

JUDICIAL ELECTIONS, PUBLIC OPINION, AND DECISIONS ON LOWER SALIENCE ISSUES*

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ABSTRACT

Scholarship finds that in states with judicial elections, public opinion affects judges' decisions on hot-button campaign issues such as the death penalty or marijuana legalization. Yet the literature leaves open the question of how public opinion affects judicial decisions on less salient issues, which not only dominate the dockets of state supreme courts but also encompass areas of major legal and policy significance. We consider one such issue that infrequently emerges in judicial campaigns, environmental law. Specifically, we collect an original dataset of over 5000 judicial votes on nearly 900 cases heard in 39 state supreme courts from 1990-2014. Analysis of these data suggests that public opinion on the environment does not directly affect judicial decisions in any major selection system, including ones with elections. However, in the few states in which attack advertisements have criticized a justice's votes on environment cases, public opinion affects judicial decisions following these attacks. These results contribute to a growing literature that suggests elections can reduce judicial independence from public opinion.

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I. INTRODUCTION

Democracies have long grappled with the tension between judicial independence and accountability. On the one hand, independence from public opinion and other political pressures promotes valuable societal ends such as civil liberties and neutrality in dispute resolution (e.g., Cameron 2002). On the other hand, accountability is often popular with the general public and can increase the legitimacy of the courts (e.g., Gibson 2006). Across the US states, courts of last resort or “state supreme courts” exhibit great variation in the ways in which these goals are balanced.¹ Some states choose justices through partisan elections that are similar to ones for the legislative branch. Other states use contested elections but require the ballot to be nonpartisan, akin to the nonpartisan elections that exist in many localities for offices such as mayor. Increasingly, states have chosen to use the “merit” or “retention-commission” plan, which combines appointment with retention elections. In this system, a commission sends a list of nominees to the governor, who makes the initial appointment, after which incumbent justices face periodic uncontested elections in which they retain office given a sufficient threshold of votes. Yet other states select judges through political appointment by other elected officials such as legislators and/or the governor.

A variety of research argues that the method of judicial selection affects the impact of public opinion on judicial decision-making (e.g., Franklin 2002; Kritzer 2015). This scholarship focuses on the salient, hot-button issues that dominate judicial campaigns such as the death penalty and crime (e.g., Gordon and Huber 2007; Brace and Boyea 2008), abortion (Caldarone, Canes-Wrone, and Clark 2009) or marijuana legalization (Nelson 2014).² Yet these high salience

¹ Although not all state courts of last resort are officially called supreme courts, such as the New York Court of Appeals, we use these terms interchangeably.

² An important exception is Kritzer (2015), who examines tort cases from 1995-98 and finds “the inconsistent nature of the effects...precludes drawing clear conclusions...” (p. 73). Separately, there is

issues are only a minority of the thousands of cases heard by the state supreme courts every year. Moreover, the lower salience issues include ones of major legal and policy significance such as challenges to state regulatory actions, conflicts between businesses and consumers, and torts more generally. Despite this significance, the effects of public opinion and selection system on judicial decisions for these types of issues has not received much attention from scholars.³ The consequence is that the literature's findings are mostly based on judicial behavior that is unrepresentative of the work comprising most of what state supreme court justices do.

The broader literature on representation, which analyzes federal and state institutions beyond the state supreme courts, suggests a variety of potential effects of public opinion for this wider set of issues. Some research indicates that officials are significantly responsive to the public's general ideological leanings, including in courts with lifetime appointments (e.g., Erikson, Stimson, and MacKuen 2002; Epstein and Martin 2011). Other studies find that policy is driven primarily by organized interests and officials' own policy preferences, leading to a lack of responsiveness even from political offices that entail regular elections (e.g., Jacobs and Shapiro 2000; Lee, Morretti, and Butler 2004). The literature accordingly leaves open the possibility that elected as well as appointed state judges may, or may not, be responsive to public opinion on less salient issues.

We address this question by collecting original data on an issue of low to moderate salience in state judicial campaigns, namely environmental law. The issue presents a nice combination of importance and salience. It is a regular topic in the state courts, with significant implications for environmental policy and outcomes (e.g., Echeverria 2015; Kane 2017). At the

research that analyzes effects unrelated to public opinion, such as productivity, and groups all areas of law together (e.g., Choi, Gulati, and Posner 2010).

³ Some research analyzes the impact of campaign contributions for issues of lower salience, but this work does not examine the effect of public opinion (e.g., Ware 1999).

same time, and as a report on the 2013-14 judicial elections suggests, these cases do not garner even remotely the same level of coverage as ones involving criminal justice or family values (Greytak et al. 2015). We subsequently verify this lower degree of salience by coding all advertisements in the Brennan Center for Justice database of state supreme court television advertising.⁴

The full dataset includes 892 environmental law cases heard in 39 state courts of last resort from 1990 through 2014. These cases encompass environmental issues including permits, violations, challenges to existing laws, and damages. Across the years and states, the data enable examining all of the major selection systems: partisan elections, nonpartisan elections, commission-retention systems, and ones based purely on appointment. As a part of this analysis, we also examine data on campaign advertising and employ original estimates of state-level public opinion about environmental policy.

The analyses produce two main sets of findings. First, in the analysis of the full dataset, we find that public opinion does not significantly influence judicial decision-making. This finding holds not only in the systems with appointment and retention elections, but also in ones with partisan and nonpartisan contested elections. Factors such as the type of case and the judge's party matter, as in previous research, but neither public opinion on the environment nor alternative general measures, such as state liberalism, affects judicial decisions. However, the second main finding is that advertisements in states with contested elections are associated with subsequent responsiveness to public opinion in these states. In particular, in the few states in which campaign advertisements attack a sitting justice over a previous environmental decision, the justices become responsive to public opinion in the years following the attack. This result

⁴ <http://www.brennancenter.org/analysis/buying-time> (accessed January 2, 2018).

suggests that even on an issue of relatively low salience, elections can readily induce the courts to become responsive to plebiscitary pressures.

The paper is organized as follows. Section 2 offers a brief history of recent developments in judicial campaigns, and Section 3 reviews the relevant scholarship on state judicial selection systems as well as the broader theoretical literature on representation. Section 4 describes the data, including the cases, judge-votes, and campaign advertisements. In Section 5, we discuss the empirical specifications and results. Section 6 concludes by discussing the implications of the findings for understanding the interaction of selection systems, public opinion, and judicial decisions.

II. DEVELOPMENTS IN JUDICIAL CAMPAIGNS

In recent decades, judicial election campaigns have become more similar to those for other elected offices such as legislators. These elections, which scholars dub “new style judicial campaigns” (e.g., Hojnacki and Baum 1992; Gibson 2008), have since 1980 become increasingly expensive, higher profile, and more likely to involve substantial interest group participation. Indeed, some campaigns have cost just as much as congressional or executive races in the same state (Geyh 2003).⁵ Correspondingly, since 2004 more than 60 percent of state supreme court races have involved television advertising (Kritzer 2015).⁶

Alongside these developments, campaign ads have become more issue-based and likely to attack sitting judges for their votes (Schotland 2003; Hall 2015). Unlike congressional campaigns, however, judicial attack ads tend to focus on similar issues across years and races. In

⁵ Kritzer (2015) finds that the competitiveness of judicial elections has not strengthened outside the South. However, he recognizes that aggregate advertising and spending have increased since 1980, leveling off in the first decade of the 21st century.

⁶ The opportunity for judicial candidates to voice their positions more openly increased after the US Supreme Court’s decision in *Republican Party of Minnesota v. White*, 536 U.S. 765 (2002). In that decision, the Court ruled that state court judges could advertise policy positions conditional on not promising to rule in any particular direction in specific cases.

particular, criminal justice issues such as the death penalty and sentencing are by far the most common topic, with “family values” a distant second (Greytak et al. 2015). For instance, in 2013-14 almost 22,000 judicial election ads concerned criminal justice and approximately 10,000 family values; by comparison, environmental law does not even rank as a separate category within the top themes of advertisements (Greytak et al. 2015). This dominance of issues unrelated to business does not mean that business groups are sitting out these elections, however. To the contrary, as Baum (2017, 910-11) notes, “business-sponsored television commercials often focus on criminal justice rather than on the issues that actually concern the sponsors.” Groups have adopted this strategy given that public opinion overwhelmingly favors pro-prosecution positions, thus it is easier to rally voters to oppose a judge’s reelection for “soft on crime” decisions than for anti-business ones.⁷

Consistent with interest groups’ efforts, research suggests that the advertising campaigns affect election outcomes (e.g., Baum, Klein, and Streb 2017). Numerous studies document cases in which judges have been attacked for their death penalty or other criminal justice votes and subsequently lost a contested or retention election (e.g., Wold and Culver 1987; Reid 1999). Likewise, in 2010 three Iowa Supreme Court justices lost retention elections because of public opposition to their views on same-sex marriage (Sulzberger 2010; Bonneau and Cann 2015). More generally, there is evidence that attack ads reduce incumbents’ vote shares, particularly in nonpartisan election systems (Hall 2015).

All of these developments lend credence to the idea that the new-style judicial campaign potentially infringes on judges’ ability to decide cases impartially from public passions (e.g., Franklin 2002). And indeed, scholarship suggests elections affect state supreme court justices’

⁷ It is worth noting that even though attack ads are a substantial portion of judicial campaign advertisements these campaigns also have a significant portion of positive ads that promote a candidate without attacking the opponent (e.g., Hall 2015; Kritzer 2015).

decision-making for the sorts of hot-button issues that are central to judicial campaigns (e.g., Brace and Boyea 2008; Caldarone, Canes-Wrone, and Clark 2009; Kritzer 2015). However, the question remains: how has the new-style campaign affected decisions on the lower salience issues that are not typically the subjects of campaign advertisements but dominate the dockets of the state supreme courts? On these issues, we know little about the impact of elections or the new-style campaign on judicial decisions.

III. RELATED LITERATURE

Various studies analyze how judicial selection affects behavior in the state supreme courts. Most of this work focuses on aspects of judicial decision-making other than responsiveness to public opinion. For instance, Choi, Gulati, and Posner (2010) find that judges in elected systems hear more cases whereas appointed judges write higher quality decisions. Other scholarship analyzes campaign contributions and suggests that business contributions are associated with pro-business decisions in systems with partisan elections but not in ones with nonpartisan elections (e.g., Kang and Shepherd 2011).⁸

A subset of this literature examines the impact of public opinion explicitly. Comparisons of elected versus appointed systems indicate that elections induce greater responsiveness to public opinion on issues including the death penalty and abortion (e.g., Brace and Boyea 2008; Caldarone, Canes-Wrone, and Clark 2009). Several studies that distinguish among types of elections suggest that responsiveness is higher in systems with nonpartisan elections than ones

⁸ Most research on judicial campaign contributions deals with the possibility of reverse causality (i.e., that judges attract contributions from like-minded groups) by controlling for judicial ideology rather than explicitly modeling the potential endogeneity. An exception is Cann (2007), who uses an instrumental variable approach to analyze the impact of contributions from lawyers.

with partisan elections (e.g., Kritzer 2015; Nelson 2017).⁹ These findings support the theory of partisan signals, whereby in nonpartisan election systems the lack of a party label increases the potential for judicial decisions to characterize a judge's ideological leanings (e.g., Canes-Wrone and Shotts 2007). As mentioned earlier, however, this scholarship focuses on the high salience issues that dominate campaign attacks.¹⁰

Cann and Wilhelm (2011) address the matter of salience explicitly, analyzing media coverage of specific cases. More specifically, they examine a cross-section of state supreme court cases from Brace and Hall's (2001) database of 1995-1998 decisions and find that media coverage is associated with a greater likelihood that a judge's decision reflects the general ideology of the state (as measured by the ideologies of other elected officials) in systems with contested elections. Because their research combines a wide range of issues, it is not possible to know whether the impact derives almost exclusively from a few hot-button issues, such as the death penalty and criminal justice, or is more evenly distributed across issues; it is possible that no responsiveness to public opinion exists outside of high salience issues. Also unlike our analysis, Cann and Wilhelm do not measure public opinion directly but instead employ estimates based on interest group ratings of legislative incumbents. Still, their analysis provides important evidence that judges are concerned with the likelihood that voters learn about decisions, at least for salient cases.

While the literature has not focused on issues of lower and moderate salience, at least three general theoretical perspectives offer germane predictions. First, a major perspective from

⁹ Research on trial courts also compares among types of election and appointment systems although the election environment for these judges is typically quite different in scale than that for a state supreme court position (e.g., Gordon and Huber 2007; Lim 2013; Lim, Snyder, and Stromberg 2015).

¹⁰ Baum, Klein, and Streb (2017) show that interest group activity in personal injury law has affected Ohio Supreme Court election outcomes, and that this electoral selection has had implications for the rulings emerging from the Court. This research does not examine whether the individual justices are responding to public opinion in an attempt to avoid losing office, however.

political science is “dynamic representation,” whereby policymaking responds dynamically to change in mass opinion due both to turnover in who holds office and proactive efforts by officials within their terms (e.g., Stimson, MacKuen, and Erikson 1995; Erikson, MacKuen, and Stimson 2002). The perspective focuses primarily on federal elected offices, but also provides evidence of responsiveness for the US Supreme Court. The evidence is not at the level of individual issues; instead, it suggests that as the public mood becomes more liberal (conservative), policymaking will move in a liberal (conservative) direction. Thus, variation in responsiveness between lower and higher salience issues is not an explicit part of the analysis. Nor does the perspective directly consider the impact of nonpartisan or retention elections. However, for at least judges in systems with partisan elections or appointment, the perspective is consistent with a world in which mass opinion has a significant effect on judicial decision-making. Moreover, given the underpinnings of the theory, it seems reasonable to extrapolate that this responsiveness should extend to other types of electoral systems, as well.

An alternative perspective to dynamic representation is proposed in research that suggests US politicians are generally unresponsive to public opinion, instead catering to the ideological goals of contributors, parties, and their own personal preferences (e.g., Jacobs and Shapiro 2000; Lee, Moretti, and Butler 2004; Barber 2016). Scholars have even expressed concern about “leapfrog” democracy, where policy swings wildly based on the party of a representative and does not reflect constituents’ preferences (e.g., Bafumi and Herron 2010). While that research focuses on offices associated with partisan elections, many of the theoretical foundations, such as officials’ inclination to cater to personal preferences or contributors, could apply to other selection systems as well. Moreover, given the common assertion that courts — even elected

ones — should be less politically accountable than other branches of government,¹¹ the perspective indicates that mass opinion may have no direct influence on judicial behavior. In other words, the responsiveness that some research has demonstrated with respect to a few hot-button issues should be an exception to a broader pattern of independence from public opinion.

A third perspective, which forms a bridge between the contrasts of the first two, is work that focuses on issue salience. Numerous studies suggest the salience of a policy area affects elected politicians' responsiveness to public opinion (e.g., Schattschneider 1960; Page and Shapiro 1983; Lax and Phillips 2012). Lax and Phillips (2012), for instance, show that state government policy (i.e., by the legislature and governor) responds to change in mass opinion and that this responsiveness depends significantly on an issue's salience. While they find evidence of responsiveness broadly, the strongest effects are for those areas that receive extensive media attention.¹² The policy areas that Lax and Phillips examine are all of reasonable levels of media salience, however, so it is not clear how the results translate to a broader set of policies.

Overall, the literatures on judicial politics and representation offer a variety of predictions on whether state supreme court justices should be responsive to public opinion on an issue of low or moderate salience. Some work indicates that there should be significant responsiveness across all systems. Other research suggests the responsiveness is likely to be higher in electoral systems, particularly nonpartisan ones. Yet other work indicates that there should not be significant responsiveness in any of the systems. And yet other scholarship indicates that whatever responsiveness exists should correspond to variation in the salience of the issue, as well as be

¹¹ The seemingly simple matter of defining judicial independence and establishing its origins and consequences is deceptively complex. See Burbank and Friedman (2002) for a broad overview of the myriad perspectives on this issue.

¹² A related but separate tradition is the study of case salience (e.g., Bailey and Maltzman 2011; Cann and Wilhelm 2011). As discussed earlier, existing research on state supreme courts has not previously examined how case salience varies within a given area of law.

lower on average than that for the high salience issues that dominate judicial campaigns. The following empirical analysis discriminates among these competing predictions.

IV. DATA

A. Main Sample of Cases

We analyze the empirical support for these divergent perspectives using environmental law cases issued by state courts of last resort from 1990 through 2014. The issue of the environment has several advantages for purposes of this analysis. First, the issue is not typically central to judicial campaigns and is therefore of low to moderate salience; this lower level of salience is substantiated later in the paper in the analysis of campaign advertising. At the same time, it is salient enough that we can collect data about public opinion. Second, there are multiple types of environmental cases in which the judge's decision is over whether to support an outcome that the public would view as pro-environment, for example, due to aligning with the goals of environmentalists. Thus, the cases readily align with a pro-environment scale.

More specifically, we consider four categories of routine civil environmental cases: permitting, challenges to existing laws, violations, and damages. Permitting cases involve situations such as a developer or landowner objecting to a permit denial or an environmental organization objecting to an approval. Challenges to existing laws or ordinances encompass constitutional challenges, procedural challenges to regulatory authority, and objections to ballot initiative language, among other issues. By comparison, violations cases center on enforcement and alleged encroachments of existing environmental laws. Finally, damages cases encompass tort actions to remedy health or property injuries arising from environmental contamination. In focusing on these types of cases, the analysis avoids those that arguably touch on environmental issues but are primarily about other matters, such as property rights over ownership of water. In addition, we do not examine criminal cases because the previous literature suggests the impact of

public opinion may differ for criminal justice issues and, separately, the prosecutor must prove guilt beyond a reasonable doubt, a much higher standard of proof than for civil cases.

We collected data on all civil cases from these categories in states with standard systems of partisan elections, nonpartisan elections, commission-based selection combined with retention elections, and appointment. The method of judicial selection was determined from the National Center for State Courts “Judicial Selection in the States” website.¹³ Excluded are cases from states where justices represent a district or circuit rather than the full state because the public opinion data aggregates at the state level.¹⁴ We also exclude some courts because of lack of comparability in selection procedures, such as combining partisan and retention elections or requiring a higher threshold for retention than the standard 50 percent.¹⁵ An additional type of lack of comparability concerns states with a separate environmental appellate court.¹⁶

Table 1 describes the classification of states by selection system.

[Table 1 about here]

A few features of the categorization are worth noting. Between 1990 and 2014, some state supreme courts shifted methods of selection. For instance, North Carolina and Arkansas changed from partisan election systems to ones with nonpartisan elections in 2004 and 2001,

¹³ <http://judicialselection.us> (accessed January 10, 2018).

¹⁴ These states include Illinois, Louisiana, Kentucky, Maryland, Mississippi, Oklahoma, and Nebraska. However, we include South Dakota even though appointments are chosen by district because retention elections are statewide.

¹⁵ Since 1989, New Mexico has selected judges through partisan elections. Once elected, judges face retention elections that require 57 percent of the vote to retain their seat. Pennsylvania and Illinois initially select justices through partisan elections but retain through retention elections with the standard 50 percent threshold. Illinois is already excluded due to district-based selection, while New Mexico and Pennsylvania are excluded due to their lack of comparability with other states in the dataset. Likewise, we exclude Delaware because it mandates partisan balancing on the court.

¹⁶ This restriction excludes Vermont. Hawaii has had a separate environmental appellate court only since 2015.

respectively.¹⁷ Likewise, Tennessee switched from partisan elections to a commission-retention system in 1994. Separately, it is worth highlighting that in cases where the nomination procedure differs from the general selection method, we classify on the latter basis in the main analyses but show the results do not depend on these states in the supplemental appendix.¹⁸ In particular, Ohio has a partisan primary but a nonpartisan general election while Michigan nominates candidates through a partisan convention followed by a nonpartisan general election.¹⁹ Finally, there are two main types of systems based purely on appointment. Most states require reappointment, typically by elected officials such as the governor and/or legislature.²⁰ A few state supreme courts have lifetime appointment, including Massachusetts, New Hampshire, and Rhode Island. For simplicity, in most analyses, we present results for all appointment-based systems jointly. In addition, we show findings with lifetime appointment systems differentiated from ones requiring reappointment; the results do not depend on this classification.

For all states in Table 1, we identified environmental law cases with a Westlaw search of every case appealed to the state supreme court heard between January 1, 1990 and December 31, 2014.²¹ The state supreme courts have between five and nine justices and we coded each

¹⁷ More recently, North Carolina switched back to a partisan election system in 2016 and West Virginia changed from partisan to nonpartisan elections in 2016.

¹⁸ In addition to the main and appendix tables within the manuscript, we include a supplemental appendix to show the results of work that would otherwise be made available upon request or posted as a web appendix. This supplemental appendix is attached at the end of the article.

¹⁹ Classifying Ohio and Michigan as a nonpartisan election system is consistent with Bonneau and Hall (2009), Streb and Frederick (2009), and Canes-Wrone, Clark, and Kelly (2014) although cf. Bonneau and Cann (2015), which considers them quasi-partisan.

²⁰ We include Hawaii, which both selects and re-selects through a commission, because the governor and legislature is heavily involved in the selection of the committees' members. All results are robust to excluding Hawaii from the analysis, as shown in the supplemental appendix.

²¹ Our search query was as follows for cases decided between January 1, 1990 and December 31, 2014: SY, DI(environmental or conservation or wetlands or pollution or pollutants or contamination or groundwater or "natural resources" or "oil #and gas" or sewage or landfill or "hazardous waste" or mining or landfill or water or air or contaminants or "impact assessment" or drilling or fracking or "endangered species" or contaminants or air or water or energy or electric) or SY, DI(permit /p environmental or water or air or mining or drilling or landfill).

justice's vote separately, excluding judges sitting by designation or otherwise not active members of the court.²² This process yielded 892 civil environmental law cases and 5,232 individual judge votes. These data include more than 500 votes cast under each selection system, with the greatest number in the appointment category, which includes 1838 votes. These data include all *per curiam* and unpublished Westlaw cases; however, because the literature at times excludes unpublished cases (e.g., Songer, Segal, and Cameron 1994) or types of *per curiam* cases (e.g., Sala and Spriggs 2004), the supplemental appendix shows that the results are robust to their exclusion.²³ We carefully read each case, coding for the case type, the prior legal history, and other factors as described below.

B. Variables

The variables concern four main sources of data: the 892 cases, state-level public opinion estimates, judge-level covariates, and campaign advertisements. We describe each set in turn.

1. Case-Level Covariates

The main dependent variable is the individual judicial vote. In particular, *Pro-Environment Vote_{ij}* is an indicator identifying whether judge *j* voted in a pro-environmental direction in case *i*. Of the votes, 53 percent are in a pro-environmental direction. There is variation across the systems, however. In states with commission-retention systems, 62 percent of the votes are in a pro-environment direction while the respective percentages for systems with partisan elections, nonpartisan elections, and appointment are 48, 49 and 52 percent. (Appendix Table A1 provides descriptive statistics on these and all other variables.)

A key explanatory case-level variable is the system by which judges are selected in a state at the time case *i* is decided. Thus, we create four variables, *Partisan Elections_i*

²² There are 151 votes excluded because the judge (usually either a retired state supreme court justice or a lower court judge) sat by designation.

²³ For instance, Sala and Spriggs (2004) exclude non-orally argued *per curiam* cases.

*Nonpartisan Elections*_{*i*}, *Commission-Retention*_{*i*}, and *Appointment*_{*i*}, which are binary indicators that equal 1 if case *i* is decided under the given selection system and 0 otherwise. The analysis includes not only these indicators but also interactions between them and the estimates of public opinion, as described below.

For each case, we code legal and factual information. There are numerous fact-patterns in environmental cases heard by state supreme courts, ranging from cases dealing with fracking to wetlands permitting to conservation easements on property. We record a series of patterns that determine into which of the four substantive categories a case falls. As mentioned earlier, the indicators *Permitting*_{*i*}, *Violations*_{*i*}, *Challenges*_{*i*}, and *Damages*_{*i*} reflect these categories. Notably, the distribution of the dependent variable varies considerably across them. At one extreme, 64 percent of the judges' votes in violations cases are pro-environment, compared with only 50 percent in permitting cases. Challenges and damages cases fall between these limits, with pro-environment percentages of 58 and 51 percent, respectively.

We also present results with additional controls for the lower court's decision, whether the state has an intermediate appellate court, and if so whether the intermediate appellate court upheld or reversed the lower court decision. One might expect that in the absence of discretionary review, the supreme court's ruling would be positively associated with that of the lower court. With discretionary review, this relationship is complicated by the fact that the court may have a heightened incentive to take cases that are likely to be overturned. These variables are included in an alternative specification for which the results are presented within the main text but not in the main specification because a lower or appellate court ruling may itself be affected by public opinion; as later shown, the inclusion does not affect the substantive findings.

The supplemental appendix further shows that the results are robust to including only those states with non-discretionary review.

2. Public Opinion

The analysis requires statewide measures of public opinion about environmental policy. Unfortunately, there do not exist regular state polls about environmental policy that include adequate samples. Thus, following recent work on measuring public opinion at the state level (Park, Gelman, and Bafumi 2004; Pacheco 2011; Lax and Phillips 2012), we rely on multilevel regression with post-stratification (MRP) to generate a set of state-year estimates of environmental opinion. MRP involves two main stages. In the first stage, individual responses to polls are modeled as a function of respondents' demographic and geographic characteristics. The second stage then calculates the propensity to express a given position for each possible combination of demographic characteristics as well as for each geographic unit (here, state). Those demographic combinations are weighted by their representation in each state and, when combined with state-level effects, yield valid state-level estimates of opinion.

To gather the individual-level survey responses for the MRP analysis, we searched the Roper Center iPOLL and American National Election Studies (ANES 2015) databases for recurring questions on how “pro-environment” a respondent is. The most common type of such question that extends through the years of the data asks about a respondent's preferences concerning potential tradeoffs between the environment and economic goals. For instance, a standard question wording asks, “...when a trade-off has to be made, which is more important to you — stimulating the economy or protecting the environment?” An attractive feature of this question is that it reflects the tradeoffs in the legal cases that commonly pit development or business interests versus environmental protection. Full details on the question wordings and surveys are in the supplemental appendix. Almost a third of the 52 surveys are CBS-New York

Times polls, which are attractive for purposes of state-level estimates because they include large samples for each state and employ random digit dialing (e.g., Erikson, Wright, and McIver 1993).²⁴ Ten are from the ANES. Because of the academic quality of the ANES, we also include its questions on whether the respondent favored an increase or decrease in environmental spending, as detailed in the supplemental appendix.

Scholarship suggests that partisanship and ideology strongly predict environmental opinion (Dunlap, Xiao, and McCright 2001; McCright 2011; Gromet, Kunreuther, and Larrick 2012). Thus, we rely on the two-stage MRP method developed by Kastellec et al. (2015) to separately estimate opinion among Democrats, Republicans, and Independents. More generally for the MRP analysis, we include six gender-race categories, four age categories, four educational categories, and a trichotomous indicator of the respondent's partisanship (Democratic, Republican, or Independent). Thus, we model responses for $6 \times 4 \times 4 \times 3 = 288$ respondent demographic combinations. We also include state-level intercepts, which are, in turn, modeled as a function of state-level characteristics. The supplemental appendix provides full details on these characteristics and demographic categories. To post-stratify the estimates, we rely on Kastellec et al. (2015), which provides the proportion of each of the gender-race-age-educational-partisan groups in each state. (We cannot simply rely on the Census, because it does not tell us the distribution of those characteristics across the three partisan groups.) We then combine the estimates of opinion among each group, weighting them according to the proportion of each state that affiliates as a Democrat, Republican, or Independent.

In particular, $PublicOpinion_{st[i]}$ reflects the proportion of people in state s in year t (for case i) who support the pro-environment response. The estimate ranges from a low of 0.30 in

²⁴ The iPOLL surveys also include ones from Gallup, Pew, and Princeton Survey Research Associates, among others. The supplemental appendix provides full details on the question wordings, organizations, and exact dates of polls.

Utah in 2010 to a high of 0.72 in Rhode Island in 1990. The average observation has pro-environment opinion equal to 0.55. Consistent with earlier work on public opinion about the environment, it declines following the 2002 and 2008 recessions and rebounds as the economy improves (e.g., Kahn and Kotchen 2011; Shum 2012).

To assess the validity of the MRP estimates, we compare them with available state polls and state-level estimates from the Congressional Cooperative Election Study (CCES) (Ansolabehere and Pettigrew 2014; Schaffner and Ansolabehere 2015).²⁵ By searching the Odum Institute's Public Opinion Poll Question Database²⁶ of state polls as well as individual state poll websites such as the West Virginia Poll and the Oregon Values Project, we collected 29 observations of individual state polls that had relatively similar question wordings to those used for the MRP analysis.²⁷ In addition, the CCES includes the environment-jobs tradeoff question in multiple years of the survey, and because of its large sample scholars use it to estimate state-level opinion (e.g., Bafumi and Herron 2010); in total, the CCES provides a separate 200 observations against which to compare the MRP estimates.

These data suggest that the MRP estimates provide a valid representation of public opinion. The MRP estimates correlate with each of the CCES state-level estimates and the state-level polls at $\rho=0.7$.²⁸ By comparison, the Enns and Koch (2013) measure of state ideological mood is only correlated with the CCES environment opinion estimates at $\rho=0.2$, indicating that

²⁵ We do not include the CCES polls in the MRP analysis because they involve non-probability samples. To the best of our knowledge, the properties of MRP applied to non-probability samples have not been studied in the extant literature.

²⁶ <https://dataverse.unc.edu/> (accessed January 11, 2018).

²⁷ The Odum polls include polls from Arizona, Florida, Georgia, and New Jersey. We secured additional surveys from the following sources: the Arkansas Poll, Civitas Poll (North Carolina), Oregon Values Project, Public Policy Institute of California, Utah Voter Poll by Brigham Young University, West Virginia Poll, and the Winthrop Poll (South Carolina).

²⁸ These high correlations between the MRP estimates and two other datasets are particularly noteworthy given that the two others have little overlap and no evidence of a positive correlation with each other.

the MRP estimates capture something more than general state ideology or mood. Finally, it is worth noting that the by-party estimates of the state polls and MRP estimates both show an ideological trend identified elsewhere, whereby the environment becomes an increasingly partisan issue over time (e.g., Dunlap, Xiao, and McCright 2001).

3. Judge-Level Covariates

Several controls account for judge-specific factors that previous research suggests may influence decision-making. Scholarship has long emphasized the role that a judge's ideological leanings and partisanship play in determining votes (e.g., Segal and Spaeth 2002). Given government officials' partisanship on environmental policy generally (e.g., Shipan and Lowry 2001), one would expect Republican judges to be less likely to vote in a pro-environment direction than their Democratic counterparts. We determine information about political party in several ways. With partisan elections of course, the information is on the ballot. In states without partisan elections, we rely on a variety of sources, including the state's blue book, biographical dictionaries, state party support in contested elections, local newspapers, and existing datasets (Langer 2002; Canes-Wrone, Clark, and Park 2012; Canes-Wrone, Clark, and Kelly 2014). In cases where no other source was available and the governor was involved in the initial appointment, the governor's party is employed, as in Choi, Gultai, and Posner (2010) and Langer (2002). Likewise, for such cases where the legislature made the initial appointment, the majority legislative party serves as a proxy.²⁹ Using these methods, all of the judges could be categorized as Republican or Democrat. Across all observations, 57 percent of the decisions involve

²⁹ In a few cases, the judge in question was appointed by Governor Angus King of Maine, an Independent. Because King as a US Senator caucuses with the Democrats, we have coded any observations that depend on King's party as Democrats; coding them as Independents does not alter the results.

Democratic judges. This greater Democratic percentage reflects that the South was still somewhat Democratic at the beginning of the time series.

We also gathered multiple variables reflecting the judge's tenure on the court. These include controls for electoral proximity, retirement, and lame duck status. Research suggests that pressures to respond to public opinion, if they exist, should be strongest in the years prior to running for reelection (e.g., Huber and Gordon 2004; Berdejó and Yuchtman 2013). To account for this possibility, we code whether a judge faced reelection or reappointment in the next two years, gathering this information from state blue books, election data, and the aforementioned existing datasets used to code partisan affiliation (Langer 2002; Canes-Wrone, Clark, and Kelly 2014). Because the dependent variable equals whether the judge voted in a pro-environment direction, the control for electoral proximity reflects whether public opinion incentivizes a pro-environment vote. In particular, *Electoral Proximity_{ij}* equals 1 if judge *j* faces reselection within two years of the year in which case *i* is decided and pro-environment public opinion is at least 50 percent, 0 if the judge does not face reselection within two years, and -1 if the judge faces reselection within two years and pro-environment opinion is below 50 percent.

We gathered similar data about retirement and lame duck status. Several studies find that retirement affects judicial behavior (e.g., Brace and Boyea 2008; Kang and Shepherd 2016). Most states have mandatory retirement ages for supreme court justices, usually after a judge reaches the age of 70, 72, or 75. As such, we code for whether a judge face mandatory retirement at the end of their term. The data are from the National Center for State Courts "Judicial Selection in the States" website supplemented by state constitutions and laws where applicable.³⁰ As with electoral proximity, a trichotomous variable is used. *Retirement_{ij}* equals 1 if judge *j* faces mandatory retirement at the end of the term in which case *i* is decided and pro-environment

³⁰ <http://judicialselection.us> (accessed January 10, 2018).

opinion in the state is at least 50 percent, 0 if the judge does not face mandatory retirement, and -1 if the judge faces mandatory retirement and pro-environment opinion is below 50 percent.

For similar reasons, we might expect judges in a “lame duck” session to be less responsive to public opinion. Lame ducks are judges serving out the remainder of a term after losing reelection or otherwise not seeking reelection/reselection for a reason other than mandatory retirement. As with the variables for electoral proximity and retirement, lame duck status is coded with a trichotomous variable that reflects whether public opinion supports a pro-environment vote. In systems for which public opinion influences judicial decision-making, we expect negative coefficients on both the retirement and lame duck variables, as judges in these systems should be less likely to follow public opinion once freed from reselection pressures.

4. Campaign Activity

The final set of variables concern judicial campaign activity. The Brennan Center for Justice through its Buying Time project has collected state supreme court television advertisements beginning in 2000.³¹ We personally read the transcript and/or watched each advertisement to code whether an advertisement dealt with the issue of environmental law. The use of this advertisement data follows other research that has examined the tone and content of judicial campaign ads (Hall 2015; Kritzer 2015). To the best of our knowledge, however, previous work has not examined how the content of advertisements is associated with judicial decision-making.³²

A comprehensive analysis of the advertisements uncovered a small number of campaigns, fourteen total, which broached the topic of the environment. Of those referencing the

³¹ <http://www.brennancenter.org/analysis/buying-time> (accessed January 2, 2018).

³² Shepherd and Kang (2014) examine how the overall volume of campaign advertising on all issues affects the likelihood a state supreme court justice votes for a pro-defendant position on criminal cases; this study does not, however, examine whether there is a linkage between advertisements that focus on criminal justice issues and judicial behavior.

environment, six explicitly attacked a sitting judge for his or her vote on a case. For instance, in Michigan in 2010 the state Democratic Party Committee attacked Justice Bob Young for authoring a decision that limited standing in environmental cases.³³ The ad stated:

“According to Young, Michigan taxpayers cannot hold Enbridge or any other oil company accountable when they pollute our water. Young overturned a 30 year old law that held polluters accountable.”

All but one of the six campaigns that involved attack ads on a judge’s voting criticized the judge for not being sufficiently protective of the environment. The exception is Montana in 2014, where the group Americans for Prosperity disparaged Justice Bob Wheat for his votes against domestic energy development. Eight additional campaigns contained ads referencing the environment in a general way without attacking a judge’s decisions. For instance, in multiple cases ads highlighted that a judicial candidate was accepting campaign donations from an oil or gas company and might therefore be less protective of the environment.³⁴

To reflect these different types of advertisements, we create two variables. *Attack Ad_i* equals 1 if a judicial campaign in the state has criticized a judge for an environment decision before case *i* is heard and 0 otherwise. *General Ad_i* is coded similarly except that it concerns advertisements that reference the environment without criticizing a judge’s decisions. Because the advertising data begins in 2000, this analysis only concerns the years since 2000.

Additionally, because the advertisements appear only in states with contested elections, the analysis is limited to these states.

The contested elections are also ones that commonly experience direct campaign contributions from organized interest groups; by comparison, these campaign contributions are

³³ *Michigan Citizens for Water Conservation v. Nestle Waters North America*, 479 Mich. 280 (2007).

³⁴ For instance, in 2010 an advertisement criticized Alabama Justice Michael Bolin for accepting money from British Petroleum Oil.

rare in states with retention elections and not relevant to appointment systems.³⁵ We accordingly account for contributions from relevant organized interests in the analysis of campaign advertising. Using the Database on Ideology, Money in Politics and Elections (DIME) (Bonica 2016), we matched to each judge contributions from environmental interest groups and the types of businesses regularly involved in the four types of environmental cases.³⁶ For each, we consider the total contributions from the previous six years given that the median state supreme court term is six years. With these data, we created *Net Environment Contributions_{ij[t]}*, which equals the natural log of the total contributions justice j received from environmental groups minus the natural log of total contributions from relevant business groups during the six years preceding year t in which case i is decided. Almost all of the contributions are from businesses, with the result that net environment contributions are typically negative. As discussed in the section on campaign advertising, we conduct analyses where this variable is included as an exogenous control as well as instrumental variables analyses that assume contributions are endogenous to a judge's decisions.

V. RESULTS AND SPECIFICATIONS

A. Analysis of All Selection Systems

The main specification analyzes the likelihood judge j issues a pro- environment decision on case i as a function of the above-described variables. The model, which assumes a probit specification, is given formally in Equation [1]:

³⁵ For instance, fewer than one percent of the observations associated with retention elections in the data are associated with contributions from an environmental organization or relevant business group.

³⁶ Since the DIME database only extends until 2012, we gathered data for later years from the National Institute on Money in State Politics at followthemoney.org. Contributions from the following business and environmental classifications are included: Agriculture, Construction, Energy/Natural Resources, Finance/Insurance/Real Estate, Ideology/Single Issue, and Miscellaneous Business. Entities within each category are included if they are associated with a pro or anti-environment alignment in the types of cases heard. For instance, the Sierra Club is coded as pro-environment and oil and gas companies as anti-environment. Further details available upon request.

$$[1] \quad \Pr(\text{Pro-Environment Vote}_{ij} = 1) = \Phi(\alpha_0 + \beta_1 \text{Partisan Elections}_i \times \text{Public Opinion}_{st[ij]} + \beta_2 \text{Nonpartisan Elections}_i \times \text{Public Opinion}_{st[ij]} + \beta_3 \text{Commission-Retention System}_i \times \text{Public Opinion}_{st[ij]} + \beta_4 \text{Appointment}_i \times \text{Public Opinion}_{st[ij]} + \beta_5 \text{Partisan Elections}_i + \beta_6 \text{Nonpartisan Elections}_i + \beta_7 \text{Commission-Retention System}_i + \lambda \text{Controls}_{ij}),$$

where some controls vary by case i and judge j and others only by state s and/or year t in which case i was decided, as previously described. Because judicial decisions within a given case may be correlated, we cluster the standard errors by case.

The coefficients β_1 - β_4 capture how public opinion influences judicial decision-making across the different systems. If, for instance, public opinion affects decisions in partisan election systems, then β_1 should be positive and significant. The coefficients β_5 - β_7 reflect the main effects of the systems. The omitted main effect is appointment systems, so that a positive effect on β_5 would suggest that pro-environment decisions are more likely in states with merit systems than appointment-based ones.

Table 2 presents the results to this estimation.

[Table 2 about here]

Column [1] describes the main results. Notably, none of the coefficients on the public opinion interactions is significant at any conventional level. Several of these coefficients are even negative, although again, not at all significant. In all of the systems, an increase in pro-environment public sentiment does not change a judge's likelihood of voting in a pro-environment direction.

Columns [2] through [4] suggest that this finding is not a function of the specification. In Column [2], we additionally control for the lower court decision, the interaction of the lower court decision with whether the state has an intermediate appellate court, and the main effect of having an intermediate appellate court. The number of observations is slightly lower in this column because a state supreme court can have original jurisdiction, such as on certified

questions from the federal courts or cases involving ballot initiative wordings. Column [3] removes the year effects, and Column [4] shows a simple regression that estimates a joint effect of public opinion for all systems combined. In all of these cases, there is not a significant effect of public opinion. Furthermore, Appendix Table A2 shows that if each selection system is analyzed individually, the results continue to suggest that judicial decision-making is not significantly associated with public opinion in any of the systems.

Several of the control variables have significant effects, however, as Table 2 demonstrates. For instance, as anticipated, a judge's party affects the likelihood of a pro-environment decision, with Democratic justices being significantly more likely than Republican ones to vote in a pro-environment direction. The type of case has a significant effect as well. Permitting and damages cases have a significantly lower likelihood of a pro-environment decision than violations, the omitted case category of case, and the likelihood is significantly lower in permitting cases than in challenges. The year effects are also jointly significant ($p < 0.05$, two-tailed). As Column [3] of Table 2 indicates, however, excluding them does not alter the substantive findings; the impact of public opinion remains insignificant in each of the systems with or without the year indicators.

Consistent with this lack of significance, the three controls that relate to within-term variation in electoral pressures are also insignificant at any conventional level. Judicial decision-making on environmental law appears to be unrelated to the proximity of the next election, whether a judge is facing mandatory retirement, or in a lame duck session. While some earlier work finds that electoral proximity affects judicial votes, these studies focus on the more salient issues of criminal sentencing (e.g., Huber and Gordon 2004; Gordon and Huber 2007; Berdejó and Yuchtman 2013) and the death penalty (Canes-Wrone, Clark, and Kelly 2014). Moreover,

even some work on criminal sentencing fails to find a significant effect of electoral proximity (e.g., Lim, Snyder, and Stromberg 2015).

In an effort to assess whether the measurement of public opinion or other specification choice might be masking a significant effect for at least some systems, we conduct several further analyses. First, we consider that judges may not be responsive to opinion on the environment but instead the general liberalism of the state, which might occur if, for instance, the judges have a sense of the public's overall liberalism but not their environmental preferences. As a measure of state ideology, we employ the Enns and Koch (2013) estimates of state policy mood, which are analogous to the national policy mood measure of Erikson, Stimson, and MacKuen (2002) and extend through 2010.

Table 3 presents results from substituting this general ideology measure for public opinion on the environment.

[Table 3 about here]

As Column [1] shows, the results are substantively similar to those with the issue-based opinion measure. General liberalism in the state is not significantly associated with judicial decision-making in any of the selection systems. Column [2] of the table considers yet another public opinion measure. Conceivably judges are responsive to large shifts in public opinion even if not the more marginal changes that the continuous measures capture. We therefore substitute for the continuous measure of pro-environment public opinion an indicator for whether this measure is above 50 percent. Again, the results suggest that public opinion on this issue does not significantly influence judicial decision-making.

The analyses reported in Columns [3]-[5] vary the specification in additional ways. In Column [3], systems with reappointment are separated from ones with lifetime appointment. In

Column [4], a set of state fixed effects are included. These effects capture that state laws may differ in ways that make a pro-environment decision more likely in some states than others. Neither of these modifications alters the substantive findings. The final column of results considers only years since 2000, forming a baseline comparison to the subsequent analysis of advertising that is limited by data constraints to these later years. Again, public opinion does not significantly affect judicial decision-making. The one change is that the year effects are no longer significant ($p=0.57$, two-tailed); removing them does not alter the main findings, however, as shown in the supplemental appendix. Also in the supplemental appendix, we present results for additional alternative analyses including multilevel/mixed effects models with random effects for the cases. All of these analyses support the substantive implications of Tables 2 and 3.

The findings thus far suggest that for an issue that does not dominate judicial campaigns such as environmental law, the average impact of public opinion on judicial decision-making is insignificant. Even in systems with contested elections, opinion on the environment and general ideological sentiment fails to affect judicial behavior. These findings contrast with those on hot-button campaign issues such as abortion, marijuana legalization, and the death penalty, where public opinion has a significant impact, particularly in systems with nonpartisan elections. In combination with this previous work, the results support research that argues issue salience should affect responsiveness to public opinion (e.g., Lax and Phillips 2012). In the following analysis, we build on this implication by explicitly examining whether variation in the salience of environmental issues across judicial campaigns corresponds with similar variation in justices' responsiveness to public opinion.

B. Analysis of Campaign Advertising

As discussed above, we use the Brennan Center's database of judicial campaign advertisements to identify the occasional ad that concerns the environment. Because the database

begins in 2000 and the environment ads occur only in states with contested partisan or nonpartisan elections, the analysis of campaign advertising is limited to these systems and years. Moreover, given that the environment ads are so infrequent and in earlier analysis there was not a significant difference between the impact of public opinion for nonpartisan and partisan election systems, we analyze a joint effect for these systems. This joint analysis is further justified by the fact that Michigan and Ohio are two of the eight states with the environment ads, and scholars have debated whether to code these states as having nonpartisan elections, partisan ones, or hybrid systems (e.g., Bonneau and Cann 2015; Kritzer 2015).

Equation [2] describes the main analysis of how campaign advertising is associated with subsequent judicial decision-making:

$$[2] \quad \Pr(\text{Pro-Environment Vote}_{ij} = 1) = \Phi(\alpha_0 + \beta_1 \text{Attack Ad}_i \times \text{Public Opinion}_{st[ij]} + \beta_2 \text{Public Opinion}_{st[ij]} + \beta_3 \text{Attack Ad}_i + \lambda \text{Controls}_{ij})$$

If β_1 is significantly positive, then judicial responsiveness to public opinion is significantly higher after an issue has become the subject of attack advertising in a justice's state. The effect of public opinion absent any such advertising is captured by β_2 . The standard controls are included. As with the analysis in Table 3 for the years since 2000, the year effects are not significant at conventional levels. We therefore present results both with and without the year effects, making the standard model without them; in the supplemental appendix, we show all regressions with the year indicators and the substantive findings remain.

In addition to analyzing the impact of attack ads that explicitly criticize a judge's voting record, we also examine advertisements that reference the environment more broadly. For this analysis, the variable General Ad, defined previously, substitutes for Attack Ad in Equation [2]. For each type of advertisement, we show the results with and without controlling for campaign contributions. Separately, Appendix Table A3 presents findings from an instrumental variables

analysis that considers the contributions endogenous. As this table shows, the results are substantively similar and specification testing suggests that the null of exogeneity cannot be rejected at conventional significance levels ($p > 0.05$, two-tailed).³⁷ For these reasons, we focus in the text on the results from Equation [2].

Table 4 presents the findings.

[Insert Table 4 about here]

Regardless of whether campaign contributions are included, the results suggest that judges are more responsive to public opinion on the environment following an attack ad. In all of Columns [1]-[3], the coefficient on the interaction between public opinion and attack advertising is significantly positive. As before, however, there is not a significant main effect of public opinion. Thus, when advertising is absent, public opinion does not appear to influence judicial decision-making significantly.

To interpret the magnitude of the impact of public opinion following an attack ad, we estimate the marginal effect at the means of the independent variables, as is standard in probit analyses. The overall impact equals the sum of the interaction term and the main effect of public opinion. Combined, the estimates in Column [1] suggest that as pro-environment public opinion increases by 10 percent, a judge's likelihood of issuing a pro-environment decision increases by 20 percent ($p < 0.05$, two-tailed). This magnitude is comparable in Columns [2] and [3], with the identical change in public opinion associated with a 15 and 21 percent increase in the likelihood of a pro-environment vote, respectively.

Interestingly, this result does not extend to advertising that mentions the environment but not a judge's decisions. For example, these ads include ones where a candidate claims she or he

³⁷ This failure to reject the null of exogeneity at conventional levels of significance is consistent with a world in which the business group contributions are motivated by factors other than judicial decision-making on environmental cases.

is good for the environment or where a candidate is criticized for accepting money from “polluters” such as oil and gas companies. As Columns [4] and [5] show, the coefficient on the interaction between a general ad and public opinion is not significant at any conventional level. According to these parameter estimates, the relationship between public opinion and judicial decisions is not influenced by ads that fail to attack a justice for his or her decisions. Of course, the number of campaigns with advertisements is small; this is what makes the environment a low to moderate salience issue. Thus, we would not conclude from these results that advertising outside of attack ads never influences judicial decision-making. Conceivably, larger amounts of advertising would produce an effect. What we can say is that with the limited amount of advertising devoted to the issue of the environment, only ads that attack judicial decisions seem to be associated with justices’ responsiveness to public opinion.

The results on the control variables are quite similar to those in earlier analyses. The judge’s party has a significant effect on decision-making, while electoral proximity, retirement, and lame duck status do not. Unlike the analysis of all systems, however, the case type also does not have a significant impact. Investigating further, we find that the case type indicators are not significant in the systems with contested elections even with the full time series, as shown in the separate analysis of each system in Appendix Table A2.

The final control in Table 4, net pro-environment campaign contributions, has the expected positive relationship with judicial decision-making. The effect is significant at conventional levels in Column [2] and marginally significant ($p < 0.1$, two-tailed) in Column [4]. As mentioned earlier, Appendix Table A3 presents a two-stage least squares analysis based on the instrumental variables approach used in previous work on campaign finance (Gerber 1998).

These results confirm those of Table 4, including with respect to the findings on attack ads and other types of campaign advertisements.

In sum, the analysis of advertising suggests that justices are responsive to public opinion on an issue once it becomes the subject of attack advertisements in their state. Consistent with this finding, earlier work has found that attack ads affect election outcomes such as lower incumbent vote share (Hall 2015), and increased partisan voting patterns (Kritzer 2015) in systems with nonpartisan elections. Table 4 suggests that these electoral consequences do not go unnoticed by judges, and affect subsequent decision-making. There is no analogous effect, however, of general ads that do not reference specific judicial decisions. As mentioned earlier, we are cautious with this null finding given that advertisements on the environment are the exception rather than the norm in judicial campaigns. Yet of course, if the issue were more consistently prominent, we would not be analyzing it as an exemplar of a lower salience issue. Indeed, the examination of advertising, by documenting the small number of advertisements on the issue of environmental law, lends credence to the argument that the lack of responsiveness in the full set of cases relates to the lower salience of the issue.

VI. CONCLUSION

In recent years a variety of research has analyzed how judicial selection systems affect the state courts including with respect to public legitimacy (e.g., Gibson 2012), citizens' voting behavior (e.g., Kritzer 2015), and judicial decision-making, particularly with respect to hot-button issues (e.g., Brace and Boyea 2008; Caldarone, Canes-Wrone, and Clark 2009).³⁸ Yet the impact with respect to public opinion on less salient issues has not been a focus of the literature. This paper provides extensive evidence on the question, examining over two decades worth of original data on judicial decisions on environmental law. As a part of this analysis, we estimate

³⁸ See Kritzer (2015) and Baum (2017) for excellent reviews.

state-level public opinion on the environment and analyze the effects of campaign advertisements.

Two major findings emerge. First, across all of the systems, the average impact of public opinion is not significant. This finding holds across a variety of specifications, including ones with a general measure of state ideology rather than public opinion on the environment, an indicator for public opinion, and individual regressions for each system, among others. The null result clearly contrasts with the evidence for hot-button issues, and in doing so, suggests that the effects of elections on judges' incentives to cater to public opinion may not extend to the vast majority of cases.

However, the analysis also finds that when environmental cases are the subject of attack ads, justices subsequently become more responsive to public opinion on the issue. Thus, we demonstrate that even on a relatively low salience issue, campaigns can alter judicial behavior. Moreover, the evidence indicates that this impact is not limited to everyday or "easy" issues for voters such as crime, marijuana legalization, and abortion (e.g., Canes-Wrone, Clark, and Kelly 2014; Nelson 2014; Kritzer 2015), but extends to areas of law in which business interests are paramount. The campaign effects do not appear to extend to other types of advertising, however. For advertisements that do not reference specific judicial decisions, we find no significant change in judicial decision-making.

The results suggests multiple avenues for future research. First, it would be worthwhile to analyze the effects of campaign advertisements on judicial decisions for highly salient issues. Such an examination would enable assessing whether justices' responsiveness to public opinion on these issues is associated with the level and type of advertising in a state. Second, while the analysis of advertising accounts for campaign contributions, including with specifications that

allow for the endogeneity of these contributions, future research should explore how the impact of the groups' financial support is conditioned by the salience of the issue at hand.

Overall, our results fall between the most critical views of judicial elections (e.g., American Bar Association 2003) and the rosier (e.g., Bonneau and Hall 2009). From a rosier angle, most areas of law, even ones of major legal and policy significance, are not a hot-button campaign issue, and the analysis here suggests that for these issues, public opinion does not typically influence judicial decision-making. On a more inauspicious note, however, once such an area of law becomes the subject of attack ads, the influence of public opinion becomes significant. Thus, the effects of elections go beyond a limited set of recurring hot-button issues. More broadly, the findings raise potentially consequential questions about how issues emerge as fodder for campaign advertising. To resolve those questions requires empirical research that can further guide the normative debates over the choice of judicial selection systems.

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Table 1: State Selection Systems

<i>Partisan elections</i>	<i>Nonpartisan elections</i>	<i>Commission-Retention</i>	<i>Appointment</i>
AL	AR (2001-)	AK	CT
AR (pre-2001)	GA	AZ	HI
NC (pre-2004)	ID	CA	MA**
TN (pre-1994)	MI	CO	ME
TX	MN	FL	NH**
WV	MT	IA	NJ**
	NC (2004-)	IN	NY
	ND	KS	RI**
	NV	MO	SC
	OH	SD	VA
	OR	TN (1994-)	
	WA	UT	
	WI	WY	

**System with lifetime appointment (subject to mandatory age-based retirement where relevant). In New Jersey, judges face a seven year reappointment period, after which they can remain indefinitely until age 70. New Jersey judges are allocated to the lifetime group once reappointed.

Table 2: Public Opinion and Judicial Decisions on Environmental Cases

	<i>Main specification</i> [1]	<i>Lower court</i> [2]	<i>No year effects</i> [3]	<i>No controls</i> [4]
Public opinion				0.658 (0.468)
x Partisan elections	1.497 (2.048)	1.335 (2.147)	2.719 (1.663)	---
x Nonpartisan elections	-2.222 (1.558)	-2.468 (1.582)	-0.331 (0.909)	---
x Commission-Retention	-1.107 (1.505)	-1.756 (1.578)	0.800 (1.007)	---
x Appointment	-1.263 (1.463)	-1.558 (1.515)	0.741 (0.785)	---
Democratic judge	0.222** (0.051)	0.215** (0.053)	0.231** (0.052)	---
Permitting	-0.385** (0.118)	-0.377** (0.121)	-0.379** (0.115)	---
Challenges	-0.157 (0.134)	-0.208 (0.138)	-0.176 (0.130)	---
Damages	-0.371** (0.140)	-0.344* (0.143)	-0.333** (0.136)	---
Electoral proximity	-0.045 (0.053)	-0.033 (0.054)	-0.024 (0.054)	---
Retirement	0.087 (0.065)	0.094 (0.067)	0.084 (0.064)	---
Lame duck	-0.005 (0.104)	-0.023 (0.106)	0.012 (0.108)	---
Partisan elections	-1.674 (1.011)	-1.770 (1.054)	-1.086 (0.993)	---
Nonpartisan elections	0.356 (0.671)	0.337 (0.670)	0.534 (0.658)	---
Commission-Retention	0.120 (0.704)	0.315 (0.728)	-0.333 (0.136)	---
Lower court decision	---	0.097 (0.190)	---	---
Intermediate appellate court	---	-0.180 (0.136)	---	---
Lower court decision x Intermediate appellate court	---	0.110 (0.211)	---	---
Constant	0.921 (0.871)	1.130 (0.911)	-0.254 (0.463)	-0.275 (0.257)
Year effects	Yes	Yes	No	No
Number of observations	5232	5034	5232	5232

Dependent variable equals Pr(Pro-environment Vote = 1). Standard errors clustered by case and in parentheses below probit coefficients. Omitted case type indicator is Violations and omitted main effect for selection system is Appointment. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Table 3: Alternative Specifications

	<i>Public mood</i>	<i>Public opinion indicator</i>	<i>Lifetime appointment</i>	<i>State fixed effects</i>	<i>Since 2000</i>
	[1]	[2]	[3]	[4]	[5]
Public mood					
x Partisan elections	0.025 (0.028)	---	---	---	---
x Nonpartisan elections	-0.002 (0.019)	---	---	---	---
x Commission-Retention	-0.025 (0.019)	---	---	---	---
x Appointment	-0.028 (0.019)	---	---	---	---
Public opinion indicator					
x Partisan elections	---	0.320 (0.303)	---	---	---
x Nonpartisan elections	---	-0.245 (0.205)	---	---	---
x Commission-Retention	---	0.161 (0.196)	---	---	---
x Appointment	---	-0.025 (0.226)	---	---	---
Public opinion					
x Partisan elections	---	---	1.806 (2.062)	2.479 (2.408)	2.732 (2.102)
x Nonpartisan elections	---	---	-1.922 (1.572)	-0.310 (2.129)	-0.099 (1.173)
x Commission-Retention	---	---	-0.801 (1.518)	0.774 (2.203)	1.775 (1.267)
x Appointment	---	---	---	0.691 (2.078)	1.018 (1.021)
x Reappointment	---	---	-0.651 (1.545)	---	---
x Lifetime appointment	---	---	-1.224 (1.950)	---	---
Constant	1.033 (0.815)	0.204 (0.307)	0.757 (1.170)	-0.011 (1.193)	-0.388 (0.581)
System main effects	Yes	Yes	Yes	Yes	Yes
Standard controls	Yes	Yes	Yes	Yes	Yes
State effects	No	No	No	Yes	No
Year effects	Yes	Yes	Yes	Yes	Yes
Number of observations	4455	5232	5232	5232	3034

Dependent variable equals Pr(Pro-environment Vote = 1). Standard errors clustered by case and in parentheses below probit coefficients. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Table 4: Campaign Advertising and Judicial Decisions

	<i>Attack ads</i>	<i>Attack ads</i>	<i>Attack ads</i>	<i>General ads</i>	<i>General ads</i>
	[1]	[2]	[3]	[4]	[5]
Attack ad x Public opinion	5.347* (2.676)	6.171* (2.879)	5.500* (2.707)	---	---
General ad x Public opinion	---	---	---	0.589 (2.274)	0.516 (2.269)
Public opinion	-0.262 (1.161)	-2.507 (2.659)	-0.250 (1.163)	0.231 (1.208)	0.265 (1.212)
Attack ad	-2.617* (1.299)	-3.084* (1.411)	-2.639* (1.310)	---	---
General ad	---	---	---	-0.548 (1.151)	-0.476 (1.148)
Democratic judge	0.352** (0.130)	0.348** (0.128)	0.288* (0.129)	0.368** (0.128)	0.308* (0.127)
Permitting	-0.119 (0.249)	-0.172 (0.275)	-0.097 (0.250)	-0.106 (0.244)	-0.095 (0.245)
Challenges	0.079 (0.281)	0.124 (0.304)	0.082 (0.284)	0.078 (0.274)	0.069 (0.278)
Damages	-0.061 (0.275)	-0.169 (0.298)	-0.005 (0.276)	-0.053 (0.272)	-0.014 (0.272)
Electoral proximity	0.012 (0.103)	-0.049 (0.091)	0.022 (0.103)	0.022 (0.102)	0.025 (0.102)
Retirement	-0.093 (0.189)	-0.223 (0.193)	-0.127 (0.192)	0.033 (0.174)	0.005 (0.179)
Lame duck	0.153 (0.196)	0.197 (0.188)	0.176 (0.198)	0.165 (0.204)	0.181 (0.205)
Net environment contributions	---	---	0.028* (0.012)	---	0.023 (0.012)
Constant	-0.073 (0.638)	1.337 (1.575)	0.045 (0.643)	-0.293 (0.640)	-0.199 (0.648)
Year effects	No	Yes	No	No	No
Observations	1129	1129	1129	1129	1129

Dependent variable equals Pr(Pro-environment Vote = 1). Standard errors clustered by case and in parentheses below probit coefficients. Omitted case type indicator is Violations. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Appendix Table A1: Descriptive Statistics

<i>Variable</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Minimum</i>	<i>Maximum</i>
Pro-environment vote	5232	0.533	0.499	0	1
Public opinion	5232	0.546	0.082	0.298	0.724
Democratic judge	5232	0.570	0.495	0	1
Partisan elections	5232	0.113	0.316	0	1
Nonpartisan elections	5232	0.289	0.453	0	1
Commission-Retention	5232	0.247	0.431	0	1
Appointment	5232	0.351	0.477	0	1
Reappointment	5232	0.255	0.436	0	1
Lifetime appointment	5232	0.097	0.295	0	1
Permitting	5232	0.457	0.498	0	1
Violations	5232	0.165	0.371	0	1
Challenges	5232	0.209	0.406	0	1
Damages	5232	0.170	0.376	0	1
Electoral proximity	5232	0.088	0.418	-1	1
Retirement	5232	0.073	0.390	-1	1
Lame duck	5232	0.017	0.172	-1	1
Lower court decision	5034	0.443	0.497	0	1
Intermediate appellate court	5034	0.812	0.391	0	1
Public mood	4455	39.709	5.608	26.299	61.681
Attack ad	1129	0.118	0.323	0	1
General ad	1129	0.230	0.421	0	1
Net environmental contributions (natural log)	1129	-4.490	4.487	-12.944	1.922
Population (in 1,000,000s)	1129	6.466	6.506	0.642	26.945

Appendix Table A2: By-System Analysis

	<i>Partisan elections</i> [1]	<i>Nonpartisan elections</i> [2]	<i>Commission- Retention</i> [3]	<i>Appointment</i> [4]
Public opinion	5.425 (4.144)	-4.296 (3.166)	-0.933 (2.583)	-1.024 (2.539)
Democratic judge	0.519* (0.238)	0.230* (0.090)	0.210* (0.099)	0.165* (0.077)
Permitting	-0.122 (0.523)	-0.241 (0.229)	-0.263 (0.285)	-0.552** (0.184)
Challenges	0.118 (0.539)	-0.093 (0.242)	0.0688 (0.292)	-0.299 (0.257)
Damages	-0.253 (0.527)	-0.026 (0.260)	-0.315 (0.296)	-0.469 (0.256)
Electoral proximity	-0.054 (0.135)	-0.016 (0.070)	-0.046 (0.108)	0.010 (0.113)
Retirement	0.411 (0.245)	-0.011 (0.155)	0.209 (0.115)	0.045 (0.098)
Lame duck	0.347 (0.340)	0.271 (0.160)	-0.520* (0.249)	-0.022 (0.176)
Constant	-3.357 (2.235)	1.978 (1.890)	0.407 (1.417)	1.274 (1.508)
Year effects	Yes	Yes	Yes	Yes
Observations	590	1510	1264	1838

Dependent variable equals Pr(Pro-environment Vote = 1). Standard errors clustered by case and in parentheses below probit coefficients. Omitted case type indicator is Violations. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Appendix Table A3: Instrumental Variables Analysis of Campaign Contributions

	<i>Attack Ads</i>		<i>General Ads</i>	
	<i>2nd-stage</i>	<i>1st-stage</i>	<i>2nd-stage</i>	<i>1st-stage</i>
	[1a]	[1b]	[2a]	[2b]
Attack ad x Public opinion	5.156*	-1.557	---	---
	(2.461)	(4.153)		
General ad x Public opinion	---	---	0.128	7.006
			(2.005)	(4.009)
Public opinion	-0.128	-1.422	0.399	-2.744
	(1.049)	(2.470)	(1.123)	(2.667)
Attack ad	-2.246	-0.994	---	---
	(1.209)	(1.977)		
General ad	---	---	-0.077	-4.979*
			(1.043)	(2.012)
Democratic judge	-0.022	1.599**	-0.017	1.762**
	(0.181)	(0.328)	(0.191)	(0.314)
Permitting	0.013	-0.860*	-0.028	-0.515
	(0.239)	(0.420)	(0.237)	(0.501)
Challenges	0.085	-0.429	0.020	-0.005
	(0.271)	(0.478)	(0.276)	(0.537)
Damages	0.230	-1.724**	0.177	-1.374*
	(0.283)	(0.518)	(0.274)	(0.576)
Electoral proximity	0.058	-0.062	0.036	0.120
	(0.095)	(0.315)	(0.099)	(0.321)
Retirement	-0.234	1.162**	-0.117	1.165*
	(0.190)	(0.431)	(0.196)	(0.488)
Lame duck	0.247	-0.554	0.238	-0.451
	(0.200)	(0.637)	(0.207)	(0.641)
Net environment contributions (predicted from 1 st -stage equation)	0.139*	---	0.131*	---
	(0.055)		(0.055)	
State population	---	-0.203**	---	-0.208**
		(0.025)		(0.025)
Constant	0.511	-2.170	0.274	-1.741
	(0.608)	(1.272)	(0.646)	(1.366)
Year effects		No		No
Observations		1129		1129

Dependent variable of 2nd-stage equations in Columns [1a] and [2a] equals Pr(Pro-environment Vote = 1).
 Dependent variable of 1st-stage equations in Columns [1b] and [2b] equals Net Environment Contributions. Standard errors in parentheses below coefficients and clustered by case. Omitted case type indicator is Violations. * $p < 0.05$, ** $p < 0.01$, two-tailed. The instrument for contributions is State Population, which Gerber (1998) uses as an instrument for campaign spending. Almost all of the contributions are from businesses and as in Gerber (1998) these contributions will be higher the larger the population due to the associated higher media costs and expenses of a campaign. We accordingly expect state population to be negatively associated with net environmental contributions, a pattern validated by the analysis.

Supplemental Appendix

Supplemental Appendix A. Additional Analyses

Supplemental Table 1: Robustness Analysis to Case Exclusions

	<i>Excluding Hawaii</i>	<i>Excluding Michigan and Ohio</i>	<i>Excluding per curiam decisions</i>	<i>Excluding unpublished cases</i>
	[1]	[2]	[3]	[4]
Public opinion				
x Partisan elections	1.255 (2.050)	1.525 (2.064)	2.482 (2.258)	1.504 (2.050)
x Nonpartisan elections	-2.436 (1.570)	-3.038 (1.612)	-2.511 (1.596)	-2.193 (1.559)
x Commission-Retention	-1.407 (1.517)	-1.266 (1.521)	-1.270 (1.532)	-1.165 (1.508)
x Appointment	-1.458 (1.491)	-1.331 (1.486)	-1.047 (1.500)	-1.240 (1.463)
Democratic judge	0.202** (0.052)	0.209** (0.052)	0.218** (0.053)	0.228** (0.051)
Partisan elections	-1.610 (1.019)	-1.740 (1.015)	-2.076 (1.096)	-1.664 (1.012)
Nonpartisan elections	0.397 (0.681)	0.720 (0.713)	0.634 (0.683)	0.356 (0.671)
Commission-Retention	0.210 (0.712)	0.155 (0.705)	0.281 (0.716)	0.167 (0.706)
Electoral proximity	-0.036 (0.053)	-0.049 (0.054)	-0.042 (0.054)	-0.043 (0.053)
Retirement	0.095 (0.067)	0.090 (0.068)	0.059 (0.067)	0.085 (0.066)
Lame duck	-0.005 (0.106)	-0.064 (0.106)	0.018 (0.107)	-0.003 (0.104)
Permitting	-0.440** (0.121)	-0.381** (0.123)	-0.389** (0.121)	-0.376** (0.118)
Challenges	-0.186 (0.136)	-0.112 (0.139)	-0.137 (0.138)	-0.143 (0.135)
Damages	-0.404** (0.141)	-0.350* (0.146)	-0.341* (0.143)	-0.361** (0.140)
Constant	0.952 (0.888)	0.977 (0.883)	0.784 (0.893)	0.900 (0.873)
Year effects	Yes	Yes	Yes	Yes
Observations	5099	5056	4946	5204

Dependent variable equals Pr(Pro-environment Vote = 1). Columns [1]-[3] report coefficients and standard errors from probit analyses with standard errors clustered by case. Columns [4] and [5] report coefficients and standard errors from a mixed effects logit model with random effects by case. Omitted case type is Violations and omitted main effect for selection system is Appointment. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Supplemental Table 2: Supplementary Alternative Specifications

	<i>Non- discretionary review</i>	<i>Since 2000</i>	<i>Random effects</i>	<i>Random effects</i>
	[1]	[2]	[3]	[4]
Public opinion				
x Partisan elections	4.846 (5.961)	2.733 (2.101)	9.856 (21.459)	24.094 (18.599)
x Nonpartisan elections	8.379 (7.642)	-0.098 (1.173)	-19.792 (17.877)	-3.625 (11.626)
x Commission-Retention	6.148 (6.921)	1.777 (1.267)	-5.614 (16.345)	5.763 (10.557)
x Appointment	7.488 (6.190)	1.022 (1.021)	-3.597 (16.195)	12.118 (9.666)
Democratic judge	0.095 (0.113)	0.227** (0.066)	1.634** (0.178)	1.628** (0.177)
Partisan elections	2.437 (1.939)	-0.975 (1.193)	-8.205 (10.699)	-5.989 (11.339)
Nonpartisan elections	0.760 (1.578)	0.547 (0.808)	6.982 (8.157)	7.674 (8.372)
Commission-Retention	0.715 (1.979)	-0.089 (0.838)	3.463 (8.039)	7.427 (8.005)
Electoral proximity	-0.180 (0.103)	-0.087 (0.074)	0.282 (0.196)	0.281 (0.194)
Retirement	-0.115 (0.182)	0.083 (0.088)	0.170 (0.230)	0.160 (0.228)
Lame duck	-0.573* (0.249)	0.007 (0.153)	0.171 (0.419)	0.167 (0.416)
Permitting	-0.277 (0.330)	-0.406** (0.151)	-4.029** (1.290)	-4.604** (1.337)
Challenges	0.017 (0.424)	-0.187 (0.175)	-1.832 (1.442)	-2.259 (1.435)
Damages	-0.468 (0.373)	-0.346 (0.190)	-4.006* (1.558)	-4.098* (1.594)
Constant	-4.368 (3.588)	-0.390 (0.581)	3.112 (9.710)	-3.801 (5.651)
Year indicators	Yes	No	Yes	No
Observations	977	3034	5232	5232

Dependent variable equals Pr(Pro-environment Vote = 1). Columns [1]-[3] report coefficients and standard errors from probit analyses with standard errors clustered by case. Columns [4] and [5] report coefficients and standard errors from a mixed effects logit model with random effects by case. Omitted case type indicator is Violations and omitted main effect for selection systems is Appointment. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Supplemental Table 3: Alternative Analyses of Advertisements

	<i>Without year effects</i>	<i>With year effects, endogenous contributions</i>	<i>With year effects, endogenous contributions</i>
	[1]	[2]	[3]
Attack ad x Public opinion	---	5.924* (2.803)	---
General ad x Public opinion	1.110 (2.491)	---	0.585 (2.290)
Public opinion	-2.149 (2.858)	-1.762 (2.760)	-1.200 (2.954)
Attack ad	---	-2.693 (1.399)	---
General ad	-0.929 (1.250)	---	-0.427 (1.197)
Democratic judge	0.366** (0.128)	0.073 (0.195)	0.088 (0.209)
Permitting	-0.141 (0.270)	-0.057 (0.272)	-0.078 (0.263)
Challenges	0.136 (0.298)	0.112 (0.302)	0.066 (0.306)
Damages	-0.140 (0.297)	0.099 (0.324)	0.058 (0.307)
Retirement	-0.087 (0.174)	-0.314 (0.194)	-0.175 (0.191)
Lame duck	0.216 (0.192)	0.277 (0.201)	0.276 (0.205)
Electoral proximity	-0.032 (0.089)	0.004 (0.087)	-0.003 (0.087)
Net environment contributions (predicted from 1 st -stage equation)	---	0.113 (0.064)	0.102 (0.064)
Constant	1.234 (1.696)	1.283 (1.582)	1.029 (1.709)
Year effects	No	Yes	Yes
Observations	1129	1129	1129

Dependent variable equals Pr(Pro-environment Vote = 1). Column [1] reports a one-equation probit analysis, and Columns [2] and [3] report an instrumental variables probit analysis in which net environment contributions is instrumented by State Population. Standard errors clustered by case given below coefficients. Omitted case type indicator is Violations. * $p < 0.05$, ** $p < 0.01$, two-tailed.

Supplemental Appendix B. Public Opinion Estimates

Multilevel Regression with Post-Stratification (MRP)

The analysis models individuals' responses to survey questions about the environment as a function of respondents' demographic and geographic characteristics. The components of the model include:

Demographic categories

Gender-race: white-male, black-male, Hispanic -male, white-female, black-female, and Hispanic-female.

Age: 18-29, 30-44, 45-64, and over 65.

Education: less than a high school diploma, a high school diploma or equivalent, some college, and a college degree or higher.

Partisanship: Democratic, Republican, or Independent.

With these categories, we model responses for $6 \times 4 \times 4 \times 3 = 288$ respondent demographic combinations.

Geographic categories

The primary component that models geographic response variation is a set of state-level intercepts, which we in turn nest into four regional intercepts. The state-level intercepts are modeled as a function of the Democratic vote share in the state in the most recent presidential election, and the proportion of evangelical and Mormon residents in the state, according to the Census.

Additional factors

In addition to respondents' demographic and geographic characteristics, we typically include modeled intercepts for the poll from which a survey response comes as well as the particular question being answered. In some years, we only have a single poll and so cannot include the former, and in some years we only have a single question being asked (even if asked on multiple polls) and so cannot include the latter. However, when we have more than one poll and/or more than one question, we include the relevant intercepts as appropriate.

Surveys

Question wording	Survey organizations and dates
...when a trade-off has to be made, which is more important to you — stimulating the economy or protecting the environment?	CBS and CBS-New York Times (NYT): Dec 17-22, 2009; Dec. 4-9, 2009; Jan. 11-Jan. 15, 2009; Apr. 20-24, 2007; Sept. 9-13, 1992; May 27-30, 1992
...Do you agree or disagree...Protecting the environment is so important that requirements and standards cannot be too high and continuing environmental improvements must be made regardless of cost?	CBS and CBS-NYT: Apr. 20-24, 2007; Oct. 27-31, 2006; Jan. 21-24, 2002; Nov. 20-24, 2002; Jun. 14-18, 2001; Mar. 8-12, 2001; Nov. 23-24, 1997; May 31-Jun. 3, 1996; Oct. 21-23, 1992; May 27-30, 1992; Mar. 30-Apr. 2, 1990
Do you agree or disagree... We must protect the environment even if it means jobs in your community are lost because of it?	CBS and CBS-NYT: July 13-16, 2000; Nov. 23-24, 1997; Jun. 20-23, 1996; Mar. 28-31, 1993; Sept. 9-13, 1992; Mar. 30-Apr. 2, 1990

This country should do whatever it takes to protect the environment OR...This country has gone too far in its efforts to protect the environment.

Pew Center for People and Press: Jan. 23-Mar. 3, 2014; Feb.-Mar. 2011; Dec. 1-16, 2004; Aug. 24-Sept. 10, 2000; Jul. 14-Dec. 9, 1999; Oct. 14-20, 1996

Stricter environmental laws and regulations cost too many jobs and hurt the economy OR...Stricter environmental laws and regulations are worth the cost.

Pew Center for People and Press: Jan. 23-Mar. 3, 2014; Feb.-Mar. 2011; Mar. 13-30, 2008; Nov. 7-26, 2007; May 8-Aug. 13, 2007; Feb. 8-Mar. 7, 2006; Dec. 1-16, 2004; Aug. 24-Sept. 10, 2000; Jul. 14-Dec. 9, 1999; Oct. 14-20, 1996

With which one of these statements about the environment and the economy do you most agree?: 1) Protection of the environment should be given priority even at the risk of curbing economic growth; or 2) Economic growth should be given priority even if the environment suffers to some extent.

Gallup, Gallup/CNN/USA Today, Gallup/Life/If Only Women Ran America, USA Today/Gallup, Public Agenda Foundation: May 24-25, 2010; Jan. 15-30, 2009; March 2003; Apr. 13-16, 2000; Apr. 13-14, 1999; Mar. 12-14, 1999; Apr. 17-19, 1998; Jul. 25-27, 1997; Apr. 17-19, 1995; Mar. 30-Apr. 5, 1992; Apr. 5-8, 1990

What do you think is most important: protecting the environment or producing energy?

CBS and CBS-NYT: Nov. 20-24, 2002; Jun. 14-18, 200; Apr. 23-24, 2001; Mar. 8-12, 2001

Some people think it is important to protect the environment even if it costs some jobs or otherwise reduces our standard of living...Other people think that protecting the environment is not as important as maintaining jobs and our standard of living.

American National Elections Study: 2008, 2004, 2000, 1996

Some people think we need much tougher government regulations on business in order to protect the environment...Others think that current regulations to protect the environment are already too much of a burden on business.

American National Elections Study: 1998, 1996

Should federal spending on environmental protection be increased, decreased, or kept about the same?

American National Elections Study: 2008, 2002, 2000, 1994, 1992, 1990, 1988

Protection of the environment should be given priority, even at the risk of limiting the amount of energy supplies — such as oil, gas and coal — which the United States produces (or) development of U.S. energy supplies — such as oil, gas and coal — should be given priority, even if the environment suffers to some extent?

Gallup: March 2003

... Tougher laws and regulations to protect the environment even if it raises prices or costs jobs...

Public Religion Research Institute: Jan. 28-Feb. 24, 2013

...We must protect environment even if it means increased government spending and higher taxes...

CBS-NYT: Mar. 20-Apr. 2, 1990

...We need to relax our environmental laws in order to achieve economic growth, OR 2. We

CBS: Apr. 23-24, 2001

need to maintain our present environmental laws in order to preserve the environment for future generations...

...Increasing environmental controls, even if it reduces employment opportunities...

Princeton Survey Research Associates: May 18-24, 1993
