Elections and Explanations: Judicial Elections and the Readability of Judicial Opinions

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June 13, 2013

Abstract

How do judicial elections affect the propensity of judges to write opinions that are understandable to the public? Drawing on a growing literature that analyzes the content of judicial opinions computationally, I examine the readability of all state supreme court search and seizure decisions from 2000-2010. I assess the hypothesis that, just as judicial elections increase judges' propensities to follow public opinion when voting on the merits of a case, the presence of these retention institutions also provides incentives for judges to justify their opinions in language that their constituents can readily understand. However, when elected judges fear a difficult path to retention, they tend to write opinions that are more difficult for the average constituent to understand.

^{*}The author would like to thank Andrew D. Martin, Jim Gibson, Jim Spriggs, Alicia Uribe, Morgan Hazelton, and Keith Schnakenberg for helpful comments, Rachael Hinkle for helping with the acquisition of cases, Tom Clark, Brandice Canes-Wrone, Carl Klarner, and Emerson Tiller for data, and Nicolas Dumas and James Boyce for fantastic research assistance.

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Politicians must be able to justify the decisions they make to their constituents. A long line of research has shown that the nature of a representative's constituency affects both the decisions that elected officials make and the ways in which they present themselves to their constituents (Mayhew 1974; Fenno 1977; Arnold 1990; Grimmer 2010). Yet, the constituency of any elected official is heterogeneous, and, in many cases, elected officials can justify the same decisions to different constituents in different ways (Fenno 1977; 1978). Thus, it is difficult to assess how elections affect the justifications offered by elected officials. Moreover, because all legislators in the U.S. must stand for election, it is challenging to determine how those justifications would differ in the absence of the electoral process.

However, one class of officials must provide a formal rationale for every important decision they make: judges. A body of judicial politics research has established that the use of an electoral institution to retain a judge affects the decisions she makes on the merits of the case and her propensity to heed public opinion as she decides the case (Brace and Boyea 2008; Caldarone, Canes-Wrone, and Clark 2009; Hall 1987) while other research (Staton 2010) has demonstrated that even unelected judges care about explaining their decisions to the public. Still, the effects of judicial elections on the content of judicial decisions have received less attention (but see Goelzhauser and Cann 2013). While the outcomes of judicial decisions are important, the content of judicial opinions—the explanations they provide along with their decision—is vital to study because it sets legal rules which must be followed by lower courts (Friedman 2006). Beyond its precedential effect, research (Zink, Spriggs, and Scott 2009; Simon and Scurich 2011) indicates that the content of judicial opinions and the types of legal reasoning explained by judges can affect the public's response to judicial opinions; other research (Hume 2006; Hansford and Spriggs 2006) indicates that judges are strategic when selecting the sources they will marshall to bolster their opinion. Moreover, because judges in some states are elected while other judges need not

run for election, the American states provide a testing ground where the effects of elections on the justifications provided by judges can be compared to similarly-situated jurists who will never face voters as a condition of continued tenure.

Drawing on a growing literature that analyzes the content of judicial opinions computationally (Owens and Wedeking 2011; Owens, Wedeking and Wohlfarth 2013; Corley 2008), I examine the content of state supreme court search and seizure decisions from 2000-2010. While the justifications offered by judges could be examined in a variety of ways, I focus on one aspect: readability. In this paper, I assess the hypothesis that, just as judicial elections increase judges' propensities to follow public opinion when voting on the merits of a case, the presence of these retention institutions also provides incentives for judges to justify their opinions in language that their constituents can readily understand. However, when elected judges fear a difficult path to retention, they tend to write opinions that are more difficult for the average constituent to understand.

Elections and Explanations

Elections have consequences, and these consequences are felt by politicians and the public in many ways. Perhaps most importantly, the creation of an "electoral connection" between politicians and the public presents an obvious question: how well do policies promulgated by elected officials mirror their constituents' policy preferences? Democratic theory suggests that, when elected officials make decisions out of step with their constituents, they should be more likely to be voted out of office. Elections, after all, are useful democratic mechanisms precisely because they allow the public the chance to place into office officials who share their views on public policy and to remove from office those officials whose performance in office the public judges to be unsatisfactory.

To this end, scholars studying public officials who are elected have produced a robust body of research demonstrating that elected officials are responsive to the wishes of their constituents. A variety of studies (e.g. Erikson 1971; Erikson and Wright 1993; Brady et al. 1996; Jacobson 1996) have shown that, holding district ideology constant, legislators who tend to vote with the extreme

wings of their party tend to be punished on election day. Likewise, Canes-Wrone, Brady and Cogan (2002) show that the public punishes legislators who are party loyalists (see also Ansolabehere, Snyder, and Stewart 2001), and Bovitz and Carson (2006) show that the public rewards or punishes legislators based on their positions on particular roll call votes. Finally, looking at executives rather than legislators, Canes-Wrone and Shotts (2004) show that reelection-seeking presidents become more attuned to public opinion as the date of their reelection approaches.

In the U.S. states, where the majority of judges must stand for election, scholars have produced similar evidence that the decisions of elected state supreme court judges are affected by public opinion, especially in high profile cases (Brace and Boyea 2008; Hall 1987; Traut and Emmert 1998). Moreover, the nature of the electoral process used in a state conditions the magnititude of the effect that public opinion plays on judicial decisionmaking (Canes-Wrone and Clark 2009; Caldarone, Canes-Wrone, and Clark 2009; Canes-Wrone, Clark, and Park 2012). However, this congruence is neither limited to salient cases nor to the top of the judicial hierarchy. Studying trial court judges in Kansas and Pennsylvania, Gordon and Huber (2007; Huber and Gordon 2004) demonstrate that the presence of an electoral retention mechanism induces judges to sentence defendants more severely, and that judges sentence defendants more severely as election day approaches.

While policy congruence and the effects of public opinion are undoubtedly important effects of elections, elections also have important nonpolicy effects. In the seminal study of these sorts of effects, Fenno (1978) argues that legislators must present themselves to their constituents in a consistent and continually reinforced way. This "home style" has three components: her presentation of self, her allocation of resources, and her explanation of her activities in Washington. The explanations that elected officials have for their behavior play an important role in representative democracy. As Jones (2003) writes, "[f]or a representative democracy to function effectively, constituents must have a basis for judging whether their representative shares their preferences on public policy issues and, thus, whether to return that member to office at election time" (851). After all, holding a policy outcome constant, there are many different rationales a politician may offer to

justify their policy position. Yet, if, as Fenno suggests, politicians see their electoral constituency as homogenous, it creates the possibility that a politician may explain his position differently to different constituents.

This concern is ameliorated for judges. Because they must provide a written rationale for the majority of the decisions they make on the merits of the case, the explanations of their decisions are widely available and difficult to change once issued. Moreover, whereas the explanations of legislators, executives, or bureaucrats may merely be puffery, the explanations of appellate judges are binding. In other words, while a legislator's expressed rationale for his vote may or may not have any broader consequences for that legislator (or her legislature), the opinions of appellate judges create law in a way that binds the decisions of lower courts and (in most cases) the future decisions of his court.

Aside from its implications for legal development, the readability of judicial opinions is important for a number of reasons. First, one function of law is to provide stability (Hansford and Spriggs 2006); readable legal rules reduce uncertainty surrounding the legal consequences of everyday decisions made by citizens by sharply delimiting conduct that is legal from that which is illegal (Owens and Wedeking 2011). Second, legal clarity affects the implementation of legal opinions. Spriggs (1996) shows that clear rulings are more likely to be implemented while Staton and Vanberg (2008) note that unclear legal opinions help to hide a lack of implementation from the view of the public. Thus, reasons both electoral and legal provide us with an imperative to determine how judges choose to express their decisions.

The Readability of Judicial Opinions

Since judges' explanations are public, precedential, and permanent, what might explain variation in the readability of the judicial opinions written by state judges? Some have suggested that readable opinions build public support for and public confidence in the judiciary (Vickery et al. 2012). If this is the case, justices' incentives to alter readability should be affected by their need to attract public support. In other words, if writing readable opinions is one way in which justices

can build public support for themselves or their institution, we should expect that variations in the amount of public support an individual justice needs to correspond with their likelihood of writing an opinion that is readable.

Here, a court's method of judicial selection should play a role in the readability of the opinions it produces. If, as Staton (2006; 2010) suggests, justices care about good public relations even when they have no formal, institutional need to explain their rulings directly to the public, then judges whose retention method gives them an additional need to attract public support should be more likely to write opinions that are easily understood by the people with the power to keep them in office. Thus, judges who face reelection should write more readable opinions.

There is some anecdotal evidence that elected judges pay close attention to the readability of their decisions when they are crafting their opinions. For example, in a 2001 speech, Shirley S. Abrahamson, the (elected) Chief Justice of the Wisconsin Supreme Court, stated that "[w]hen I write an opinion I am also mindful that one of the opinion's many audiences is the public. I try to make my opinions comprehensible to a lay reader (which probably makes them more comprehensible to lawyers too)" (977).

While, on the whole, we should expect elected judges to write opinions that are more readable than their counterparts in states where judges do not face election, we must be mindful of the fact that not all elections are equal. As they look toward their next election, judges differ on the strength of the electoral threat they perceive; in some circumstances, judges may believe they have an easy path to reelection while, in other circumstances, they may fear a rocky road to retention. Recent research on the trappings of judicial office (e.g. Gibson et al. 2013; Resnik and Curtis 2011) indicates that an alternative route for building public support comes through the invocation of these judicial "symbols." Such research suggests that the public is likely to acquiesce to judicial

¹Research on courts in the U.S. and abroad has suggested that judges are attuned to the fact that their opinions will be interpreted and scrutinized by legal scholars, the media, and (perhaps) the public. Yet, public information about judicial decisions is not always accurate. Scholars (Slotnick and Segal 1994; 1998) have found that reporting on judicial decisions can be rife with legal errors; the literature on comparative judicial politics (Staton 2006; 2010) suggests that justices take their own public relations measures to preempt these problems. Still, the possibility remains unexamined that justices might work to anticipate these problems by adjusting their use of language to make their opinions easy for their audiences to understand and for journalists to incorporate directly into their stories.

decisions—even those they disagree with on policy grounds—if those opinions are accompanied by judicial symbols.

As they look ahead to retention, then, we may expect that judges act differently based on the level of electoral threat they perceive. I expect that elected judges who have little reason to fear a difficult road to reelection should, all else equal, write more readable opinions. But, on the theory that more difficult-to-comprehend opinions may be perceived by the public as more "legal" (and therefore more legitimate), as the research on judicial symbols implies, I expect that those judges who are more likely to face a competitive election should write *less readable* opinions.

Of course, the nature of the retention method faced by the judge is not the only factor which might affect the readability of a judicial opinion. Here, I consider three rival explanations drawn from existing literature: the broader political environment, the salience of the case, and the presence of intracourt bargaining. Below, I sketch the logic behind each explanation and discuss how each factor might affect the readability of a judicial opinion.

First, beyond any individual justice's electoral circumstances, it is important to also take into account the possibility that the broader political environment in a state may affect the readability of the opinions issued by a court. Judges lack the authority to implement their own decisions; as a result, they must rely upon the actions of the other branches of government to translate their opinions into actions. With this in mind, previous literature has suggested that judges may manipulate the readability of their opinions in an effort to mask potential noncompliance from the other branches of government. Staton and Vanberg's (2008) game-theoretic model of judges' use of vagueness indicates that, as justices expect resistance to their decisions, they write less clear opinions. Owens, Wedeking, and Wohlfarth (2013), studying the readability of U.S. Supreme Court opinions, find empirical support for this prediction.

Second, there is some anecdotal evidence that judges try to write clearer opinions in high profile cases. At the federal level, Chief Justice Warren (1954) told his colleagues when drafting the Court's opinion in *Brown v. Board of Education*, 347 U.S. 483 (1954), that "the opinions should be short, readable by the lay public, non-rhetorical, unemotional, and, above all, non-accusatory."

Likewise, speaking to Iowa legislators about the Iowa Supreme Court's decision to legalize same-sex marriage, Justice Mark Cady (2011) said: "we understood it would receive great attention and be subject to much scrutiny. We worked hard to author a written decision to fully explain our reasoning to all Iowans" (6). Empirically, Owens and Wedeking (2011) find that the justices of the U.S. Supreme Court write clearer opinions in salient cases.

A final alternative hypothesis comes from studies of decisionmaking on collegial courts: that opinion readability is driven primarily by intercourt bargaining. Extant research has shown that opinions are the product of a bargaining process between and among judges mediated by the complexity of the case at hand and the level of ideological agreement among justices (Maltzman, Spriggs, and Wahlbeck 2000). Thus, following Owens and Wedeking (2011), increased ideological heterogeneity among the justices of the court should lead to less readable opinions.

Measuring Opinion Readability

The outcome variable in the analysis is the readability of the majority opinion in each case. As a concept, readability has received a great deal of attention in the academic literature on literacy and education. Measures of the readability of a given text were developed in the middle of the 20th century as part of a broader effort to quantify student literacy. By measuring the difficulty of a piece of prose and assessing whether or not a child is able to read it, educators are able to determine whether or not a child is able to read "at grade level." Measures of readability have enjoyed wide usage outside of the field of education; indeed, the concept of readability has found applications as wide ranging as the clarity of jury instructions (Charrow and Charrow 1979) to more recent efforts by medical academics to assess the readability of the information given to patients (Diamantouros et al. 2013; Colaco et al. 2013).

Scholars have developed a number of different formulas designed to quantify the difficulty of a given text based on a set of discrete features of the text, such as its length and the number and type of words it uses. In this analysis, I rely on four of the most prominent measures of readability

to measure the readability of state supreme court opinions. Reliance on four measures of the same concept allows me to assess the robustness of my findings across various measures while ensuring that any findings that appear in the analysis are not simply the result of one particular measure of readability. If the hypotheses hold across a number of measures of readability, then we can have increased confidence in those findings.

The first measure of readability I employ is the Flesch Reading Ease scale (FRES). First developed in 1948 (Flesch 1948), the FRES measures the readability of a text on a scale from 0-100 with higher scores indicating texts that are easier to understand. Scores less than 30 are typically readable to individuals with a college degree, and scores ranging from 60-70 are readable by the average teenager. Equation 1 shows the equation used to compute the FRES:

$$FRES = 206.835 - 1.015 \left(\frac{\text{Total Words}}{\text{Total Sentences}} \right) - 84.6 \left(\frac{\text{Total Syllables}}{\text{Total Words}} \right)$$
 (1)

Importantly, because, in each of the three following measures of readability, higher scores indicate *more difficult* texts, I multiply the calculated FRES scores by -1 in the analysis for ease of interpretability. Thus, for all measures of readability I employ in this study, lower scores correspond to more readable opinions.

The second measure of readability I rely upon is the Flesch-Kincaid Grade Level (FKGL). Developed originally as a tool for the U.S. Army to assess the difficulty of its technical manuals, the Flesch-Kincaid Grade Level measure is interpretable as the number of years of education typically required to be able to read the text. For example, a FKGL score of 9.1 would indicate a text that is readable by a typical ninth grader. Equation 2 provides the equation used to calculate FKGL:

$$FKGL = 0.39 \left(\frac{\text{Total Words}}{\text{Total Sentences}} \right) + 11.8 \left(\frac{\text{Total Syllables}}{\text{Total Words}} \right) - 15.59$$
 (2)

The third measure I rely upon is the Coleman-Liau index (CLI). Originally developed in 1975 (Coleman and Liau 1975), the CLI differs from the FKGL in its reliance on the number of letters per word rather than the number of syllables per word. Like the FKGL, CLI scores are

interpretable as the number of years of education necessary to read a text. Equation 3 provides the equation used to calculate the CLI:

$$CLI = 0.0588L - 0.296S - 15.8 \tag{3}$$

Where L is the average number of letters per 100 words and S is the average number of sentences per 100 words.

The final measure of readability I employ is the Gunning-Fog index (FOG). Developed in 1952, the Gunning-Fog index differs from the measures already discussed in its reliance on the proportion of "complex words" (those having three or more syllables) in the text (Gunning 1952). Again, FOG scores are interpretable as the number of years of education the reader needs in order to be able to read the text. Equation 4 provides the formula to calculate the Gunning Fog index:

$$FOG = 0.4 \left[\left(\frac{\text{Total Words}}{\text{Total Sentences}} \right) + 100 \left(\frac{3 + \text{Syllable Words}}{\text{Total Words}} \right) \right]$$
(4)

Data and Methods

This study examines search and seizure cases decided by state supreme courts with criminal jurisdiction between 2000 and 2010.² Using Westlaw and Lexis-Nexis, I identified every case containing a citation to the U.S. Constitution's provision against unreasonable searches and seizures or the analogous state constitutional provision. From there, every case was read and coded to ensure that the court decided an issue related to unreasonable searches or seizures. Cases simply citing the Fourth Amendment to the U.S. Constitution to illustrate a general principal (e.g. that the constitution guarantees rights to citizens) were not included in the analysis. The unit of analysis is the case; because the theory, in large part, is based on individual-level judicial motivations, I examine

²There are 52 state supreme courts, but two of those courts (the Texas Supreme Court and the Oklahoma Supreme Court) only have civil jurisdiction. The court of last resort for criminal cases in both Texas and Oklahoma is the Court of Criminal Appeals.

the actions of the majority opinion author.³

I examine search and seizure cases for two reasons. First, previous scholarship (e.g. Segal 1984; Segal and Spaeth 1993; Songer et al. 1994) has analyzed search and seizure cases. Second, given the salience of crime as an issue area in judicial election campaigns (Hall 2001; Baum 2003), search and seizure cases provide an issue area that should heighten the importance of selection method in the decisionmaking calculus; if selection method does impact the readability of judicial opinions, we should expect to see that effect most clearly in an issue area that has clear electoral implications. These cases make up approximately 3% of the docket in state supreme courts (Brace and Hall 2000).⁴

Each of the outcome variables is continuous; as a result, linear regression was used to model the data. I estimated separate models for each measure of readability. To appropriately account for the fact that the data are grouped by state and the fact that different opinion authors may have different baseline levels of readability, the model includes random intercepts for state and opinion author (Gelman and Hill 2007).

Information on each state's judicial selection system was available from the Council of State Governments (2011) and the American Judicature Society (2011). Using these sources, I determined whether the state supreme court judges in each state must be elected in order to retain their seat on the bench. States that rely on elite reappointment or have age-based retention systems (such as New Hampshire's system which allows judges to serve automatically until age 70) serve as the baseline category for the analysis. Additionally, I hypothesized that elected judges would write less readable opinions when they perceived themselves to face electoral trouble. To test this hypothesis, I collected the share of the vote won by the most recent state supreme court justice up for election. In instances where multiple judges were on the ballot in the same year, I rely upon the value for the closest election, hypothesizing that judges will pay particularly close attention the

³Other judges on a collegial court can influence the content of a majority opinion (Maltzman, Spriggs, and Wahlbeck 2001). However, the majority opinion author ultimately has the final say over the content of the opinion. Thus, the analysis presented here is limited to the behavior of the majority opinion author. Additionally, because their authorship is difficult to determine, *per curiam* opinions are excluded from the analysis.

⁴In future work, I hope to expand my data to include other areas of law with less clear electoral implications to assess the extent to which my results are driven by the selection of the issue area.

electoral circumstances of their colleague who was in the deepest electoral trouble.

To assess the effects of the external political environment on the readability of judicial opinions, I rely on three measures: author-governor partisan congruence, author-state legislature partisan congruence, and the presence of divided government. At the state level, partisan congruence presents a difficult measurement problem. Measuring ideological distance between state supreme courts and the state legislatures is difficult; ideal point estimation techniques (Martin and Quinn 2002; Clinton et al. 2004; Poole and Rosenthal 1997) do not readily produce interinstitutional measures, and there is a lack of data to utilize interinstitutional preference estimation techniques which could place the 52 state supreme courts (Oklahoma and Texas have separate supreme courts for civil and criminal cases) and 50 state legislatures in the same ideological space (Epstein et al. 2007; Bailey 2007). Lacking a continuous measure of ideological distance, I rely on party affiliation to assess ideological congruence.

Given the different methods used to select and retain state judges, ascertaining party identification is a difficult task. Party identification data was collected individually on each judge using the procedure pioneered by Caldarone, Canes-Wrone, and Clark (2009). Relying additionally on Carl Klarner's data on the partisan composition of state legislatures and the state government, I rely on party affiliation to determine the extent to which there exists congruence between the other branches of state government and the author of the majority opinion. The measure of judicial-legislative partisan congruence, thus, is a measure of the percent of state senators in state legislature that come from the same party as the court's majority opinion author. The measure of judicial-executive partisan congruence, thus, is dichotomous and indicates whether the opinion author and the governor are from the same political party. The measure of divided government is dichotomous and indicates whether the statehouse and the governor's mansion are controlled by different parties.

As discussed above, I expect that judges act differently in salient cases than in nonsalient

⁵In a sense, this measure is similar to one employed by Clark (2009; 2011). Clark utilized a dichotomous measure indicating partisan alignment between the judiciary and the legislature to assess the effects of ideological disagreement among the branches. Clark (2011) shows that, substantively, models estimated using this measure typically yield results comparable with measures derived from traditional ideal point estimation techniques.

ones. Indeed, if state judges are motivated by a desire to keep their seat on the bench, we may expect that they behave differently in cases that have received widespread public attention. Here, I look to amicus briefs as a measure of the salience of the case (Hansford 2004).⁶ The presence of an amicus brief in a case indicates that some interest group or set of individuals believes that the outcome of the case is important enough to merit the time, resources, and energy necessary to write and submit a brief to the court. Thus, the presence of an amicus brief in a case may serve as a shortcut for judges about which cases have enough public interest in order to be electorally dangerous. As a result, the model includes an indicator variable for those cases that mention the presence of an amicus brief in the opinion.⁷

Next, intercourt bargaining may also affect the readability of a judicial opinion. Previous studies (Owens, Wedeking, and Wohlfarth 2013; Maltzman, Spriggs, and Wahlbeck 2000) have operationalized this concept using the ideological heterogeneity of the justices on the court. While I hope to use a similar measure in future iterations of this project, I rely for now on a dichotomous variable indicating the presence of a dissent in the case. If the majority opinion author faces a dissent from another member of the court, he may need to respond to that argument in the majority opinion. Such a response is likely to be legalistic and technical; thus, we should expect that, on average, majority opinions issued in cases where there is dissent should be less readable than opinions issued in cases without a dissent.

Finally, to control for the policy outcome in the case, I include an independent variable to control for whether or not the opinion excludes evidence. Additionally, I include a dichotomous variable to indicate a popular decision that is, one whose evidence exclusion outcome is in line with public opinion.⁸

Attorney expertise represents one final potentially confounding factor, as the presence of a

⁶In future work, I hope to test the robustness of this measure using another measure derived from newspaper coverage of these cases.

⁷States differ in the extent to which supplemental briefs, like *amicus* briefs, are cataloged in sources like Westlaw and Lexis. Lacking a consistent source for these briefs across states, I was forced to rely on the mention of an *amicus* brief in the court's opinion. Again, in future work, I hope to move away from *amicus* briefs and toward newspaper coverage as a measure of issue salience (Epstein and Segal 2000; Vining and Wilhelm 2011)

⁸This measure, without a doubt, must be improved. I'd greatly welcome thoughts.

public defender may send a signal to the opinion author about the defendant indicating that a more readable opinion may be necessary should the judge want to ensure that the defendant understands the Court's ruling (Brace and Boyea 2008). Thus, I expect that opinions issued in cases tried by public defenders will be more readable. Second, because *pro se* litigants (individuals who are their own attorneys) are often individuals who lack a formal legal education, judges may wish to write more readable opinions in an effort to ensure that the litigant understands the opinion. Thus, I include an indicator variable for individuals who are representing themselves before the court. I expect that opinions in these cases will be more readable.

Results and Discussion

Table 1 shows the results of the linear regressions for the models that include both elected and appointed judges. For interpretation, recall that the outcome variable for the (transformed) Flesch Reading Ease measure (the leftmost column in Table 1) varies from -100 to -1 with higher values indicating more difficult opinions. For the other three outcome variables, a one-unit increase corresponds with a one grade-level increase in the difficulty of the text.

Looking first at the coefficient for elected, we see statistically significant and negatively-signed coefficients across all four models. Thus, these model estimates provide support for the theory that elected judges write more easily readable opinions than judges who must never face the electorate. The size of the effect is moderate and ranges across the model specifications from about a one-third grade level decrease in the difficulty of the text to a seven-tenths decrease in the difficulty of the text.

Looking next at the estimated coefficients for the measures of the political context, we see a fairly robust effect of divided government across the model specifications while any effects caused by the configuration of the authoring justice and the governor or the state Senate appear in some models and not in others. Where effects are found, however, they are consistently negative effects suggesting that the presence of divided government leads to clearer opinions and that, in some circumstances, partisan alignment between the authoring judge and the governor or the upper chamber

	Dependent variable:				
	FRES	FKGL	CLI	FOG	
Elected	-1.947*	-0.464*	-0.352*	-0.704*	
	(1.033)	(0.271)	(0.183)	(0.307)	
Divided Government	-0.665^{*}	-0.180^*	-0.068	-0.218*	
	(0.219)	(0.049)	(0.043)	(0.056)	
Author-Governor Same Party	-0.298	-0.046	-0.083^*	-0.083	
	(0.206)	(0.047)	(0.042)	(0.053)	
% St. Senate Same Party	-1.659*	-0.332*	-0.146	-0.294	
	(0.736)	(0.175)	(0.157)	(0.197)	
Public Defender	-0.610^{*}	-0.090*	-0.130^*	-0.085	
	(0.213)	(0.047)	(0.041)	(0.054)	
Pro Se	0.391	0.211	0.197	0.111	
	(0.681)	(0.150)	(0.131)	(0.171)	
Amicus	0.595	0.027	0.091	-0.023	
	(0.494)	(0.109)	(0.095)	(0.124)	
Excludes Evidence	-0.500^*	-0.138^*	-0.206*	-0.097^*	
	(0.222)	(0.049)	(0.043)	(0.056)	
Dissent	0.237	0.032	-0.005	0.076	
	(0.208)	(0.046)	(0.040)	(0.053)	
Popular Decision	-0.577^*	-0.100*	-0.139*	-0.111*	
	(0.212)	(0.047)	(0.041)	(0.053)	
Constant	-49.425^*	9.500*	12.453*	13.590*	
	(0.999)	(0.257)	(0.182)	(0.291)	
\overline{N}	2,889	2,889	2,889	2,889	
Log likelihood	-8,610.765	-4,274.620	-3,877.692	-4,655.612	
BIC	17,333.090	8,660.801	7,866.945	9,422.786	

Table 1: Linear regression results for the readability of search and seizure majority opinions issued by state courts of last resort 2000-2010. The models include random effects for state and majority

opinion author.

of the state legislator may also lead to more readable opinions. Of course, it is important to note that the effect for divided government is more robust than any estimated effect for the governor or state legislature.

Turning to the legal content of the opinion, the estimated coefficients indicate that opinions which exclude evidence tend to be more readable than those that do not. Again, the size of the effect is moderate and ranges from about a one-tenth grade level decrease in the complexity of the text to a one-fifth grade level decrease. Moreover, when the court's evidence exclusion decision is aligned with the state's ideology (as measured by its most recent presidential vote), we see an additional decrease of about one-tenth of a grade level in the complexity of the opinion. Examining the effects of the litigants in the case, there appears to be some evidence that judges writing cases involving defendants who are represented by public defenders write more readable opinions; however, there is no evidence that they do the same in *pro se* cases.

There are a couple of notable nonrelationships in the data. First, the model provides no evidence that judges writing salient decisions make their opinions any more readable than they do when they are deciding nonsalient decisions. Second, the model provides no evidence that the presence of a dissent (and any intercourt bargaining that may have accompanied that dissent) has any statistically discernable effect on the readability of the majority opinion.

We turn next, in Table 2, to reestimated models that include only elected judges in order to examine how the electoral context affects the readability of judicial opinions. The coefficient for prior vote share provides fairly robust evidence that justices who might face difficult retention tend to write more readable opinions. The negative coefficient indicates that, all else constant, as previous vote share increases (indicating a wider margin of victory), judges write more readable opinions.

Most of the other results mirror those discussed above and provide further support for the hypotheses presented earlier in the paper. Again, the presence of divided government is associated

⁹One might think of the Popular Decision variable as an interaction between Exclude and Democratic State (a variable not in the model). If this is the case, one would worry that the model is misspecified because Democratic State is not in the model. Including the variable has no effect on the conclusions drawn here.

	Dependent variable:				
	FRES	FKGL	CLI	FOG	
Prior Vote Share	-1.323	-0.375*	-0.397^*	-0.468*	
	(0.931)	(0.206)	(0.172)	(0.236)	
Divided Government	-0.647^{*}	-0.169^*	-0.082^*	-0.215^*	
	(0.251)	(0.056)	(0.047)	(0.064)	
Author-Governor Same Party	-0.165	-0.025	-0.012	-0.067	
	(0.237)	(0.054)	(0.044)	(0.061)	
% Senate Same Party	-2.818*	-0.491^*	-0.476*	-0.478*	
	(0.938)	(0.220)	(0.175)	(0.248)	
Public Defender	-0.681^*	-0.097^*	-0.111*	-0.109^*	
	(0.249)	(0.054)	(0.046)	(0.062)	
Pro Se	0.615	0.287^{*}	0.235^{*}	0.180	
	(0.762)	(0.165)	(0.142)	(0.190)	
Amicus	1.656*	0.208	0.228*	0.213	
	(0.638)	(0.139)	(0.119)	(0.159)	
Excludes Evidence	-0.594*	-0.156*	-0.207^*	-0.127^{*}	
	(0.261)	(0.057)	(0.049)	(0.065)	
Dissent	0.415^{*}	0.064	0.041	0.109*	
	(0.228)	(0.050)	(0.042)	(0.057)	
Popular Decision	-0.554*	-0.097*	-0.127^*	-0.108*	
	(0.248)	(0.054)	(0.046)	(0.062)	
Constant	-50.061*	9.328*	12.467*	13.264*	
	(0.908)	(0.210)	(0.166)	(0.239)	
\overline{N}	2,292	2,292	2,292	2,292	
Log likelihood	-6,814.346	-3,342.953	-2,981.642	-3,654.389	
BIC	13,737.010	6,794.226	6,071.604	7,417.098	

Table 2: Linear regression results for the readability of search and seizure majority opinions issued by elected state courts of last resort 2000-2010. The models include random effects for state and majority opinion author.

with an increase in opinion readability ranging from one to two-tenths of a grade level. Importantly, however, when only examining elected judges, the state legislator's alignment with the opinion author appears to play a more important role. Indeed, as the proportion of the senate from the same party as the author of the opinion increases, the readability of the opinion increases.

The results regarding the content of the opinion are also the same in these models. Again, opinions which exclude a piece of evidence are more readable than those that do not, and opinions that are in line with public preferences also tend to be more readable. Likewise, there is some evidence that the status of the litigant also affects the readability of the opinion. Opinions in which the original defendant was represented by a public defender are more readable than opinions written in cases where the defendant was not represented by a public defender. Additionally, these model results provide some evidence that, at least when judges are elected, opinion readability is affected by a litigant's *pro se* status. However, contrary to expectation, opinions written in cases with a *pro se* defendant are *less* readable.

Finally, in a shift from the previous models, these models provide some evidence that the presence of a dissent affects the readability of judicial opinions, at least for elected judges. Indeed, in two of the four models, the results suggest that judges write more complicated opinions when faced with a dissent by one of their colleagues. This provides some preliminary evidence that intercourt relations can affect the readability of the opinions handed down by the court.

Conclusion

The initial results from this study are encouraging, and they provide some limited evidence that elected judges write more readable opinions than judges who never appear on a ballot and that judges who live in electorally competitive states temper that effect by writing less readable opinions. Moreover, judges writing opinions that exclude evidence or are in line with public opinion tend to make those opinions more readable. Likewise, there is some evidence that the broader political environment has some effect on the readability of judicial opinions, as well; it seems that this effect is most pronounced for elected judges, though more work is necessary on this front.

It is important to emphasize that these results represent only a preliminary investigation into this research question. In future work, I hope to refine my measure of electoral competitiveness beyond simply measuring the most recent vote share received by the winning state supreme court candidate and to utilize a measure of case salience drawn from newspapers rather than relying on judges' own mentions of *amicus* briefs. Additionally, in future work, I hope to expand my data to include cases other than criminal procedure cases to ascertain the robustness of these findings to issues that are less likely to provide fodder for judges' electoral opponents.¹⁰

¹⁰Indeed, the focus on search and seizure cases in this research design may explain the marked differences between my findings and those of Goelzhauser and Cann (2013). Their findings suggest no there is no difference in the readability of judicial opinions issued by elected and appointed judges. Since their data include cases from a variety of issue areas while my data only contain cases which are expected to be electorally salient, the presence of an electoral effect in this data and not the Goelzhauser and Cann data is likely attributed to the differences in case selection.

References

- American Judiciature Society. 2012. "Judicial Selection in the States: Initial Selection, Retention, and Term Length." http://judicialselection.us/uploads/documents/Selection_Retention_Term_1196092850316.pdf (December 7, 2012).
- Ansolabehere, Stephen, Jr. James M. Snyder and Charles Stewart III. 2001. "Candidate Positioning in U.S. House Elections." *American Journal of Political Science* 45:136–59.
- Arnold, R. Douglas. 1990. The Logic of Congressional Action. Yale University Press.
- Bailey, Michael A. 2007. "Comparable Preference Estimates across Time and Institutions for the Court, Congress, and Presidency." *American Journal of Political Science* 51:433–448.
- Bovitz, Gregory L. and Jamie L. Carson. 2006. "Position-Taking and Electoral Accountability in the U.S. House of Representatives." *Political Research Quarterly* 59:297–312.
- Brace, Paul and Brent D. Boyea. 2008. "State Public Opinion, the Death Penalty, and the Practice of Electing Judges." *American Journal of Political Science* 52:360–372.
- Brady, David W., John F. Cogan, Brian Ganes and R. Douglas Rivers. 1996. "The Perils of Presidential Support: How the Republicans Captured the House." *Political Behavior* 18:345–68.
- Cady, Mark. 2011. "2011 Iowa State Of the Judiciary Address." http://www.iowacourts.gov/wfdata/files/StateofJudiciary/StateoftheJudiciary2011.pdf (December 10, 2011).
- Caldarone, Richard P., Brandice Canes-Wrone and Tom S. Clark. 2009. "Partisan Labels and Democratic Accountability: An Analysis of State Supreme Court Abortion Decisions." *Journal of Politics* 71:560–573.
- Canes-Wrone, Brandice, David W. Brady and John F. Cogan. 2002. "Out of Step, Out of Office: Electoral Accountability and House Members' Voting." *The American Political Science Review* 96:127–140.
- Canes-Wrone, Brandice and Kenneth W. Shotts. 2004. "The Conditional Nature of Presidential Responsiveness to Public Opinion." *American Journal of Political Science* 48:690–706.
- Canes-Wrone, Brandice and Tom S. Clark. 2009. "Judicial Independence and Nonpartisan Elections." *Wisconsin Law Review* 2009:21–65.
- Canes-Wrone, Brandice, Tom S. Clark and Jee Kwang Park. 2012. "Judicial Independence and Retention Elections." *Journal of Law, Economics, & Organization* 28:211–234.
- Charrow, Robert P. and Veda R. Charrow. 1979. "Making Legal Language Understandable: A Psycholinguistic Study of Jury Instructions." *Columbia Law Review* 79:1306–1379.
- Clark, Tom S. 2009. "The Separation of Powers, Court Curbing, and Judicial Legitimacy." *American Journal of Political Science* 53:971–989.

- Clark, Tom S. 2011. The Limits of Judicial Independence. Cambridge University Press.
- Clinton, Joshua, Simon Jackman and Doug Rivers. 2004. "The Statistical Analysis of Roll Call Voting: A Unified Approach." *American Political Science Review* 98:355–370.
- Colaco, Marc, Peter F. Svider, Nitin Agarwal, Jean Anderson Eloy and Imani M. Jackson. 2013. "Readability Assessment of Online Urology Patient Education Materials." *Journal of Urology* 189:1048–1052.
- Coleman, Meri and T.L. Liau. 1975. "A Computer Readability Formula Designed for Machine Scoring." *Journal of Applied Psychology* 60:283–284.
- Corley, Pamela C. 2008. "The Supreme Court and Opinion Content: The Influence of Parties' Briefs." *Political Research Quarterly* 61(3):468–478.
- Council of State Governments. 2011. The Book of the States. Council of State Governments.
- Diamantouros, Artemis, William Bartle and William Geerts. 2013. "Patient Information About Warfarin: An Assessment of Accuracy and Readability." *JAMA Internal Medicine* Forthcoming.
- Epstein, Lee, Andrew D. Martin, Jeffrey A. Segal and Chad Westerland. 2007. "The Judicial Common Space." *Journal of Law, Economics, & Organization* 23:303–325.
- Epstein, Lee and Jeffrey A. Segal. 2000. "Measuring Issue Salience." *American Journal of Political Science* 44:66–83.
- Erikson, Robert S. 1971. "The Advantage of Incumbency in Congressional Elections." *Polity* 3:395–405.
- Erikson, Robert S., Gerald C. Wright and John P. McIver. 1993. *Statehouse Democracy*. Cambridge University Press.
- Fenno, Richard F. 1977. "U.S. House Members in Their Constituencies: An Exploration." *American Political Science Review* 71:883–917.
- Fenno, Richard F. 1978. Home Style: House Members in their Districts. Little Brown.
- Flesch, Rudolf. 1948. "A New Readibility Yardstick." Journal of Applied Psychology 32:221–233.
- Gelman, Andrew and Jennifer Hill. 2007. Data Analysis Using Regression and Multilevel/Hierarchial Models. Cambridge University Press.
- Goelzhauser, Greg and Damon M. Cann. 2013. "Judicial Elections and Opinion Quality in State Supreme Courts." Working Paper.
- Gordon, Stanford C. and Gregory A. Huber. 2007. "The Effect of Electoral Competitiveness on Incumbent Behavior." *Quarterly Journal of Political Science* 2:107=138.
- Grimmer, Justin. 2010. "A Bayesian Hierarchial Topic Model for Political Texts: Measuring Expressed Agendas in Senate Press Releases." *Political Analysis* 18:1–35.

- Gunning, Robert. 1952. *The Technique of Clear Writing*. McGraw-Hill International Book Company.
- Hall, Melinda Gann. 1987. "Constituent Influence in State Supreme Courts: Conceptual Notes and a Case Study." *Journal of Politics* 49:1117–1124.
- Hall, Melinda Gann. 2001. "State Supreme Courts in American Democracy: Probing the Myths of Judicial Reform." *American Political Science Review* 95:315–330.
- Hansford, Thomas G. 2004. "Information Provision, Organizational Constraints, and the Decision to Submit and Amicus Curiae Brief in a U.S. Supreme Court Case." *Political Research Quarterly* 57:219–230.
- Hansford, Thomas G. and James F. Spriggs II. 2006. *The Politics of Precedent*. Princeton University Press.
- Huber, Gregory A. and Stanford C. Gordon. 2004. "Accountability and Coercion: Is Justice Blind when it Runs for Office?" *American Journal of Political Science* 48:247–263.
- Hume, Robert J. 2006. "The Use of Rhetorical Sources by the U.S. Supreme Court." *Law & Society Review* 40:817–843.
- Jacobson, Gary C. 1996. "The 1994 House Elections in Perspective." *Political Science Quarterly* 111:203–23.
- Jones, David R. 2003. "Position Taking and Position Avoidance in the U.S. Senate." *Journal of Politics* 65:851–863.
- Maltzman, Forrest, James F Spriggs II and Paul J. Wahlbeck. 2000. *Crafting Law on the Supreme Court: The Collegial Game*. Cambridge University Press.
- Martin, Andrew D. and Kevin M. Quinn. 2002. "Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-1999." *Political Analysis* 10:134–153.
- Owens, Ryan J. and Justin P. Wedeking. 2011. "Justices and Legal Clarity: Analyzing the Complexity of U.S. Supreme Court Opinions." *Law & Society Review* 45:1027–61.
- Owens, Ryan J., Justin Wedeking and Patrick C. Wohlfarth. 2013. "How the Supreme Court Alters Opinion Language to Evade Congressional Review." *Journal of Law and Courts* Forthcoming. Unpublished.
- Poole, Keith T. and Howard Rosenthal. 1997. *Congress: A Political-Economic History of Roll Call Voting*. Oxford University Press.
- Resnik, Judith and Dennis Curtis. 2011. Representing Justice: Invention, Controversy, and Rights in City-States and Democratic Courtrooms. Yale University Press.
- Segal, Jeffrey A. 1984. "Predicting Supreme Court Cases Probabilistically: The Search and Seizure Cases, 1962-1981." *American Political Science Review* 78:891–900.

- Segal, Jeffrey A. and Harold J. Spaeth. 1993. *The Supreme Court and the Attitudinal Model*. Cambridge University Press.
- Simon, Dan and Nicholas Scurich. 2011. "Lay Judgments of Judical Decision Making." *Journal of Empirical Legal Studies* 8:709–727.
- Slotnick, Elliot E. and Jennifer A. Segal. 1994. "The Supreme Court Decided Today'...Or Did It?" *Judicature* 78:89–95.
- Slotnick, Elliot E. and Jennifer A. Segal. 1998. *Television News and the Supreme Court: All the News That's Fit to Air?* Cambridge University Press.
- Songer, Donald R., Jeffrey A. Segal and Charles M. Cameron. 1994. "The Hierarchy of Justice: Testing a Principal-Agent Model of Supreme Court-Circuit Court Interactions." *American Journal of Political Science* 38:673–696.
- Spaeth, Harold, Lee Epstein, Ted Ruger, Keith Whittington, Jeffrey Segal and Andrew D. Martin. 2012. "The Supreme Court Database." http://scdb.wustl.edu (September 13, 2012).
- Spriggs, James F., II. 1996. "The Supreme Court and Federal Administrative Agencies: A Resource-Based Theory and Analysis of Judicial Impact." *American Journal of Political Science* 40(4):1122–1151.
 - **URL:** http://www.jstor.org/stable/2111745
- Staton, Jeffrey K. 2006. "Constitutional Review and the Selective Promotion of Case Results." *American Journal of Political Science* 50:98–112.
- Staton, Jeffrey K. 2010. *Judicial Power and Strategic Communication in Mexico*. Cambridge University Press.
- Staton, Jeffrey K. and Georg Vanberg. 2008. "The Value of Vagueness: Delegation, Defiance, and Judicial Opinions." *American Journal of Political Science* 58:504–519.
- Traut, Carol Ann and Craig F. Emmert. 1998. "Expanding the Integrated Model of Judicial Decision Making: The California Justices and Capital Punishment." *Journal of Politics* 60:1166–1180.
- Vickery, William C., Douglas G. Denton and Wallace B. Jefferson. 2012. *Opinions as the Voice of the Court: How State Supreme Courts Can Communicate Effectively and Promote Procedural Fairness*. Harvard Kennedy School, the National Center for State Courts, State Justice Institute, and Bureau of Justice Assistance.
- Vining, Richard and Teena Wilhelm. 2011. "Measuring Case Salience in State Courts of Last Resort." *Political Research Quarterly* 64:559–572.
- Warren, Earl. 1954. "Memorandum to the Justices of the Supreme Court of the United States, May 7, 1954." Papers of Chief Justice Earl Warren, Library of Congress.

Westerland, Chad, Jeffrey A. Segal, Lee Epstein, Charles M. Cameron and Scott Comparato. 2010. "Strategic Defiance and Compliance in the U.S. Courts of Appeals." *American Journal of Political Science* 54:891–905.

Zink, James R., James F. Spriggs II and John T. Scott. 2009. "Courting the Public: The Influence of Decision Attributes on Individuals' Views of Court Opinions." *Journal of Politics* 71:909–925.