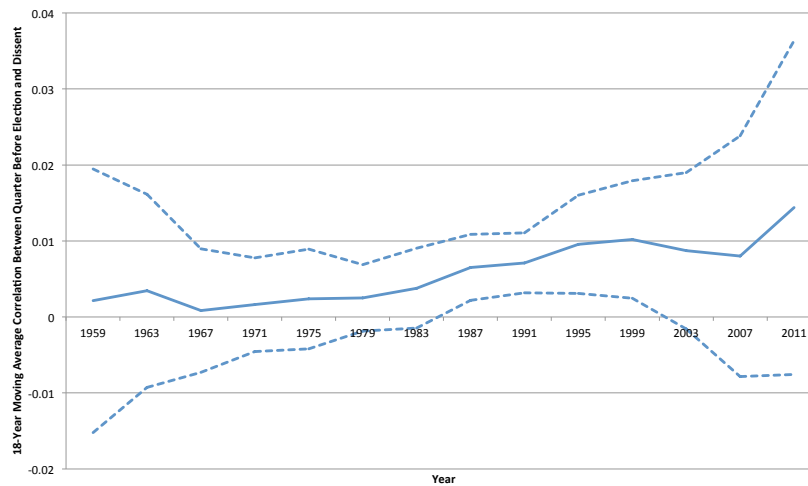
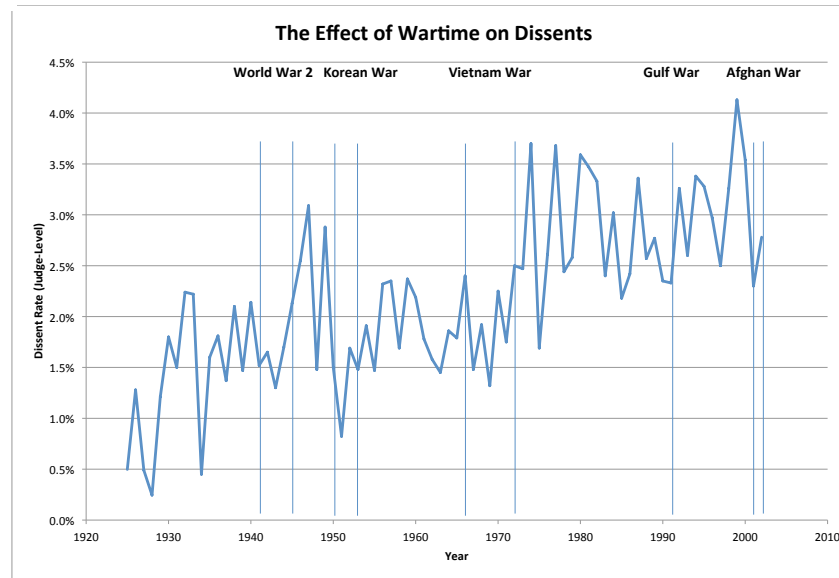
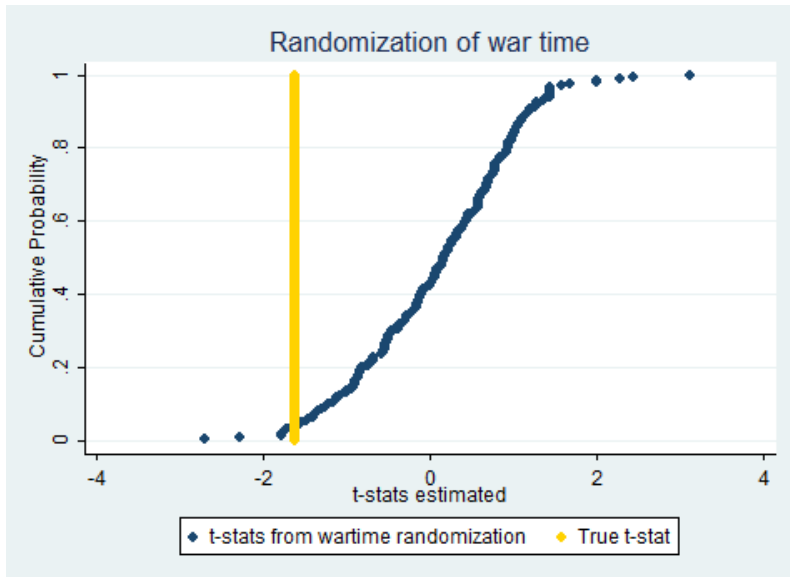


Figure 9: Dissents During Wartime



Case-Level



Vote-Level

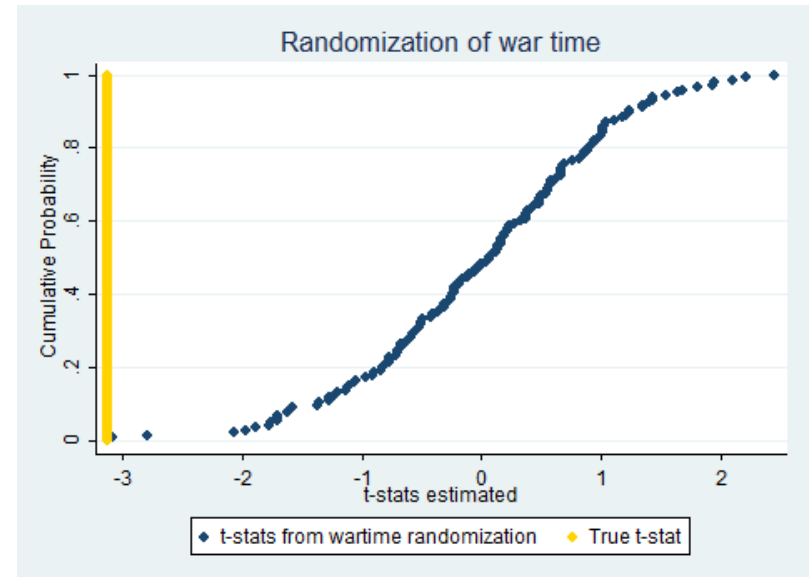


Table 1: Electoral Cycles in Dissents (2-1 Decision)

	(1)	(2)	(3)	(4)
	5% Sample (1925-2002)		100% Sample (1950-2007)	
Mean of dep. var.	0.079		0.060	
Divided (DRR or RDD)	0.0157*** (0.00452)	0.0154*** (0.00450)		
Quarternoelect = 1	0.0637*** (0.0123)	0.0680*** (0.0135)	0.0113*** (0.00323)	0.00847** (0.00337)
Quarternoelect = 2	0.0347*** (0.0121)	0.0341** (0.0145)	0.00785*** (0.00292)	0.00474 (0.00318)
Quarternoelect = 3	0.0325*** (0.0123)	0.0343** (0.0133)	0.00782** (0.00318)	0.00445 (0.00331)
Quarternoelect = 4	0.00581 (0.0111)	0.00582 (0.0111)	0.00153 (0.00399)	0.00158 (0.00368)
Quarternoelect = 5	0.0209 (0.0152)	0.0251 (0.0159)	0.00747 (0.00465)	0.00454 (0.00450)
Quarternoelect = 6	0.0120 (0.0141)	0.0115 (0.0153)	0.00496 (0.00460)	0.00185 (0.00455)
Quarternoelect = 7	0.0226 (0.0141)	0.0238 (0.0153)	0.0000166 (0.00470)	-0.00330 (0.00448)
Quarternoelect = 8	0.00772 (0.0141)	0.00870 (0.0142)	0.00519 (0.00446)	0.00528 (0.00415)
Quarternoelect = 9	-0.0115 (0.0155)	-0.00718 (0.0157)	0.0120** (0.00500)	0.00891* (0.00490)
Quarternoelect = 10	-0.0114 (0.0160)	-0.0110 (0.0168)	0.00647 (0.00482)	0.00326 (0.00490)
Quarternoelect = 11	0.000311 (0.0162)	0.00269 (0.0167)	0.00706 (0.00499)	0.00364 (0.00497)
Quarternoelect = 12	-0.0102 (0.0128)	-0.00929 (0.0129)	-0.00102 (0.00382)	-0.00117 (0.00351)
Quarternoelect = 13	0.00115 (0.0148)	0.00451 (0.0151)	0.00450 (0.00385)	0.00141 (0.00374)
Quarternoelect = 14	-0.0157 (0.0134)	-0.0159 (0.0147)	0.000920 (0.00382)	-0.00234 (0.00391)
Quarternoelect = 15	-0.0176 (0.0117)	-0.0154 (0.0121)	-0.000372 (0.00391)	-0.00386 (0.00377)
Year FE	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes
Season FE	No	Yes	No	Yes
Legal Issue FE	No	Yes	No	No
Observations	18686	18686	263388	263388
R-squared	0.019	0.021	0.012	0.013

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). The omitted dummy variable indicating the number of quarters remaining before the presidential election is 16 quarters.

Table 2: Electoral Cycles in the Correlation between Party of Appointment and Judges' Votes

<i>Panel A</i>	(1)	(2)	(3)	(4)
	Liberal Vote (5% Sample, 1925-2002)			
Code	+1/0/-1		+1 vs. 0/-1	+1/0 vs. -1
Mean of dep. var.	-0.157		0.340	0.503
Judge appointed by Democrat	0.0849*** (0.00910)	0.0708*** (0.00821)	0.0348*** (0.00416)	0.0359*** (0.00462)
Judge appointed by Democrat * Last Quarter	0.0684** (0.0335)	0.0712* (0.0365)	0.0394* (0.0211)	0.0319* (0.0177)
Year FE	No	Yes	Yes	Yes
Circuit FE	No	Yes	Yes	Yes
Season FE	No	Yes	Yes	Yes
Legal Issue FE	No	Yes	Yes	Yes
Divided (RDD or DRR) FE	No	Yes	Yes	Yes
Quarter-to-Election FE	No	Yes	Yes	Yes
Observations	56058	56058	56058	56058
R-squared	0.002	0.087		
<i>Panel B</i>	Liberal Precedent (5% Sample, 1925-2002)			
	Politically unified panels (DDD or RRR)			
Mean of dep. var.	-0.139		0.344	0.517
Panel appointed by Democrat	0.168*** (0.0257)	0.164*** (0.0302)	0.0753*** (0.0165)	0.0883*** (0.0160)
Panel appointed by Democrat * Last Quarter	0.217* (0.124)	0.207* (0.125)	0.0828 (0.0683)	0.124* (0.0633)
Year FE	No	Yes	Yes	Yes
Circuit FE	No	Yes	Yes	Yes
Season FE	No	Yes	Yes	Yes
Legal Issue FE	No	Yes	Yes	Yes
Divided (RDD or DRR) FE	No	Yes	Yes	Yes
Quarter-to-Election FE	No	Yes	Yes	Yes
Observations	5659	5659	5659	5659
R-squared	0.011	0.101		

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). Panel A: Vote-level regression. The outcome variable is Liberal Vote, which is coded as 1 for liberal, 0 for mixed or not applicable, and -1 for conservative. Panel B: Case-level regression. The outcome variable is Liberal Precedent.

Table 3: Electoral Cycles in Treatment of Lower Courts

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	5% Sample (1925-2002)							
Mean of dep. var.	Affirm 0.568		Reverse 0.269		Reverse and Remand 0.204		Reverse without Remand 0.065	
Last Quarter	-0.0433** (0.0184)	-0.0588** (0.0251)	0.0268* (0.0145)	0.0519*** (0.0166)	0.0265* (0.0136)	0.0505*** (0.0187)	0.000325 (0.00977)	0.00135 (0.0132)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Season FE	No	Yes	No	Yes	No	Yes	No	Yes
Legal Issue FE	No	Yes	No	Yes	No	Yes	No	Yes
Divided (RDD or DRR) FE	No	Yes	No	Yes	No	Yes	No	Yes
Quarter-to-Election FE	No	Yes	No	Yes	No	Yes	No	Yes
Observations	18686	18686	18686	18686	18686	18686	18686	18686
R-squared	0.027	0.054	0.015	0.025	0.013	0.021	0.013	0.016

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). 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.

Table 4: Electoral Cycles in Dissents by Case Type

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	1-Digit Case Category							2-Digit Case Category		
	Criminal	Civil Rights	First Amendment	Due Process	Labor Relations	Economic Activity	Misc.	Criminal Federal	Economic Commercial	Economic Property
Mean of dep. var.	0.077	0.100	0.185	0.100	0.093	0.071	0.073	0.071	0.071	0.061
Divided (DRR or RDD)	0.0253*** (0.00868)	0.0378** (0.0157)	-0.00112 (0.0614)	0.0980* (0.0574)	0.00702 (0.0183)	0.00676 (0.00560)	0.0201 (0.0297)	0.0281*** (0.00950)	0.00650 (0.0103)	0.0235 (0.0227)
Quartermoelect = 1	0.0799*** (0.0222)	0.0466 (0.0483)	0.308 (0.257)	-0.0985 (0.177)	0.0687 (0.0658)	0.0649*** (0.0169)	-0.0786 (0.132)	0.0699*** (0.0246)	0.0959*** (0.0339)	0.181*** (0.0694)
Quartermoelect = 2	0.0547** (0.0247)	0.0113 (0.0399)	0.157 (0.180)	-0.255* (0.150)	-0.0434 (0.0591)	0.0455** (0.0177)	-0.171 (0.119)	0.0551** (0.0261)	0.0238 (0.0291)	0.0947 (0.0665)
Quartermoelect = 3	0.0445* (0.0239)	0.125** (0.0495)	-0.0678 (0.165)	-0.141 (0.165)	-0.0221 (0.0528)	0.0334** (0.0142)	-0.214* (0.113)	0.0398 (0.0264)	0.0241 (0.0249)	0.111* (0.0638)
Quartermoelect = 4	0.0327 (0.0245)	0.0252 (0.0544)	-0.00685 (0.130)	0.149 (0.141)	-0.0114 (0.0525)	-0.00504 (0.0140)	-0.173* (0.0980)	0.0360 (0.0275)	0.00952 (0.0243)	0.0302 (0.0459)
Quartermoelect = 5	0.0447 (0.0343)	-0.00442 (0.0665)	0.125 (0.185)	0.0127 (0.255)	0.00285 (0.0738)	0.0170 (0.0205)	-0.0308 (0.116)	0.0727** (0.0365)	0.0320 (0.0373)	0.000696 (0.0537)
Quartermoelect = 6	0.00287 (0.0323)	0.0165 (0.0689)	-0.224 (0.189)	-0.186 (0.208)	-0.0617 (0.0695)	0.0410* (0.0211)	-0.158 (0.115)	0.0228 (0.0336)	0.0732* (0.0388)	0.0566 (0.0700)
Quartermoelect = 7	0.0382 (0.0324)	0.0783 (0.0675)	-0.0322 (0.216)	-0.0685 (0.221)	-0.0647 (0.0677)	0.0253 (0.0184)	-0.202* (0.119)	0.0650* (0.0339)	0.0583* (0.0334)	0.133* (0.0784)
Quartermoelect = 8	0.0178 (0.0259)	-0.0180 (0.0715)	-0.288 (0.191)	0.270 (0.196)	-0.0295 (0.0645)	0.0174 (0.0163)	-0.144 (0.111)	0.0248 (0.0264)	0.0772** (0.0340)	0.0691 (0.0619)
Quartermoelect = 9	0.0227 (0.0289)	-0.101 (0.0792)	-0.395* (0.231)	-0.124 (0.253)	0.0187 (0.0787)	0.00197 (0.0214)	-0.210* (0.121)	0.0446 (0.0295)	0.0413 (0.0422)	-0.0309 (0.0728)
Quartermoelect = 10	0.0214 (0.0314)	-0.0507 (0.0861)	-0.480** (0.228)	-0.0498 (0.221)	0.00653 (0.0813)	-0.00110 (0.0203)	-0.286** (0.117)	0.0329 (0.0317)	-0.0145 (0.0426)	0.0942 (0.0767)
Quartermoelect = 11	0.0344 (0.0319)	-0.0654 (0.0823)	-0.564*** (0.214)	-0.171 (0.238)	-0.0108 (0.0824)	0.0106 (0.0215)	-0.173 (0.124)	0.0506 (0.0352)	0.0341 (0.0381)	0.0133 (0.0701)
Quartermoelect = 12	-0.0104 (0.0216)	-0.0739 (0.0779)	-0.438*** (0.156)	0.0372 (0.129)	0.0445 (0.0543)	0.00352 (0.0157)	-0.188 (0.117)	-0.0198 (0.0212)	0.00169 (0.0323)	0.0453 (0.0525)
Quartermoelect = 13	0.0443* (0.0265)	-0.145* (0.0794)	-0.230 (0.200)	0.117 (0.188)	0.0434 (0.0554)	0.00396 (0.0191)	-0.170 (0.121)	0.0365 (0.0261)	0.0354 (0.0386)	-0.0327 (0.0690)
Quartermoelect = 14	-0.000254 (0.0264)	-0.216*** (0.0792)	-0.538*** (0.182)	-0.0769 (0.179)	-0.0159 (0.0522)	0.0292 (0.0205)	-0.164 (0.129)	0.00874 (0.0265)	0.0432 (0.0450)	0.130 (0.0826)
Quartermoelect = 15	0.000225 (0.0226)	-0.138 (0.0889)	-0.216 (0.244)	-0.116 (0.135)	-0.0404 (0.0576)	0.0129 (0.0192)	-0.176 (0.138)	0.00467 (0.0235)	0.0313 (0.0412)	0.120* (0.0663)
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
Observations	5023	1605	275	209	1351	9509	518	4224	2543	610
R-squared	0.036	0.068	0.310	0.399	0.086	0.024	0.187	0.037	0.059	0.210

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01). Data comes from 5% Sample (1925-2002).

Table 5: Characteristics of Opinions before Presidential Elections

<i>Panel A: Quality</i>	(1)	(2)	(3)	(4)
	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	0.093	
Last Quarter	0.575 (0.519)	-0.0201 (0.0435)	0.0785** (0.0289)	0.100** (0.0469)
Dissent	2.090*** (0.254)	0.415*** (0.0362)		
Last Quarter * Dissent	-0.211 (1.210)	-0.281** (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
<i>Panel B: Treatment by Supreme Court</i>	5% Sample (1925-2002)			
	Appeal Made to Supreme Court	Supreme Court Takes Case	Supreme Court Reverses	Supreme Court Reverses
Mean of dep. var.	0.252	0.029	0.712	0.705
Last Quarter	0.0176 (0.0217)	0.00655 (0.00905)	-0.206 (0.146)	-0.151 (0.336)
Dissent	0.139*** (0.0131)	0.0446*** (0.00729)	0.0102 (0.0642)	
Last Quarter * Dissent	0.0131 (0.0434)	0.00961 (0.0324)	-0.340* (0.194)	
Partisan Precedent				-0.0157 (0.0838)
Last Quarter * Partisan Precedent				0.0345 (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



Table 6: Electoral Cycles in Dissents by State of Judge's Duty Location

	(1)	(2)	(3)	(4)	(5)	(6)
	Dissent Vote (5% Sample, 1925-2002)					
	Top 8 States in Electoral Votes Count and DC	States with Fewer Electoral Votes	States Likely to be Electurally Pivotal and DC	States Not Likely to be Electurally Pivotal	States in Top Quintile of Campaign Ads	States below Top Quintile of Campaign Ads
Mean of dep. var.	0.027	0.021	0.030	0.021	0.026	0.023
Divided (RDD or DRR)	0.0114*** (0.00253)	0.00463** (0.00190)	0.0137*** (0.00335)	0.00508*** (0.00168)	0.0100*** (0.00317)	0.00615*** (0.00166)
Last Quarter	0.0286*** (0.00712)	0.00845 (0.00544)	0.0355*** (0.0103)	0.0101** (0.00496)	0.0272*** (0.00824)	0.0114** (0.00525)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes
Season FE	Yes	Yes	Yes	Yes	Yes	Yes
Legal Issue FE	Yes	Yes	Yes	Yes	Yes	Yes
Judge FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter-to-Election FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	20145	31315	12642	38818	13116	38344
R-squared	0.028	0.027	0.032	0.025	0.033	0.025

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). The top 8 states in electoral vote count are California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas. States likely to be electorally pivotal are: Michigan, Ohio, Pennsylvania, Florida, and California. States in the top quintile of campaign ads for 1996 were California, Ohio, Florida, Michigan, Tennessee, Pennsylvania, Kentucky, Colorado, Missouri, and New Mexico.

Table 7: 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 (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). 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 election. The mean popular vote tightness is 0.82.

Table 8: Dissents and Monthly Campaign Advertisements by State of Judge's Duty Location

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dissent Vote (5% Sample, 1925-2002, Quartertoelect = 0 to 8)							
Mean of dep. var.	0.023							
$\Delta$ Campaign Ads (t0)	0.00531** (0.00214)	0.00660** (0.00262)	0.00770*** (0.00289)	0.00709** (0.00300)	0.00678** (0.00310)	0.00416 (0.00323)	0.00555 (0.00391)	0.00874** (0.00407)
$\Delta$ Campaign Ads (t1)		0.00412 (0.00356)	0.00538 (0.00378)	0.00432 (0.00369)	0.00345 (0.00427)	0.00210 (0.00430)		
$\Delta$ Campaign Ads (t2)			0.00508 (0.00472)	0.00416 (0.00469)	0.00277 (0.00461)	0.000433 (0.00457)		
$\Delta$ Campaign Ads (f1)							0.000651 (0.00369)	0.00125 (0.00492)
$\Delta$ Campaign Ads (f2)								0.00190 (0.00352)
Year FE	No	No	No	Yes	Yes	Yes	No	No
Circuit FE	No	No	No	Yes	Yes	Yes	No	No
Season FE	No	No	No	Yes	Yes	Yes	No	No
Legal Issue FE	No	No	No	Yes	Yes	Yes	No	No
Divided (RDD or DRR) FE	No	No	No	Yes	Yes	Yes	No	No
Judge FE	No	No	No	No	Yes	Yes	No	No
Quarter-to-Election FE	No	No	No	No	No	Yes	No	No
N	22906	21954	20750	20750	20750	20750	21967	21106
R-sq	0.000	0.000	0.000	0.007	0.067	0.068	0.000	0.000

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). Campaign ads come from the Wisconsin Ads project for the 2008 election. Cases are limited to judgments in the year of presidential elections and the year previous to presidential elections. Wisconsin Ads data are only available for quarters to election from 0 to 8. The explanatory variable of interest is the change in number of campaign advertisements (10,000s) in the state of the judge's duty station in the month the decision was published.

Table 9: Electoral Cycles in Dissents with Placebo Dates (Other Key Milestones of Cases)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)*
	Dissent (2-1 Decision) (100% Sample, 1971-2006)									
Placebo Date	Publication Date	Docket Date	Date Filed in District Court	Notice of Appeal Filed	Date Brief Notice Issued	Date of Last Brief Filing	Submitted on Merits	Date of Oral Argument	Final Judgment Date	Publication Date
Quarternoelect = 1	0.00847** (0.00337)	-0.00239 (0.00357)	0.00467 (0.00335)	0.00436 (0.00342)	-0.00503 (0.00688)	0.00695 (0.00429)	0.0102 (0.00911)	0.00323 (0.0101)	0.00721** (0.00330)	0.00908*** (0.00328)
Quarternoelect = 2	0.00474 (0.00318)	-0.00469 (0.00446)	0.00387 (0.00345)	-0.00208 (0.00442)	-0.00664 (0.00716)	0.00557 (0.00571)	0.00662 (0.00888)	0.00474 (0.0138)	0.00390 (0.00341)	0.00504 (0.00351)
Quarternoelect = 3	0.00445 (0.00331)	-0.00131 (0.00557)	0.00292 (0.00359)	0.00166 (0.00556)	-0.00295 (0.00914)	0.00736 (0.00773)	0.00485 (0.00780)	-0.00134 (0.0129)	0.00418 (0.00356)	0.00282 (0.00386)
Quarternoelect = 4	0.00158 (0.00368)	-0.00238 (0.00583)	0.000658 (0.00363)	0.00182 (0.00612)	0.00412 (0.0104)	0.0108 (0.00727)	0.0104 (0.00799)	0.0105 (0.0126)	0.00116 (0.00411)	0.000715 (0.00428)
Quarternoelect = 5	0.00454 (0.00450)	-0.000143 (0.00585)	0.00170 (0.00368)	-0.000972 (0.00579)	0.000219 (0.00979)	0.0124 (0.00763)	0.0146 (0.00918)	0.0106 (0.0130)	0.00314 (0.00482)	0.00340 (0.00483)
Quarternoelect = 6	0.00185 (0.00455)	-0.0000619 (0.00600)	0.00402 (0.00376)	0.00383 (0.00610)	0.00431 (0.0111)	0.00877 (0.00769)	0.00580 (0.00986)	0.00368 (0.0153)	0.000993 (0.00494)	-0.000504 (0.00502)
Quarternoelect = 7	-0.00330 (0.00448)	0.000717 (0.00617)	0.000956 (0.00349)	0.00129 (0.00602)	0.00366 (0.0107)	0.00979 (0.00817)	0.0155 (0.0101)	0.0104 (0.0147)	-0.000730 (0.00554)	-0.00470 (0.00523)
Quarternoelect = 8	0.00528 (0.00415)	-0.000674 (0.00625)	-0.00253 (0.00346)	0.00239 (0.00615)	0.00613 (0.0119)	0.0152* (0.00896)	0.00950 (0.00979)	0.0134 (0.0144)	0.00181 (0.00465)	0.00409 (0.00481)
Quarternoelect = 9	0.00891* (0.00490)	0.00591 (0.00642)	-0.00000849 (0.00363)	0.00630 (0.00630)	0.0150 (0.0128)	0.0167** (0.00840)	0.0125 (0.00936)	0.0113 (0.0139)	0.00730 (0.00540)	0.00970* (0.00574)
Quarternoelect = 10	0.00326 (0.00490)	0.00416 (0.00632)	0.00439 (0.00400)	0.00931 (0.00633)	0.00871 (0.0122)	0.0125 (0.00811)	0.0169* (0.00986)	0.00350 (0.0145)	0.00284 (0.00567)	0.00313 (0.00564)
Quarternoelect = 11	0.00364 (0.00497)	0.00571 (0.00610)	-0.00111 (0.00353)	0.00935 (0.00588)	0.00754 (0.0129)	0.0115 (0.00820)	0.00604 (0.0101)	0.00836 (0.0147)	0.00587 (0.00509)	0.00332 (0.00529)
Quarternoelect = 12	-0.00117 (0.00351)	0.00160 (0.00631)	0.000268 (0.00346)	0.00460 (0.00585)	-0.000817 (0.0114)	0.0140 (0.00881)	0.00692 (0.00826)	0.00992 (0.0145)	-0.00753* (0.00411)	-0.00750* (0.00406)
Quarternoelect = 13	0.00141 (0.00374)	0.00417 (0.00599)	-0.00498 (0.00305)	0.00425 (0.00543)	-0.000679 (0.00948)	0.00650 (0.00752)	0.00857 (0.00633)	0.00764 (0.0111)	-0.00392 (0.00442)	-0.00222 (0.00466)
Quarternoelect = 14	-0.00234 (0.00391)	0.00455 (0.00513)	0.00616* (0.00320)	0.00996* (0.00515)	-0.00595 (0.0105)	0.00914 (0.00625)	-0.000736 (0.00732)	-0.00389 (0.00904)	-0.0112** (0.00462)	-0.0124** (0.00511)
Quarternoelect = 15	-0.00386 (0.00377)	-0.00271 (0.00333)	0.00139 (0.00347)	0.00289 (0.00422)	-0.00577 (0.00558)	0.00681 (0.00487)	0.00153 (0.00548)	-0.00901 (0.00608)	-0.00748* (0.00446)	-0.0101** (0.00452)
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
Observations	263388	164545	150293	151246	58773	155695	27231	134116	164545	164545
R-squared	0.013	0.019	0.019	0.019	0.026	0.019	0.018	0.019	0.019	0.019

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01). Data come from our 100% data collection from 1950-2007 merged with the Administrative Office of the U.S. Courts (1971-2006). Column 10 restricts to data also containing final judgment dates.

Table 10: Electoral Cycles in Dissents by Type of Presidential Election

<i>Panel A: 5% Sample (1925-2002)</i>				
	(1)	(2)	(3)	(4)
	Dissent (2-1 Decision)			
Mean of dep. var.	0.079			
Last Three Quarters	0.0389*** (0.00835)	0.0505*** (0.00979)	0.0548*** (0.00911)	0.0521*** (0.00907)
Close Election (Electoral Count < 55%)	0.0830*** (0.0170)			0.0798*** (0.0157)
Close Election (Electoral Count < 55%) * Last Three Quarters	0.0851** (0.0395)			0.0718* (0.0396)
Landslide Election (Electoral Count > 95%)		0.0218 (0.0173)		0.00615 (0.0166)
Landslide Election (Electoral Count > 95%) * Last Three Quarters		-0.0399*** (0.0145)		-0.0201* (0.0102)
War			0.0192 (0.0130)	0.0192 (0.0130)
War * Last Three Quarters			-0.0605*** (0.0113)	-0.0500*** (0.0110)
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
Observations	18686	18686	18686	18686
R-squared	0.020	0.020	0.021	0.021
<i>Panel B: 100% Sample (1950-2007)</i>				
	Dissent Spike: Dissent Rate in Three Quarters Before Election - Dissent Rate in Three Quarters After Election			
Mean of dep. var.	0.0068			
	(1)	(2)		
Electoral Count (%)	-0.000192** (0.0000853)	-0.000191** (0.0000857)		
Circuit FE	N	Y		
Observations	160	160		
R-squared	0.018	0.078		

Notes: Robust OLS standard errors in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). Electoral Count is the percentage of the electoral college achieved by the winning political party, which ranges from 50 to 100. Panel A: Standard errors clustered at the quarter-year level. The explanatory variables of interest are a dummy variable indicating whether a case was decided in the three quarters immediately preceding a presidential election and the interaction with a dummy variable indicating whether the margin of victory in the electoral count was less than 10% (Column 1), a dummy variable indicating whether the margin of victory in the electoral count was more than 90% (Column 2), and a dummy variable indicating whether the decision was made during wartime (Column 3). Panel B: Each election-circuit is a separate observation. Dissent spike is the difference in the dissent rate in the three quarters before and after the election and is winsorized at the 1% level. Regressions are weighted by the number of judgments used to compute the dissent spike. Standard errors are clustered at the Election level.

Table 11: Electoral Cycles in Dissents and Influence of Party of Appointment on Voting Valence Across Time

	(1)	(2)	(3)	(4)
	Dissent (2-1 Decision)		Liberal Vote	
	5% Sample		5% Sample	
	(1925-2002)		(1925-2002)	
Mean of dep. var.	0.079		-0.157	
Last Quarter	0.0429** (0.0178)	0.0429** (0.0178)		
Year > 1975 * Last Quarter	0.0439** (0.0201)	0.0480** (0.0222)		
Democrat Appointee			0.0523*** (0.0106)	0.0513*** (0.0110)
Democrat Appointee * Year > 1975			0.0462*** (0.0159)	0.0398** (0.0171)
Born on or after 1940		0.00560 (0.0163)		-0.0334* (0.0200)
Born on or after 1940 * Last Quarter		-0.0254 (0.0689)		
Born on or after 1940 * Democrat Appointee				0.0714** (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.

Table 12: Judicial Experience and Electoral Cycles in Dissents

	(1)	(2)
	Dissent Vote	
	5% Sample (1925-2002)	N
	Each coefficient represents a separate regression	
Last Quarter	0.0174***	56058
(All Experience)	(0.00415)	
Last Quarter	0.0343***	6314
(Experience = 1-2)	(0.0116)	
Last Quarter	0.00976	6526
(Experience = 3-4)	(0.0147)	
Last Quarter	0.0261	6075
(Experience = 5-6)	(0.0185)	
Last Quarter	0.0283***	5644
(Experience = 7-8)	(0.0106)	
Last Quarter	0.0173	5041
(Experience = 9-10)	(0.0166)	
Last Quarter	-0.0256	4390
(Experience = 11-12)	(0.0159)	
Last Quarter	0.0341*	3605
(Experience = 13-14)	(0.0192)	
Last Quarter	0.00159	3002
(Experience = 15-16)	(0.0166)	
Last Quarter	0.0212	2288
(Experience = 17-18)	(0.0256)	
Last Quarter	0.00878	2737
(Experience = 19-21)	(0.0134)	
Last Quarter	0.0188	3033
(Experience = 22-27)	(0.0135)	
Last Quarter	-0.00982	1292
(Experience = 28-35)	(0.0226)	
Last Quarter	0.0209**	2984
(Experience = 1)	(0.0106)	
Last Quarter	0.0505**	3330
(Experience = 2)	(0.0222)	
Year FE	Yes	
Circuit FE	Yes	
Season FE	Yes	
Legal Issue FE	Yes	
Divided (RDD or DRR) FE	Yes	
Quarter-to-Election FE	Yes	

Notes: Robust OLS standard errors clustered at the quarter-year in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). The explanatory variable of interest is a dummy variable indicating whether the case was decided in the quarter immediately preceding a presidential election. Numbers in Column 3 do not sum up to the sample size in the first row as some cases have judges with years of experience outside the displayed range.

Table 13: 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.	0.024									
	OLS							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.



Table 14: Judicial Decisions During Wartime

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	5% Sample (1925-2002)					100% Sample	
Mean of dep. var.	Dissent (2-1 Decision)		Dissent Vote		Affirm	Reverse	Dissent (2-1)
	0.079		0.023		0.568	0.269	0.060
World War 2	0.0240*						
	(0.0132)						
Korean War	-0.0187*						0.00272
	(0.0101)						(0.00486)
Vietnam War	-0.0126**						-0.0208***
	(0.00565)						(0.00185)
Gulf War	0.0257						-0.0109***
	(0.0197)						(0.00255)
Afghan War	-0.0157						0.00294
	(0.0229)						(0.00623)
Divided	0.0150***	0.0198***	0.00720***	0.00844***	-0.0139*	0.0138*	
	(0.00442)	(0.00499)	(0.00150)	(0.00167)	(0.00775)	(0.00731)	
War		0.00992	0.00172	0.00632*	0.0459***	-0.0304***	
		(0.00869)	(0.00317)	(0.00364)	(0.0113)	(0.0102)	
Divided * War		-0.0263***		-0.00644*			
		(0.00972)		(0.00331)			
Inexperience ( $\leq 10$ Years)			0.00469*	0.00470*			
			(0.00264)	(0.00264)			
Inexperience * War			-0.00835**	-0.00863**			
			(0.00395)	(0.00392)			
Year (linear time trend)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Legal Issues FE	Yes	Yes	Yes	Yes	Yes	Yes	No
Judge FE	No	No	Yes	Yes	No	No	No
Observations	18686	18686	49374	49374	18686	18686	265868
R-squared	0.014	0.014	0.024	0.024	0.019	0.006	0.012

Notes: Robust OLS standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ).

Table 15: Electoral Cycles in Newspaper Articles

	(1)	(2)	(3)	(4)	(5)	(6)
	Mentioning Federal Appellate Court Dissents			Mentioning "Republican" and "Democrat"		
Mean of dep. var.	3.09			148		
Last Quarter	-0.343	0.214	-0.662	81.54***	65.74***	24.65***
	(0.711)	(0.966)	(1.505)	(9.646)	(13.95)	(9.501)
Quarter-to-election FE	No	Yes	Yes	No	Yes	Yes
Year FE	No	No	Yes	No	No	Yes
Observations	183	183	183	1294	1294	1294
R-squared	0.000	0.075	0.273	0.065	0.121	0.810

Notes: Robust OLS standard errors in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). Data is collapsed to quarter-year level. Data in Columns 1-3 come from Newsbank searches using (judgment or 'court ruling') and ([enumerated circuit names]) and (not 'supreme court') and dissent from 1981 to 2013. Data in Columns 4-6 come from ProQuest search of New York Times articles from 1900-2007 mentioning 'Republican' and 'Democrat' in the same article.

Table 16: 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*** (0.00417)			0.0101** (0.00476)
Quarter before Senator Election		0.00801** (0.00402)		0.00901** (0.00434)
Quarter before Governor Election			-0.00146 (0.00393)	-0.00176 (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.

Appendix Table A: Summary Statistics

<i>Panel A: Case Level</i>		<i>Panel B: Judge-Vote Level</i>	
	5% Sample (1925-2002)		5% Sample (1925-2002)
Dissent	0.0786 (0.00197)	Dissent	0.0234 (0.000638)
Divided (DRR or RDD)	0.697 (0.00336)	Majority	0.768 (0.00178)
Criminal	0.269 (0.00324)	Previous US Attorney or Assistant US Attorney	0.154 (0.00160)
Civil Rights	0.0859 (0.00205)	Democrat	0.510 (0.00211)
First Amendment, Due Process, Privacy	0.0281 (0.00121)	Appointed by Democrat	0.491 (0.00211)
Labor Relations	0.0723 (0.00189)	Presidential Party Candidate	0.496 (0.00211)
Economic Activity	0.509 (0.00366)	Wins Election	0.048 (0.00090)
Dissent for Procedural, not Merit Reasons	0.0925 (0.0193)	Close Election (Electoral Count < 55%)	62.19 (0.0393)
Citations by Subsequent Opinions	6.143 (0.0693)	Age	10.33 (0.0335)
Citations by Subsequent Dissents	0.549 (0.00787)	Experience	0.600 (0.00221)
Affirm	0.568 (0.00362)	Inexperience (Experience $\leq$ 10 years)	0.0161 (0.000555)
Reverse	0.269 (0.00303)	Elevated	0.0309 (0.000731)
N	18686	Retire Next Year	56147
<i>Panel C: Judge Level</i>		Voting Valence if Democratic Appointee	
Resignation	0.0230 (0.00310)	Judge	
Retirement	0.124 (0.00870)	Conservative	47%
Retirement, when Same Party in Power	0.0506 (0.00521)	Liberal	36%
Retirement, when Different Party in Power	0.0732 (0.00611)	Mixed	6%
Resignation, when Same Party in Power	0.0152 (0.00248)	Could not be determined	11%
Resignation, when Different Party in Power	0.00781 (0.00178)	N	27550
N	2433	Voting Valence if Republican Appointee	
		Judge	
		Conservative	52%
		Liberal	32%
		Mixed	7%
		Could not be determined	9%
N	2433	N	28597

Note: Coefficients shown are from an OLS regression on a constant.

Appendix Table B: Electoral Cycles - Robustness Checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	5% Sample (1925-2002)							
	Dissent (2-1 Decision)						Concurrence	
Mean of dep. var.	0.079						0.036	
Quarternoelect = 1	0.0680*** (0.0135)	0.0653*** (0.0146)	0.0527*** (0.0132)	0.0668*** (0.0135)	0.0868*** (0.0221)	0.0680*** (0.0124)	0.0667*** (0.0134)	0.0195** (0.00767)
Quarternoelect = 2	0.0341** (0.0145)	0.0256 (0.0163)	0.0255* (0.0138)	0.0331** (0.0145)	0.0457** (0.0205)	0.0341*** (0.0106)	0.0329** (0.0144)	0.0182** (0.00725)
Quarternoelect = 3	0.0343** (0.0133)	0.0291* (0.0149)	0.0302** (0.0134)	0.0335*** (0.0133)	0.0451** (0.0192)	0.0343*** (0.00956)	0.0337** (0.0133)	0.00923 (0.00598)
Quarternoelect = 4	0.00582 (0.0111)	0.0135 (0.0135)	0.00578 (0.0111)	0.00580 (0.0111)	0.00669 (0.0133)	0.00582 (0.0116)	0.00549 (0.0110)	0.00495 (0.00733)
Quarternoelect = 5	0.0251 (0.0159)	0.0260 (0.0176)	0.0102 (0.0156)	0.0245 (0.0159)	0.0317 (0.0215)	0.0251 (0.0215)	0.0250 (0.0158)	0.00172 (0.0103)
Quarternoelect = 6	0.0115 (0.0153)	0.0167 (0.0183)	0.00302 (0.0155)	0.0106 (0.0153)	0.0154 (0.0182)	0.0115 (0.0119)	0.0113 (0.0151)	0.00265 (0.0104)
Quarternoelect = 7	0.0238 (0.0153)	0.0290 (0.0186)	0.0194 (0.0150)	0.0233 (0.0153)	0.0286 (0.0195)	0.0238 (0.0156)	0.0233 (0.0152)	0.00626 (0.0100)
Quarternoelect = 8	0.00870 (0.0142)	0.00722 (0.0171)	0.00859 (0.0141)	0.00903 (0.0141)	0.00910 (0.0151)	0.00870 (0.0157)	0.00850 (0.0141)	0.00301 (0.00917)
Quarternoelect = 9	-0.00718 (0.0157)	-0.0151 (0.0191)	-0.0218 (0.0157)	-0.00707 (0.0157)	-0.00378 (0.0145)	-0.00718 (0.0199)	-0.00704 (0.0156)	-0.00208 (0.0111)
Quarternoelect = 10	-0.0110 (0.0168)	-0.0191 (0.0199)	-0.0193 (0.0174)	-0.0115 (0.0168)	-0.00754 (0.0144)	-0.0110 (0.0170)	-0.0107 (0.0168)	-0.00521 (0.0119)
Quarternoelect = 11	0.00269 (0.0167)	-0.0108 (0.0197)	-0.00142 (0.0171)	0.00259 (0.0167)	0.00399 (0.0159)	0.00269 (0.0162)	0.00332 (0.0165)	-0.00946 (0.0114)
Quarternoelect = 12	-0.00929 (0.0129)	-0.0116 (0.0148)	-0.00912 (0.0129)	-0.00948 (0.0129)	-0.00658 (0.0110)	-0.00929 (0.0155)	-0.00943 (0.0129)	0.00209 (0.00745)
Quarternoelect = 13	0.00451 (0.0151)	0.00913 (0.0171)	-0.0101 (0.0148)	0.00444 (0.0150)	0.00477 (0.0138)	0.00451 (0.0198)	0.00427 (0.0151)	0.00360 (0.00795)
Quarternoelect = 14	-0.0159 (0.0147)	-0.0228 (0.0166)	-0.0243 (0.0151)	-0.0166 (0.0146)	-0.0110 (0.0118)	-0.0159 (0.0149)	-0.0156 (0.0147)	-0.00425 (0.00795)
Quarternoelect = 15	-0.0154 (0.0121)	-0.0195 (0.0145)	-0.0194 (0.0127)	-0.0155 (0.0120)	-0.0121 (0.00929)	-0.0154 (0.0141)	-0.0152 (0.0122)	-0.00397 (0.00828)
Concurrence							0.0665*** (0.0154)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Legal Issue FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Probability Weights	No	Yes	No	No	No	No	No	No
Season (Months 3-5/6-8/9-11/12-2) FE	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Season (Months 1-3/4-6/7-9/10-12) FE	No	No	Yes	No	No	No	No	No
Divided (RDD or DRR) FE	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Panel (DDD, DDR, DRR, or RRR) FE	No	No	No	Yes	No	No	No	No
Probit	No	No	No	No	Yes	No	No	No
Cluster Quarter-Year	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Cluster Circuit	No	No	No	No	No	Yes	No	No
Observations	18686	18686	18686	18686	18686	18686	18686	18686
R-squared	0.021	0.021	0.022	0.022		0.021	0.023	0.016

Notes: Robust standard errors clustered at the quarter-year level in parentheses (\* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01). Probability weights use statistics on the number of cases in each circuit year according to the 5% sample codebook. The omitted dummy variable indicating the number of quarters remaining before the presidential election is 16 quarters.

Appendix Table C: Electoral Cycles in Dissents - Additional Robustness Checks

	(1)	(2)	(3)	(4)	(5)
	5% Sample (1925-2002)				100% Sample (1950-2007)
Mean of dep. var.		0.079			0.060
	OLS	Probit	Drop 1 Circuit	Keep 1 Circuit	Keep 1 Circuit
Quarters to Election	-0.00284*** (0.000709)	-0.00293*** (0.000765)	Each coefficient represents a separate OLS regression.		
Last Quarter				0.0680***	0.0113***
All Circuits				(0.0135)	(0.00323)
Last Quarter			0.0686***	0.0747*	-0.00368
Circuit 1			(0.0142)	(0.0429)	(0.0108)
Last Quarter			0.0679***	0.0778	0.00156
Circuit 2			(0.0142)	(0.0600)	(0.0107)
Last Quarter			0.0639***	0.118*	0.0119
Circuit 3			(0.0136)	(0.0661)	(0.0137)
Last Quarter			0.0715***	0.0301	0.0127
Circuit 4			(0.0138)	(0.0581)	(0.0153)
Last Quarter			0.0729***	0.0355	0.00888
Circuit 5			(0.0138)	(0.0296)	(0.00812)
Last Quarter			0.0627***	0.127***	0.0348***
Circuit 6			(0.0130)	(0.0436)	(0.0115)
Last Quarter			0.0706***	0.0509	0.0208**
Circuit 7			(0.0142)	(0.0372)	(0.00871)
Last Quarter			0.0714***	0.0252	0.0122
Circuit 8			(0.0143)	(0.0438)	(0.0110)
Last Quarter			0.0674***	0.0876**	-0.0121*
Circuit 9			(0.0135)	(0.0345)	(0.00689)
Last Quarter			0.0713***	0.0459	0.00254
Circuit 10			(0.0149)	(0.0350)	(0.0100)
Last Quarter			0.0685***	0.0706	0.0211**
Circuit 11			(0.0139)	(0.0537)	(0.00822)
Last Quarter			0.0603***	0.177***	0.0124
Circuit 12			(0.0145)	(0.0653)	(0.0135)
Year FE	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	No	No
Season FE	Yes	Yes	Yes	Yes	Yes
Legal Issue FE	Yes	Yes	Yes	Yes	No
Divided (RDD or DRR) FE	Yes	Yes	Yes	Yes	No
Quarter-to-Election FE	No	No	Yes	Yes	Yes

Notes: Robust standard errors clustered at the quarter-year level in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). The explanatory variables of interest is a dummy variable indicating whether it is the last quarter before an election (Columns 3-5) or a continuous variable for quarters to election (Columns 1-2). Marginal effect from a probit specification of dissent on continuous variable for quarters to election in Column 2.

Appendix Table D: Panel Composition, Case Type, and Case Load Over Political Cycle

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Divided Panel	Criminal	Civil Rights	First Amendment, Due Process, Privacy	Labor Relations	Economic Activity	Monthly # of Publications (AOC 1971- 1999)
Mean of dep. var.	0.697	0.269	0.086	0.028	0.072	0.509	260
Quarternoelect = 1	-0.0100 (0.0196)	-0.0168 (0.0221)	-0.0111 (0.0156)	-0.0140 (0.00996)	-0.000990 (0.0114)	0.0143 (0.0304)	0.501 (8.242)
Quarternoelect = 2	0.0161 (0.0212)	0.00356 (0.0215)	-0.0131 (0.0144)	-0.00190 (0.00952)	-0.0174 (0.0126)	0.0234 (0.0269)	-7.276 (9.106)
Quarternoelect = 3	0.00598 (0.0212)	-0.0109 (0.0195)	-0.0164 (0.0135)	-0.0122 (0.00842)	0.00858 (0.0124)	0.0248 (0.0247)	2.358 (8.693)
Quarternoelect = 4	0.00489 (0.0220)	0.00925 (0.0213)	-0.0159 (0.0147)	0.00653 (0.00867)	0.00697 (0.0114)	-0.0217 (0.0261)	-11.83 (8.653)
Quarternoelect = 5	-0.0305 (0.0311)	-0.0242 (0.0293)	-0.00742 (0.0174)	-0.00931 (0.0107)	-0.0195 (0.0147)	0.0326 (0.0344)	-8.162 (11.05)
Quarternoelect = 6	-0.00880 (0.0302)	-0.0109 (0.0267)	-0.00751 (0.0184)	-0.00821 (0.0106)	-0.00586 (0.0159)	0.0256 (0.0313)	-16.91 (11.78)
Quarternoelect = 7	0.00431 (0.0298)	-0.0161 (0.0255)	0.00225 (0.0175)	-0.00722 (0.00969)	0.00697 (0.0165)	0.0190 (0.0305)	-10.39 (11.58)
Quarternoelect = 8	0.0288 (0.0270)	-0.0216 (0.0242)	0.000676 (0.0162)	-0.00713 (0.00850)	-0.00418 (0.0130)	0.0216 (0.0262)	-10.21 (10.26)
Quarternoelect = 9	0.00651 (0.0308)	-0.00947 (0.0292)	-0.0205 (0.0202)	-0.0131 (0.0109)	-0.0209 (0.0155)	0.0575* (0.0300)	-6.158 (11.85)
Quarternoelect = 10	0.00915 (0.0311)	-0.00102 (0.0290)	0.00251 (0.0185)	-0.0186* (0.0100)	-0.0362** (0.0148)	0.0484 (0.0322)	-19.02 (12.21)
Quarternoelect = 11	-0.00562 (0.0287)	-0.0372 (0.0293)	-0.00187 (0.0164)	-0.0210** (0.00940)	-0.0134 (0.0142)	0.0703** (0.0319)	-10.85 (11.58)
Quarternoelect = 12	-0.00609 (0.0264)	0.0127 (0.0220)	-0.0123 (0.0145)	-0.0108 (0.00700)	-0.0160 (0.0110)	0.0305 (0.0217)	-11.29 (8.398)
Quarternoelect = 13	-0.0270 (0.0302)	0.00922 (0.0239)	-0.0152 (0.0168)	-0.00570 (0.00855)	-0.0248** (0.0117)	0.0396 (0.0248)	-6.209 (9.896)
Quarternoelect = 14	-0.00711 (0.0300)	0.0176 (0.0234)	-0.00223 (0.0158)	-0.0126 (0.00893)	-0.0189 (0.0124)	0.00518 (0.0241)	-11.01 (9.421)
Quarternoelect = 15	-0.00282 (0.0307)	-0.00209 (0.0226)	-0.00727 (0.0164)	-0.0209*** (0.00778)	-0.0174 (0.0123)	0.0518** (0.0251)	-6.834 (9.101)
Divided (DRR or RDD)		-0.0108 (0.00750)	0.00151 (0.00472)	0.00271 (0.00266)	0.00396 (0.00443)	0.00396 (0.00770)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Season FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	18686	18686	18686	18686	18686	18686	4344
R-squared	0.048	0.050	0.053	0.022	0.021	0.099	0.773

Notes: Robust OLS standard errors in parentheses (\* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01). In Columns 1-6, data comes from 5% Sample (1925-2002) and standard errors are clustered at the quarter-year level. The outcome variable in Column 1 is a dummy variable equal to 1 if the case was heard by an ideologically divided panel. The outcome variables in Columns 2-6 are dummy variables indicating the type of legal issue addressed in the case. The outcome variable in Column 7 is the number of opinions; observations are at the month-year-circuit level. The explanatory variables of interest are dummy variables indicating the number of quarters remaining before the upcoming presidential election (16 quarters to the election is the omitted dummy variable). The sample comes from the Administrative Office of the U.S. Courts.

Appendix Table E: Workload, Fraction of Opinions Published, and Time Spent per Case Overall Over Political Cycle

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
							Average Number of Months Between Docket and Judgment Dates (Winsorized at 1%)	Average Number of Months Between Hearing and Judgment Dates	Median Number of Months Between Hearing and Judgment Dates	Average Number of Months Between Hearing and Judgment Dates (Winsorized at 1%)
Quarters to Election from Judgement	Number of Months in sample for Correspondin g Quarter-to- Election	Total Frequency	Frequency per Month	Fraction of Opinions Published	Docket and Judgment Dates	Docket and Judgment Dates				
1	12	52746	4396	0.2495074	8.5920	7	8.4868	3.7137	3	3.6145
2	12	53391	4449	0.2813046	8.9610	7	8.8485	3.3079	2	3.2679
3	12	54443	4537	0.2516766	8.6393	7	8.5670	3.1136	2	3.0737
4	12	47668	3972	0.2465562	8.7825	7	8.5154	3.0224	2	2.9523
5	12	50326	4194	0.270668	8.5823	7	8.4547	3.5885	3	3.5145
6	10	44171	4417	0.2720845	8.6311	7	8.5164	3.1347	2	3.0906
7	9	41154	4573	0.2342064	8.6963	7	8.5808	2.9408	2	2.9010
8	9	38264	4252	0.2344589	8.6380	7	8.5039	2.9515	2	2.8933
9	9	40306	4478	0.2743085	9.2000	7	8.8493	5.0413	3	4.1418
10	11	51733	4703	0.2524602	8.8967	7	8.7849	3.1818	2	3.1350
11	12	58064	4839	0.2241771	9.0300	7	8.8910	3.0743	2	3.0056
12	12	53912	4493	0.2186259	8.7906	7	8.6921	3.0238	2	2.9656
13	12	55714	4643	0.2533894	8.9531	7	8.8551	3.6881	3	3.6047
14	12	57527	4794	0.2568451	8.7720	7	8.5901	3.2822	2	3.2325
15	12	55131	4594	0.2342661	8.6848	7	8.5649	2.9590	2	2.9247
16	12	51019	4252	0.2325924	8.6368	7	8.5363	2.9959	2	2.9382
Obs				494686		805569	805569	178613		178613
Mean			4474	0.2565648		8.7818	8.6446	3.3074		3.2053
Std. Dev.			228.6077			8.0387	7.1462	4.0422		3.3524

Notes: Data come from Administrative Office of the U.S. Courts.



Appendix Table F: Electoral Cycles in Dissents by Presidential Appointment

	(1)	(2)
	Dissent Vote	
Keep 1 set of presidential appointees at a time	5% Sample (1925-2002)	N
	Each coefficient represents a separate regression	
T. Roosevelt	-0.00465 (0.00390)	315
Taft	-0.0220 (0.0352)	154
Wilson	0.00285 (0.0137)	1567
Harding	-0.00260 (0.00840)	353
Coolidge	-0.00925 (0.00953)	2366
Hoover	0.00488 (0.0107)	2585
F. Roosevelt	-0.00221 (0.00603)	6055
Truman	0.0110 (0.00908)	3006
Eisenhower	-0.00115 (0.00638)	6109
Kennedy	0.0156 (0.0136)	2585
Johnson	0.00336 (0.00915)	5563
Nixon	0.0127 (0.00903)	4836
Ford	-0.0154 (0.0293)	1239
Carter	0.00389 (0.0116)	5320
Reagan	0.0225*** (0.00699)	6185
Bush	0.0463*** (0.0109)	2011
Clinton	0.0463* (0.0260)	1091
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.

Appendix Table G: Test for Displacement

<i>Panel A: Election cycle begins with a year divisible by four</i>	(1)	(2)	(3)
	Dissent Increase: Dissent Rate in Three Quarters Before Election - Mean Dissent Rate (5% Sample, 1925-2002)		
Mean of dep. var.		0.006	
Dissent Decrease: Mean Dissent Rate - Dissent Rate in Three Quarters After Election	-0.246*** (0.0839)	-0.266*** (0.0910)	-0.246** (0.0993)
Circuit FE	No	Yes	Yes
Election FE	No	No	Yes
Observations	211	211	211
R-squared	0.049	0.108	0.191
<i>Panel B: Election cycle begins with a year where year-2 is divisible by four</i>	Dissent Increase: Dissent Rate in Three Quarters Before Election - Mean Dissent Rate (5% Sample, 1925-2002)		
Mean of dep. var.		0.008	
Dissent Decrease: Mean Dissent Rate - Dissent Rate in Three Quarters After Election	-0.230*** (0.0641)	-0.241*** (0.0692)	-0.244*** (0.0755)
Circuit FE	No	Yes	Yes
Election FE	No	No	Yes
Observations	211	211	211
R-squared	0.053	0.131	0.184

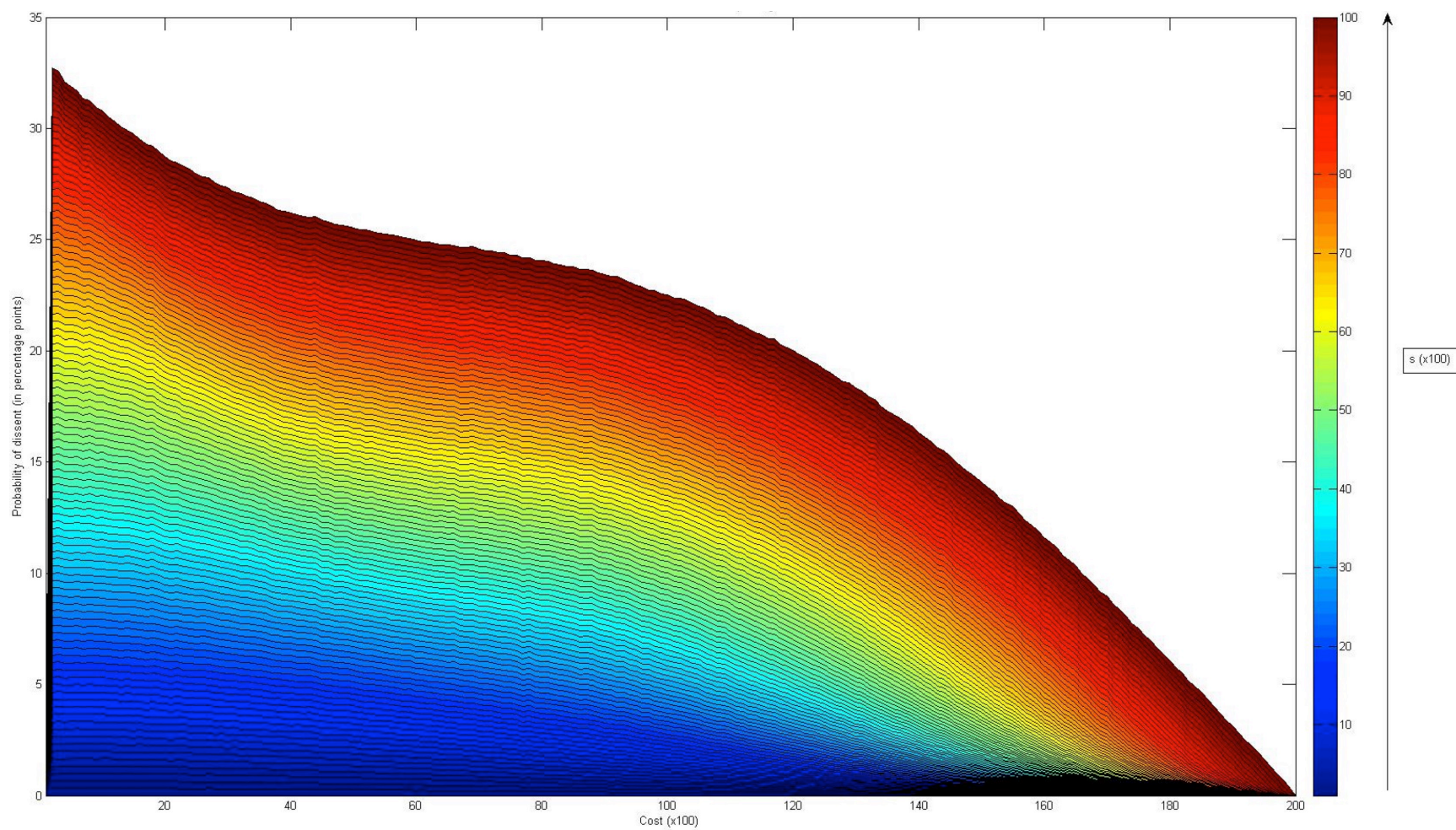
Notes: Robust OLS standard errors in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). Each election-circuit is a separate observation. Standard errors are clustered at the election level. Dissent rate in three quarters before election is winsorized at the 1% level. The number of cases are in these three quarters are used as regression weights. Mean Dissent Rate is the mean dissent rate in the electoral cycle not including the three quarters before and after the election. For example, dissents from February to October of 2000 comprise the mean dissent rate in the three quarters before the 2000 election, dissents from November of 2000 to July of 2001 comprise the mean dissent rate in the three quarters after the 2000 election, dissents from other months between 2000 and 2003 comprise the mean dissent rate for that election cycle. Election fixed effects represent every group of four consecutive years beginning with a year divisible by four in Panel A. Results are robust to shifting the cycle by two years so that the mean dissent rate comprise months between 1998 to 2001 not including the six month window around the election in Panel B.

Appendix Table H: Electoral Cycles in Judicial Exits

	(1)	(2)	(3)	(4)
	Number of Retirements		Number of Resignations	
Party in Power	Same	Different	Same	Different
Mean of dep. var.	0.051	0.073	0.015	0.008
Quarternoelect = 1	0.00741 (0.0269)	-0.0793** (0.0365)	-0.00832 (0.0109)	-0.00430 (0.00413)
Quarternoelect = 2	-0.0130 (0.0254)	-0.0762** (0.0386)	0.00861 (0.0175)	0.00122 (0.00865)
Quarternoelect = 3	-0.0302 (0.0245)	-0.107*** (0.0383)	0.00257 (0.0184)	0.0117 (0.00920)
Quarternoelect = 4	0.0270 (0.0508)	-0.0101 (0.0531)	0.00685 (0.0243)	-0.00489 (0.00587)
Quarternoelect = 5	0.00829 (0.0539)	-0.00447 (0.0614)	0.00834 (0.0274)	-0.00265 (0.00979)
Quarternoelect = 6	0.0794 (0.0571)	-0.0144 (0.0623)	-0.00741 (0.0278)	-0.00368 (0.0109)
Quarternoelect = 7	0.0295 (0.0543)	-0.0905 (0.0585)	-0.0265 (0.0261)	-0.00631 (0.00897)
Quarternoelect = 8	0.0344 (0.0479)	-0.0399 (0.0582)	0.0235 (0.0253)	-0.00979 (0.0106)
Quarternoelect = 9	0.0222 (0.0489)	-0.0538 (0.0614)	0.0315 (0.0249)	-0.00755 (0.0135)
Quarternoelect = 10	0.0541 (0.0558)	-0.0377 (0.0659)	0.0223 (0.0252)	0.00450 (0.0167)
Quarternoelect = 11	0.0106 (0.0481)	-0.121** (0.0612)	0.0376 (0.0258)	0.00851 (0.0173)
Quarternoelect = 12	-0.0377 (0.0408)	-0.0699 (0.0557)	0.0228* (0.0136)	-0.0150 (0.0152)
Quarternoelect = 13	-0.0337 (0.0457)	-0.0709 (0.0576)	0.0442*** (0.0164)	-0.0127 (0.0172)
Quarternoelect = 14	-0.0478 (0.0453)	-0.0207 (0.0617)	0.0350** (0.0170)	-0.00701 (0.0195)
Quarternoelect = 15	-0.0651 (0.0416)	-0.0781 (0.0595)	0.0290* (0.0160)	0.00355 (0.0206)
Year FE	Yes	Yes	Yes	Yes
Season FE	Yes	Yes	Yes	Yes
Observations	2433	2433	2433	2433
R-squared	0.198	0.282	0.098	0.091

Notes: Robust OLS standard errors in parentheses (\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ). The outcome variables are the number judges that retire in a particular month (Columns 1-2) and the number judges that resign in a particular month (Columns 3-4).

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.

**Appendix Figure B: Electoral Cycles in Judicial Exits Over Time**

