Predicting Deference in Appellate Court Decisions

By Amy Semet

Abstract: When do appellate court judges defer to agencies and under what circumstances will appellate court judges vote against their partisan leanings in reviewing the decisions of an adjudicative agency? In this paper, I review the decisions of the appellate courts in National Labor Relations Board (“NLRB”) cases over a twenty-year period, 1994 to 2014, to uncover the political, economic, legal and sociological factors that impact both the decision to defer to the agency as well as the decision whether to vote contrary to ideological leanings. Unlike many analyses which focus primarily on the role that partisanship and the partisanship of one’s colleagues has in influencing voting, I find that gender and to some extent minority status influences appellate court decision-making in certain circumstances even when the case does not have an obvious gender or racial dimension to it. In particular, I find that female judges are more likely to vote counter-ideologically than men, especially in cases applying a more deferential standard of review. I also find that in certain circuits, judges may actually be less likely to vote in a counter-ideological fashion if they have female colleagues on the panel. These results contribute to important debates in bureaucratic politics about how courts review agency decisions and on the role that diversity plays in determining decisions in appellate courts.
What factors determine how an appellate court will rule in overseeing the decisions of an adjudicatory bureaucratic agency? Court scholars have focused on the role that partisanship and ideology have in influencing how judges vote when reviewing lower courts and bureaucracies. Yet while partisanship may influence voting especially in cases involving hot button issues like abortion or the death penalty, the role that partisanship plays in influencing votes to the exclusion of other factors may be somewhat overstated. In this paper, using appellate court cases from the National Labor Relations Board (“NLRB”) as a case study, I analyze the role that a judge’s diverse life experiences have in impacting both the decision on whether to defer to the agency’s ruling as well as in the decision to vote against one’s normal partisan leaning. The results indicate that appellate court judges bring into the courtroom their diverse life experiences and that these experiences influence how judges vote to some extent beyond and above their partisan leanings at least on issues that are less salient to public consciousness like labor law.

In this paper, I focus on analyzing what political, legal, sociological and economic factors motivate a federal court of appeals judge to defer to a Board’s interpretation of a given case and in turn what influences judges to issue a decision for or against an agency that contradicts their partisan leanings. I first orient the study in the theoretical literature on the factors that may influence appellate court decision-making. I then give some background on the NLRB and discuss how cases from the NLRB end up in the appellate courts. I next set forth my hypotheses and turn to discussing the extensive data set I constructed, detailing the independent and dependent variables I use in the statistical analysis. In the fourth part, I analyze the statistical results in depth. The last section discusses my results and conclusions.

While scholars commonly attribute judicial decision-making to attitudinal factors like ideology or to the influence that like-minded partisans may have on a given panel, my analysis
concludes that the answer is much more nuanced than simply relying on ideology or partisan panel effects to explain decision-making. Although I find partisanship to be an important influencer of opinion, there are many other factors that also influence the decision to defer as well as the decision to rule counter-ideologically in the more than 1,300 appellate cases I reviewed.

In particular, gender and to a lesser extent minority status may play more of a role in influencing votes than commonly believed. As expected, partisanship plays an influential role, especially in motivating Republican judges to rule against the agency. Legal posture matters too. Judges are less likely to defer to the agency when the issue concerns a “legal” issue subject to de novo review as opposed to a case involving the more deferential substantial evidence standard. These differences are especially prevalent for women and minority judges. Women and minorities are less likely to defer to agencies on statutory interpretation cases, underscoring the role that their life experiences may have in influencing votes on cases that have more long-lasting ramifications. My results also indicate that female appellate courts judges are more likely to issue a ruling counter to their partisan leanings than men are but that, at least in some appellate circuits with the greatest percentages of female judges, having female colleagues actually decreases the propensity to rule against one’s partisanship. After discussing the limitations of my analysis, I discuss what implications my findings have for our democracy and the separation of powers system.

**Factors that Impact the Appellate Court Decision to Defer**

A rich literature in judicial politics explores the factors that impact Supreme Court decision-making (Segal and Spaeth 1993). Scholars apply the same econometric techniques used to study the Supreme Court to the wider study of the lower level federal courts, particularly the appellate courts who generally sit in panels of three to hear cases arising from the lower district
courts. These studies devote themselves to answering the following question: What factors impact how the appellate court will ultimately rule? Does ideology impact the judge’s decision, both as a substantive matter and in deciding whether to defer to the lower court or administrative agency? Are judges influenced by their co-panelists? Does outside external pressure from political or economic entities influence how the judge decides a particular case? What role do gender and minority status play in influencing votes?

**Influence of Ideology and Partisan Panel Effects**

Much of the literature examines the impact that a judges’ own ideology and that of his or her co-panelists have in influencing votes. In particular, the attitudinal model of decision-making explains decision-making based on “each judge’s political ideology and the identity of the parties” (Cross 1997: 256; Segal and Spaeth 1993). Scholars studying a host of legal issues argue that judicial votes differ depending on the composition of the panel (Kim 2009; Kastellec 2012; Wawro et al. 2004). While the results vary according to issue area, scholars studying judicial review of agency action on the federal court of appeals have concluded that panel composition motivates decision-making, sometimes even more so than individual preference (Sunstein et al. 2006; Revesz 1997). Frank Cross and Emerson Tiller (1998) analyzed D.C. Circuit court cases applying whether courts defer to an agency and found panel effects prevalent. Panel effects can take many forms. While some find persuasive evidence of partisan panel effects (meaning that partisans are more likely to side with their co-partisans that judges of the contrary party) (Sunstein et al. 2006; Revesz 1997), others explore the extent to which racial or gender panel effects pervade appellate court decision-making (Farhang & Wawro 2004; Kim 2009; Cox & Miles 2008; Boyd et al. 2009). In addition, scholars have found panel effects across a diverse set of legal issues: asylum cases (Fischmann 2011), Establishment Clause cases (Sisk & Heise
2012), sexual harassment cases (Farhang & Wawro 2004; Boyd et al. 2009), and affirmative action cases (Kastellec 2014).

Scholars have studied panel effects as they relate to Supreme Court and circuit court review of administrative agencies. On the Supreme Court, scholars have found that more conservative judges are less likely to validate agency decisions than liberal justices (Miles and Sunstein 2006, 823). Likewise, more conservative members are less likely to validate liberal agency decisions than conservative ones, with liberal members evidencing the opposite pattern. These patterns persist on the federal courts of appeals. In cases involving both the Environmental Protection Agency (“EPA”) and NLRB from 1990-2004, Miles and Sunstein (2006) found that Republican appointees on the court of appeals invalidated liberal agency decisions more so than Democratic appointees. These differences were even greater when judges sat with judges of same party. Democratic appointees sitting with co-partisans were 31.5 percent more likely to validate a liberal decision than a conservative one and all-Republican panels were over 40 percent more likely to validate a conservative decision. Miles and Sunstein also found that validation rates rise from 50 percent when agency decisions did not match ideological predisposition to over 80 percent when it did match. These differences were not as stark for politically mixed panels. In mixed panels, Democratic judges were 20 percent more likely to validate a liberal agency decision, but there was virtually no difference in validation rates for Republicans sitting on mixed panels. Republicans sitting on mixed panels were only 6 percent less likely to validate when an agency decision is liberal, a result that was statistically insignificant. In other words, only Democrats sitting on mixed panels experienced panel effects concerning validation of agency decisions. Miles and Sunstein also compared validation rates
with rates of liberal voting and found panel effects to be more prevalent on rates of liberal voting than for validation.

Other scholars have similarly studied the issue with respect to appeals court deference to administrative agencies. Cross and Tillman (1998) found that heterogeneous mixed partisan panels tended to make “better” decisions. They argue that the presence of a so-called whistleblower (symbolized by a partisan minority) impacts outcomes because the majority gets subconscious about reversal forcing the panel to pay more attention to obey legal doctrine. Yet, still other scholars have found contrasting results when analyzing court of appeals decisions emanating from administrative agencies. Revesz (1997) studied procedural challenges to EPA cases and found no partisan impacts in appellate court review of administrative agencies.

Scholars have advanced different theories for why there are panel effects. Sitting on an appellate panel is a collegial process and as such, judges may moderate their views toward the center after being exposed to arguments from other judges in the course of deliberation (Farhang and Wawro 2004; Kornhauser and Sager 1993). Alternatively, judges may seek to achieve the norm of consensus through bargaining, conferring in a “give and take” to avoid “public dissention” and threatening dissent to extract concessions from the majority (Goldman 1968: 479-80; Farhang and Wawro 2004). Judges may gain such concessions by threatening to “blow the whistle” on a majority opinion that does not align with existing precedent or when the panel decision differs ideologically from the en banc circuit or Supreme Court (Cross and Tiller 1998; Cameron 2000). Finally, scholars argue that on multimember courts, the “norm of reciprocity” encourages “judicial logrolling” whereby judges maintain unanimity by rotating opinion writing and deferring to the views of the majority opinion writer (Murphy 1964; Peterson 1981).
Influence of Gender and Minority Status and Gender/Minority Panel Effects

Scholars have found sex and gender to influence voting in the lower courts. Advocates of diversification on the appellate bench argue that women and minorities may be more attuned to and responsive to questions of race and gender and would make decisions more favorable to plaintiffs in discrimination cases and devise precedent favorable to discriminated parties (Cook 1981; Tobias 1990; Gregory 1997; Beiner 1999). Scholars explain their reasoning by arguing that women and minorities are more likely to have experienced discrimination personally and that these personal experiences trickle down to how they decide cases (Martin 1990; Songer et al. 1994; Beiner 1999).

Empirical studies of the role of gender and race on voting have reached mixed results. Boyd, Epstein and Martin (2010) found that women decide cases differently in sex discrimination cases, but they conclude that in twelve other areas of law, men and women judges did not differ. In cases concerning criminal sentencing at state trial courts, scholars have not found significant differences between men and women, but they have found differences between black and white judges (Kritzer and Uhlman 1997; Gruhl et al. 1981; Welch et al. 1988; Uhlman 1978). In civil rights cases, scholars also are split with some finding that women and minority judges vote more liberally (Allen and Wall 1993; Songer and Crews-Meyer 2000; Chew and Kelly 2006), while others find no impact (Walker and Barrow 1985), or only differences across gender lines (Ashenfelter et al. 1995). At the court of appeals, some scholars have found that women were more liberal than men in employment discrimination cases, but that there were no gender differences in criminal procedure or obscenity cases (Davis et al. 1993; Songer et al. 1994). Scholars studying the NLRB found that Hispanic and Asian judges were more likely to rule for industry in unfair labor practice cases, and that while black judges did not decide cases
differently as a general matter, they were more likely to decide important cases in favor of unions (Brudney et al. 1999; Merritt and Brudney 2001). Moreover, women judges did not differ from male judges in how they decided NLRB cases, but Republican female judges had a greater propensity to decide cases in favor of unions than male Republican judges (Brudney et al. 1999; Merritt and Brudney 2001). Moreover, as noted above, scholars have found gender and racial partisan effects to be prevalent in deciding cases of particular interest to each group (Boyd, Epstein and Martin 2010; Farhang and Wawro 2010).

**Influence of Work Experience and Legal Background**

Another line of literature looks at the influence that work and legal experience have on the decision to defer. Robinson (2012) found that Supreme Court justices who had experience serving in the executive branch were more likely to defer to the president in administrative law cases. He found that this effect intensified as executive branch tenure increased. Relying on the work of Dorf (2007) who concluded that Supreme Court justices in the post-Warren court who had executive branch experience were more likely to be conservative, Robinson contends that executive branch experience has socialization effects that influence how the judge views presidential power. Members of an organization begin to internalize its goals and norms, and join social networks that reinforce those norms (Chao et al 1994). This explains why, for instance, some scholars have found that Supreme Court justices tend to drift leftward over time (Baum 2006). Scholars have also found that judges with “elite” backgrounds rule differently than other judges on tax and NLRB adjudications (Brudney et al 1999; Schneider 2002, 2005).

**Influence of Other Institutional Actors in a Separation of Powers**

Scholars have also offered arguments concerning the role that strategic interaction (Epstein and Knight 1998), the desire for comity (Hettinger, Lindquist and Martinek 2007) and even approval (Baum 2006) have in influencing outcomes. In a complex institutional system,
justices might vote against their own preferences in order to protect their institutional legitimacy or to prevent public backlash. Judges may also be influenced by the political preferences of other branches. Some scholars have found that courts behave strategically in constitutional cases (Bergara et al. 2003; Epstein and Knight 1998), while others have found little evidence of such behavior (Brudney et al. 1999; Segal 1997; Segal and Westerland 2005; Spriggs and Hansfiord 2001). Cohen and Spitzer (1994) argue that justices at the Supreme Court tailor their pro or anti-deference stand in line with their relationship with the sitting president on the theory that attitudes are shaped by whether the justice expects to prefer innovations coming out of the executive branch or whether they prefer the status quo.

**Influence of Legal Considerations and Salience**

In addition to partisanship, sociological factors and separation of powers concerns, salience of a case may influence decision-making. Most analysis in judicial politics concern hot button topics like abortion or the death penalty but most cases heard in the federal courts are of much lower salience. Salience may inspire greater resistance to deference when legal audiences are paying more attention to the issue and oppose the executive branch (Baum 2006). Visibility of an issue may also condition how judges view a case. If he or she sees an issue as important, he or she will give it greater consideration, and in doing so may rely more on ideological considerations in their rulings (Fix 2012; Unah and Hancock 2006).

**Clarity of Opinion Writing**

More recent developments in text analysis have made it easy to quantitatively analyze opinion content. Scholars studying the Supreme Court have found that the Supreme Court is more likely to induce compliance by lower courts and agencies by writing clearer opinions, as measured by “readability measures,” such as the Fleish score which analyzes data to assess how well written a given corpus is (Owens et al. 2016). The theory is that when an opinion is more
clearly written, it makes it easier for the lower court to understand and apply the precedent. Owens et al (2016) conclude that the Supreme Court strategically writes more clear opinions when it faces ideologically distant lower courts, when it decides cases involving poorly performing federal agencies, when it decides cases facing less professional legislatures and governors and when it rules contrary to public opinion. The reverse question — whether more clearly written lower court opinions influence subsequent appellate decision making — has not been studied yet.

The NLRB’s Adjudication of Unfair Labor Practice Disputes

The NLRB Process

The NLRB, founded during the New Deal era to provide an administrative mechanism to deal with labor strife, does most of its work through the adjudicatory process as opposed to the more common rulemaking process undertaken by other administrative agencies. The NLRB hears two types of cases: unfair labor practice disputes (the primary focus of the present analysis) as well as disputes arising out of union election procedures. Only unfair labor practices cases can be appealed. Figure 1 details the NLRB process in unfair labor practice disputes. Any party that feels that their rights were violated by their employer or union may file a dispute with the regional office of the NLRA acting as a representative of the General Counsel’s Office. After the General Counsel makes a decision to proceed, a local Administrative Law Judge (“ALJ”) then hears the case and makes a decision. The losing party can then appeal that case to the Board, which is generally composed of three members (except in exceptional cases, the full five member Board may hear a case). Parties losing before the NLRB have the opportunity to present their appeal to the applicable federal appeals court based either in the region of the parties or in Washington D.C. at the United States Court of Appeals for the District of Columbia circuit.
Appeals of this nature can take one of two types. First, NLRB orders are not self-enforcing. If the party losing before the Board refuses to comply voluntarily with the Board’s order, the NLRB, through its General Counsel, will file a complaint with the applicable appeals court to enforce the order. Second, the aggrieved party can file an appeal of the merits of the Board’s ruling. So essentially, most appeals involve two separate motions: a motion to enforce filed by the NLRB General Counsel and a separate motion to review the merits of the Board’s decision filed by the losing litigant. Winning on appeal is difficult. Much like the Board itself the appeals court cannot simply retry the case. The reviewing court may enforce, modify or reverse the ruling of the Board, in whole or in part, or remand the case back to the Board for further action. The mix of cases that ultimately get appealed are a unique batch. In most situations, cases involving minor issues or issues relevant to single employees usually settle. For the most part only the most difficult legal issues will get appealed. Although later review by the Supreme Court is a theoretical possibility, the high Court generally hears only one or two NLRB cases yearly.

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Review by the court of appeals is generally governed by the “substantial evidence” standard. As a legal matter, the appellate court can only disturb the Board’s ruling if they find there to be a lack of substantial evidence. Cases involving statutory interpretation are held to a
higher standard.\textsuperscript{3} Pursuant to the United States Supreme Court case in \textit{Chevron},\textsuperscript{4} decisions of administrative agencies are entitled to deference absent the agency acting in a matter contrary to law. Under \textit{Chevron}, the court cannot simply substitute its own judgment for that of the court if it disagrees with the court’s policymaking discretion. Rather, under step 1 of \textit{Chevron}, the court determines whether there is any ambiguity in a statutory provision and if there is, in step 2, the court must then determine whether the agency’s interpretation is reasonable. Unlike other administrative agencies who must regulate under many different statutes, the NLRB only has one governing statute that has not been amended in almost fifty years. As such, in many cases, the court simply assesses whether there is “substantial evidence” to govern the agency’s decision, that is, the courts analyze the Board’s decision to weigh the sufficiency of the evidence to support the indicated violations (or in some cases, lack of violation of law). Just as the Board could not overrule the ALJ’s credibility determinations, so too the appellate court cannot try to review the factual underpinnings of the case unless it is clear that the legal judgment sought lacks a substantial basis in evidence.

\textbf{The Dataset}

The dataset contains 1,356 cases during the period 1994-2014 appealed to the federal appellate courts, comprising 4,008 individual judge votes. This dataset does not encompass every NLRB case filed during the period; rather, it encompasses all appeals of cases heard by the Board from the period 1993-2010. It can often take up to four or five years for a court to hear a Board case, so even though the Board may have heard the case back in 2007, it may not have come up for review until 2011. Moreover, the General Counsel often may wait to officially file


for enforcement to wait to see if the parties can work out a settlement. I found the cases in two ways: First, I looked up all NLRB cases heard in the regional appellate courts on Westlaw. I included all cases in which the court ruled on an unfair labor practice dispute on the merits. I eliminated approximately 5% of the cases after reading them because the case involved a legal issue not applicable to an unfair labor practices disputes under section 8(a) or section (b) of the NLRA. I eliminated cases dealing with tangential or remedy issues, such as appeals concerning the award of backpay, a remedy often given by the Board to address claims of unfair labor practices. Oftentimes, the remedy issue will be the second case heard by the Board or court; the Board would have earlier ruled on the merits, and in a supplemental opinion, the Board altered or changed the remedy, which could then be separately appealed to the federal courts. Because NLRB cases are not self-enforcing, on occasion, the higher court’s review of the NLRB decision is merely perfunctory and the court simply issues a summary order enforcing the case. I excluded such cases from my database because the appeal is purely ministerial. In addition to looking up the cases on Westlaw through search terms, I also double-checked the appellate court database by looking at every single NLRB case from the period 1993-2010. In another article (Semet 2016), I explored partisan panel effects at the Board itself and in the course of such analysis I constructed a dataset of over 3,000 NLRB cases. I researched the subsequent history of all the cases included in the earlier NLRB cases to arrive at the dataset I use in this paper so I would be able to link up each appellate court case with the Board outcome. I included both “CA” cases (cases filed by an employee or union against an employer — the vast majority of cases) as well as “CB” cases (cases filed against the union alleging unfair labor practice). I did not include cases that were both “CA” and “CB” unless only only one party appealed the ruling.
Of the cases included in the dataset, the appeals court ultimately ended up deciding 63% of them in favor of the labor litigant with 37% being decided in favor of industry in whole or in part. To ease complexity, I constructed a dichotomous variable for both whether the vote was in favor of labor and for whether the court deferred to the Board. To calculate these measures, I counted a decision as “pro labor” or “pro-deference” if the majority of the decision was made in full in favor of labor or in favor of deferring to the agency. If the court decided in favor of labor in part but decided in favor of industry for one part or if the court deferred only in part, I looked at the appellant party and considered the appellee (whether union or employer) to be the winner. In all, the courts deferred to the Board 67% of the time in full. This rate differed among the circuit courts. Circuits like the 3rd, 5th, 9th, and the District of Columbia Circuit ruled in favor of labor between 59%-65%. This result is not unexpected. Scholars have found there to be quite a variation among circuits, with certain circuits, such as the 4th circuit, having a reputation for being more conservative. Moreover, two circuits in particular — the 6th circuit and the D.C. Circuit — heard a disproportionate number of cases partly because many administrative law cases are often heard in the DC Circuit and many appellees who are employers may choose to file their case in the more conservative Sixth Circuit.

In over a quarter of cases, the court overturned the Board in a more conservative direction. In 13% of cases, the courts completely reversed a fully liberal Board decision and in still another 17% of cases, the courts ruled against the pro-labor party in part. Courts were much less likely to overturn a conservative Board decision, as less than 2% of cases came out in a more liberal direction than the Board decision. This means that if the losing party hopes to overturn a conservative court decision, it faces a stiff challenge in the courts of appeals because the courts

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5 If the court remanded a case, I coded the decision in the ideological direction of the court decision. In most cases, the court remands with instructions to the Board so it is quite easy to tell which ideological direction the court leans.
hardly ever rule in a more liberal direction than the Board. However, so few conservative cases are even appealed to the federal courts in the first place, as only about a quarter of the cases heard before the appellate courts are ones where the Board ruled in a conservative direction in part. The high number of pro-industry rulings is not surprising because oftentimes only the most difficult legal issues make their way up through the federal appeals court process and it may be that only employers have the money, time and resources to appeal. Moreover, the federal appellate judiciary has a mean ideology score that is more conservative than the mean ideology of the Board so it should be no surprise that losing employers want to appeal their case to the more conservative appellate court. This pattern continues irrespective of the type of case. A vast majority of the cases appealed are CA cases (cases alleging employer abuses) (80%), and the percentages based only on CA cases are exactly the same as percentages based on both CA and CB cases (cases alleging union abuses). The rates of winning for CB cases are slightly less as 74% of cases are decided the same way in the appeals court as before the Board.

**Hypotheses**

I next turn to making a more detailed assessment of the factors that predict what influences an appellate court to 1) defer to the agency as well as to 2) issue a vote against one’s normal partisan inclination. It can be difficult to untangle the multiple variables that could be impacting the analysis. To measure deference, I reviewed the NLRB cases and coded for whether or not the Board deferred to the agency or not, noting the ideological tone of both the NLRB’s and the agency’s decision. As a secondary measure, I accounted for counter-ideological vote by assigning a “1” if the judge voted against his or her partisan leaning (defined by the party of the appointing president) in the decision. I used these two measures to test the following hypotheses:

**Deference in “Legal” Cases**
First, I would hypothesize that judges will be less likely to defer to the agency in clear “legal” cases reviewed *de novo* on appeal compared to cases where they must rely on the “substantial evidence” standard. To test this hypothesis, I coded cases for the standard of review and legal issue. Many of the appeals heard by the courts are run of the mill cases, where the court has to assess whether “substantial evidence” supports the Board’s finding that an unfair labor practice did or did not occur. For instance, the court may be asked to opine whether the evidence is sufficient to support the Board’s determination that an employer acted in bad faith in rejecting a union, or whether there was sufficient evidence that a majority of the employees wanted to form a union. These inquiries are necessarily fact-specific inquiries in which we should expect — or at least hope to expect — that neither ideology nor personal proclivities influences decision-making as the judge must simply determine the weight of the evidence based on factual evidence. The judge could still disagree with a ruling as a substantive matter, but be forced to rule in a contrary fashion because of the standard of review. Likewise, we might expect that in purely procedural cases the Board would likely defer to the agency.

Cases that turn on statutory interpretation that have greater ramifications may in turn be decided differently than substantial evidence cases. For instance, if the court must rule on a statutory interpretation, ideology may influence decision-making to a greater extent due to the greater salience of the issue. The same can be true of other issues that appellate courts review *de novo*. For instance, courts review contract interpretation *de novo*, so that issue, like statutory interpretation, may be influenced more by partisanship than more run of the mill cases. As such, compared to substantial evidence cases, judges may be more motivated by ideology in ruling on statutory interpretation cases.
**Hypothesis 1:** Appellate judges are more likely to defer to the agency and more likely to issue a counter-ideological vote where the standard of review is substantial evidence or where the court has to mostly review fact-finding of the agency. Appellate judges are less likely to defer and less likely to issue a counter-ideological vote in statutory interpretation and contract interpretation cases or in cases in which the standard of review is *de novo*.

**Deference based on Partisanship**

As with my earlier analysis on the NLRB (Semet 2016), I hypothesize that the court may be more deferential if the Board decision is in line with the ideological position of the Board. Since most cases appealed are labor-friendly cases, we would expect the courts to defer to those rulings and that judges would be more likely to defer to rulings by Boards who have the same ideology as that given judge. I would also expect that partisan panel effects for validation would be less extreme than for rates of liberal voting. I might also hypothesize that the intensity of partisan panel effects could differ among the types of cases heard. That is, if panel effects are politically motivated, we might expect to see panel effects more intensely in cases dealing with more important legal issues, such as cases dealing with statutory interpretation, as opposed to more routine settlement of disputes. Further, given the high rate of affirmance of primarily liberal decisions, we might expect that Republican judges to be more circumspect in their rulings than Democratic appellate judges.

**Hypothesis 2:** Appellate judges are more likely to defer and less likely to issue a counter-ideological vote if they are in ideological agreement with the Board decision.

**Hypothesis 3:** Appellate judges are more likely to defer and less likely to issue a counter-ideological vote if they are in ideological agreement with a Board decision and if they sit with other judges who mirror their partisanship.
**Hypothesis 4:** Republican judges are less likely to defer as a general matter and less likely to issue a counter-ideological ruling than Democratic judges.

**Deference based on Gender and Minority Status**

We might see gender effects with respect to deference irrespective of ideology. There are a few reasons why these hypotheses may be true. First, it may be the case that there is a small pipeline of available and qualified women and minority judges, and that therefore in appointing judges, there is simply a smaller pool of ideologically-diverse judges. Women and minority judges may also act differently once in office because they face different incentives. Since there is a relatively small pool of women and minority appellate court judges, they face a greater likelihood of being candidates for the Supreme Court. As such, it may be that once on the bench women and minority judges act differently in that they do not want to “rock the boat” by making their decisions in an overtly partisan manner. In addition, we may see gender and racial panel effects with respect to deference and counter-ideological voting, with these patterns being magnified with increased women or minorities on the panel.

**Hypothesis 5:** Appellate judges are more likely to defer and less likely to issue a counter-ideological vote if they are men.

**Hypothesis 6:** Appellate judges are more likely to defer and less likely to issue a counter-ideological vote if they are non-minorities.

**Hypothesis 7:** Appellate judges are less likely to defer and more likely to issue a counter-ideological vote if they have at least one female co-panelist.

**Hypothesis 8:** Appellate judges are less likely to defer and more likely to issue a counter-ideological vote if they have at least one minority co-panelist.
Deference based on Work and Legal Experience

I would hypothesize that judges are more likely to defer if they have executive experience, particularly if they formerly worked in the executive branch. We might expect that judges who worked at agencies may have more respect for the internal workings of agencies. These judges may also have more respect for government in general and be less likely to overrule what the government says. Other sociological factors could also influence decision-making. If a judge went to an elite law school, we might expect less deference and greater ideological voting.

Hypothesis 9: Appellate court judges are more likely to defer to agencies and less likely to issue a counter-ideological vote if they previously held a job in the state or federal executive branch.

Hypothesis 10: Appellate court judges are more likely to defer and less likely to issue a counter-ideological vote if they hold a degree from a non-elite law school.

Deference based on other Institutional Actors

Appellate decision-making does not occur in a vacuum. In a separation of powers system, Congress holds sway over the courts in that they could issue a new law in response to a court decision, though this action is rare. Moreover, the current president can exert some influence as judges may be more willing to issue a counter-ideological vote when their partisan leanings differ from that of the current president and they have concern how the ruling will be implemented by an ideologically-distant president.

Hypothesis 11: Appellate courts are more likely to defer and less likely to issue a counter-ideological vote if they are in ideological agreement with the current relevant congressional oversight committee.
Hypothesis 12: Appellate courts are more likely to defer and less likely to issue a counter-ideological vote if they are in ideological agreement with the current president who has control over how the ruling will be implemented.

Deference according to Clarity

Finally, it may be that agencies act strategically and tailor their opinions or their opinion writing to make it more so that the appellate courts will defer (Black et al. 2016). I borrow from the literature on Supreme Court clarity to make a prediction based on reviewing court as opposed to reviewed court and use opinion clarity as an independent variable instead of a dependent variable. I hypothesize here that appellate courts are more likely to defer when the agency decision is clearer, as it offers greater opportunity for the federal judge to both believe that the agency knows what it is doing and that it is leveraging its expertise over policy.

Hypothesis 13: Appellate courts are more likely to defer to more clearly written agency opinions.

Statistical Analysis and Description of Variables

Dependent Variables

The first dependent variable in the first iteration is the dichotomous variable consisting of a single judge vote on whether to or not to defer. I proceeded to estimate the following equation using logistic regression analysis:

\[ Y = \beta_0 + \beta_{1i}X_i + \beta_{2j}X_j + \beta_{3k}X_k + \beta_{4l}X_l + \beta_{5m}X_m + \beta_{6n}X_n + \varepsilon \]

Where \( \beta_{1i} \) indicates categories of variables concerning ideological and partisan panel characteristics, \( \beta_{2j} \) indicates political variables, \( \beta_{3k}X_k \) categories of variables indicating case considerations, \( \beta_{4l} \) concerns sociological characteristics, \( \beta_{5m} \) indicates clarity (readability) variables and \( \beta_{6n} \) notes additional controls such as economic variables. I expect that the \( \beta \)
coefficient on party to be negative, as I would expect Republican judges in general to be less likely to defer irrespective of the ideology of the Board opinion because Republicans may view the administrative state differently. I would also expect a positive coefficient on the partisan panel effects variables, because having more Democratic colleagues should increase the propensity to defer compared to having two Republican colleagues. I would expect that judges may be more likely to defer when they share the current ideological proclivity of the current Congress and President. I would expect a negative coefficient for the statutory interpretation variable, because judges should be less likely to defer on those cases. With respect to the other variables, I would expect both women, minority and government service to be negative, being less likely to defer. Finally, in line with the scholarship concerning the impact of clarity, I might hypothesize that the way in which the lower court Board member writes the opinion can influence deference, with a higher clarity coefficient signaling more deference.

In order to get at differences in ideology, I also used an alternative dependent variable measuring the counter-ideological vote. In all, what influences a judge’s decision to vote against their ideology? The answer to this question may be slightly different than the first. I would expect these variables to be the opposite sign for the second dependent variable of whether or not the judge ruled in a counter-ideological way, except that I would expect that judges would be more likely to rule counter-ideologically in statutory interpretation cases and that Republicans would be more ideological than Democrats.

**Independent Variables**

**Legal Variable**

I coded all cases for legal issue and the standard of review. To make the analysis simpler, I grouped cases according to two groups: whether the case concerned a matter of statutory or
contract interpretation reviewed *de novo*, or whether the case concerned a procedural issue or substantive issue reviewed under the substantial evidence standard. I coded as “1” cases in which the courts applied the substantial evidence standard.

*Board Ideology*

I reviewed the lower court Board decision to assess the tone of the decision as to whether it is supportive or not supportive of labor. In one specification, a decision was coded “1” if the Board decided the case in favor of labor, and 0 otherwise. I also created another variable looking at whether the Board decision was aligned ideologically with that of the judge. If the judge was Republican and the Board issued a decision in favor of industry, for instance, I coded the case as “0” whereas if the Board issued a pro labor decision I coded it as “1.” I also added some specifications where I include both the Board and the ALJ as variables, although there could be some multicollinearity in the models by including both. In an additional specification, I used an alternative coding of this variable which measured “1” if the Board decision was congruent with that of the judge’s partisan ideology as based on the presidential appointment and “0” otherwise.

*Ideological Variable: Party and Panel Composition*

I measure appeals court ideology using the Epstein et al. (2007) and Giles et al. (2007) database of appeals court common scores. In one specification, I divide up the panel depending upon the party of the nominating president and allocate each panel accordingly. In another specification, the one that is reported here, I divide up the panels based on the Epstein and Giles scores, with scores below 0 signifying Republican or conservative judges, coding each judge for party and then constructing the panel variable with four types: DDD, DDR, RRD and RRR. In almost all cases, the two measures matched (correlation =.95) and there was no discernible difference in the results. Because the analysis is by judge vote, I looked at the parties of the
judge’s colleagues, with judge’s either having all Republican categories (the reference category), a mixed panel (DR or RD) or two Democratic colleagues. The breakdown of panel types is very different in the court of appeals than it was for the Board. The DDD panel type is a distinct minority in the appellate courts with less than 5% of NLRB decisions being heard by DDD panels. RRR panels are much more common than they were for the Board (where only 2% of cases were heard by RRR panels), with 22% of cases being heard by all-Republican panels. Mixed panels are the norm, with most of the panels being Republican majority (45 percent) than Democratic majority (28%). In all, 37% had two Republican colleagues, 49% were on a mixed partisan panel and 15% had two Democratic colleagues.

**Gender and Race and Gender and Race Panel Effects**

I coded for gender and race to see if they had an impact as some have found (Brudney et al 1999). In all, 18% of the judge votes came from women and 29% of judges had at least one female co-panelist. Few NLRB cases during this time period are heard in part by minorities. Only 8% of judge votes come from minority judges and only 15% of judges have at least one minority co-panelist. Women on the whole, however, are less likely to defer and more likely to issue a counter-ideological ruling, with there being about a 3% difference between women and men. Minorities as well differ from non-minorities in their willingness to defer, though the differences are much less (about 2.2% difference). I identified the race and gender of each federal judge (165 judges in total, including district court judges sitting by designation) using the Almanac of the Federal Judiciary and by looking at the biographical sketch of each federal judge.

**Work and Legal Experience**

I also coded for prior experience. In the coding I used in this model, using the Almanac of the Federal Judiciary, I assessed as “executive” experience work at the Department, the
Solicitor Generals Office or any of the federal agencies. In their former career, judges often worked at the State Department or worked at an agency like the Commerce Department. Working in such jobs would socialize that person to the norms of Washington D.C. life. Moreover, they may gain a greater appreciation of what it means to be a member of the executive branch and thus have a different view of the agencies than those outside the government. About 27% of the judge votes had executive experience. I alternatively coded for whether the judge ran for elected office, whether they held state-level positions or whether they had other government experience. In the specification presented here, I counted it as executive experience only whether the judge had federal executive experience, but in alternative specifications, I also considered whether the judge had state-level executive experience, such as serving as a state Attorney General or working in the local prosecutors’ office. In addition, I coded for labor experience, though only about 5 judges had any such experience as far as I can tell from looking at the Judicial Directory. About 20% of the judge votes had executive experience in the federal government. In addition to career background, I coded for elite law school (top 14 law school as determined by rankings of US News and World Report, a common metric for law school “quality”). In all, 20% of the judge votes came from judges who went to non-elite law schools.

**Political Variables**

I also put in a host of variables to ascertain how political actors could motivate appellate court decision-making. The ideology of the presidential administration could impact case outcomes as the president has control over the appointment of judges. If the judge’s partisanship aligned with the presidential administration at the time of the case’s decision, I coded the decision as “1.” If the judge and president were of different parties, I coded president as “0.” I applied a similar analysis to Congress. Congress has influence in the nominating process of
federal judges and can impact court budgets. I used Poole and Rosenthal (1997)’s DW-NOMINATE scores grouped by the median member of the relevant House and Senate oversight committee for the NLRB at the time of the appellate court decision. Since there was collinearity between those two measures, I used the Senate scores in the analysis. I also used a score to measure the impact that the United States Supreme Court would have on decision making, even though Court review is unlikely as they hear only one or two NLRB cases a year. The appellate courts often look more to the Supreme Court for guidance so they may be more motivated by the Supreme Court than the NLRB would be, where Supreme Court review would be highly unlikely given the number of cases heard annually by each individual NLRB Board member. In another specification, instead of the Supreme Court ideology, I used the ideology of the overall circuit court, based on the median of the circuit court as compiled by the Giles et al scores. Finally, I wanted to explicitly test the Cohen-Spitzer hypothesis to see whether judges would be more willing to defer to current presidential administrations for whom they agree with ideologically.

**Opinion Clarity**

I analyzed the extent to which opinion clarity could influence deference and the decision to act counter-ideologically. Scholars have begun to exploit the tools of text analysis to assess whether appellate courts craft their legal writing to induce compliance (Black et al. 2016). I turn the question around and instead look at opinion clarity as an independent variable and ask the extent to which the appellate courts may be more willing to defer to more clearly written opinions. To measure opinion clarity, I used the R package koRpus to calculate readability measures for all the majority opinions. The R package gives 28 different measures of readability based on 19 different formulas. These measures differ in their focus; some focus on the number of syllabi in a particular phrase or sentence while other measures look to analyze how concisely
written a text is. Two of the most popular readability scores used — the Flesch-Kinkaid test and the Grade Level test — tap into how easy and at what grade level a corpus is. Others like the LINC test try to test the tone of the decision, such as whether the tone is positive or negative. Following Owens et al. (2016), I did not want to prejudge which method was preferable over another so I did a factor analysis of these measures to arrive at a variable that would indicate how clear an opinion is.

**Economic, Case and Other Control Variables**

I also included a host of economic and case-specific factors. As the outcome of labor cases could be influenced by present economic conditions, I included the unemployment rate as a control variable, and in other specifications not referenced here, I alternatively included the inflation rate. I included a variable concerning the number of cases, as the court could be more likely to rule in favor of labor if there are more allegations in the complaint (Taratoot 2013). The region where the case originated from could influence outcomes, as the South generally is more hostile to labor. In addition, I included circuit court fixed effects as an independent variable. As Sunstein et al. (2004) found, there are significant party differences vary across circuits, with the 3rd, 5th and 7th circuits having small party effects (less than 8) with the 9th circuit having large party effects (27%) in voting behavior (Ying 2009; Fischmann 2009). Circuit-level effects could also exist due to differences in the nature of the claims brought in the various circuits and circuit ideology could impact whether the party chooses to appeal a disappointing Board decision in the first place (Brudney et al. 1999). In addition to circuit court fixed effects, I included year fixed effects. I also looked at whether the union involved in the case was a union that is a repeat litigant. I used both published and unpublished decisions. Each circuit has different rules on whether or not they publish decisions and what types of decisions they publish, with rule varying.
from circuit to circuit (Merritt and Brudney 1999). Moreover, judges may act strategically in withholding publication if they do not want the outcome or legal reasoning of the case to be precedential as, for instance, if they disagree with the holding (Kim 2009, 1351).

**Discussion and Analysis**

The first results using propensity to defer as the dependent variable are presented in Table 1 with standard errors clustered by case id. In the first regression, I look at all cases, and I find that as expected judges are more likely to defer in cases that they review under the substantial evidence standard. Holding other variables at their mean, judges defer 84% of the time in cases where the standard is substantial evidence compared to just 62% in statutory interpretation or cases in which they must review the case *de novo* on appeal. This pattern persists regardless of Board ideology, with Republican judges as almost equally likely to defer as Democratic judges. Not surprisingly, judges are also more likely to defer to Board decisions that align with their ideology (a predicted probability of 70% if disagree v. 82% if agree).

Similar to the results I found previously in examining panel effects on the substantive outcome of the case (Semet 2016), once I control for other legal and sociological variables, I found some partisan panel effects, but they are not nearly as strong as the panel effects concerning the substantive outcome of the liberalism of the decision. Overall, not unexpectedly Democratic judges affirm more; when they sit with fellow Democratic colleagues they affirm at about 86% whereas if they sit with two Republicans they only affirm 78%. Republican judges sitting with other Republicans are less likely to affirm, doing so only 67% of the time compared to 72% of the time when sitting with two Democratic colleagues as shown in Figure 2. These patterns persist when accounting for the tone of the Board decision.
I find some support for some of my hypothesis concerning sociological factors in regression 1. In particular, judges who have experience working in the executive branch are more likely to defer, with those with executive experience deferring at a rate of 78% compared to 74% for those without such experience holding other variables at their means. This effect is particularly pronounced for conservative Board decisions, with former executive branch officials deferring at a rate of 77% compared to 73% for liberal decisions. The other sociological variables, such as the gender, minority status and law school experience variables, are not significant in this particular analysis. I also do not find any of the political, economic or control variables to be significant, thus underscoring the crucial role that legal factors and the judge’s ideological agreement with the agency have in impacting the decision to defer as a general matter. Figure 3 details the coefficient plot.
Table 1: Predicting Decision to Defer to Board Ruling

<table>
<thead>
<tr>
<th></th>
<th>(1) All Cases</th>
<th>(2) Statutory/Legal</th>
<th>(3) Substantial Evidence</th>
<th>(4) DC Circuit</th>
</tr>
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<tbody>
<tr>
<td>Statutory Interpretation</td>
<td>-1.312**</td>
<td>-1.460***</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(0.215)</td>
<td>(0.419)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>-0.236</td>
<td>-0.778**</td>
<td>0.172</td>
<td>-0.276</td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td>(0.294)</td>
<td>(0.297)</td>
<td>(0.406)</td>
</tr>
<tr>
<td>Women colleague</td>
<td>0.0401</td>
<td>-0.493</td>
<td>0.501</td>
<td>-0.00855</td>
</tr>
<tr>
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<td>(0.200)</td>
<td>(0.302)</td>
<td>(0.298)</td>
<td>(0.337)</td>
</tr>
<tr>
<td>Minority</td>
<td>-0.268</td>
<td>-0.688*</td>
<td>-0.0477</td>
<td>-0.697</td>
</tr>
<tr>
<td></td>
<td>(0.224)</td>
<td>(0.318)</td>
<td>(0.348)</td>
<td>(0.396)</td>
</tr>
<tr>
<td>Minority colleague</td>
<td>-0.180</td>
<td>-0.518</td>
<td>-0.0211</td>
<td>-0.597</td>
</tr>
<tr>
<td></td>
<td>(0.237)</td>
<td>(0.369)</td>
<td>(0.372)</td>
<td>(0.384)</td>
</tr>
<tr>
<td>Dem Judge</td>
<td>-0.0383</td>
<td>-0.566</td>
<td>0.0327</td>
<td>-0.467</td>
</tr>
<tr>
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<td>(0.256)</td>
<td>(0.325)</td>
<td>(0.378)</td>
<td>(0.422)</td>
</tr>
<tr>
<td>1 Dem COLleague</td>
<td>0.392†</td>
<td>0.258</td>
<td>0.614†</td>
<td>0.327</td>
</tr>
<tr>
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<td>(0.178)</td>
<td>(0.249)</td>
<td>(0.267)</td>
<td>(0.322)</td>
</tr>
<tr>
<td>2 Dem COLleague</td>
<td>0.605†</td>
<td>0.922†</td>
<td>0.381</td>
<td>0.638</td>
</tr>
<tr>
<td></td>
<td>(0.283)</td>
<td>(0.421)</td>
<td>(0.386)</td>
<td>(0.599)</td>
</tr>
<tr>
<td>Executive Exp</td>
<td>0.309*</td>
<td>0.547†</td>
<td>0.0986</td>
<td>0.0165</td>
</tr>
<tr>
<td></td>
<td>(0.160)</td>
<td>(0.218)</td>
<td>(0.251)</td>
<td>(0.318)</td>
</tr>
<tr>
<td>Non Elite Law School</td>
<td>-0.0477</td>
<td>-0.140</td>
<td>-0.0195</td>
<td>-0.228</td>
</tr>
<tr>
<td></td>
<td>(0.166)</td>
<td>(0.249)</td>
<td>(0.247)</td>
<td>(0.524)</td>
</tr>
<tr>
<td>Agree w/ Board Ideology</td>
<td>0.751**</td>
<td>0.370</td>
<td>0.769*</td>
<td>0.204</td>
</tr>
<tr>
<td></td>
<td>(0.250)</td>
<td>(0.301)</td>
<td>(0.368)</td>
<td>(0.354)</td>
</tr>
<tr>
<td>Board Pro Labor</td>
<td>-0.0776</td>
<td>-0.512</td>
<td>0.509</td>
<td>-0.507</td>
</tr>
<tr>
<td></td>
<td>(0.401)</td>
<td>(0.554)</td>
<td>(0.547)</td>
<td>(0.663)</td>
</tr>
<tr>
<td>President</td>
<td>-0.0657</td>
<td>-0.319</td>
<td>0.186</td>
<td>-3.18</td>
</tr>
<tr>
<td></td>
<td>(0.219)</td>
<td>(0.324)</td>
<td>(0.321)</td>
<td>(0.507)</td>
</tr>
<tr>
<td>Economic (unemployment)</td>
<td>-0.111</td>
<td>-0.177</td>
<td>-0.0969</td>
<td>-0.282</td>
</tr>
<tr>
<td></td>
<td>(0.160)</td>
<td>(0.231)</td>
<td>(0.240)</td>
<td>(0.274)</td>
</tr>
<tr>
<td>Readability</td>
<td>-0.125</td>
<td>-0.992</td>
<td>1.370</td>
<td>1.578</td>
</tr>
<tr>
<td></td>
<td>(0.859)</td>
<td>(1.329)</td>
<td>(1.492)</td>
<td>(1.442)</td>
</tr>
<tr>
<td>Other Controls</td>
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<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Circuit Fixed Effects</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>None</td>
</tr>
<tr>
<td>Year Fixed Effects</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>_cons</td>
<td>2.935**</td>
<td>3.297*</td>
<td>1.714</td>
<td>4.112**</td>
</tr>
<tr>
<td></td>
<td>(1.139)</td>
<td>(1.573)</td>
<td>(1.718)</td>
<td>(1.494)</td>
</tr>
<tr>
<td>N</td>
<td>4005</td>
<td>1577</td>
<td>2428</td>
<td>1455</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001
In regressions 2 and 3 I separately analyze how judges defer in statutory interpretation versus substantial evidence cases. Here, we see noticeable effects with respect to gender and to some extent minority status as detailed in Figure 4. Women and minorities are less likely to defer than men and non-minorities where the case concerns a matter of statutory interpretation as compared to a more run of the mill case involving the substantial evidence standard. This result is not entirely unexpected. Indeed, if one believes that life experiences influence decision-making, it would not be a surprise that we see a noticeable effect in the more influential statutory interpretation cases as opposed to more run of the mill cases involving individual parties or individual complaints of discrimination. With respect to women, holding other variables at their means, women defer in statutory interpretation cases 48% of the time compared to 64% for men. In turn, when the case concerns substantial evidence, women and men defer at approximately the same rate of about 84%. The breakdown for minorities is similar, with minorities deferring 49% when other variables are at their means compared to 64% for non-minorities. All in all, partisanship seems to take a back seat to some of the sociological factors in influencing the most important cases of how to interpret statutes or review a case *de novo*. Whereas in substantial
evidence cases, whether the appellate judges agrees with the Board is a key factor, in statutory interpretation cases, we see women and minority exercising influence above and beyond whether the judge agrees ideological with the agency.

**Figure 4**

I then proceed to separately analyze the D.C. Circuit. In administrative law, the D.C. Circuit operates as a sort of specialized court. Housed in Washington D.C., it has more experience hearing administrative law appeals, and indeed, almost 40% of the cases in my database were heard by the D.C. Circuit. Decision-making at the D.C. Circuit may be different than other circuits. The judges are all in the same building, thus offering more opportunities for cross-collaboration. Moreover, judges on the D.C. Circuit have a longer tenure, so one would expect that the panel effects, if any, to be more intense on the D.C. Circuit. My results in regression 2 do not wholly bear this out, however. The only significant variable is the statutory interpretation variable and none of the partisanship variable has significance. At the very least, the results indicate that partisanship may play less of a role in motivating decisions on the D.C. Circuit than elsewhere, perhaps because of the greater collegiality in general at that court.
In Table 2, I analyze the second dependent variable — illustrating the propensity to issue a counter-ideological opinion. Importantly, as detailed in regression 1, as with the decision on whether to defer, it appears to be the case that partisan panel composition alone is not the most important factor motivating decision-making; rather, legal considerations, such as the opinion of the Board and the standard of review, play a more important role at the 95% confidence level in determining whether or not the appellate court will rule counter-ideologically. Looking at the results further, we see that the effect is mostly for Republican judges, who, because most cases are affirmed, are more likely to vote counter-ideologically; Democratic judges have near equal counter-ideological and deference rates based on Board decision (they affirm both at 73%); but GOP judges rule counter-ideologically 68% of the time when the Board decision is liberal but just 61% when the decision is conservative. In turn, holding other variables at their means, Democratic judges rarely vote counter-ideologically, even if they disagree with the partisan leaning of the decision. Indeed, Democrats are actually less likely to vote counter-ideologically if the Board decision is conservative than if it is liberal. Figure 5 details a coefficient plot.
Table 2: Logit Regression Predicting Counter-Ideological Vote

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Cases</td>
<td>Substantial Evidence</td>
<td>Statutory Interpretation</td>
<td>DC Circuit</td>
</tr>
<tr>
<td>Statutory Interpretation</td>
<td>-0.266*</td>
<td>0.266^</td>
<td>0.232</td>
<td>-0.375</td>
</tr>
<tr>
<td></td>
<td>(0.128)</td>
<td>(0.128)</td>
<td>(0.218)</td>
<td>(0.218)</td>
</tr>
<tr>
<td>Women</td>
<td>0.332^</td>
<td>0.511^</td>
<td>0.144</td>
<td>0.232</td>
</tr>
<tr>
<td></td>
<td>(0.157)</td>
<td>(0.243)</td>
<td>(0.229)</td>
<td>(0.340)</td>
</tr>
<tr>
<td>Women Colleague</td>
<td>-0.221</td>
<td>-0.210</td>
<td>-0.283</td>
<td>-0.373^</td>
</tr>
<tr>
<td></td>
<td>(0.124)</td>
<td>(0.192)</td>
<td>(0.179)</td>
<td>(0.190)</td>
</tr>
<tr>
<td>Minority</td>
<td>0.255</td>
<td>0.276</td>
<td>0.223</td>
<td>0.711</td>
</tr>
<tr>
<td></td>
<td>(0.211)</td>
<td>(0.269)</td>
<td>(0.319)</td>
<td>(0.377)</td>
</tr>
<tr>
<td>Minority Colleague</td>
<td>0.155</td>
<td>0.167</td>
<td>0.134</td>
<td>0.418</td>
</tr>
<tr>
<td></td>
<td>(0.149)</td>
<td>(0.200)</td>
<td>(0.233)</td>
<td>(0.244)</td>
</tr>
<tr>
<td>1 Dem Colleague</td>
<td>0.0830</td>
<td>0.0618</td>
<td>0.000357</td>
<td>-0.328</td>
</tr>
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<td>(0.277)</td>
<td>(0.303)</td>
<td>(0.377)</td>
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<td>2 Dem Colleague</td>
<td>0.374</td>
<td>0.584</td>
<td>0.274</td>
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<td>(0.228)</td>
<td>(0.361)</td>
<td>(0.333)</td>
<td>(0.431)</td>
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<td>-0.0209</td>
<td>-0.150</td>
</tr>
<tr>
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<td>(0.138)</td>
<td>(0.195)</td>
<td>(0.210)</td>
<td>(0.267)</td>
</tr>
<tr>
<td>Non Elite Law School</td>
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<td>0.0782</td>
<td>-0.166</td>
<td>-0.194</td>
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<td></td>
<td>(0.135)</td>
<td>(0.192)</td>
<td>(0.221)</td>
<td>(0.477)</td>
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<tr>
<td>Board Pro L</td>
<td>0.365</td>
<td>0.0655</td>
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<td>0.149</td>
</tr>
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<td></td>
<td>(0.262)</td>
<td>(0.455)</td>
<td>(0.336)</td>
<td>(0.326)</td>
</tr>
<tr>
<td>Dem</td>
<td>-2.090^***</td>
<td>-3.282^***</td>
<td>0.547</td>
<td>-1.266^***</td>
</tr>
<tr>
<td></td>
<td>(0.216)</td>
<td>(0.324)</td>
<td>(0.305)</td>
<td>(0.400)</td>
</tr>
<tr>
<td>Defer to Board</td>
<td>0.905^***</td>
<td>1.446^***</td>
<td>0.440^*</td>
<td>0.654^*</td>
</tr>
<tr>
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<td>(0.186)</td>
<td>(0.338)</td>
<td>(0.192)</td>
<td>(0.262)</td>
</tr>
<tr>
<td>President</td>
<td>0.0347</td>
<td>0.0631</td>
<td>0.0742</td>
<td>-0.300</td>
</tr>
<tr>
<td></td>
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<td>(0.165)</td>
<td>(0.177)</td>
<td>(0.208)</td>
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Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001
The results here underscore the role that gender has in influencing counter-ideological voting. While I did not find a significant coefficient for gender-based panel effects, I found in general that being a woman increases the proclivity to issue a counter-ideological vote. Holding other variables at their means, women have a predicted probability of voting counter-ideologically 54% compared to just 48% for men holding all other variables including partisanship at their means. This effect is especially pronounced for Republican women judges who have a predicted probability of voting counter-ideologically at a rate of 72% compared to just 29% for Democratic women. Yet, even across party, we see gender differences. While Republicans in general are more likely to vote counter-ideologically, the effect is more pronounced for women as opposed to men (72% v. 66% predicted probability). Even Democratic women are slightly more likely to vote counter-ideologically than Democratic men. The predicted probability for Democratic women is 29% compared to 23% for Democratic men. Moreover, this result persists broken down by the Board decision, with women, especially Republican women, more likely to vote counter-ideologically against liberal Board decisions.

By contrast, partisan panel effects are diminished once one factors in gender. Having two Democratic colleagues increases the proclivity of Republican judges to vote counter-
ideologically. For instance, a Republican sitting with two Democrats will vote against his partisan leanings 60% compared to 72% when sitting with like-minded partisans. But these differences are much tighter than what we saw previously concerning deferral.

Regressions 2 and 3 in Table 2 and Figure 6 illustrate the results broken down by legal issue, with women judges being substantially more likely to issue a counter-ideological vote in cases involving the lessened standard of substantial evidence. Women hearing substantial evidence cases have a predicted probability of voting counter-ideologically 58% compared to 51% for men. This figure is reduced and narrowed for cases involving statutory interpretation where judges are more likely to employ ideology (46% v. 43%). Moreover, the effect of partisanship is especially acute in substantial evidence cases. Republicans have a remarkable 79% predicted probability of voting counter-ideologically in those cases compared to just 16% of Democrats. This effect persists even considering the tone of the Board decision. No matter whether the Board decision is conservative or liberal, Republican judges vote counter-ideologically at high rates in the high 70s compared to Democrats, who vote counter-ideologically at near equal rates in conservative or liberal Board cases.

Figure 6
Finally, in regression 4 in Table 2 and Figure 7, I look at the results limited to the D.C. Circuit. The D.C. Circuit is unique in the dataset as it is only one of three circuits where at least 25% of the votes occur in panels composed of at least one woman. As such, if gender panel effects might appear, they would be more prevalent on the D.C. Circuit. Here, I find that in this regard, the D.C. Circuit is again different. Holding all other variables constant, the gender panel effects variable is significant, though it is in the direction opposite to what I would expect. Rather than women panelists encouraging counter-ideological factors, I find that at least on the D.C. Circuit, having at least one women on the panel actually decreases one’s propensity to vote in a counter-ideological fashion, even holding constant other political, case-level and legal variables. Women on the D.C. Circuit who are paired with other women vote counter-ideologically about 56% of the time when sitting with men, but only 41% of the time when sitting with other women, though we see a near identical pattern with men as well. It is difficult to tell whether this is limited to the D.C. Circuit or not and the particular dynamics on that Court. In another specification, I separately analyzed the Sixth, Seventh and D.C. Circuits — the only circuits where 25% of more of the votes came from women — and found similar results, indicating that this result is not unique to the D.C. Circuit.
These results persist using other specifications and alternative coding of variables. They also persist with lags of some of the economic variables and with substituting alternative variables in (like substituting unemployment for inflation). Moreover, the results also persist when I looked at the data at case-level rather than the panel level. Published versus unpublished decisions also does not impact the analysis.

In addition, since the time frame of the study is long, changes in both the composition of the appellate court and the Supreme Court could influence case outcomes (Segal 1984; Songer et al. 1994). I separately analyzed the data in two year blocks of time, when both the composition of the Supreme Court remaining constant, and for the most part, only modest changes to the composition of the *en banc* appellate bench. The results were robust when I ran the regressions in these discrete time frames. Moreover, I did not find trends in the proportion of cases decided for or against labor or for or against deference to vary over the time frame under study.

**Propensity Score Matching and Robustness Checks**

For additional robustness, I then proceeded to re-estimate the models using propensity score matching following Kastellec (2011, 2012), Kastellec (2011) introduces the notion of a
“counterjudge” in analyzing panel effects: a judge from the opposite party of the sitting co-panelists. Kastellec argues there is a “counterjudge effect” when the presence of a counterjudge influences the opinions of the other judges. In particular, here I am looking at the extent to which there are gender counterjudge effects in addition to partisan ones, that is, a women sitting with two men could be said to be a “female counterjudge.” This analysis can thus allow one to analyze whether women (or Democrats for that matter) induce counterjudge effects by causing men (or Republicans) to vote differently when they sit with a female (or Democratic) colleague.

Assignment on the circuit courts is supposed to be random, but scholars have found that in practice the assumption of random assignment varies with time and place, with some circuits doing a much better job of ensuring that cases are assigned randomly. Hall (2009) has found that some circuits ignore random assignment and instead assign cases as “the date a case was filed or other undisclosed criteria (2010, 579). While we have no reason to believe that these unobserved criteria correlate with either voting or the characteristics of a particular judge, a propensity score matching process helps us account for this possible nonrandom assignment procedure. Using the R program MatchIt (Ho et al. 2009) as well as the optimal matching procedure employing Hansens optmatch package (Hansen & Klopfer 2006), I use propensity score matching to create a matched dataset for analysis using both nearest neighbor matching (with replacement, meaning that observations can be matched with other observations) as well as optimal matching (with a 1:1 ratio). To create the propensity scores, I used alternatively party or women counterjudge as the “treatment” with the independent variables being the direction of the Board decision, the proportion of Democrats on the circuit court for that court (i.e., the proportion of Democrats on the 7th Circuit), an estimate of the Supreme Courts median ideology as well as the Giles, Hettinger and Peppers (2001) ideology scores for each judge. I also match cases according to
year and circuit, and alternatively, by gender or party, depending on the treatment under observations. I found overall that propensity score matching does not add much to my analysis. Except for party, the means of the variables are near each other in both the treatment and controls groups, and as such when I go to do each of the regressions using the variables I use in Table 1, I get remarkably similar results. As such, at least according to my analysis it seems that the random assignment process does a pretty good job of ensuring that is little correlation between gender and party and final vote choice.

**Conclusion**

In all, I find some moderate support for my hypothesis concerning the influence that a judge’s diverse life experience has in impacting votes. I largely find that the decision to defer and to issue a counter-ideological vote is driven largely by the legal characteristics of the case, with judges being more likely to go against the Board in statutory interpretation cases. The results on counter-ideological voting indicate that perhaps too much emphasis has been placed on examining the role of partisanship on appellate courts instead of focusing on the role that other factors like prior career experience and gender may play in animating decision-making. My results here indicate that government experience impacts the decision to defer and that being a woman impacts the proclivity to vote in a counter-ideological fashion. My results do not support some of my hypothesis. I do not find that opinion clarity influences deference nor do I find that political factors influence results. The results in this paper indicate that while ideology and partisanship plays some role in shaping the decision to defer to an agency’s interpretation, a full accounting of deference requires a broader view of the legal, sociological and institutional concerns that face a federal judge when issuing his or her decision. Even on a purportedly
ideological topic like labor law, judicial decision-making is not as politicized as some make it out to be once legal and sociological factors are considered.

While much of the panel effects literature has focused on partisan panel effects, the results here may clear the understudied role that gender and to a lesser extent minority status can play even in cases that do not seem — on the surface — to be about gender or race. Moreover, the interaction among panelists of different genders may also impact how cases turn out, especially in appellate courts where women panelists comprise a significant minority like the D.C. Circuit. Understanding the full breadth of gender and racial panel effects is beyond the scope of this paper, though at the very least the results here show that further analysis of how gender plays a role in decision-making is an important issue to further study in judicial politics.

Scholars have set forth numerous theories concerning why life experiences can affect decision-making. Given that my results indicate that gender and race plays the greatest role in influencing how statutory interpretation cases come out, it appears most likely that gender and race influences decision-making by influencing the deliberation process. In statutory interpretation cases in particular, judges, especially Republican and female judges, may feel that their unique life perspective gives them an angle in which to view the long-term consequences of interpreting statutes. Although the Board is not bound by precedent to abide by the rulings of the appellate court, and indeed, often blatantly ignores the appellate courts in fashioning its rulings, it is the statutory interpretation cases that have the most far-reaching consequences. Moreover, these cases often present a better opportunity for judges to interject their own life experiences into the decision-making process. In all, more research needs to be done to look beyond party and ideology to discern how decisions are made in the appellate courts.
Bibliography


