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

Michael J. Nelson*
Department of Political Science
Washington University in St. Louis

September 9, 2013

## Abstract

Elected officials must be able to justify the decisions they make to their constituents or they risk losing their jobs. Yet, due to inferential and methodological obstacles, political scientists have developed few theories of explanatory behavior. Relying on a research setting—judges in the American states—and advances in text processing that allow large-scale analysis of corpora, I assess how the electoral process affects the accessibility of the explanations provided by judges. I show that elected judges write opinions that are easier to read. Moreover, I demonstrate that the readability of judicial opinions for elected judges is affected by the contentiousness of the judicial campaigns in that state and that the retention method effect only begins after the rise of politicized judicial elections in 2000.

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

Michael J. Nelson

There is no question that the explanations provided by public officials to justify their decisions represent an important political activity. By providing constituents with the information they need to decide whether or not they should support that official in the next election, explanations serve a vital role in the process of representation. Yet, despite the importance of explanations, political scientists know little about the ways in which politicians craft their explanations and the effect that these explanations have on the behavior of public officials and the public (but see Grimmer 2010). Indeed, while political scientists have developed myriad theories of decisionmaking (e.g. Mayhew 1974; Kingdon 1989; Segal and Spaeth 1993; Epstein and Knight 1998), we have comparatively few theories regarding how public officials contextualize their choices. This omission is particularly surprising in light of Fenno's (1978) claim that "empirical theories of representation will always be incomplete without theories that explain explaining" (162).

This omission makes sense given the theoretical and methodological difficulties inherent in studying the explanatory behavior of public officials. Theoretically, justifications rarely have the force of law, politicians may provide different explanations to different constituents, and they are rarely formally required to issue an explanation for their actions. Additionally, the fact that most executives and legislators stand for election makes it difficult to infer the consequences of elections on the behavior of public officials. Methodologically, the text that comprises the justification of public officials has, until recently, been intractable to analyze widely.

To sidestep these theoretical and methodological obstacles, I analyze the explanatory behavior of judges in the American states using advances in computational text processing. State judges provide both variance on the method of selection and retention as well as a formal requirement that nearly all of their major decisions must be accompanied by a written, binding rationale which justifies that decision. An analysis of judicial opinions provides an opportunity to examine how electoral institutions affect the explanations provided by public officials while also shedding much-

needed light on the content of judicial opinions. Additionally, new advances in computational text processing allow researchers to analyze the text of large corpora reliably and systematically, making an analysis of a large body of explanations feasible.

In this paper, I draw upon nearly 25,000 state supreme court opinions since 1995 and a growing literature (Owens and Wedeking 2011; Owens, Wedeking and Wohlfarth 2013; Corley 2008; Hinkle et al. 2012) that analyzes the content of judicial opinions computationally to examine the readability of state supreme court decisions. I assess three hypotheses. First, just as judicial elections increase judges' propensities to follow public opinion when voting on the merits of a case (Brace and Boyea 2008), the presence of these retention institutions also provides incentives for judges to justify their opinions in language that their constituents can readily understand. Second, among elected judges, the contentiousness of judicial elections within a state affects the readability of judicial elections. Finally, these effects only begin after the rise of contentious judicial elections in 2000. Data analysis supports each hypothesis.

This paper advances the literature in two ways. First, the overwhelming majority of judicial behavior studies examine the outcomes of judicial decisions. Yet, the content of judicial opinions is the attribute of an opinion that has the broadest consequences. While the outcome of a case resolves a dispute for the parties of the case, the legal reasoning contained in the opinion adjusts the state of law. Thus, we need to understand the content of judicial opinions to develop a full understanding of the implications of judicial elections. Second, comparatively little work examines how the nature of campaigning molds the behavior of public officials, particularly judges, once they take office (but see Sulkin 2005; 2011). By linking the campaign stage of the process with the opinions produced by judges who were electorally successful, this project provides a unified perspective on the effects of campaigns on the actions of public officials.

## The Importance of Explanations

While formulating, selecting, and implementing policies are all vital activities performed by public officials, they must often justify their choices to some external audience. Most obviously,

legislators return home during recesses to hold town hall meetings with their constituents and keep the public informed of their decisions throughout the legislative session with a steady stream of print and electronic newsletters, interviews with journalists, and social media postings. Likewise, while the formal powers of the president are limited (Neustadt 1990), scholars have noted that the president can bolster his position by "going public" through the use of media events and televised press conferences to inform and mobilize the public (Kernell 2007).

Yet, despite the obvious importance of explanations to public officials, scholars have developed relatively few theories of explanatory behavior. This lacuna likely results from the fact that explanations are formally separate from the policy decisions made by public officials, and political scientists have focused primarily on explaining the determinants of policy decisions, rather than the nonpolicy activities performed by public officials.[1] Yet even absent their connection to the policy choices made by public officials, explanations serve three vital roles: they provide context, they encourage acquiescence, and they promote trust and confidence.

First, explanations allow public officials to provide context for their decisions. While a legislator's vote is a "yea" or "nea" on a predetermined piece of legislation, different legislators may cast the same vote for a variety of reasons. Without an explanation, constituents lack information concerning the rationale for a legislator's decision. By issuing a press release or granting a newspaper interview, the legislator can explain his vote in a way that explains why he acted as he did and provides constituents with the reasoning that lies beneath his vote.

Second, explanations encourage acquiescence. By providing their constituents with the rationale underlying their decision, public officials can persuade their constituents to support them in their upcoming election, or, at the very least, to not support their opponent. Similarly, explanations can affect the implementation of decisions. Most notably, presidential signing statements affect the implementation of laws by urging bureaucrats to enforce some parts of the law more rigorously than others (Ostrander and Sievert 2013), and Spriggs (1996) shows that clearer judicial opinions

---

[1]Of course, explanations need not be strictly independent from policy choices. Kingdon (1989) argues that members of Congress may choose to vote a particular way only once they are convinced that they could explain that vote satisfactorily to a constituent, or, if they are relatively indifferent between their options, they may choose the decision that is least likely to require a explanation.

are more likely to be successfully implemented.

Finally, explanations can help public officials to build trust and support. By providing constituents with transparent explanations for their decisions, public officials can build support for their decisions among the public. Moreover, a clear explanation provides public officials with an opportunity to persuade their constituents that, though they may disagree with the decision, their elected officials are making reasonable decisions and are acting in their best interest. In this sense, explanations help establish trust between public officials and constituents (Fenno 1978).

Of course, explanations vary on many dimensions, such as their clarity, content, and tone. While each dimension deserves analysis, I limit the scope of my theory and analysis to one dimension: the readability of the explanations provided by judges. At its most basic level, readability implicates the ability of an audience to understand an opinion; if an explanation cannot be read, the content and tone of the explanation is beyond the grasp of the reader. In this sense, readability is a prerequisite to the other dimensions of explanatory content. Thus, an analysis of readability provides a useful foundation for an analysis of explanations.[2]

[Figure 1 about here.]

But do the explanations of public officials vary in their readability? To assess this question, Figure 1 displays violin plots summarizing the readability of state supreme court and U.S. Supreme Court opinions, presidential signing statements, and press releases issued by U.S. senators and state legislators.[3] The plots display wide variation in the readability of explanations. On average, presidential signing statements are the most difficult to read, while the press releases of U.S. Senators are the easiest to read. Notably, state court opinions appear to be more readable than opinions of the nation's highest court.

---

[2]Note that the focus on readability presupposes an analysis of written, rather than oral, communication. Oral communications present additional challenges beyond those posed by written explanations. Thus, they lie beyond the scope of this study.

[3]The state supreme court opinions are search and seizure opinions described in more detail below. The U.S. Supreme Court opinions are all opinions in the Supreme Court Database 1953-2009 (Spaeth et al. 2012). The signing statements are all presidential signing statements issued by Barack Obama and George W. Bush. The Senate press releases are Grimmer's (2010) sample. The state legislative press releases come from Arizona, Florida, New York, Oregon, Rhode Island, and Texas.

One obvious explanation for this variance is the nature of the electoral connection between the politician and the public. Fenno (1977, 1978) writes that, while the vast majority of votes lie outside of the view of the vast majority of the public, legislators care deeply about their ability to explain each of their votes to the public. Indeed, according to Kingdon (1989), public officials care about their ability to cast "explainable votes" precisely because of their formal connection to the public; if they are unable to explain their actions to the satisfaction of their constituents, they risk losing public support and, by extension, their jobs. Likewise, Arnold (1990, 1993) suggests that, though the public knows little about the large majority of votes that they cast, legislators vote carefully on all issues out of a desire to "create [an] acceptable voting record[] one issue at a time" (1993, 411). A string of unexplainable votes could cause electoral trouble for a legislator.

Figure 1 provides some suggestive evidence for this theory, though I acknowledge that a simple comparison of means could be deceiving. On average, the opinions of state judges, most of whom stand for elections, are more readable than opinions of the U.S. Supreme Court whose justices have life tenure. Similarly, the press releases of U.S. Senators, whose elections are typically more salient, on average, than those of state legislators, also write more readable opinions than their state-based counterparts. This suggestion is even supported by presidential signing statements: though not visible in the figure, there is a statistically significant difference in the readability of presidential signing statements issued in before and after a president was elected for his second term; signing statements issued after reelection are less readable than those issued in the president's first term.

Yet, it is difficult to ascertain exactly what effect the electoral connection has on the behavior of legislators because nearly all legislators are subject to popular elections, depriving us of the variation on the independent variable necessary to make inferences. To compound the problem, legislators and executives are rarely formally required to explain their decisions to any constituent thereby raising the possibility of endogeneity between the explanations we observe and the importance of the decision being explained. Moreover, the explanations of most public officials may merely be cheap talk designed to sway constituents but lacking the force of law. Moreover, because

5

the constituency of any elected official is heterogeneous, public officials may provide different rationales for the same decision based on the nature of the constituent they are addressing.

## Judges and Explanations

[Figure 2 about here.]

These inferential concerns are drastically mitigated in one case: judges in the U.S. States. While federal judges in the United States (and most judges worldwide) are retained through an elite appointment process, the majority of judges in the U.S. states are chosen through popular elections (Hall 2001).[4] The electoral rules used to select and retain judges vary widely by state to state, but there are four major categories of electoral rules: contestable partisan elections, contestable non-partisan elections, commission-screened elite appointment coupled with uncontestable retention elections,[5] and elite appointment followed by elite reappointment. Figure 2 displays a map of the United States showing the ways in which state supreme court justices are retained. 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 their continued tenure.

Beyond the variation in selection and retention methods, the nature of judicial office also ameliorates many of the concerns raised above. Namely, appellate judges must provide a written opinion explaining in detail the rationale for the decision reached by the Court in the vast majority of cases that they decide; these explanations are widely available and difficult to change once issued. Moreover, whereas the explanations of legislators, executives, or bureaucrats may be cheap talk, the explanations 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. Importantly, if a judge on an appellate court

---

[4]Bolivia is the only country that elects its appellate judges. However, Bolivian judicial elections are held at the federal, rather than subnational, level (Driscoll and Nelson 2012, 2013).

[5]In these systems, also called merit selection or Missouri plan systems, applicants for judicial vacancies are screened by a commission typically comprised of both lawyers and nonlawyers who review applications and interview candidates. The commission passes a list of names to the appointing authority (typically the governor) who appoints a judge from the list of names provided to him by the commission (Caufield 2009).

disagrees with the decision reached by her colleagues, he has the option to file a dissenting opinion explaining how his vote differs from her colleagues'; likewise, if a judge agrees with the majority opinion but has a different explanation for her vote, she can file a concurring opinion which states how her explanation for her vote on the case differs from that of her colleagues.

As a result, an examination of the content of judicial opinions is important for a fuller understanding of the choices judges make. Indeed, most judicial politics research focuses on the outcomes of court cases rather than the content of judges' opinions (Friedman 2006). While the outcomes of judicial decisions are important, the content of judicial opinions—the explanations judges provide along with their decision—is vital to study because it sets legal rules which must be followed by lower courts (Friedman 2006). Moreover, the extant research that does exist demonstrates that judges are strategic when drafting their opinions, and that their opinions have the ability to change public opinion. Hume (2006) and Hansford and Spriggs (2006) demonstrate that judges are strategic when selecting the sources they will marshal to bolster their opinion, and 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.

Beyond the inferential benefits provided by a study of state judges, an exploration of readability in a judicial context is also helpful from a legal standpoint. 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, readability may affect 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.

Of course, some may give pause to any study that suggests that judges have a relationship with their constituents that mimic the bond between a legislator and his constituents. Of course, the work of judging is different from legislating, just as the work of any chief executive is also

different than the work of a legislator. However, numerous studies (Hall 2001; Bonneau and Hall 2009; Gibson 2012) suggest that judicial elections are similar to other types of elections both in terms of their contentiousness and competitiveness as well as their effects. Thus, while the work performed by judges may differ in some respects than the work performed by legislators and executives, the existing research comparing judicial elections to other types of elections suggests that the results of this study may generalize beyond the courtroom to the statehouse, Congress, White House, or the governor's mansion.

## Theory

Previous theories of judicial communication (Staton 2006, 2010) have posited that judges communicate with the public for strategic institutional reasons: namely, to increase *institutional* power vis-à-vis the other branches of government in an effort to encourage implementation of their decisions. While all state supreme court justices share that policy goal with their counterparts at the federal level, a majority of state judges have another goal: to secure their reelection. Thus, while they still may have an institutional need to communicate with external audiences to achieve implementation of their decisions, they also have a *personal* need to communicate with voters to win their support at the ballot box.

Moreover, once an opinion is issued, a judge is able to do little to justify that opinion. A combination of state judicial codes of conduct, judicial codes of ethics, and norms of behavior make judges reluctant to defend their decisions publicly (Caufield 2007; Peters 2009). For example, consider the response of Illinois Supreme Court Justice Thomas Kilbride to the following advertisement paid for by JUSTPAC, the Illinois Civil Justice League's political action committee attacking his candidacy for retention. The advertisement

> features a dramatization in which a series of actors recount the grisly details of crimes "stabbing my victims with a kitchen knife," "shooting my ex-girlfriend," and being convicted of "sexual assault on a mom and her ten year-old daughter" and then informs viewers that "Justice Thomas Kilbride sided with us over law enforcement of victims." The ad's narrator then urges a "no" vote on Justice Kilbride's retention (Brennan Center 2010).

Justice Kilbride responded not with an advertisement that explained the legal basis for his decision, but with one saying that he had been "[f]alsely attacked by a front group for the insurance industry who would put profits first by outsourcing American jobs overseas" and touting his endorsements by "police, prosecutors, and newspapers for being tough on crime." Indeed, a review of the storyboards for judicial campaign advertisements compiled by the Brennan Center for Justice since 2008 revealed not a single television advertisement in which a justice responded to an attack on one of his or her decisions with an appeal to the law.

Thus, since judges must justify their decisions initially with a written opinion but will be relatively constrained from defending that decision after it is issued, judges may use the tool that they do have—their opinions—to appeal to potential voters in an attempt to preempt criticism. Of course, most members of the public will never read the court's opinion in a given case; still, this need not preclude judges from using their opinions to appeal to the public. One way to think about the lack of public attention to most judicial decisions is to compare it to the public's lack of attention to most congressional votes. Fenno (1978) writes: "if we ask ourselves just how any of their votes House members will 'need to' explain, the answer probably is not many... But that does not make the explanatory process any the less problematical. Members believe that it would not take many unacceptable explanations to cost them dearly at the polls" (142). Thus, the congressional experience suggests that, even in cases where the majority of decisions will go unaudited by the public, elected officials still care about the explanations they are able to provide to their constituents. Indeed, the point of explanations is not only to change the attitudes of those individuals who closely follow the institution; rather, they are trying to communicate with those constituents who will, after some opinion leader or interest group pulls the "fire alarm", go back and examine the behavior of the public official (McCubbins and Schwartz 1984).

Indeed, 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). 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). Moreover, though many members of the public do not read judicial opinions, journalists often quote extensively from opinions in their articles covering the court's decisions. Consider the following article from *The Des Moines Register* discussing the same-sex marriage decision: "'We are firmly convinced that the exclusion of gay and lesbian people from the institution of civil marriage does not substantially further any important governmental objective,' the court said in an opinion written by Justice Mark Cady. 'The legislature has excluded a historically disfavored class of persons from a supremely important civil institution without a constitutionally sufficient justification.'" (Eckhoff and Schulte 2009)

Of course, judges have multiple audiences (Baum 2006). Many opinions simultaneously set forth general legal rules that are binding in future cases while providing instruction to lower courts about how to handle the instant case on remand. Likewise, cases involving statutory interpretation provide guidance to the legislative and executive branches about how the Court has read a statute and, in some cases, provides guidance to those other branches about how they should craft law in the future to withstand judicial scrutiny. To be clear, my argument is not that the public is the primary audience for a judicial opinion. It is clear that is not the case. Rather, my argument is that judicial elections and judges' electoral goals given them incentives to take the arguments, rules, and instructions that must be in the opinion and to do their best to make that text more understandable for a broader audience.

But how might judicial selection and retention institutions affect the readability of judicial decisions? Some have suggested that readable opinions build public support for and therefore increase 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. Put differently, if, as Staton (2006; 2010) suggests, courts 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.[6] Thus, judges who face reelection should write more readable opinions.

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, not all elections are equal. As they look toward their next election, judges, like any public official, 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. As they look ahead to retention, judges may act differently based on the level of electoral threat they perceive.

To this end, I expect judges to rely on the recent electoral experiences of their colleagues to assess the contentiousness of judicial elections. If recently their incumbent colleagues failed to achieve reelection or their colleagues won election by a narrow margin, judges should believe that their own road to retention may be more difficult than they would be in a state and time where electoral defeats or difficult campaigns are few and far between. Indeed, absent a contentious information environment, judicial elections may fail to affect readability at all. Goelzhauser and Cann (2013) examine the readability of a random sample of all state supreme court opinions 1995-1998 using the State Supreme Court Database. They find that no there is no difference in the readability of judicial opinions issued by elected and appointed judges.

---

[6]Research 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.

Moreover, beyond recent electoral history inside and outside of a state, the type of electoral system used in a state should condition a judge's perception of their electoral environment. Indeed, judges who face contestable partisan and nonpartisan elections are much more likely to lose reelection than judges who face uncontestable retention elections (Hall 2001; Bonneau and Hall 2009). Thus, I expect that the electoral rules (namely, whether or not multiple candidates are allowed to appear on the ballot) should condition the extent to which local and national trends in the contentiousness of judicial campaigns affect the readability of judicial opinions. These trends should be much more important in the calculus of judges who run in contestable elections than those who do not.

How should the presence of a contentious informational and electoral environment affect the readability of the opinions a judge issues in the lead-up to the election? These electoral threats provide judges with two possible responses. First, they could enhance the readability of their opinions in an attempt to broaden the comprehensibility of the opinion to as many of their constituents as possible. By lowering the readability of their opinions even further, judges who face a difficult election could attempt to appeal to as wide of a swath of the public as they are able in an attempt to make sure that their opinions cannot be misconsrued or misrepresented by their opponents in the upcoming electoral campaign.

Second, an alternative path is to write opinions that are more difficult to understand. Recent research on the trappings of judicial office (Gibson, Lodge, and Woodson 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 decisions—even those they disagree with on policy grounds—if those opinions are accompanied by judicial symbols. In short, this literature suggests that the crafting of more readable opinions may deprive judges of the legitimacy that their position as a jurist provides to them. After all, a major advantage that an elected judge has over an elected legislator or executive is that she can tell her constituents that the law "commanded" her to reach a particular outcome. Given 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, judges who are less likely to face a competitive election may write *more readable* opinions.[7]

Beyond the effects of the upcoming election, macro-level changes in judicial elections over time may also affect the readability of opinions. Today, judicial elections are often highly contentious contests that lead to relatively high rates of incumbent defeats (Bonneau and Hall 2009; Hall 2001), but the dynamics of these contests have changed dramatically over the past thirty years. Indeed, whereas they were once described as exciting as a game of checkers by mail (Bayne 2000), judicial contests today in the American states are as competitive as legislative races. Yet, while the "new style" of judicial elections began over two decades ago (Hojnacki and Baum 1992), today's judicial elections look markedly different than their predecessors because of the dramatic influx of television advertising in these campaigns since the year 2000.

In Champagne's (2005) words, "[i]n the 2000 elections, judicial politics went wild" (1499). It was in this electoral cycle that independent expenditures (most notably advertisements aired by third-party groups ostensibly not affiliated with any party or candidate) began to play a large role in the judicial electoral process while simultaneously marking the beginning of a new era in the importance of television advertising in judicial campaigning (Champagne 2005; Sample et al. 2010).[8] Today, campaign advertising plays an important role in judicial campaigns, dramatically conditioning the level of citizen participation (Hall 2012, Hall and Bonneau 2013). To this end, television advertising is particularly important because it allows candidates, parties, and third parties to expose broad swaths of the electorate to the campaign rather than forcing these groups to perform the sort of individual targeting necessitated by telephone calls and direct mail. Given the prominent role that television advertising plays today in judicial camapigns and its widespread in-

---

[7]It is important to note that my two hypotheses are not at odds with each other. I expect that, on average, judges who are elected write opinions that are more readable than judges who face reappointment. But, among elected judges, heterogeneity in the readability of judicial opinions is affected by the contentiousness of the electoral environment.

[8]To be clear, much extant work (Bonneau and Hall 2009; Bonneau, Hall, and Streb 2011) calls into question the effects of *White* on electoral outcomes. This research typically proceeds by comparing elections pre- and post-2002, the year of the *White* decision without accounting for the fact that the state codes of conduct implicated in *White* were not uniform across states (Peters 2007, 2009), and, as a result, *White* affected some states and not others. Moreover, states interpreted *White* in different ways (Caufield 2007). However, no extant research questions the fact that the visibility of judicial campaigns, measured by television advertising, has dramatically changed since the year 2000.

troduction into judicial campaigns in 2000, I expect that the effects of judicial retention methods on the readability of judicial opinions should only occur post-2000.

## Issue Selection

To test this theory, I rely on two issue-specific datasets, including one original dataset, as well as a dataset comprising nearly every state supreme court decision over a four-year period of time. The resulting data include nearly 25,000 state supreme court cases decided since 1995 and provide a unique opportunity to assess state court opinion writing both before and after the rise of contentious judicial campaigns with television advertising.

The issues were selected along a number of criteria including the portion of the docket dedicated to the issue (to ensure enough cases for statistical analysis) and the frequency with which the issue is employed in electoral campaigns. After all, if selection method does impact the readability of judicial opinions, we should expect to see that effect most clearly in issue areas that have clear electoral implications. By these criteria, two issues stand out: criminal procedure cases and cases involving businesses as litigants.

First, criminal procedure cases are often flashpoints in judicial campaigns (Hall 2001). As Baum (2003) has noted, "creating the impression that a judge is soft on crime can have great electoral impact" (35). Indeed, according to Caufield's (2007) analysis of television advertising in state supreme court elections in 2002 and 2004, approximately one-third of television advertisements relate to a candidate's record on criminal justice-related issues. For example, a 2008 advertisement aired on behalf of Deborah Bell Paseur sought to emphasize her prior experience as a trial court judge: "For 27 years, Deborah Bell put thousands of criminals in jail and working with children to prevent crime. Now, Deborah Bell Paseur is running for Supreme Court." More notably, criminal justice-related issues are often featured prominently in attack advertising. For example, an advertisement aired against Michigan judge Denise Langford Morris, attacked the judge for a record that was purportedly "soft on crime for rappers, lawyers, and child pornographers" while suggesting that she "get tough on convicted criminals" (Brennan Center 2010).

14

The law of criminal procedure is vast; in order to eliminate heterogeneity caused by the various types of criminal procedure cases heard by state supreme courts, I limit my analysis to search and seizure cases, following much prior research (e.g. Segal 1984; Segal and Spaeth 1993; Songer, Segal, and Cameron 1994). I followed a protocol, modified from that used by Hinkle (2013), to identify the search and seizure cases. 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 principle (e.g. that the constitution guarantees rights to citizens) were not included in the analysis.

Second, I examine business cases heard by these courts between 2010 and 2012. Cases involving business litigants comprise over one-third of the cases heard by state supreme courts involve business litigants (Kang and Shepherd 2011), and business-funded interest groups play a prominent role in judicial campaigns. This role is not new; Champagne (2005) documents the involvement of business-funded interest groups seeking tort reform in a number of judicial campaigns dating back to the 1980s. This role has only grown in recent years. By one estimate, business groups contributed over $62 million to judicial candidates between 2000 and 2009 (Sample et al. 2010). Candidates also appeal to voters regarding business interests. Consider a 2008 advertisement by Linda Yanez, a candidate for Texas Supreme Court:

> In an ideal world, our courts would be free of politics. But today, Republicans control all nine seats on the Texas Supreme Court. More often than not, they issue unanimous opinions, siding with insurance companies over 85 percent of the time... The only way to guarantee fairness is when the scales of justice are balanced (Brennan Center 2008).

Beyond contributing directly to candidates, business-funded interest groups also air television advertisements regarding judicial candidates using their own funds. While these advertisements sometimes discuss business issues, business groups often air advertisements emphasizing criminal justice issues on the theory that voters will be more mobilized to vote by criminal justice-related issues than by advertisements emphasizing issues like tort reform (Champagne 2005). For example,

the Michigan Chamber of Commerce aired advertisements in 2008 emphasizing that one candidate "has been praised by rank-and-file police officers for standing up for victims of crime and getting tough on violent criminals" while an attack advertisement aired by that group against Diane Hathaway discussed the sentence she gave to a sex offender: "Judge Diane Hathaway's sentence could have freed him after only six months. The prosecutor calls Judge Hathaway's sentence low given the predatory nature of the crime" (Brennan Center 2008).

The data for these cases comes from the list of cases identified by Shepherd (2013) in her study of the effect of campaign contributions and judicial decisionmaking. Because such a large percentage of state supreme court cases involve business litigants (Kang and Shepard 2011), coding all business cases is a difficult task. As a result, Shepard uses Westlaw's KeyCite feature to identify KeyCites that pertain to business cases and then compiled, by state, a random sample of those cases.

Finally, if the influx of television advertising is the impetuous behind changes in judicial behavior, we should see a difference in judicial behavior before and after the implementation of these advertisements in 2000. To assess the effects of judicial elections on the readability of judicial decisions before 2000, I rely on Brace and Hall's State Supreme Court Data Project which contains nearly every state supreme court opinion decided between 1995 and 1998.

## Measuring Opinion Readability

The outcome variable in the analysis is the readability of the majority opinion in each case, and the unit of analysis is the majority opinion author because the theory is based on individual-level judicial motivations. 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).

These measures of readability are 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. Thus, importantly, these measures of readability rely on observable (and easily quantifiable) characteristics of the text based on the assumption that shorter words and sentences are easier to read than longer words and sentences. In this analysis, I rely on six of the most prominent measures of the concept to measure the readability of state supreme court opinions. The appendix provides more information about, and the formulas for, each measure of readability. Though each measure of readability relies on different features of the text, each of the measures correlates with the others above 0.7, and the plurality of the correlations are above 0.9. The Chrombach's alpha is 0.90. This provides substantial evidence of the reliability of these measures.

Because each of the six formulas provides an indicator of the same underlying concept, I employ confirmatory factor analysis to combine the measures into one continuous index. All of the indicators load onto a single factor with loadings greater than 0.89, and analysis of a Scree plot provides evidence that readability is a unidimensional concept. The high loadings provide substantial evidence that, while each of the measures examines slightly different aspects of the text, they are all measuring the same overarching concept. More information on the factor analysis is provided in the Appendix.

But how do we make sense of this latent space? The strength of the plurality of the readability measures used to generate the latent variable is the ease of interpretability that they provide; by producing scores that correspond to students' grade levels, these metrics make it easy to determine whether a difficult text is easy or difficult to read; yet, the latent scores that are produced by the factor analysis remove direct interpretability from this scale. To make interpretation on the latent space easier, I utilized the equation to create Thompson factor scores,

$$\hat{f} = \mathbf{\Lambda}'\mathbf{\Sigma}^{-1}\mathrm{x}$$

where $\hat{f}$ is the vector of factor scores, $\mathbf{\Lambda}$ is the vector of loadings, $\mathbf{\Sigma}$ is the covariance matrix of the manifest variabes, and $\mathbf{x}$ is the data, to create a series of grade-level cutpoints. Specifically, using the loadings I estimated from the factor analysis to create the dependent variable, I created a set of new data with each manifest variable set at the most likely values for each grade level. From there, I was able to estimate cutpoints which allow me to convert values on the latent space to the grade level space. Figure 3 provides a figure explaining the conversion. Roughly, the distance between each grade level is separated by approximately 3.95 units on the latent space.

[Figure 3 about here.]

As anecdotal evidence of this measure's validity as applied to state court opinions, compare the opening paragraphs of two search and seizure cases in the data. In the first case, *Washington v. Bee Xiong* (191 P.3d 1278), Justice Alexander began his opinion with a short, pithy paragraph:

> This case presents the question of whether the Court of Appeals erred in reversing the trial court's suppression of contraband that was obtained as a direct result of a law enforcement officer's search of Bee Xiong's person. We reverse the Court of Appeals.

This opinion received a score of -10.0, or about the reading level expected of a college sophomore. In contrast, Ohio Supreme Court Justice Zarella began his 2007 opinion in *Connecticut v. Dalzell* (924 A.2d 809) with the following:

> The state appeals, following our grant of certification, from the judgment of the Appellate Court reversing in part the judgment of the trial court. The defendant, Edward R. Dalzell, was convicted, following his conditional plea of nolo contendere, of possession of narcotics with the intent to sell in violation of General Statutes §21a-277 (a), possession of narcotics in violation of General Statutes §21a-279 (a), possession of drug paraphernalia in violation of General Statutes (Rev. to 2003) §21a-267 (a), operating a motor vehicle while under the influence of drugs in violation of General Statutes (Rev. to 2003) §14-227a (a) and failure to wear a seat belt in violation of General Statutes (Rev. to 2003) §14-100a (c) (1).

This opinion received a score of 9.59; this translates to the reading level expected of a third-year law student.

## Data

I supplement the readability scores with explanatory variables taken from a number of sources; summary statistics for all variables in the search and seizure and business datasets are provided in Table 1. Information on each state's judicial selection system was available from the Council of State Governments (2011) and the American Judicature Society (2013). 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 rely on these same sources to determine whether an election is contestable (e.g. a traditional partisan or nonpartisan electoral system) or noncontestable `retention election` (e.g. a "Yes" or "No") typically used in merit selection systems.

Additionally, I hypothesized that elected judges would write less readable opinions when they perceived themselves to face electoral trouble. To test this hypothesis, I rely on three indicators. First, to assess national trends in judicial elections, I utilize the number of television advertisements aired in the previous two years (`Prior Advertising`). These data come from the Brennan Center for Justice through its partnership with the Campaign Media Advertising Group (TNS Media Intelligence/CMAG). Given that the initial influx of television advertising should matter more than subsequent advertising, I utilize a logarithmic transformation of the variable. Second, to assess the level of electoral threat inside of the state, I collected the `prior vote share` won by the winning candidate in 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 a negativity bias: judges will pay particularly close attention the electoral circumstances of their colleague who was in the deepest electoral trouble. Additionally, I also collected the number of `electoral defeats` experienced on the state supreme court in the prior election cycle. Again, because the first defeat should theoretically matter more than subsequent defeats (since, as in the 2010 Iowa example, defeated justices are often targeted

as a group) I use a logarithmic transformation of this variable, as well. Finally, on the theory that campaign effects should be stronger in systems with contestable, rather than uncontestable retention elections, I interact these variables with the `Retention Election` variable.

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 confound the analysis.

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; because many judges who do not stand for judicial elections only retain their seat through gubernatorial or legislative reappointment, a failure to account for the broader political environment may cause omitted variable bias. Aside from that fact, 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.

To assess the effects of the external political environment on the readability of judicial opinions, I rely on two measures: 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.[9] The measure of judicial-legislative partisan congruence, 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 `divided government` is dichotomous and indicates whether the statehouse and the governor's mansion are controlled by different parties.

Second, there is some anecdotal evidence that judges try to write clearer opinions in high profile cases; if elected judges care more about salient cases than their appointed counterparts, then a failure to control for the salience of a case may result in omitted variable bias. 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." Empirically, Owens and Wedeking (2011) find that the justices of the U.S. Supreme Court write clearer opinions in salient cases.

To assess the effects of salience, I look to *amicus* briefs as a measure of the salience of the case (Hansford 2004). 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

---

[9]In 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.

*amicus* brief in a case may serve as a cue 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.[10]

A final alternative hypothesis comes from studies of decisionmaking on collegial courts: that opinion readability is driven primarily by intercourt bargaining. Given that intercourt relationships, particularly with regard to public displays of dissent, differ on elected and appointed courts, it is necessary to control for differences in bargaining, as well (Brace and Hall 1993). 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 disagreement among the justices of the court should lead to less readable opinions.

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. I rely on a dichotomous variable indicating the presence of a `dissent` in the case. As Justice Ginsburg (1990) has written, separate opinions, like dissents, "may provoke clarifications, refinements, [and] modifications in the court's opinion" (143). In other words, 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.

Similarly, the complexity of a case should affect its readability. As a judge is forced to address multiple different legal topics in his majority opinion, that opinion may become less readable. My measure of `opinion complexity` derives from Lexis-Nexis's headnote system. Lexis's headnotes "identify the major points of law found in an opinion, expressed in the actual language of the court" (Lexis-Nexis 2013). My measure of `opinion complexity` is a count of the

---

[10]Of course, the traditional measure of the salience of a judicial decision, front-page newspaper coverage, (Epstein and Segal 2000; Vining and Wilhelm 2011) is not appropriate for this study since opinion readability is determined before the opinion is announced and newspapers have a chance to cover the opinion.

number of unique headnotes in the case.

Additionally, I control for other case- and judge-specific explanations. First, to control for the policy outcome in the case, I include an independent variable to control for whether or not the opinion `excludes evidence` or is a `pro-business decision`.

Second, attorney expertise represents another potentially confounding factor, particularly in criminal cases. Here, the presence of a `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. Additionally, 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.

Third, a justice's writing style may evolve over her tenure on the court, either becoming better at communicating to the public (and the readability of her opinions thereby increasing over time) or becoming confident that she is accruing a strong incumbency advantage and therefore need not worry about communicating directly to the public. To this end, I include a variable indicating the number of years the judge has served on the state supreme court (`years on bench`).

Finally, I control for three state-level covariates that may also affect the readability of judicial opinions. First, I include the state's `education level`, that is, the percentage of residents over the age of 25 with a high school diploma to control for the possibility that what appears to be a difference between elected and appointed courts is actually a function of the education level of the audience to which they are writing. Second, because state courts differ drastically in their levels of professionalization, I include Squire's (2008) measure of state court `professionalism`. This measure incorporates salary (the raw salaries paid to associate justices), staffing (the number of clerks provided to each associate justice), and the size of the court's caseload. The score ranges

from 0 to 1 where a score of 1 indicates complete similarity to the U.S. Supreme Court. More professionalized courts should write less readable opinions because they have more time to devote to them (because they hear fewer cases) and have more clerks to devote to additional "padding" of opinions for length and legal technicality. Third, some state supreme courts issue a syllabus along with each written opinion or provide a plain language summary of the opinion. If justices know that these additional summaries will be released to the public, their need to write more readably in their opinions may be mitigated. The National Center for State Courts conducted a survey of state supreme court's practices in this respect (Vickery et al. 2012), and I rely on their data, updated with additional contact with state court public information offices, to create a dichotomous variable that takes a value of 1 if the state supreme court provides either a syllabus or a plain language summary of their decisions.

Of course, other judges on a collegial court can influence the content of a majority opinion (Maltzman, Spriggs, and Wahlbeck 2000). 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. The outcome variable is continuous; as a result, I estimated linear regressions to model the data. 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).

[Table 1 about here.]

## Results

[Table 2 about here.]

Table 2 shows the results of the linear regressions for the models that include both elected and appointed judges. For interpretation, recall that higher values of the outcome variable indicate

24

more difficult texts; lower values of the outcome variable indicate more readable opinions; a coefficient of 3.95 corresponds to a one grade-level increase in the difficulty of the text. Looking first at the coefficient for `elected judge`, we see that the coefficient is statistically significant and negatively-signed. 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 modest: elected judges write opinions that are, on average, one grade level easier to read than appointed judges. Moreover, this effect is robust; the effect size is very similar for both search and seizure and business cases.

Looking next at the estimated coefficients for the measures of the political context, we see a robust effect of divided government across the models while any effects caused by the configuration of the authoring justice and the state senate do not reach conventional levels of statistical significance. Thus, it seems that the presence of divided government leads to easier-to-read opinions, though this effect is moderate in size, accounting for about a one-quarter grade-level decrease in the difficulty of the opinion.

Turning to the legal content of the opinion, the estimated coefficients indicate that opinions which exclude evidence tend to be one grade level less readable than those that do not while pro-business decisions are uncorrelated with opinion readability. Examining the effects of the litigants in criminal cases, there appears to be no evidence that judges writing cases involving defendants who are represented by public defenders change the readability of their opinions. Moreover, there is some evidence that judges write less readable opinions in salient cases, but they write more difficult-to-read, rather than more readable opinions in these cases.

## Results: Elected Judges

[Table 3 about here.]

In order to examine how the electoral context affects the readability of judicial opinions we turn next to Table 3 which presents reestimated models that include only elected judges. Since the three

25

coefficients representing the electoral threat faced by judges (Lagged Incumbent Defeats, Lagged Advertising Total, and Last Minimum Vote Share) are all interacted with the Retention Election indicator, the coefficients shown in the table provide the effects of these variables in contestable election systems. Here, we see that all three variables have effects that are both statistically and substantively significant in business cases, while the coefficients representing the in state electoral condition reach conventional levels of statistical significance while the coefficient representing the national threat (the television advertising variable) does not attain statistical significance.[11] Though not directly shown in the table, none of the indicators of the electoral environment have any statistically significant effect in retention election systems. Thus, the evidence is clear that the electoral environment has differential effects based on the type of electoral rules used within a state.

Yet, the direction of the effect is completely different across the two issue areas: across all of the estimated coefficients, an increase in the electoral threat is associated with *less readable* search and seizure opinions but *more readable* opinions in business cases. Unidirectional and bidirectional convergence (Huber and Gordon 2004) provides one mechanism to reconcile the differential behavior of state supreme court justices in these two issue areas. Briefly, Huber and Gordon suggest that, in order to avoid the pulling of a "fire alarm" (in the form of electoral opposition) when deciding criminal cases, judges become less representative when facing an impending election and sentence more punitively as a result. This unidirectional convergence is contrasted with bidirectional convergence which causes judges to become more representative as their term reaches its end. While Huber and Gordon originally developed these theories with respect to the sentencing behavior of trial court judges, these results support their theory. The finding that state supreme court judges write more difficult-to-read opinions in search and seizure cases fits well with the notion of unidirectional convergence: wanting to avoid being "weak on crime," judges muddy their opinions with complex sentences and difficult legal language that serves the symbolic

---

[11]Of course, there has been a gradual increase in the number of television advertisements aired nationwide, and readers may be concerned that the television advertising variable simply picks up a time trend in the data. To assess this, I estimated models on both issue areas, limiting the data to appointed judges and including a time trend. The time trend variable failed to reach statistical significance in both models, suggesting that the television advertising variable assesses something more than just a time trend in the data.

purpose of suggesting to readers that the law commanded the outcome (Gibson et al. 2013). On the other hand, the finding that elected judges (who, recall, already write more readable opinions than their appointed counterparts) write even more readable opinions in business cases fits well with the notion of bidirectional convergence. Since liberals and conservatives diverge markedly in their views on business issues (e.g. tort reform) (Epstein, Landes, and Posner 2013), judges act in an even more representative manner in this issue area: having decided on an outcome, their best electoral defense is to explain their rationale as clearly as possible in the hope that both supporters and opponents of their decision will read and acquiesce to the reasoning therein.

## The Changing Electoral Environment and Opinion Readability

[Table 4 about here.]

The results presented so far indicate that elected judges write more readable opinions than judges who do not face elections, and the easiest-to-read opinions are written by judges who have little reason to fear a contentious campaign. We turn now to the question of change over time. Specifically, have elected judges always written easier-to-read opinions, or is this effect driven by the changing judicial election environment?

To address this question, Table 4 presents the estimated effects of being an elected judge on the readability of judicial opinions for two samples of cases decided between 1995 and 1998, just before the dawn of television advertising in judicial elections.[12] The first column of the table present estimates from the model for the full state supreme court database, including indicator variables for the broad type of case (criminal, civil procedure, etc.) while the second and third columns of the table present the estimates for search and seizure and business cases alone. The coefficient for elected judge fails to approach conventional levels of statistical significance in any case. This

---

[12]Note that there are a few differences regarding operationalization in these models. First, the state supreme court database includes no measure of the ideological direction of a decision, so that variable must be omitted from the analysis. Second, to deal with heterogeneity in case types in the full model, I use dummy variables for case type (Criminal case, Civil Government case, Civil Procedure case, or Juvenile case). Miscellaneous case is the baseline category.

provides some evidence that the effects of elections on the readability of judicial opinions is tied to the drastic changes in judicial elections brought about by the influx of television advertising rather than an effect that is inherent to the institution.

## Discussion and Conclusion

By illuminating the effects of institutional design on the choices judges make, these results have important implications for the study of judicial politics. In particular, these results indicate that elections have many effects. Some, such as the differential effects of public opinion on decisionmaking (Brace and Boyea 2008; Calderone Canes-Wrone, and Clark 2009, Canes-Wrone, Clark, and Park 2012, Hall 1987), have clear policy implications. Other effects, such as those under study here, are not directly related to the policy decisions made by elected officials. Yet, "nonpolicy related" does not mean unimportant; indeed, as Fenno (1978) discussed convincingly, nonpolicy-related decisions have profound effects on the choices that elected officials make and their behavior in office.

This study examined one particular type of nonpolicy-related behavior: explanations. Leaving the policy outcome fixed, what factors affect the willingness of an elected official to tailor her language to that which her average constituent is able to understand? In this paper, I tested the theory that, on average, the presence of an electoral connection leads elected officials—in this case, judges—to craft explanations that are more readable. Though the vast majority of the public does not read or follow carefully the decisions of their state supreme courts, the empirical analysis of search and seizure and business cases yielded robust evidence that elected judges do, on the whole, write opinions that are more readable than their counterparts who will never stand for election.

This effect appears to be driven by the influx of television advertising that has characterized many state supreme court races since the year 2000. Examining only elected judges, empirical analysis revealed that, as the contentiousness of the the electoral environment increased, judges changed the readability of their opinions. Yet, the effect was differential by issue: judges wrote more readable opinions in business cases and less readable opinions in search and seizure cases.

28

Additional evidence for the nature of this effect came from analysis of state supreme court opinions 1995-1998, which revealed that the electoral effects of readability have been limited to the same time period in which television advertising has become prominent in judicial elections.

These results suggest that, if the marked increase in television advertising since the year 2000 continues, elected judges will have increasing incentives to draft their opinions in language that is easy for their constituents to understand. Indeed, if elections continue to get "nastier, noisier, and costlier" than ever before (Schotland 1998), my results indicate that most judicial opinions will continue to get shorter, less florid and more direct. Yet, the implications of this change are not straightforward. While an increase in clarity may result in better implementation of judicial decisions (Spriggs 1996), it also removes judges' abilities to obfuscate and hide that lack of implementation from the public (Staton and Vanberg 2008), potentially illuminating to the public a court's ineffectiveness if they are unable to elicit implementation of their decisions. Thus, elected judges may write more readable opinions to build public support for themselves but lose their ability to mask implementation of the court's decisions. Thus, these results highlight the differential personal and institutional goals that judicial elections place upon judges.

Most broadly, this paper is about how public officials communicate with their constituents. To this end, the results indicate that elections are effectious mechanisms of representation that induce public officials to heed their constituents even on matters that do not directly implicate policy. In particular, elections induce public officials to contextualize their decisions in a way that the public can understand in a manner that they would not do if they would not need to face voters in the next election. While the use of elected and appointed judges in the American states provided a natural setting for this study, future research should investigate the behavior of other elected public officials, most notably legislators and executives who are term-limited, to see how explanatory behavior changes once term limits sever the electoral connection. While studies (e.g. Kousser 2006, Hall 2011) have indicated that the policy behavior of elected officials changes in the terminal term, future work needs to assess if their nonpolicy behavior changes as well.

## Appendix A: Measuring Readability

In this appendix, I do three things. First, I discuss the seven indicators of readability I initially used to measure the readability of state supreme court opinons. Second, I discuss the factor analysis used to combine the indicators and explain why the Coleman-Liau index was excluded from the analysis. Finally, I provide additional evidence of the reliability and validity of these measures.

I initially relied on seven measures of readability to assess the readability of state supreme court opinions. Here, I explain the mathematics of each formula. 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:

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

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:

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

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:

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

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:

$$\text{FOG} = 0.4 \left[ \left( \frac{\text{Total Words}}{\text{Total Sentences}} \right) + 100 \left( \frac{\text{Number of Words with 3+ Syllables}}{\text{Total Words}} \right) \right] \tag{4}$$

Like the measures just discussed, the Simple Measure of Gobbledygook (SMOG) is another measure of readability that, like the Gunning Fog index, relies on both the length of the text and the number of complex words to determine the readability of a text (McLaughlin 1969):

$$\text{SMOG} = 1.0430 \sqrt{3+ \text{ Syllable Words} \times \frac{30}{\text{Total Sentences}}} + 3.1291 \tag{5}$$

Next, for those readers skeptical of the complicated formulas used in many of these measures of readability, I estimate the models using a very basic measure of readability: the average sentence length, which is just the average number of words per sentence:

$$\text{ASL} = \frac{\text{Total Words}}{\text{Total Sentences}} \qquad (6)$$

The final measure of readability I use is the Automated Readability Index (Smith and Senter 1967). Developed explicitly to be estimated computationally, this measure (like the CLI) relies on counts of the number of characters rather than the number of syllables to produce a valid measure of textual readability. Like the plurality of measures discussed, this measure provides a grade-level estimate of the difficulty of the text.

$$\text{ARI} = 4.71 \left( \frac{\text{Total Characters}}{\text{Total Words}} \right) + 0.5 \left( \frac{\text{Total Words}}{\text{Total Sentences}} \right) - 21.43 \qquad (7)$$

Table 5 provides evidence of the validity of these indicators, along with a summary of the metric one should use to interpret each measure. Specifically, I provide the estimated readability of three classic texts: Dr. Seuss's *The Cat in the Hat*, L. Frank Baum's *The Wizard of Oz* and Lewis Carroll's *Alice in Wonderland*. All of the measures recognize *The Cat in the Hat* is a text geared for elementary school students. Similarly, all of the measures classify *The Wizard of Oz* as a book geared toward middle school students while *Alice in Wonderland* is written for students in high school. The calculated factor scores for these three books (-58.33, -44.28, and -14.56) correspond to the first grade, sixth grade, and college freshman reading levels, respectively. This provides additional evidence of the validity of my outcome variable.

[Table 5 about here.]

Figure 1 provides density plots illustrating the distribution of opinion readability by issue area and readability measure. Across both issue areas, readability is normally distributed, and it appears that the median opinion, by these measures, is written at the college or postgraduate level. Given that lawyers typically have at least 19 years of formal education (12 years of elementary, middle, and high school, four years of college, and three years in law school), these the distribution of these outcome variables is not unexpected.

[Figure 4 about here.]

I used confirmatory factor analysis to combine the seven indicators. Initially, I had combined all seven indicators onto a single factor. However, the Coleman-Liau index only loaded onto the factor at a level of 0.497, below the traditional threshold for inclusion while each of the other indicators loaded onto the factor at a level of 0.89 or higher. Thus, in the factor analysis I ustilize in the paper, I exclude the Coleman-Liau index and instead rely on six indicators of readability.

[Table 6 about here.]

Table 6 displays the results of the confirmatory factor analysis using the six indicators. As you can see, all of the measures load onto a single factor at a level above 0.89, and explain 90% of the variance. This suggests that the model is appropriate for the data. Moreover, scree plots, not shown here, provide strong evidence that a single factor is appropriate for these data. After estimating the locations of the grade levels on the latent space, as discussed in the text, I found that each grade level was separated by a distance of 0.11 on the latent space. To make the results more easily and directly interpretable while resulting in no substantive change in the results, I multiplied the factor scores by 10 so that grade levels are separated by a distance of 1.1. This transformation makes the coefficients in the tables much closer to the traditional "one unit change in $x$ is associated with a one-unit change in $y$" that one is accustomed to seeing in OLS tables.

To provide additional evidence of the reliability of the indicators, Table 7 shows the correlation matrix for the indicators. As you can see, all of the variables correlate above 0.75 and most correlate extremely highly with the others. This matrix provides further evidence that, while the indicators tap different features of the text, they are all measuring the same underlying concept.

[Table 7 about here.]

Finally, as additional evidence of the validity of the measures, I show, in Figure 5, the estimated readability of the U.S. Supreme Court's two opinions in *Brown v. Board of Education*. The first opinion (*Brown* I), contained the court's famous pronouncement that public schools should be

desegregated; this opinion is widely considered by scholars to be one of the Court's most readable opinions (Williams 2004). Indeed, as mentioned in the body of the paper, Chief Justice Warren (1954) told his colleagues that "the opinions should be short, readable by the lay public, non-rhetorical, unemotional, and, above all, non-accusatory." However, the second opinion in the case (*Brown II*) is more technical than the first. My measures support this conventional wisdom. As Figure 5 shows, all of the indicators of readability I employ score *Brown* I as more readable than *Brown* II.

[Figure 5 about here.]

## Appendix B: Disentangling Causality

[Table 8 about here.]

Putting the results together, a curious story seems to emerge: elected judges, on balance, write more readable opinions while readability is differentially influenced by the electoral circumstances (television advertising in particular) facing judges and the issue under the court's consideration. These results give rise to a question of causality; perhaps the political elites use a screening process that differs systematically from the one employed by voters or individuals who are initially elected to the bench achieve their position because they are better able to communicate with voters than individuals who were initially appointed. Indeed, the elite-quality explanation is one that underlies the Missouri plan (also known as Merit Selection) through which judges are appointed through a commission-based selection system coupled with periodic retention elections. Merit selection, its proponents argue, is superior to popular elections because its process focuses on candidates' objective qualifications to reach the bench rather than whatever qualities members of the electorate use to select their judges (American Judicature Society 2013; Caufield 2009; Watson and Downing 1969; Ashman and Alfini 1974). While numerous studies (Hurwitz and Lanier 2003, 2008; Glick and Emmert 1987; Jacob 1964; Nagel 1973) have demonstrated that elected and appointed judges are quite similar on most of their observable characteristics, to date, no study has acknowledged the possibility that judges who attain their seats via the electoral process rather than

an appointment process do so because of their ability to communicate.

To this end, I leverage states' use of merit selection and the fact that, in many contestable election states, seats vacated in the middle of a term due to death, resignation, or retirement are filled through elite appointment. These judges, like judges in Missouri plan states, are initially appointed but are subject to elections for each of each subsequent term they serve on the bench. I collected data on the initial method of selection for each majority opinion author in my data and reestimate the models in Table 2 using data on only elected judges and including a new key outcome variable: `Initially Appointed`. 70% of the majority opinions in the search and seizure data and 75% of the opinions in the business cases data were written by judges who were initially appointed to their seats but are subject to retention elections.

Table 8 presents the results of these models. The results indicate a split by issue area. Whereas judges deciding search and seizure cases who were initially appointed tend to write opinions that are more difficult to read than their colleagues who were initially elected to the bench. Comparing the size of the coefficients for `Initially Appointed` in Table 8 with those for `Elected` in Table 2, one sees that the magnititude of being initially appointed roughly is about one-third of the size the expected decrease in opinion complexity brought about by the use of judicial elections as a retention mechanism. Still, in this issue area, judges who were initially appointed write opinions that are more readable than we would expect them to if they faced no subsequent election.

The results for the business cases provided in the second column of Table 8 present a starkly different story. Here, there is no evidence that initially appointed judges differ in the readability of the opinions they produce than their colleagues who were selected via the electoral process. Taken together, these results present a puzzling picture: initially appointed judges write less readable opinions in criminal procedure cases but do not do so in business cases. Thus, given that many of the judges serving in 2000-2010 (the dates of the search and seizure data) also served in the 2010-2012 period covered by the business cases, it seems that the results presented in the body of the paper are driven by retention, rather than selection, effects.

# References

Abrahamson, Shirley S. 2001. "The Ballot and the Bench." *New York University Law Review* 76:973–1004.

American Judicature Society. 2013. *Judicial Selection in the States: Initial Selection, Retention, and Term Length*. American Judicature Society.

Arnold, R. Douglas. 1990. *The Logic of Congressional Action*. Yale University Press.

Arnold, R. Douglas. 1993. Can Inattentive Citizens Control Their Elected Representatives? In *Congress Reconsidered*, ed. Lawrence C. Dodd and Bruce I. Oppenheimer. 5th ed. CQ Press.

Ashman, Allan and James J. Alfini. 1974. *The Key to Judicial Merit Selection: The Nominating Process*. American Judicature Society.

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.

Baum, Lawrence. 2003. "Judicial Elections and Judicial Independence: The Voter's Perspective." *Ohio State Law Journal* 64:13–42.

Baum, Lawrence. 2006. *Judges and their Audiences: A Perspective on Judicial Behavior*. Princeton University Press.

Bayne, William C. 2000. "Lynchard's Candidacy: Ads Putting Spice into Justice Race." *Commercial Appeal* Oct. 29:DS1.

Bonneau, Chris W. and Melinda Gann Hall. 2009. *In Defense of Judicial Elections*. Routledge.

Bonneau, Chris W., Melinda Gann Hall and Matthew J. Streb. 2011. "White Noise: The Unrealized Effects of *Republican Party of Minnesota v. White* on Judicial Elections." *Justice System Journal* 32:247–268.

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.

Brace, Paul and Melinda Gann Hall. 1993. "Integrated Models of Judicial Dissent." *Journal of Politics* 55:914–935.

Brennan Center for Justice. 2008. "Buying Time – 2008." available at http://www.brennancenter.org/analysis/buying-time-2008.

Brennan Center for Justice. 2010. "Buying Time – 2010." available at http://www.brennancenter.org/analysis/buying-time-2010.

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, Tom S. Clark and Jee Kwang Park. 2012. "Judicial Independence and Retention Elections." *Journal of Law, Economics, & Organization* 28:211–234.

Caufield, Rachel P. 2007. "Campaigning for Judge: How the Tone and Tenor of Judicial Election Campaigns is Changing." in *Running for Judge*, ed. Matt Streb, NYU Press.

Caufield, Rachel Paine. 2009. "Reconciling the Judicial Ideal and the Democratic Impulse in Judicial Retention Elections." *Missouri Law Review* 74:573–604.

Champagne, Anthony. 2005. "Tort Reform and Judicial Selection." *Loyola Las Angeles Law Review* 38:1483–1515.

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.

Driscoll, Amanda and Michael J. Nelson. 2012. "The 2011 Elections in Bolivia." *Electoral Studies* 31:628–639.

Driscoll, Amanda and Michael J. Nelson. 2013. "The Political Origins of Judicial Elections: Evidence from the United States and Bolivia." *Judicature* 96:151–160.

Eckhoff, Jeff and Grant Schulte. 2009. "Iowa Gays Have a Right to Marry, Justices Rule." *The Des Moines Register* Apr. 4:1A.

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 Jack Knight. 1998. *The Choices Justices Make*. CQ Press.

Epstein, Lee and Jeffrey A. Segal. 2000. "Measuring Issue Salience." *American Journal of Political Science* 44:66–83.

Epstein, Lee, William M. Landes and Richard A. Posner. 2013. "How Business Fares in the Supreme Court." *Minnesota Law Review* 97:1431–1472.

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.

Friedman, Barry. 2006. "Taking Law Seriously." *Perspectives on Politics* 4(2):261–276.

Gelman, Andrew and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel/Hierarchial Models*. Cambridge University Press.

Gibson, James L. 2012. *Electing Judges: The Surprising Effects of Campaigning on Judicial Legitimacy*. University of Chicago Press.

Gibson, James L., Milton Lodge and Benjamin Woodson. 2013. "The Symbols of Judicial Legitimacy: Thinking, Fast and Slow, about the U.S. Supreme Court." Working Paper.

Ginsburg, Ruth Bader. 1990. "Remarks on Writing Separately." *Washington Law Review* 65:133–150.

Glick, Henry R. and Craig F. Emmert. 1987. "Selection Systems and Judicial Charateristics: The Recruitment State Supreme Court Judges;." *Judicature* 70:228–265.

Goelzhauser, Greg and Damon M. Cann. 2013. "Judicial Elections and Opinion Quality in State Supreme Courts." Working Paper.

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.

Hall, Melinda Gann. 2011. "Democratic Incentives in State Supreme Courts: Judicial Behavior in the Terminal Term." Paper presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois, March 31 - April 3.

Hall, Melinda Gann and Chris W. Bonneau. 2013. "Attack Advertising, the *White* Decision, and Voter Participation in State Supreme Court Elections." *Political Research Quarterly* 66:115–126.

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.

Hinkle, Rachael K. 2013. "Legal Constraint in the U.S. Courts of Appeals." Working Paper.

Hinkle, Rachael K., Andrew D. Martin, Jonathan David Shaub and Emerson H. Tiller. 2012. "A Positive Theory and Empirical Analysis of Strategic Word Choice in District Court Opinions." *Journal of Legal Analysis* 4:407–444.

Hojnacki, Marie and Lawrence Baum. 1992. "'New-Style' Judicial Campaigns and the Voters: Economic Issues and Union Members in Ohio." *Western Political Quarterly* 45:921–948.

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.

Hurwitz, Mark S. and Drew Lanier. 2003. "Explaining Judicial Diversity: The Differential Ability of Women and Minorities to Attain Seats on State Supreme and Appellate Courts." *State Politics & Policy Quarterly* 3:329–352.

Hurwitz, Mark S. and Drew Noble Lanier. 2008. "Diversity in State and Federal Appellate Courts: Change and Continuity Across 20 Years." *Justice System Journal* 29:47–70.

Jacob, Herbert. 1964. "The Effect of Institutional Differences in the Recruitment Process: The Case of State Judges." *Journal of Public Law* 13:104–119.

Kang, Michael and Joanna Shepherd. 2011. "The Partisan Price of Justice: An Empirical Analysis of Campaign Contributions and Judicial Decisions." *New York University Law Review* 86:69–130.

Kernell, Samuel. 2007. *Going Public: New Strategies of Presidential Leadership.* 4th ed. CQ Press.

Kingdon, John W. 1989. *Congressmen's Voting Decisions.* University of Michigan.

Kousser, Thad. 2008. *Term Limits and the Dismantling of State Legislative Professionalism.* Cambridge University Press.

Lexis-Nexis. 2013. "Browsing Your Search Results." Available at http://web.lexis.com/help/research/gh_browsing.asp (Aug. 1, 2013).

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.

Mayhew, David R. 1974. *Congress: The Electoral Connection*. Yale University Press.

McCubbins, Mathew D. and Thomas Schwartz. 1984. "Congressional Oversight Overlooked: Police Patrols versus Fire Alarms." *American Journal of Political Science* 28:165–179.

McLaughlin, G. Harry. 1969. "SMOG Grading—a New Readability Formula." *Journal of Reading* 12:639–646.

Nagel, Stuart S. 1973. *Comparing Elected and Appointed Judicial Systems*. Sage Publications.

Neustadt, Richard E. 1990. *Presidential Power and the Modern Presidents: The Politics of Leadership from Roosevelt to Regan*. Free Press.

Ostrander, Ian and Joel Sievert. 2013. "The Logic of Presidential Signing Statements." *Political Research Quarterly* 66:141–153.

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.

Peters, C. Scott. 2007. "Canons, Cost, and Competition in State Supreme Court Elections." *Judicature* 91:27–35.

Peters, C. Scott. 2009. "Canons of Ethics and Accountability in State Supreme Court Elections." *State Politics & Policy Quarterly* 9:24–55.

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.

Sample, James, Adam Skaggs, Johnathan Blitzer, Linda Casey and Charles Hall. 2010. *The New Politics of Judicial Elections 2000-2009: Decade of Change*. Brennan Center for Justice.

Schotland, Roy A. 1998. "Comment." *Law and Contemporary Problems* 61:149–155.

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.

Shepherd, Joanna. 2013. *Justice at Risk: An Empirical Analysis of Campaign Contributions and Judicial Decisions*. American Constitution Society.

Simon, Dan and Nicholas Scurich. 2011. "Lay Judgments of Judiical 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.

Smith, E.A. and R.J. Senter. 1967. *Automated Readability Index*. Aerospace Medical Research Laboratories.

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.

Squire, Peverill. 2008. "Measuring the Professionalization of U.S. State Courts of Last Resort." *State Politics & Policy Quarterly* 8:223–238.

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.

Sulkin, Tracy. 2005. *Issue Politics in Congress*. Cambridge University Press.

Sulkin, Tracy. 2011. *The Legislative Legacy of Congressional Campaigns*. Cambridge University Press.

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.

Watson, Richard A. and Rondal G. Downing. 1969. *The Politics of Bench and Bar: Judicial Selection Under the Missouri Non-Partisan Court Plan*. John Wiley & Sons.

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.
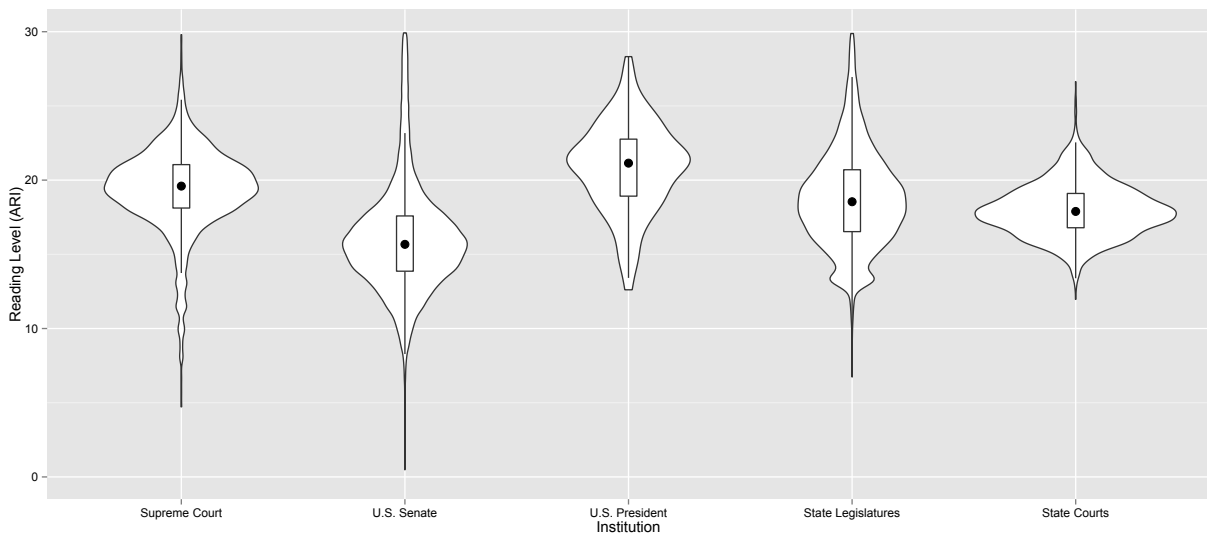
Figure 1: Violin plots displaying summaries of the distributions of state supreme court and U.S. Supreme Court opinions, presidential signing statements, and press releases issued by U.S. Senators and state legislators. Lower values indicate more readable opinions.
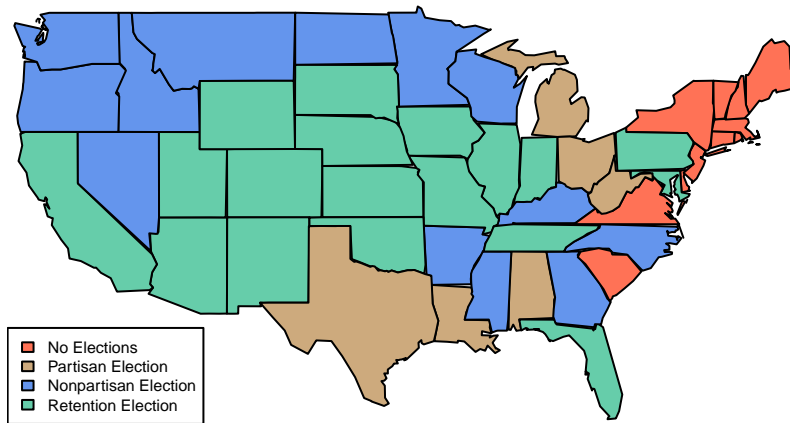
Figure 2: The distribution of judicial retention methods nationwide. Note that Ohio and Michigan use partisan candidate selection processes and general elections in which candidates' party labels do not appear on the ballot. New Mexico Supreme Court judges are initially appointed, then run in a partisan election, then run in retention elections for the remainder of their service (American Judicature Society 2013).

**Latent Space**

-40      -20      0      20      40

8th   12th   16th   19th

High School  College  Law School
Graduate   Graduate   Graduate

**Grade Level Space**

Figure 3: This figure shows the relationship between the latent space estimated by the factor analysis and the easily-interpretable grade-level space.

**Distribution of Outcome Variables**
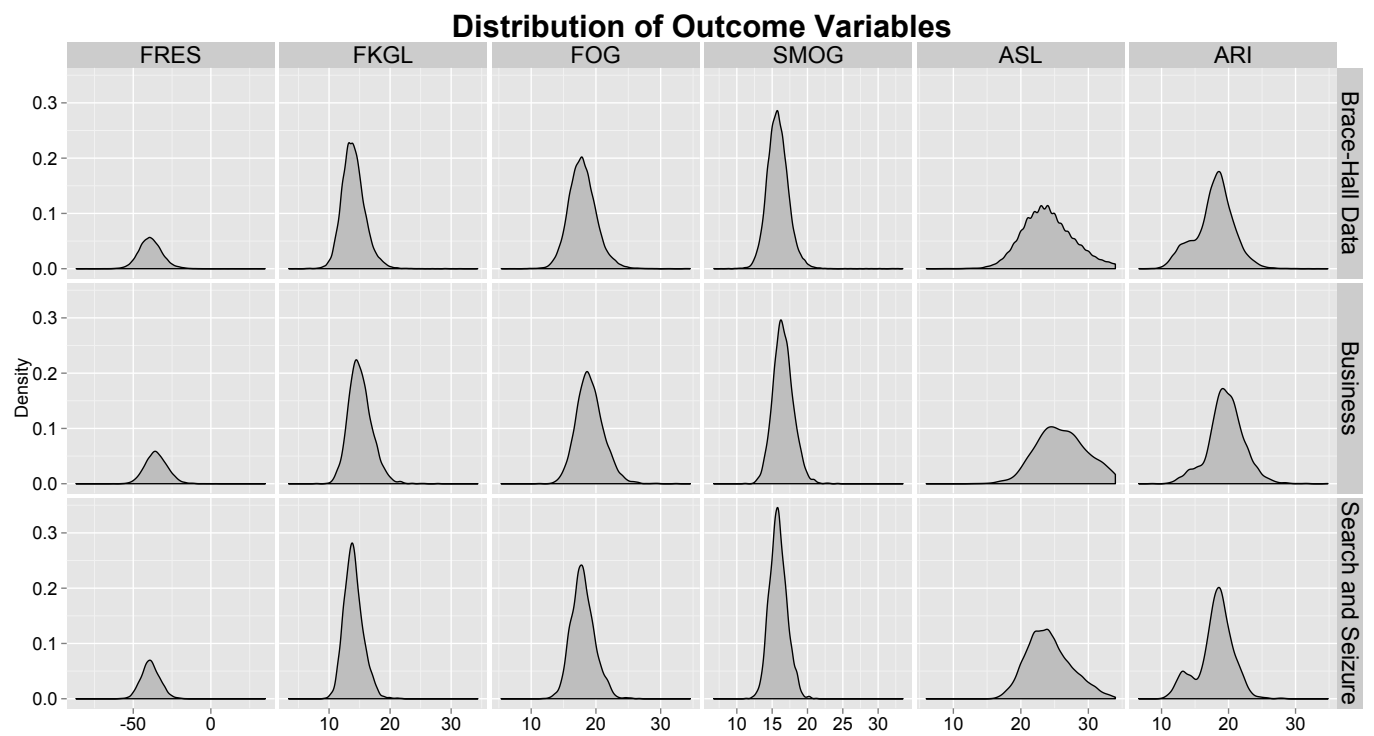
Figure 4: Density plots of the readability of majority opinions in state supreme courts across all three data sources.
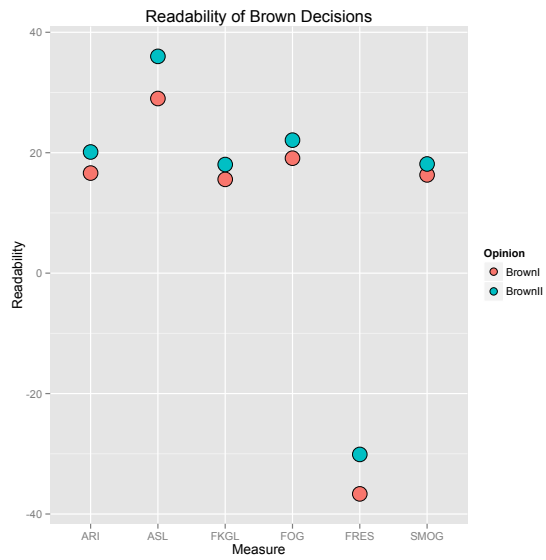
Figure 5: Dot Plot showing the estimated readability scores, by indicator, of *Brown* I and *Brown* II.

| | Search and Seizure Cases | | | | | Business Cases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Variable | Mean | S.D. | Median | Min. | Max. | Mean | S.D. | Median | Min. | Max. |
| **Readability Measure** | | | | | | | | | | |
| FRES | -38.80 | 5.99 | -39.03 | -59.51 | -16.12 | -35.12 | 7.13 | -35.40 | -62.83 | 3.24 |
| FKGL | 14.01 | 1.57 | 13.89 | 9.26 | 21.85 | 15.11 | 1.93 | 14.93 | 7.97 | 27.83 |
| FOG | 17.99 | 1.80 | 17.89 | 11.94 | 26.66 | 19.09 | 2.12 | 18.92 | 11.29 | 32.38 |
| SMOG | 15.86 | 1.24 | 15.82 | 11.35 | 21.24 | 16.56 | 1.43 | 16.48 | 11.19 | 24.28 |
| ASL | 24.32 | 3.50 | 24.00 | 16.00 | 43.00 | 26.68 | 4.45 | 26.00 | 13.00 | 56.00 |
| ARI | 18.07 | 2.64 | 18.33 | 10.12 | 28.33 | 19.62 | 2.70 | 19.83 | 8.62 | 34.83 |
| **Explanatory Variables** | | | | | | | | | | |
| Elected | 1.78 | 0.41 | 2.00 | 1.00 | 2.00 | 1.77 | 0.42 | 2.00 | 1.00 | 2.00 |
| Exclude/Pro-Business | 0.26 | 0.44 | 0.00 | 0.00 | 1.00 | 0.49 | 0.50 | 0.00 | 0.00 | 1.00 |
| Divided Government | 0.52 | 0.50 | 1.00 | 0.00 | 1.00 | 0.42 | 0.49 | 0.00 | 0.00 | 1.00 |
| % Senate Same Party | 0.52 | 0.16 | 0.53 | 0.09 | 0.92 | 0.52 | 0.18 | 0.52 | 0.04 | 0.96 |
| Salient | 0.03 | 0.16 | 0.00 | 0.00 | 1.00 | 0.08 | 0.28 | 0.00 | 0.00 | 1.00 |
| Dissent | 0.27 | 0.45 | 0.00 | 0.00 | 1.00 | 0.23 | 0.42 | 0.00 | 0.00 | 1.00 |
| Complexity | 2.71 | 1.36 | 3.00 | 0.00 | 9.00 | 3.17 | 1.52 | 3.00 | 0.00 | 10.00 |
| Education Level | 86.85 | 3.75 | 87.60 | 77.10 | 97.20 | 87.40 | 3.28 | 88.30 | 80.70 | 92.30 |
| Professionalization | 0.57 | 0.15 | 0.56 | 0.25 | 1.00 | 0.57 | 0.16 | 0.58 | 0.25 | 1.00 |
| Public Defender | 0.32 | 0.47 | 0.00 | 0.00 | 1.00 | | | | | |

Table 1: Summary statistics.

|  | Search and Seizure Cases | Business Cases |
|---|---|---|
| Elected Judge | −3.24* | −4.04* |
|  | (1.22) | (1.37) |
| Divided Government | −1.09* | −1.05* |
|  | (0.30) | (0.47) |
| % Senate Same Party | −1.11 | 0.93 |
|  | (1.12) | (1.18) |
| Public Defender | −0.44 |  |
|  | (0.29) |  |
| Pro Se Litigant | −0.65 |  |
|  | (1.15) |  |
| Salient Case | 1.80* | 1.24* |
|  | (0.76) | (0.56) |
| Exclude | 0.85* |  |
|  | (0.28) |  |
| Pro-Business |  | −0.01 |
|  |  | (0.30) |
| Dissent | 0.89* | 1.26* |
|  | (0.28) | (0.36) |
| Complexity | −0.03* | 0.04 |
|  | (0.02) | (0.03) |
| Education Level | 0.04 | −0.15 |
|  | (0.08) | (0.18) |
| Professionalization | 7.49 | 15.49* |
|  | (4.12) | (4.62) |
| Years on Bench | 0.06* | 0.03 |
|  | (0.02) | (0.03) |
| Syllabus | −0.06 | −0.66 |
|  | (1.08) | (1.19) |
| Intercept | −5.17 | 9.68 |
|  | (8.11) | (16.93) |
| $\sigma_{\text{Judge}}$ | 2.39 | 2.79 |
| $\sigma_{\text{State}}$ | 3.31 | 3.62 |
| Observations | 2,244 | 1,873 |
| Log Likelihood | −7,109.06 | −6,167.75 |
| Akaike Inf. Crit. | 14,252.12 | 12,365.50 |
| Bayesian Inf. Crit. | 14,349.30 | 12,448.53 |
| *Note:* |  | *p<0.05 |

Table 2: Linear regressions of judicial retention mechanism on opinion readability in state supreme court business cases 2010-2012. The models include random effects for opinion author and state.

|                                                      | Search and Seizure Cases | Business Cases |
| --- | --- | --- |
| Retention Elections                                  | −5.27     | −5.03     |
|                                                      | (7.42)    | (21.86)   |
| Lagged Incumbent Defeats                             | 2.61*     | −2.19*    |
|                                                      | (0.89)    | (1.08)    |
| Lagged Advertising Total                             | 0.55      | −3.18*    |
|                                                      | (0.48)    | (1.35)    |
| Last Minimum Vote Share                              | −3.51*    | 8.27*     |
|                                                      | (1.49)    | (3.50)    |
| Exclude                                              | 0.66      |           |
|                                                      | (0.34)    |           |
| Divided Government                                   | −1.16*    | −0.71     |
|                                                      | (0.38)    | (0.55)    |
| % Senate Same Party                                  | −1.35     | 0.61      |
|                                                      | (1.52)    | (1.43)    |
| Public Defender                                      | −0.75*    |           |
|                                                      | (0.36)    |           |
| Pro Se Litigant                                      | −0.17     |           |
|                                                      | (1.43)    |           |
| Salient Case                                         | 3.16*     | 1.00      |
|                                                      | (1.06)    | (0.68)    |
| Pro-Business                                         |           | −0.02     |
|                                                      |           | (0.34)    |
| Dissent                                              | 1.07*     | 1.07*     |
|                                                      | (0.33)    | (0.40)    |
| Complexity                                           | −0.03     | 0.06      |
|                                                      | (0.02)    | (0.04)    |
| Education Level                                      | 0.07      | −0.19     |
|                                                      | (0.09)    | (0.18)    |
| Professionalization                                  | 8.96*     | 23.68*    |
|                                                      | (3.87)    | (5.06)    |
| Years on Bench                                       | 0.06      | 0.04      |
|                                                      | (0.03)    | (0.03)    |
| Syllabus                                             | 0.23      | −0.11     |
|                                                      | (1.06)    | (1.23)    |
| Retention Elections × Lagged Incumbent Defeats       | −3.64     | 3.97*     |
|                                                      | (1.97)    | (1.80)    |
| Retention Elections × Lagged Advertising Total       | 0.45      | 0.52      |
|                                                      | (0.69)    | (1.97)    |
| Retention Elections × Last Minimum Vote Share        | 2.97      | −1.59     |
|                                                      | (3.42)    | (7.54)    |
| Intercept                                            | −15.83    | 33.67     |
|                                                      | (9.34)    | (22.67)   |
| $\sigma_{\text{Judge}}$                              | 2.52      | 2.66      |
| $\sigma_{\text{State}}$                              | 2.69      | 3.21      |
| Observations                                         | 1,585     | 1,409     |
| Log Likelihood                                       | −5,019.27 | −4,597.63 |
| Akaike Inf. Crit.                                    | 10,084.53 | 9,237.25  |
| Bayesian Inf. Crit.                                  | 10,208.01 | 9,347.52  |

*Note:* *p<0.05

Table 3: Linear regressions of electoral threat on opinion readability in state supreme court opinions. The models include random effects for opinion author and state.

|  | All Cases | Search and Seizure Cases | Business Cases |
|---|---|---|---|
| Elected Judge | 0.24 | 1.02 | −0.03 |
|  | (0.23) | (1.05) | (0.32) |
| Divided Government | 0.24 | 0.36 | 0.52 |
|  | (0.19) | (0.85) | (0.29) |
| % Senate Same Party | −0.09 | −0.22 | 0.42 |
|  | (0.53) | (2.54) | (0.88) |
| Salient Case | 0.01 | 0.02 | 0.02 |
|  | (0.03) | (0.11) | (0.05) |
| Dissent | −0.27 | 0.48 | 0.01 |
|  | (0.18) | (0.86) | (0.33) |
| Complexity | 0.01 | −0.001 | 0.03 |
|  | (0.01) | (0.05) | (0.02) |
| Education Level | 0.05* | −0.01 | 0.02 |
|  | (0.02) | (0.10) | (0.03) |
| Years on Bench | −0.001 | −0.09 | 0.01 |
|  | (0.01) | (0.05) | (0.02) |
| Professionalization | 0.10 | −6.13 | −0.52 |
|  | (0.76) | (3.60) | (1.09) |
| Criminal Case | 0.42 |  |  |
|  | (0.64) |  |  |
| Civil Government Case | 0.56 |  |  |
|  | (0.65) |  |  |
| Civil Private Case | 0.40 |  |  |
|  | (0.64) |  |  |
| Juvenile Case | 0.43 |  |  |
|  | (1.09) |  |  |
| Intercept | −5.59* | 3.86 | −2.90 |
|  | (2.12) | (10.02) | (3.00) |
| $\sigma_{\text{Judge}}$ | 0.26 | 1.20 | 0.00 |
| $\sigma_{\text{State}}$ | 0.38 | 1.18 | 0.00 |
| Observations | 20,497 | 728 | 6,359 |
| Log Likelihood | −76,949.86 | −2,689.57 | −23,946.27 |
| Akaike Inf. Crit. | 153,933.70 | 5,405.13 | 47,918.54 |
| Bayesian Inf. Crit. | 154,068.50 | 5,464.80 | 48,006.39 |

*Note:* $^{*}p<0.05$

Table 4: Linear regressions of judicial selection mechanism on opinion readability in state supreme court search and seizure cases 1995-1998. The models include random effects for opinion author and state.

| Measure | Interpretation | *Cat in the Hat* | *Wizard of Oz* | *Alice in Wonderland* |
|---------|----------------|------------------:|----------------:|----------------------:|
| FRES | $> -30$ College Degree | -106.2 | -84.2 | -61.2 |
| FKGL | Grade Level | 0.2 | 4.2 | 12.2 |
| FOG | Grade Level | 2.9 | 6.3 | 14.2 |
| SMOG | Grade Level | 4.0 | 7.3 | 10.5 |
| ASL | Higher $=$ More Complex | 6.0 | 10.0 | 29.0 |
| ARI | Grade Level | 0.4 | 7.1 | 16.6 |

Table 5: Summary of Readability Measures with facial validity checks

|  | Loadings | Uniqueness |
| --- | --- | --- |
| FRES | 0.94 | 0.12 |
| FKGL | 0.99 | 0.03 |
| FOG | 1.00 | 0.01 |
| SMOG | 0.96 | 0.09 |
| ASL | 0.91 | 0.17 |
| ARI | 0.89 | 0.21 |
| SS Loadings | 5.38 | |
| Proportion Variance | 0.90 | |

Table 6: Factor Analysis Results

|      | FRES | FKGL | FOG  | SMOG | ASL  | ARI  |
|------|------|------|------|------|------|------|
| FRES | 1.00 | 0.92 | 0.94 | 0.95 | 0.76 | 0.85 |
| FKGL | 0.92 | 1.00 | 0.98 | 0.92 | 0.95 | 0.90 |
| FOG  | 0.94 | 0.98 | 1.00 | 0.96 | 0.91 | 0.88 |
| SMOG | 0.95 | 0.92 | 0.96 | 1.00 | 0.79 | 0.83 |
| ASL  | 0.76 | 0.95 | 0.91 | 0.79 | 1.00 | 0.84 |
| ARI  | 0.85 | 0.90 | 0.88 | 0.83 | 0.84 | 1.00 |

Table 7: Correlation Matrix of Indicators

|                       | Search and Seizure Cases | Business Cases |
|-----------------------|:------------:|:------------:|
| Initially Appointed   | 1.34*        | 0.19         |
|                       | (0.57)       | (0.64)       |
| Years on Bench        | 0.06*        | 0.04         |
|                       | (0.03)       | (0.03)       |
| Exclude               | 0.67*        |              |
|                       | (0.32)       |              |
| Divided Government    | −1.29*       | −1.09*       |
|                       | (0.35)       | (0.52)       |
| % Senate Same Party   | −0.75        | 0.74         |
|                       | (1.41)       | (1.42)       |
| Public Defender       | −0.58        |              |
|                       | (0.34)       |              |
| Pro Se                | −0.21        |              |
|                       | (1.37)       |              |
| Salient Case          | 3.21*        | 1.28         |
|                       | (1.01)       | (0.66)       |
| Pro-Business          |              | −0.03        |
|                       |              | (0.33)       |
| Dissent               | 0.98*        | 0.88*        |
|                       | (0.31)       | (0.38)       |
| Complexity            | −0.03        | 0.06         |
|                       | (0.02)       | (0.04)       |
| Education Level       | 0.03         | −0.24        |
|                       | (0.08)       | (0.17)       |
| Professionalization   | 11.84*       | 17.83*       |
|                       | (3.63)       | (4.40)       |
| Syllabus              | −0.44        | −0.03        |
|                       | (1.02)       | (1.23)       |
| Intercept             | −10.82       | 11.65        |
|                       | (8.01)       | (16.10)      |
| $\sigma_{\text{Judge}}$ | 2.49       | 2.49         |
| $\sigma_{\text{State}}$ | 2.61       | 2.61         |
| Observations          | 1,776        | 1,466        |
| Log Likelihood        | −5,622.48    | −4,802.50    |
| Akaike Inf. Crit.     | 11,278.95    | 9,634.99     |
| Bayesian Inf. Crit.   | 11,372.15    | 9,714.35     |
| *Note:*               |              | *p<0.05      |

Table 8: Linear regressions of initial judicial selection mechanism on opinion readability in state supreme court search and seizure and business cases. The models include random effects for opinion author and state.