The Beliefs and Behavior of Appellate Court Judges*

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Abstract

In seeking to better explain the behavior of federal judges, we theorize that appellate court judges have strong incentives to alter their behavior. Empirically, we find that judges on the U.S. Court of Appeals who are in the same party as the president alter their decision making behavior towards ideological consistency during periods of vacancy on the Supreme Court, regardless of their beliefs concerning their own advancement. We also find, contrary to previous research, that during vacancy periods, judges do not alter other observable behaviors such as how often they engage in opinion writing. In arriving at this conclusion, we incorporate previously untapped temporal information in our research.

KEY WORDS: US Court of Appeals, Judicial behavior, Supreme Court Vacancy

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Following the announcement of Justice Antonin Scalia's sudden death, Senate Majority leader Mitch McConnell promised that Senate Republicans would block any appointment should President Obama nominate a replacement. Citing the impending 2016 presidential election, McConnell insisted that voters ought to choose the next Supreme Court Justice. McConnell hoped that within the year, a Republican would be elected president and therefore able to appoint a conservative to replace Justice Scalia. Majority Leader McConnell was willing to spend the political capital necessary to prevent President Obama from gaining another political agent on the Court.

This incident affirmed the view that Supreme Court Justices act as politicians in robes (Posner, 2010). By appointing an individual who carries the same ideological preferences as themselves, presidents can protect their policies and further their goals a generation beyond their time in office. The partisan nature of the appointment process is well known to nominees for promotion. Therefore, those who might be nominated have the incentive to behave in ways that make them seem ideologically congruent with the appointing president. Our goal here is to determine to what extent we observe this behavior.

Judges are included in the small group of political elites eligible to be elevated to the Court. Individuals chosen to the Court have included former presidents, Secretaries of State, Attorney Generals, Senators, and general councils to the president. But the majority of appointments to the Supreme Court have been judges, specifically those from the U.S. Court of Appeals. Of the 36 vacancies to the Supreme Court filled between 1928 and 1996, 17 were promoted from various Federal Circuit Courts.[1] Judges on the U.S. Court of Appeals are the obvious choice for promotion to the Supreme Court, as they have already been confirmed by the Senate once before and are almost uniformly qualified legal arbiters. Appellate Court judges also provide researchers with a unique opportunity to observe the type of behavior we seek to understand. Every case in which a judge rules is essentially a vote in agreement or disagreement with the party of the

[1]Merrick Garland, President Obama's nominee to fill Scalia's seat, is the Chief Judge for the D.C. Circuit. Of the six potential nominees mentioned prior to Garland being formally nominated, four were judges on the U.S. Court of Appeals (Landler and Baker, 2016). Of the ten potential nominees Republican Presidential Candidate Donald Trump released, six are Appellate Court judges (Rappeport and Savage, 2016).

sitting president. We leverage this data to ask whether a vacancy on the Supreme Court influences the decision making behavior of these judges.

Our analysis provides several contributions. First, we provide a robust theoretical explanation of judicial behavior. We then improve on existing work that examines the behavior of Appellate Court judges nominated to the Supreme Court. In using the Appeals Court database (Songer, 1998) to create a set of judge-case observations, which includes information on judicial behavior and both static and temporal judge characteristics, we are able to employ a straight-forward methodological approach to examine how vacancy periods influence behavior. Our results show that judges in the same party as the appointing president alter their behavior to appear more ideologically consistent during a time of vacancy. This behavior holds for all judges in the president's party. We also show that consideration for advancement has a nuanced effect on the willingness of judges to explicitly share their point of view with the president by writing an opinion.

Foundations

Research on judicial behavior has been central to the study of the courts. One specific element of judicial behavior is the influence of the law on decision making. The focus of this research is the importance of legal precedent (Bueno De Mesquita and Stephenson, 2002; Cross, 2007; Bailey and Maltzman, 2008; Baum, 2009; Epstein, Landes and Posner, 2013). The conclusion of this work is that while the law matters to judges, it is not always the dominant factor in judicial decision making.

Beyond legal constraints, another line of inquiry is the decision-making process itself. Central to this idea is that the Court of Appeals is collegial, where decisions are made in a group setting. Landa and Lax (2009) show that the make-up of an Appellate panel can change case outcomes. Boyd, Epstein and Martin (2010) investigate how the distribution of the gender of judges on a panel can change the voting behavior of individual judges. Kastellec (2011) demonstrates that the ideological make-up of a panel can influence the direction of case outcomes.

Judicial behavior is also driven by individual characteristics and experiences. For example, the race of a judge can influence voting behavior (Kastellec, 2013). Glynn and Sen (2015) investigate the effect that having children, specifically daughters, has on how judges rule in certain case types. While the effect of a judge's gender is uncertain, it likely has some impact (Songer, Davis and Haire, 1994; Westergren, 2003). Age and tenure also play a role in how appellate judges make decisions. Kaheny, Haire and Benesh (2008) show how the effect of other influences on judicial decision making vary as tenure increases. Manning, Carroll and Carp (2004) finds that a judge's age can affect how judges vote in certain cases. As a practical matter, older judges at the appellate level receive lighter workloads by taking senior status upon eligibility for retirement benefits (Yoon, 2005). However, the decision to move to senior status is influenced by ideology. Judges will wait until the appointing president is in the same party and would appoint an ideologically consistent replacement before they retire or take move to senior status (Ward, 2012).

Ideology influences not only when judges may choose to retire but also how judges decide cases. The effect of ideology on judicial decision making has been well demonstrated. When considered on the standard left-right dimension, ideology has been shown to be a strong determinant of how judges vote (Segal and Cover, 1989; Segal et al., 1995; Martin and Quinn, 2002; Lauderdale and Clark, 2012). Whenever possible, judges look to maximize their own utility (Posner, 1993). This includes promotion to higher courts (Cohen, 1991, 1992; Morriss, Heise and Sisk, 2005).

Black and Owens (2016*a*) find that *specific* judges shift their jurisprudential behavior to signal their suitability to the president when there is a vacancy on the Supreme Court. An alternative argument is that how judges behave has little (if any) influence in promotion to higher courts (Posner, 2010).[2] Crucial to this theory is the assumption that there is nearly no variation in the qualifications of Appellate Court judges. Since nearly all judges meet the professional requirements for Supreme Court appointment, the factors

[2]Posner argues that though politics undoubtedly plays a role in the promotion of judges to higher courts, there is "the inherent tendency toward conformist behavior as judges move up the career ladder" (2010, p. 133).

that determine promotion must be political in nature, rather than on the basis of one's quality as a judge (Nemacheck, 2007). In sum, previous literature has looked at how ideology and promotion potential have separately influenced judicial decision making. We improve on this by identifying that because judicial behavior is tied to both ideology and eligibility for promotion, the interaction of the two effects best explains observed decision making.

Theoretical Explanation and Expectations

The Supreme Court nominating process is consistent with the principle-agent problem with one caveat (Nemacheck, 2007). Once an appointment has been made, and the Justice confirmed, the president no longer has agency with that judge. A president cannot remove a Supreme Court Justice. As such, presidents have a strong incentive to choose ideologically consistent agents. Since Justices can change their behavior once confirmed and serve for a generation longer than the president remains in office, the president must rely on observed behavior to predict which judge will best carry out the party's agenda once she is out of office. The president has but one opportunity to solve this principle-agent problem.

Any judge might see themselves as a legitimate contender for a Supreme Court vacancy. Appeals Court judges also know the president's preference to appoint a nominee who is ideologically similar to themselves. Therefore, we hypothesize that during vacancy periods, judges will alter their behavior to appear more suitable for nomination. However, we also expect that judges outside of the president's party know that they will not be nominated. This creates the interaction between vacancy and party identification. As such, we hypothesize that judges in the same party as the sitting president will behave differently than they will during non-vacancies. We also hypothesize that judges in the opposite party as the sitting president will not be affected by Supreme Court vacancies.

We are not the first to study the effect of Supreme Court vacancies on judicial behavior. Black and Owens (2016*a*) look at several ways judges might alter their behavior

conditional on being a contender (a judge who knows for certain that they are under consideration for promotion) and there being an open seat on the Supreme Court. Their findings rely on this certainty. We reevaluate this perfect information assumption, and show that their results are, at best, only a special case of our own findings. In what follows, we illustrate our expectations for how judges behave when there is a vacancy to the Supreme Court by juxtaposing our approach with that of Black and Owens (2016*a*).

Examining Black and Owens (2016)

Black and Owens (2016*a*) use a causal inference framework to determine the effect of a Supreme Court vacancy on the behavior of Appellate Court judges. They believe, as we do, that judges who want to be elevated to the Supreme Court will behave in observable ways that make them more attractive to a nominating president. To do this, the authors create a dataset of judge-case observations taken from both the U.S. Court of Appeals dataset (Songer, 1998), as well as an 85% random sample of cases from a LexisNexis search of cases that occurred during vacancy periods and involved judges that they deemed "contenders" (Black and Owens, 2016*a*, p. 36). Contenders are Court of Appeals judges who appear on a president's shortlist (Black and Owens, 2016*a*, p. 35). Non-contenders are therefore those who never appear on shortlists. They then match judges within these two types to to determine the effect of vacancies on decision making.

In order to conduct the matching procedure, Black and Owens (2016*b*) subset their data into two separate dataframes. The contender frame contains all judge-case observations involving one of the 68 judges who appear on a shortlist covered by their data (from 1946-2010) (Black and Owens, 2016*a*, p. 35). The information about which judges appear on a shortlist comes from Nemacheck (2007). Those judge-case observations for which the judge is a non-contender are placed in a dataframe of the same name. The observations in the two dataframes are then each treated on whether there exists a vacancy on the Court at the time that case is decided. In the contender frame, a judge-case receives the treatment (coded as 1) only when the judge rules on a case that occurs during a vacancy

in which their name appears on the shortlist for that specific vacancy. A judge-case does not receive treatment (coded as 0) at any other time. In the non-contender frame, a judge case receives a treatment (coded as 1) any time there is a vacancy to the Supreme Court. A judge-case does not receive treatment when there is no vacancy (coded as 0).

Table 1: Examining Treatment in Black and Owens (2016*a*)

Linear Timeline of Cases	Contender	Non-Contender
Vacancy 1	1	1
Non-Vacancy 1	0	0
Vacancy 2	1	1
Non-Vacancy 2	0	0
Vacancy 3	0	1
Non-Vacancy 3	0	0
Vacancy 4	0	1
Non-Vacancy 4	0	0

Table 1 provides a visualization of Black and Owens's (2016*a*) coding rule across the two dataframes. Here, two judges rule on cases during the same time periods. During this time, four vacancies appear on the Supreme Court. According to the coding rules of Black and Owens (2016*a*), if the contender judge appears on a shortlist during Vacancy 1 and 2, she is considered treated and given a 1. Once that judge is off the shortlist, she is given a 0 for Vacancy 3 and 4. She receives no treatment for the non-vacancy periods. Now consider the non-contender judge. He never appears on a shortlist, so is in the non-contender data frame. He also is not treated during non-vacancy periods. However, despite ruling on cases in the identical time periods as the contender judge, he receives the treatment for all 4 vacancy periods, including Vacancy 3 and 4, despite being no different from the contender judge, who is no longer under consideration.

We argue that the treatment is mistakenly applied within the contender frame for two reasons. First, these judges remain in the contender dataframe beyond the period in which Black and Owens (2016*a*) treat them as such. These judges remain in the data

during future vacancies for which they are not shortlisted.[3] These observations are not treated in the dataframe (coded as a 0). This is problematic, as Black and Owens (2016*a*) specify that contenders behave differently during vacancy periods, not just when they are shortlisted. The treatment that is coded in the contender frame is not the treatment that is being described in their analysis (see Black and Owens, 2016*a*, pp. 30, 32, 38).[4] What the authors actually provide evidence of is that judges on specific shortlists for specific vacancies behave differently than they do at any other time.

Second, judges remain in the contender frame in periods when a president belonging to the opposite party of the judge is in office. It is inconceivable that a Republican president will nominate a Democratic judge, or that a Democratic president will nominate a Republican judge. Yet, Black and Owens (2016*a*) allow those opposite party judges to remain in the contender frame and leave them as untreated for comparison. This is problematic because the authors use a strong assumption of knowledge about being on a shortlist. If a judge is a Republican, and the sitting president is a Democrat, then that judge should also have perfect information about their absence from a shortlist if a vacancy occurs. There is no justifiable reason to think that the vacancy, nor the shortlist, would affect their behavior. Nor should we expect that judge to rule in the Democratic president's favor generally. This biases their results towards a significant finding when the president is in fact in the same party and a vacancy exists, especially given the treatment is only applied when they appear on a specific shortlist.

The assumption about perfect knowledge of being a candidate for promotion presents another theoretical problem with the data. If the assumption that Black and Owens provide, that judges know of their potential for appointment during a vacancy, then they know when they are no longer under consideration in future nominating periods. As

[3]A clear example of this are the judge-case observations for Judge David Souter in the period after his retirement from the Supreme Court. Souter did serve as a replacement judge on the First Circuit after his retirement. However, his inclusion in the contender dataframe after his retirement seems suspect as there is no reason to believe that a vacancy to the Court should affect him in any way.

[4]For example, Black and Owens (2016*a*, p. 38) describe their results in the following way: "We hypothesized that contender circuit court judges would be more likely to vote in line with the president's preferences during vacancy periods. That is, we expected that during a vacancy period with a Republican (Democratic) president, a Republican (Democratic) contender judge would be more likely to cast conservative (liberal) votes. The data support our hypothesis."

such, they should no longer exist in the data as contenders. Thus, the only judge-case observations that should be in the contender dataframe are either those cases decided by shortlisted judges during the vacancy period for which they are shortlisted, or the cases near in time to the vacancies in which they are being treated. At worst, this would create a singularity in the coding of the treatment variable, which means no inferences about behavior can be drawn. At best, it implies that only some arbitrarily chosen cases that contender judges ruled on before and after their existence on a shortlist can be used as comparison. Again, as described, contender judges remain in the frame well beyond the time of their treatments, making the results in Black and Owens (2016*a*) suspect to this discrepancy.

Our concerns are not only theoretical in nature, but exist in Black and Owens's (2016*a*) contender dataframe. Consider Judge Arlin Adams.[5] Arlin Adams was appointed by Richard Nixon to the Appellate Court for the Third Circuit in 1968. He appeared on the shortlist during Gerald Ford's presidency when Justice William Douglas retired. This was the only appearance Adams made on a shortlist. Adams continued on the bench through the Carter administration and retired near the end of the Reagan administration, in 1987. As he did appear on a shortlist, Black and Owens (2016*a*) have Adams in their contender dataframe. His portion of the data includes 169 observations, for which he is treated twice. Adams remains in the data, and is left untreated by vacancies during the Reagan administration's three Supreme Court appointments. One particular case (1981 U.S. App. LEXIS 17702) was decided on September 15, 1981, 10 days prior to Justice O'Connor's confirmation, and over a month after Justice Potter's retirement. This case was decided during a vacancy period. The case is left untreated in the data. Adams is essentially a non-contender for this vacancy yet is being matched with other contenders to identify a treatment effect. The problem here is that, according to the definition of a contender, Adams belongs in the non-contender frame.[6] Table 2 provides several other

[5]Adams is the first judge alphabetically in the contender data, and not chosen for methodological convenience.

[6]A large number of Adams's observations lack case identifiers, making those case dates impossible to uncover. Further coding discrepancies may or may not exist in his specific portion of the contender frame.

judges who experience the same coding phenomenon, including Samuel Alito (1991 U.S. App. Lexis 21872) and Ruth Bader Ginsburg (1993 U.S. App.Lexis 11848).

Table 2: Untreated Judges During Vacancy periods in Black and Owens (2016*a*)

Judge Name	Case Date	Case Cite	Vacancy Name	Open Vacancy	Close Vacancy	Notes
Arlin Adams	1981.09.15	1981 U.S. App. LEXIS 17702	O'Connor for Potter	1981.07.07	1981.09.25	
Samuel Alito	1991.08.14	1991 U.S. App. LEXIS 21872	Thomas for Marshall	1991.06.27	1991.10.15	
Samuel Alito	1993.04.09	1993 U.S. App. LEXIS 11848	Ginsberg for White	1993.03.19	1993.08.09	
Ruth Bader Ginsberg	1981.08.17	1981 U.S. App. LEXIS 18484	O'Connor for Potter	1981.07.07	1981.09.25	
Ruth Bader Ginsberg	1991.09.16	1991 U.S. App. LEXIS 24876	Thomas for Marshall	1991.06.27	1991.10.15	

These cases are from the "contender" data frame provided by Black and Owens (2016*b*). These are only a subset of the potentially untreated observations in this data frame. This is because a significant number of the judge-cases observations in the replication data frames lack citation information needed to confirm case date information.

Not only is the within-contender group treatment suspect, but the discussion the authors use to relate their results with non-contenders relies on a treatment that they provide to the contender frame that is simply unavailable as a treatment to the non-contenders. Again, the treatment for contenders is their appearance on a shortlist during a specific vacancy period. Non-contenders, by definition, never appear on a shortlist. Thus, they can not be comparably treated as Black and Owens (2016*a*) treat contenders. The treatment non-contenders receive is whether the case they are deciding is being ruled on during a vacancy period. To be clear, the authors do not explicitly compare results across the two groups. However, their finding of no change in behavior for non-contenders provides the reader with an incorrect substantive interpretation of their analysis. They cannot make a claim about the effect of a vacancy on contender behavior. Rather, they can can only make a claim about the effect of appearing on a shortlist during that specific nominating period. They also cannot make a claim about the effect of appearing on a shortlist for non-contenders, as the non-contenders cannot appear on one. Put simply, the treatments applied for the two separate dataframes are not identical.

We now pivot from our concerns with treatment conditions to one of variable operationalization. Black and Owens (2016*b*) use the distances between judge and president as one of the matching variables in their analysis. Drawing directly from the authors, their concern is that judges may be voting more in line with presidential ideologies due to their party agreement, over the existence of a vacancy. As they state, "if we compared [a judge's] behavior during a vacancy period when President Obama was in office versus [a judge's] behavior during a non-vacancy period when President George W. Bush was in office, we might bias the data in favor of finding a result during the treatment period when, in reality, [a judge's] behavior changed as a result of general ideological agreement with the president"(Black and Owens, 2016*a*, pp. 36-37). We concur that party agreement is a crucial element to the decision making of a judge, however ideological distance from the president does not appropriately capture this relationship.

Again, the case of Arlin Adams is instructive. Adams was appointed by a Republican and considered by another Republican president for nomination to the Supreme Court.

His JCS is positive (0.05), indicating that he is conservative, though moderate.[7] Prior to becoming a judge, he was appointed to a cabinet position in the administration of William Scranton, a Republican governor of Pennsylvania. His party identification is clearly Republican. The expectation for his behavior is that he is more likely to vote conservatively, even if only by a small amount. When coding Adams ideological distance from the presidents who might have appointed him, he most aligned with Ford,[8] and least aligned with Carter.[9] The distance he is from both parties is problematic in that it is possible that a judge-case observation for Adams may be matched to a judge-case observation that incorrectly identifies the parties of the respective judges and presidents. The distance he is from a Democratic president may be far smaller than the distance another Republican judge may be from a Republican president.

We find further complications in the use of this variable for ideological agreement when we turn to simple analyses. Using Black and Owens (2016*b*), we regress presidential ideological votes with the ideological distance measure. For the Adams's subset, distance from the president is insignificant (coefficient -0.32, p-value 0.62). Again, his moderate JCS score implies that he is sufficiently far from both parties' presidents, making distance non-informative. Since we are confident Adams was a Republican, we then code and regress the same dependent variable (ideological votes) with presidential party alignment (1 when both Adams and the president are Republican, 0 otherwise). The coefficient remains insignificant, although changes sign (coefficient 0.21, p-value 0.23).[10]

Since we too believe that party agreement is an obvious metric upon which presidents make their nomination decisions, we make use of the entire Black and Owens (2016*b*) data for a deeper analysis of judge-president agreement. When regressing distance from the president on the entire contender data, we do find that ideological distance is negative and significant, which we would expect. Judges further from the president are less likely

[7]Of course, JCS scores are only an approximation of actual judicial ideology. Adams' true revealed ideology may be much more conservative or even more liberal.

[8]Ford's JCS score is 0.39, giving a JCS distance of 0.34.

[9]Carter's JCS is -0.55, giving a JCS distance of 0.60.

[10]Observations during Carter's administration were coded as a 0 for party alignment. Cases without dates were harder to code. We used distances from the president greater than .4, .5 and .6 as arbitrary cut-points for party agreement. All results remained the same.

to vote in the president's ideological favor. When we regress ideological votes on distance for non-contenders, the coefficient is near zero, and insignificant, as in the Adams subset. We then control for party by only considering Democratic judges, or judges with JCS scores less than 0. Among both contenders and non-contenders, the coefficient for ideological distance from the president is positive and significant. The model implies that Democratic judges are more likely to vote in favor of the president's ideology if that president is ideologically distant from themselves, i.e. Republican. This is counter to both our expectations, as well as those of Black and Owens (2016*a*), regarding the relationship between party agreement and judicial decision making. When we limit the data to only Republican judges, we find the exact opposite. For both contenders and non-contenders alike, the distance from the president is negatively correlated with ideological voting. This inconsistency in judicial behavior is problematic. We believe that this result makes the inferences drawn from matching on this variable suspect.[11]

Our final concern comes from the combination of the ideological distance variable and the vacancy treatment in the non-contender data. Because of the coding rule in the contender data, we know that the authors never code a judge in the opposite party of the president as being treated by an appearance on a shortlist. However, because every non-contender is treated with every vacancy period, there are in fact Democratic judges being treated during vacancies that occur under a Republican president. We are able to show this despite the lack of temporal, judicial and/or presidential identifiers in the replication data. Sorting by JCS scores, the most liberal judge in the non-contender data has a JCS score of -0.689. This judge is treated with a vacancy for a judge-case observation in which the ideological distance from the president is 1.20. Either the president in this observation is a liberal with an ideology of -1.89, well beyond the minimum NOMINATE score for any Senator, or the Democratic judge is being considered treated for a Republican president with a conservative ideology of 0.511 (President Reagan for example score is a 0.49). Similarly treated cases are common throughout the data, for judges of both parties. This coding rule is in direct theoretical opposition to the what the authors posit about

[11]Due to missing information on the timing of cases in the data, we are unable to control for party agreement with presidents for the entirety of the Black and Owens's (2016*b*) data.

ideological congruence. It also biases their results towards a null finding among non-contenders. A vacancy on the court under a Republican president should have no effect on the decision making of a deeply liberal judge. In fact, the expectation is that the ideological differences would make the judge vote against the president's preferences, and plausibly more so if the judge knew they were being observed by the president.

In conclusion, we have detailed our methodological concerns with this work. Despite these concerns, if we accept the correct interpretation of Black and Owens (2016*a*), that vacancies to the Supreme Court make individuals on a shortlist behave differently, we believe this result to be a special case of the results we present in this paper. Black and Owens (2016*a*) assert that shortlist judges change their behavior to align more closely to the sitting president. However, since every person on a shortlist is in the appointing president's party, their result is contained within our own: all judges who are in the same party as the sitting president change their behavior during vacancy periods.

Data and Analysis

To measure judge behavior we rely on the Songer (1998) Appeals Court Database (covering the period 1925-1996) and generate judge-case observations. Songer provides a weighted random sample of cases decided on the various circuits of the U.S. Court of Appeals. Each observation in the dataset is case i. Within each case, there are between three and fifteen judges who vote to decide a case. Every judge j who served on that case becomes their own observation ij. Following a similar process described by Collins (2008), we use our own method to to create judge observations for the cases in the Songer data. This provides judge-case observations for all the U.S. Court of Appeals cases contained in the Songer (1998) database.

We then used the ideological direction of every case decision as well as the direction of the judge's vote on that case.[12] Next, using the JCS of each judge, we code the expected vote direction of each judge on each case. Comparing the expected judge-case voting

[12]In cases where the first dimension did not align with traditionally conservative-liberal directionality, we coded on the second dimension. Where the second dimension also did not align with the traditional conservative-liberal directionality, we dropped the case from our analysis.

direction with the actual judge-case vote creates a variable for whether or not each judge's vote was an ideologically inconsistent vote (IIV). For example, a Democratic judge would be expected to vote in a liberal direction. If on a specific case, that Democratic judge voted in the conservative direction, this would be coded as a 1 for being an ideologically inconsistent vote. This variable is one of two dependent variables that we use to measure appellate court judge behavior.

The second dependent variable used in our analysis measures judicial behavior in terms of the effort they are willing to exert during vacancies. By looking at whether judges change how often they write opinions, we can observe another way in which Supreme Court vacancies alter judicial behavior.

We also account for the dynamic nature of the data. Cases occur over time, as do Supreme Court vacancies. Judges may experience multiple vacancy periods during their tenure on the court. To account for the effect of time, we create age and tenure variables. We were also able to use this temporal information to create a behavioral pattern for each judge. Past behavior surely predicts future behavior, therefore, we create variables that provide the rate at which judges voted against their party (or penned opinions) up to that point in their time on the bench

Next, we create two variables to address a judge's appearance on a shortlist as provided by Nemacheck (2007). These variables indicate if a judge ever appeared on a shortlist (contender) as well as whether a specific judge-case observation occurs during a vacancy period for which that judge is on the shortlist for that specific vacancy (shortlist candidate). Additional control variables include gender and race identifiers. We also used the JCS scores to create an extremism variable. This is the JCS score squared. We do this to look to see if judges with more well defined ideological preferences behave differently than more moderate judges. Finally, we also created a variable to account for the ideology of the median judge on the panel of every case. We include this variable to account for the possible influence of collegiality suggested by Landa and Lax (2009) and Kastellec (2011).

In constructing the temporal variables, we discovered a number of coding mistakes

relating to judge-case attribution in the Songer data. It is unclear if the errors are due to judges in the Songer data being incorrectly identified, or simply being incorrectly attributed as having presided over a case when they could not have done so, whether because they had not yet been elevated to the bench, were inactive, or were already deceased. Notably, this includes a number of cases attributed to Samuel Alito (JID #340). When possible, we corrected these errors. Otherwise, we omitted the observation. Out of 18,195 cases, we generated 55,567 judge-case observations, of which 39,750 we consider correct for analysis.

We believe our data and methods overcome the problems that we detailed in Black and Owens (2016*a*). First, we choose to not separate our judges into contenders and non-contenders. Instead, we create a variable for whether a judge has ever been considered for nomination to the Supreme Court. We also create a variable for whether a judge-case observation occurs during a time when that judge was on a short list during a specific vacancy period. This allows us to appropriately test the interaction effect of being inside a vacancy period and being a contender or non-contender. Because this coding rule is identical for both groups, it also allows us to make cross-group comparisons, which is not possible in Black and Owens (2016*a*).

We also control for ideological agreement between judges and the sitting president by coding a presidential party variable. This binary variable gives every judge-case a 1 if the judge deciding the case is in the same party as the sitting president, and 0 if not. This allows us to not only control for the basic ideology of the individual judge, but make more stable hypotheses about the importance of ideological agreement between judges and presidents.

Analysis

Ideologically Inconsistent Votes

In order to better understand the effect of Supreme Court vacancies on appellate judges' behavior, we first look at what characteristics are associated with judges casting ideolog-

ically inconsistent votes. Table 3, column 1 (the "base" model) presents the results of a linear probability model in which IIVs are the dependent variable.[13] In line with the findings of Manning, Carroll and Carp (2004), we find that older judges are less ideologically consistent. We also find that, on average, judges with a high percentage of previous IIVs are more likely to have a vote be an IIV. The results also show that, on average, being on a shortlist or being a shortlist candidate, appears to have no effect. Similarly, being in the same party as the president also has no effect on the number of IIVs cast by a judge. We do see that conservative judges and judges on more conservative panels have, on average, more inconsistent votes.

Table 3: IIV DV Models

	Base	**Con Int**	**Pres Int**	**Full Int**
vacancy_period	−0.003	−0.002	0.009	0.010
	(0.006)	(0.007)	(0.009)	(0.009)
contender	0.010	0.011	0.010	0.011
	(0.007)	(0.007)	(0.007)	(0.007)
presparty	0.004	0.004	0.007	0.007
	(0.004)	(0.004)	(0.004)	(0.004)
sl_cand	0.005	0.008	0.006	0.008
	(0.015)	(0.014)	(0.015)	(0.014)
JCS.sq	−0.042	−0.041	−0.043*	−0.043*
	(0.025)	(0.025)	(0.026)	(0.026)
conjudge	−0.558***	−0.558***	−0.558***	−0.558***
	(0.005)	(0.005)	(0.005)	(0.005)
age	0.001***	0.001***	0.001***	0.001***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)
tenure	−0.0004	−0.0004	−0.0004	−0.0004
	(0.0005)	(0.0005)	(0.0005)	(0.0005)
nonwhite	0.031	0.031	0.031	0.032
	(0.024)	(0.024)	(0.024)	(0.024)
female	0.014	0.014	0.014	0.014
	(0.017)	(0.017)	(0.017)	(0.017)
pctIIV	0.090***	0.090***	0.089***	0.089***
	(0.017)	(0.017)	(0.017)	(0.017)
PanelJCS	0.037***	0.037***	0.037***	0.037***
	(0.010)	(0.010)	(0.010)	(0.010)
vacancy_period:contender		−0.009		−0.006
		(0.012)		(0.012)
vacancy_period:presparty			−0.026**	−0.026**
			(0.012)	(0.012)
Constant	0.548***	0.548***	0.547***	0.547***
	(0.028)	(0.028)	(0.028)	(0.028)
R^2	0.4117	0.4117	0.4118	0.4118
Adj. R^2	0.4112	0.4112	0.4113	0.4113
AIC	28940.13	28941.79	28937.15	28939.01
N		39750		

***p < .01; **p < .05; *p < .1

All models presented with standard errors clustered by judge id, and include both issue and circuit fixed effects.

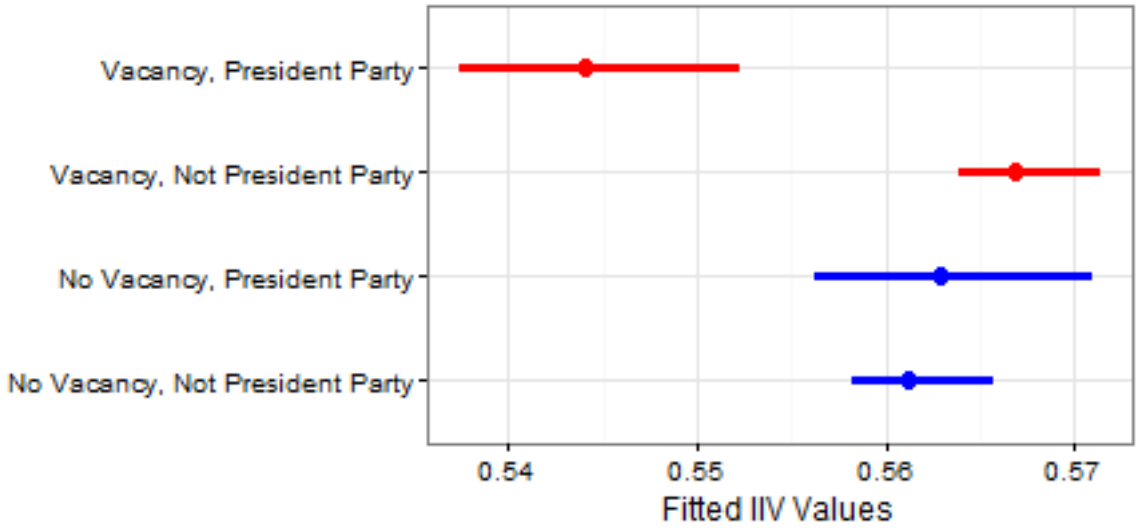
[13]We cluster standard errors by judge to address potential concerns about bias associated with a particular judge. Results are substantively the same when clustering by appellate circuit or issue area. This also holds true in the three other models presented in Table 3. These results can be found in our accompanying supplementary materials.

Table 3, column 2 (the "contender interaction" model) presents the results of our model when interacting vacancy period with being a contender. We find the same results as in the base model. Notably, there is no effect on the occurrence of IIVs for contender judges during vacancy periods. If judges knew they were on a shortlist, we would absolutely expect them to have fewer ideologically inconsistent votes as they attempted to demonstrate their ideological allegiance to the appointing president. The shortlist candidate variable being insignificant support sour contention that a judge having perfect knowledge about their appearance on a shortlist is unsupported. Column 3 (the "president party interaction" model) again has the same results as the previous models with the exception that more ideologically extreme judges are more likely to have an ideologically inconsistent vote. This model includes an interaction term for being in the president's party during a vacancy period. The coefficient is negative and significant, meaning that judges in the same party as the president have significantly fewer IIVs during vacancy periods. Comparing the contender interaction model with the presidential party model suggests that being a contender is inconsequential to judicial behavior while simply being in the president's party is what truly drives changes in observable behavior. The "full interaction" model in column 4 confirms these suspicions and reinforces the robustness of the other models.

We find no observable effect on the occurrence of ideologically inconsistent votes by judges who were at some point on a shortlist or judges who were deciding cases while shortlisted. This runs counter to the findings of Black and Owens (2016*a*) and confirm our hypothesis about appellate judge behavior. If judges have perfect information, only those who are shortlist candidates should alter their behavior. Instead, we see no change in the behavior of these judges but do see, on average, judges of the same party as the president significantly changing their behavior by reducing the number of IIVs that they cast.

Since we are interacting binary data, the presidentXvacancy interaction from the models in Table 3 only identifies the change in behavior between judge-case observations for judges in the president's party during times of vacancy with both judges not in

Figure 1: Predicted Effect of Vacancy and President's Party on IIV



the president's party as well as all judges outside of a vacancy period. To confirm the robustness of our findings, we provide Figure 1 (Ai and Norton, 2003).

Figure 1 shows the predicted value (along with a 95% confidence interval) of out of sample judges making an ideologically inconsistent vote under several different conditions. To get these predicted values, we set all variables other than vacancy status and party (ideology) to their median value and then computed the estimated rate of IIV by randomly assigning a judge's party status and whether or not there was a vacancy. This yields four different conditions, being in the president's party during a vacancy, not being in the president's party during a vacancy, being in the presidents party but not during a vacancy period, and not being in the president's party during during a time of no vacancy. As seen in Figure 1, there is no difference in how judges of different parties behave when there is no vacancy to the Supreme Court. However, when there is a Supreme Court vacancy, members of the president's party have significantly fewer inconsistent votes than judges not of the president's party. Additionally, there is a significant difference in how judges of the same party as the president vote in and out of vacancy periods. This view of the relationship of estimated values of the rate of ideologically inconsistent votes reinforces the results presented in Table 3 and shows that judges of the president's party alter their behavior to appear more ideologically congruent during times of Supreme Court

vacancies.

Figure 2: Predicted Effect of Vacancy and Contender Type on IIV

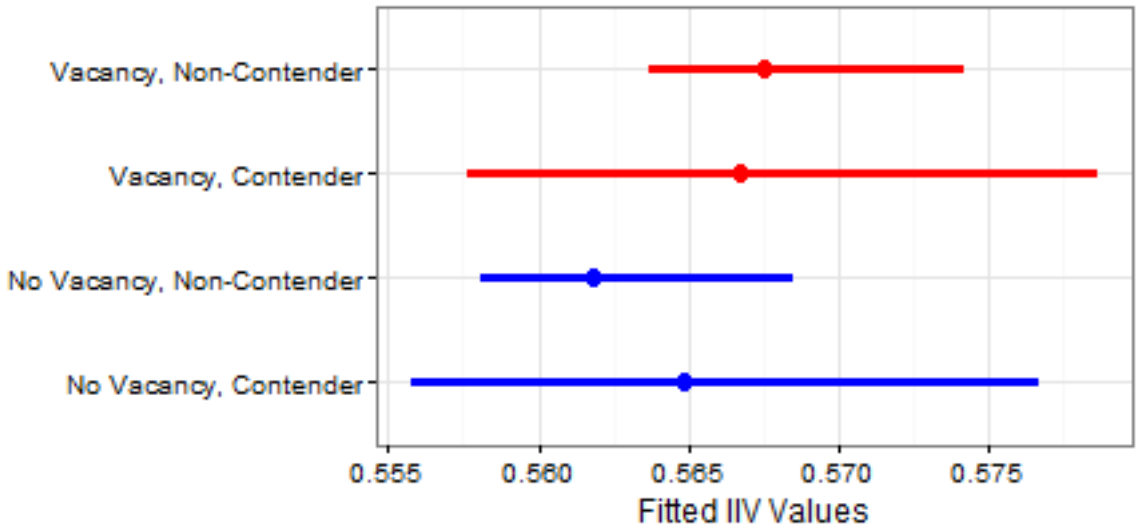


Figure 2 serves the same function as Figure 1 but for the contenderXvacancy interaction. Figure 2 shows the predicted value (along with a 95% confidence interval) of out of sample judges making an ideologically inconsistent vote separated by their type.[14] Here we borrow the typology of Black and Owens (2016*a*) by dividing judges based on their appearance on a shortlist for nomination (becoming contenders) and those who do not (non-contenders). We then look at how members of these two different groups vote in and out of vacancy periods. We find no significant difference between the predicted value of IIV for contenders and non-contenders, during and outside of vacancy periods. This finding runs counter to the findings in Black and Owens (2016*a*), specifically, Figure 1 on page 39.[15]

Recalling that the correct interpretation of Black and Owens (2016*a*) is that among contenders, appearing on a specific shortlist (being a shortlist candidate), made judges vote more in line with the sitting president, we test this hypothesis using our own data.

[14]Figure 2 follows the methodology outlined in the description of Figure 1.

[15]Note that our value estimates for ideologically inconsistent votes are near complements for the non-contender groups from "Presidential Ideological Vote" of Figure 1 from Black and Owens (2016*a*). This is because the data and treatment Black and Owens provide for this group are correct and match our own use of the variables. They are complementary since the authors are looking at judge-case decision agreement while we look at disagreement. Black and Owens's (2016*a*) Figure 1 can be found in our supporting materials as Figure 6.

Figure 3: Predicted Effect of Being a Candidate on IIV

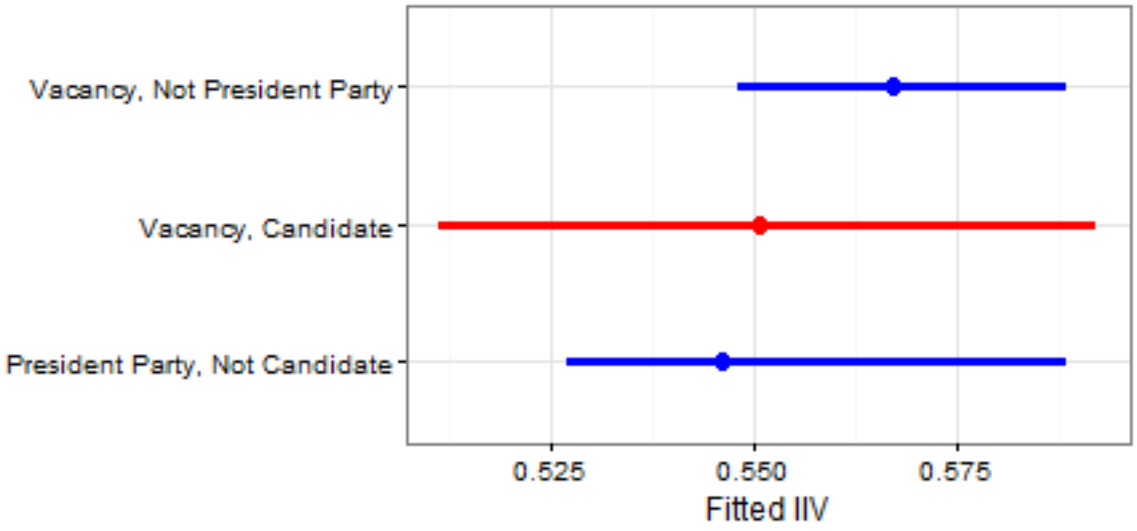


Figure 3 shows the estimated value for three different out of sample groups on a judge's predicted IIV. We compare candidate judges, that is to say, judge-case observations that occur when specific judges are actively under consideration for Supreme Court nomination, with non-contender judges. In contrast to the results of Black and Owens (2016*a*), we find that there is no difference between judge-case observations during vacancies for the specific shortlisted candidates (these judges are by definition members of the president's party), non-candidate judges in the party of the nominating president (whether a contender or non-contender for other vacancies), and judges outside the nominating party (also ignoring past or future contender status). The strict assumption regarding judges' knowledge about their status as a shortlisted judge finds not basis in the data.

Opinion Writing

Having looked closely at how Supreme Court vacancies effect Appellate Court judges' voting patterns, we now look at how Supreme Court vacancies affect another observable judicial behavior, opinion writing. Table 4, column 1 (the "base" model) shows the basic results of the determinants of when a judge is expected to write an opinion, with standard

errors clustered by judge.[16] A judge being more conservative is associated with, all else equal, more opinions written. Increased tenure on the bench is also associated with, all else equal, more opinions written. If a judge had a high previous rate of opinion writing, on average, they write more opinions. Finally, being on a more liberal panel decreases the occurrence of opinion writing. There is no significant effect on opinion writing for being in the same party as the president, being a contender judge, or actively being a candidate for nomination. Nor is there an effect of an opinion being written during a vacancy period on the Supreme Court.

Table 4: Wrote Opinion DV Models

	Base	**Con Int**	**Pres Int**	**Full Int**
vacancy_period	−0.005	−0.007	−0.014	−0.015
	(0.007)	(0.008)	(0.011)	(0.011)
contender	0.003	0.002	0.003	0.002
	(0.009)	(0.009)	(0.009)	(0.009)
sl_cand	−0.013	−0.017	−0.014	−0.017
	(0.023)	(0.024)	(0.023)	(0.024)
presparty	0.001	0.001	−0.0004	−0.0004
	(0.006)	(0.006)	(0.006)	(0.006)
JCS.sq	−0.023	−0.023	−0.022	−0.022
	(0.031)	(0.031)	(0.031)	(0.031)
conjudge	0.018***	0.019***	0.018**	0.018**
	(0.007)	(0.007)	(0.007)	(0.007)
age	0.0002	0.0002	0.0002	0.0002
	(0.0005)	(0.0005)	(0.0005)	(0.0005)
tenure	0.003***	0.003***	0.003***	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
nonwhite	−0.012	−0.012	−0.012	−0.012
	(0.010)	(0.010)	(0.010)	(0.010)
female	0.019	0.019	0.019	0.019
	(0.015)	(0.015)	(0.015)	(0.015)
pctopin	0.182***	0.182***	0.182***	0.182***
	(0.025)	(0.025)	(0.025)	(0.025)
PanelJCS	−0.026*	−0.026*	−0.026*	−0.026*
	(0.014)	(0.014)	(0.014)	(0.014)
vacancy_period:contender		0.012		0.010
		(0.018)		(0.018)
vacancy_period:presparty			0.018	0.017
			(0.016)	(0.016)
Constant	0.213***	0.213***	0.214***	0.214***
	(0.030)	(0.030)	(0.030)	(0.030)
R^2	0.007	0.007	0.007	0.007
Adj. R^2	0.006	0.006	0.006	0.006
AIC	53104.22	53105.9	53104.99	53106.77
N		39750		

***p < .01; **p < .05; *p < .1

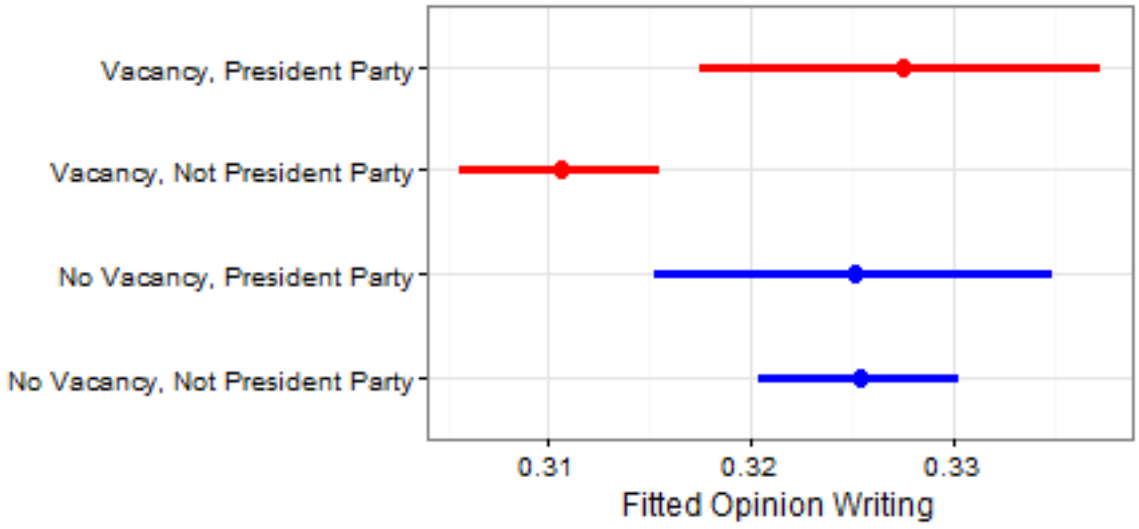
All models presented with standard errors clustered by judge id, and include both issue and circuit fixed effects.

Table 4, column 2 (the "contender interaction" model) adds an interaction effect of

[16]Results are substantively the same when clustering by appellate circuit or issue area. This also holds true in the three other models presented in Table 4. These results can be found in our accompanying supplementary materials.

being a contender during a vacancy period. The results are identical to the base model and there is no effect on opinion writing by being on a contender during a vacancy period. Column 3 (the "president's party interaction" model) drops the contender interaction but adds in an interaction term to look at the effect of being in the same party as the president during a Supreme Court vacancy. The results are identical to the model in column 1. Finally, we run both interactions in the same model in column 4 (the "full interaction" model). From these results we conclude that there is no relationship between a judge authoring an opinion when there is the possibility of elevation to the Supreme Court. These results would support no relationship exisitng between opinion writing and vacancies on the Supreme Court.

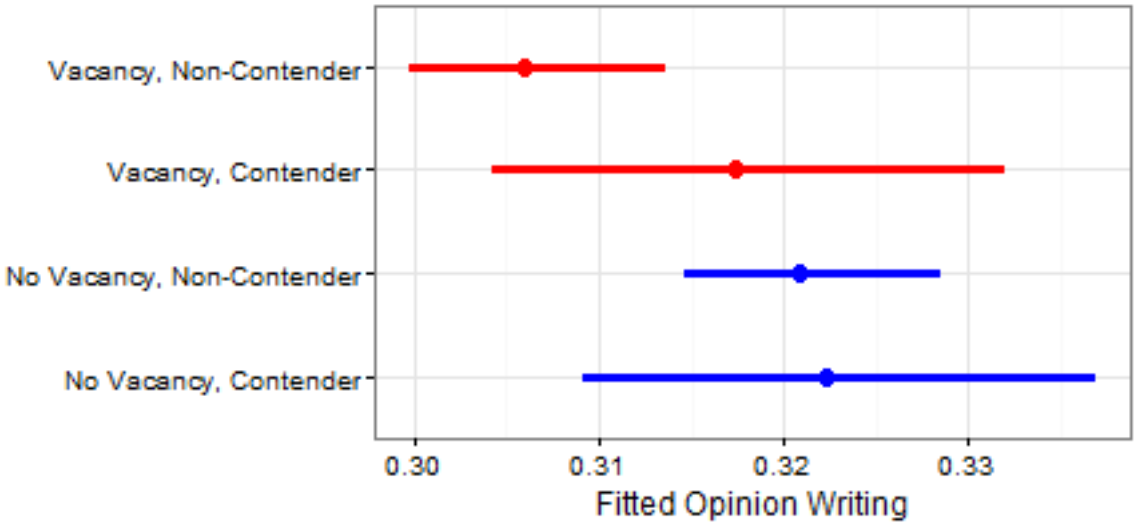
Figure 4: Predicted Effect of Vacancy and President's Party on Opinion Writing



We remain concerned about our interpretation of interaction effects of binary data, Thus, Figure 4 shows the predicted value (along with a 95% confidence interval) of out of sample judges writing opinions under several different conditions. To get these predicted values, we set all variables other than vacancy status and party (ideology) to their median value and then computed the estimated value for opinion writing by randomly assigning a judge's party status and whether or not there was a vacancy. We find no difference between judges in the president's party across vacancy periods. However, we do see a significant difference between predicted values for opinion writing for those judges not in

the president's party during vacancy periods. They write fewer opinions than both judges in the president's party during vacancies and judges in their own party during times of no vacancy.[17] Vacancies do affect judicial behavior in the form of opinion writing. This finding is of interest because it shows how vacancies can influence judicial behavior for judges disqualified by their party status, a finding outside of our theoretical considerations. We see the same result for the interaction of contenderXvacancy in Figure 5. The effect of the vacancy is only seen in those judges who are ineligible to be nominated.

Figure 5: Predicted Effect of Vacancy and Being a Contender on Opinion Writing



[17]The predicted values would appear to dispute the findings in the Table 4. However, the model in the table only shows the difference between observation with the characteristic of having both a vacancy and agreement with the appointing president against those where either one or none of the characteristics are present. The predicted plots allow us to divide the groups along the interaction terms components, letting us better observe the nuances between judge types and behavior.

Discussion

We initially undertook this project because we wanted to investigate how Appeals Court judges react to vacancies on the Supreme Court. Since judges are political actors and appear both ambitious and aware of their position, it is straightforward to conclude that Appeals Court judges both want to be elevated to the Supreme Court and are in prime position to achieve this goal. However, judges know that they only have a legitimate chance to being nominated to the Supreme Court when the nominating president is a member of the same party as themselves.

Even after reading Black and Owens (2016*a*), we felt that questions about how Appeals Court judges might change their behavior when vacancies occur on the Supreme Court were left unanswered. Notably, what would happened if we relaxed the assumption that judges know with perfect certainty about their candidacy status during vacancy periods? Our findings show that under this imperfect information scenario, judges still discernibly alter their behavior when vacancies to the Supreme Court happen. Specifically, judges in the same party as the appointing president are significantly less likely to cast ideologically inconsistent votes during vacancy periods. Importantly, this effect is not limited to only those judges whose name appear on shortlists at any point or to judges whose names appear on shortlists for a specific Supreme Court vacancy. This last point is what sets our results apart from Black and Owens (2016*a*).

Having arrived at a contradictory result to Black and Owens (2016*a*), we set out to understand why. We have several conclusions. The first is that we are using slightly different data. Black and Owens (2016*a*) use both the original Appeals Court Database as well as the update to the Appeals Court Database and a number of other cases that they gathered using LexisNexis. All of our data comes from the original Songer Appeals Court Database. Like Collins (2008), we take the Songer data covering the period 1946-1996 and create judge-case observations. We then engaged in substantial data cleaning to correct identification issues. It is important to note that this data cleaning is impossible for large portions of the Black and Owens (2016*a*) data because the judge-case observations lack sufficient case citation information to locate the cases.

Our paper provides improvements on existing work in several ways. First, as just discussed, it shows that federal judges react to political conditions in their decision making. We are able to show this with minimal assumptions about judges' knowledge about promotion potential. Second, we identify and correct issues in the Songer data. We also incorporate temporal information into our analysis of judicial behavior that does not require us to segment our data in potentially troublesome ways. Finally, we arrive at our results using a straightforward and easily interpretable framework with numerous robustness checks.

Though the paper answers our initial question, it raises new ones. For example, how do judges behave when they believe that they are no longer legitimate candidates for advancement? This paper also does not speak to the constraining effects of legal precedent. Not all cases are equal in their influence, and changing the status quo interpretation of specific issues may be more revealing of one's worth for promotion (or disqualification). Further, while we control for the ideological make-up of a panel deciding a case, as well as the issues spaces over which they are decided, we are, as of yet, unable to uncover whether specific judges hold influence over others in the decision-making process. Appointing presidents not only want ideological partners on the Court, but ones that can influence and shift other Justices (Moraski and Shipan, 1999; Martin, Quinn and Epstein, 2004; Bonneau et al., 2007; Krehbiel, 2007). Judd, Johnson and Smith (2016) suggests certain judges are better able to move others closer to their preferred outcomes. These judges may in fact be preferable to a judge ideologically close to a president, but who lacks the ability to sway others. These questions provide potential avenues of research for judicial scholars and suggest that far from being settled, we have much to learn about the the behavior of those seeking promotion to the court of last resort.

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Appendix A: Supporting Materials

In this section we provide the additional material referenced in the paper.

Looking at the Data

Table 5 presents the summary statistics of the variables of interest presented in the paper.

Table 5: Summary Statistics of the Variables

Variable	Mean	St. Dev.	Min	Max
vacancy_period	0.098	0.297	0	1
wroteopin	0.338	0.473	0	1
JCS	−0.003	0.319	−0.591	0.787
conjudge	0.485	0.500	0	1
contender	0.160	0.367	0	1
age	62.118	8.923	36	95
tenure	9.750	7.256	0	49
JCS.sq	0.102	0.097	0.000	0.619
female	0.028	0.164	0	1
nonwhite	0.022	0.147	0	1
presparty	0.492	0.500	0	1
pctopin	0.314	0.122	0.000	1.000
surprisevote	0.290	0.454	0	1
pctIIV	0.480	0.147	0.000	1.000
sl_cand	0.008	0.092	0	1
PanelJCS	−0.0003	0.266	−0.591	0.622
N		39750		

IIV DV Extra Regressions

Table 6 presents the results of our additional materials for Table 3. This includes various iterations of our full interaction model (column 4) from Table 3. We run the full model without clustered standard errors but with issue and circuit fixed effects (column 1), errors clustered by circuit and judge and issue fixed effect (column 2), errors clustered by case issue with judge and issue fixed effects (column 3), and a logit model with issue and circuit fixed effects. The results remain nearly identical in sign and significance across all models.

Opinion Writing DV Extra Regressions

Table 7 presents the results of our additional materials for Table 4. This includes various iterations of our full interaction model (column 4) from Table 4. We run the full model without clustered standard errors but with issue and circuit fixed effects (column 1), errors clustered by circuit and judge and issue fixed effect (column 2), errors clustered by case issue with judge and issue fixed effects (column 3), and a logit model with issue and circuit fixed effects. The results remain nearly identical in sign and significance across all models.

Table 6: IIV Extra Models

	No Cluster	**Circuit Cluster**	**Issue Cluster**	**Logit**
vacancy_period	0.010	0.010	0.009	0.062
	(0.008)	(0.011)	(0.012)	(0.062)
contender	0.011**	−1.173***	−0.981	0.107**
	(0.005)	(0.043)	(1.346)	(0.047)
presparty	0.007*	0.005	0.005	0.081**
	(0.004)	(0.004)	(0.005)	(0.032)
sl_cand	0.008	0.009	0.004	0.080
	(0.020)	(0.022)	(0.026)	(0.211)
JCS.sq	−0.043**	1.706***	1.401	−0.382**
	(0.019)	(0.264)	(3.456)	(0.184)
conjudge	−0.558***	−0.461***	−0.541***	−19.952
	(0.005)	(0.030)	(0.193)	(75.122)
age	0.001***	−0.011**	−0.010**	0.009***
	(0.0003)	(0.005)	(0.004)	(0.003)
tenure	−0.0004	0.012**	0.012***	−0.004
	(0.0003)	(0.005)	(0.004)	(0.003)
nonwhite	0.032***	0.756***	0.643	0.146*
	(0.012)	(0.022)	(0.608)	(0.081)
female	0.014	−0.434***	−0.332	0.128
	(0.011)	(0.033)	(0.737)	(0.084)
pctIIV	0.089***	−0.144***	−0.139***	0.443***
	(0.014)	(0.018)	(0.014)	(0.124)
PanelJCS	0.037***	0.024**	0.025***	0.181**
	(0.008)	(0.011)	(0.009)	(0.070)
vacancy_period:contender	−0.006	−0.005	−0.003	−0.026
	(0.016)	(0.010)	(0.013)	(0.135)
vacancy_period:presparty	−0.026**	−0.025**	−0.024**	−0.230**
	(0.012)	(0.012)	(0.011)	(0.107)
Constant	0.547***	1.145***	1.057***	0.307*
	(0.018)	(0.282)	(0.401)	(0.160)
Fixed Effects	Issue-Circuit	Judge-Issue	Judge-Circuit	Issue-Circuit
R-squared	0.4118	0.4241	0.4014	-
Adj. R-squared	0.4113	0.4168	0.3938	-
AIC	28939.01	29021.11	30562.52	26372.95
N		39750		

***p < .01; **p < .05; *p < .1

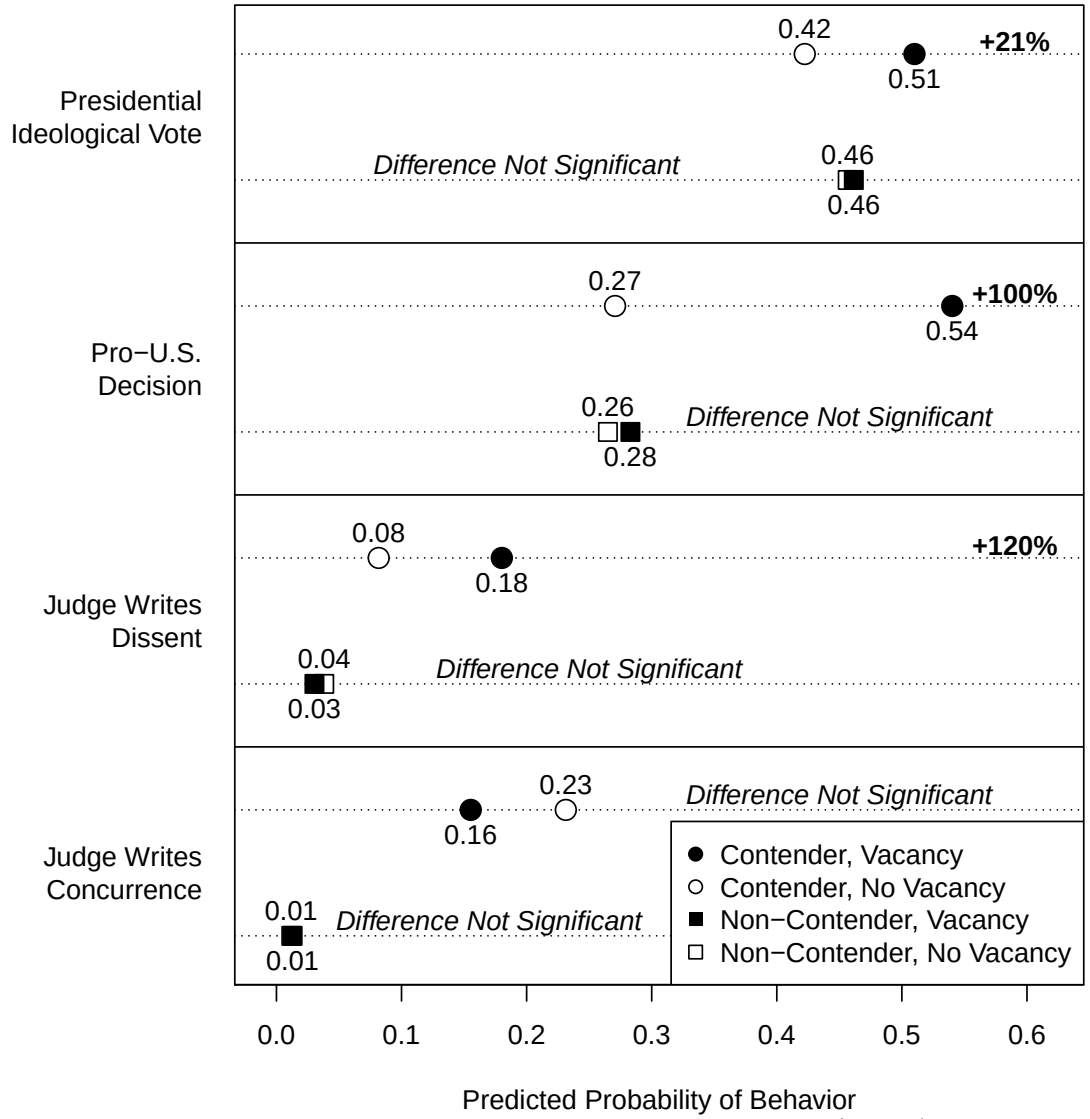
Table 7: Wrote Opinion

	No Cluster	**Circuit Cluster**	**Issue Cluster**	**Logit**
vacancy_period	−0.015	−0.015	−0.015	−0.069
	(0.011)	(0.012)	(0.012)	(0.051)
contender	0.002	0.002	−0.802	0.008
	(0.007)	(0.059)	(0.615)	(0.032)
presparty	−0.0004	0.005	0.005	−0.004
	(0.005)	(0.007)	(0.007)	(0.023)
sl_cand	−0.017	−0.036	−0.036	−0.080
	(0.027)	(0.028)	(0.028)	(0.126)
JCS.sq	−0.022	−1.492	0.519	−0.103
	(0.026)	(0.936)	(1.800)	(0.116)
conjudge	0.018***	−0.040	0.164	0.080***
	(0.006)	(0.116)	(0.198)	(0.026)
age	0.0002	−0.006	−0.006	0.001
	(0.0004)	(0.019)	(0.019)	(0.002)
tenure	0.003***	0.010	0.010	0.015***
	(0.0005)	(0.019)	(0.019)	(0.002)
nonwhite	−0.012	−0.091**	0.312	−0.056
	(0.016)	(0.036)	(0.309)	(0.075)
female	0.019	0.198**	−0.206	0.084
	(0.015)	(0.093)	(0.322)	(0.067)
pctopin	0.182***	−0.249***	−0.249***	0.829***
	(0.020)	(0.035)	(0.035)	(0.091)
PanelJCS	−0.026**	−0.022	−0.021	−0.118**
	(0.011)	(0.015)	(0.015)	(0.049)
vacancy_period:contender	0.010	0.011	0.010	0.047
	(0.022)	(0.019)	(0.019)	(0.097)
vacancy_period:presparty	0.017	0.012	0.012	0.078
	(0.016)	(0.016)	(0.016)	(0.073)
Constant	0.214***	0.822	0.525	−1.234***
	(0.023)	(1.143)	(1.170)	(0.106)
Fixed Effects	Issue-Circuit	Judge-Issue	Judge-Circuit	Issue-Circuit
R-squared	0.007	0.027	0.028	-
Adj. R-squared	0.006	0.015	0.016	-
AIC	53106.77	53201.73	53194.32	50667.71
N	39750			

***p < .01; **p < .05; *p < .1

Referenced Figure from Black and Owens (2016*a*)

Figure 6: Figure 1 from Black and Owens (2016*a*)



*This figure can be found on page 39 of Black and Owens (2016*a*). We recreated it from that publication's replication files (Black and Owens, 2016*b*) for ease of reference.*