PUBLIC OPINION AND DEATH PENALTY POLICY UNDER DIRECT DEMOCRACY INSTITUTIONS: A DYNAMIC ANALYSIS OF THE AMERICAN STATES

Christian Caron

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Political Science, Concentration in American Politics.

Chapel Hill
2018

Approved by:

Frank R. Baumgartner

Virginia Gray

Isaac Unah

ABSTRACT

CHRISTIAN CARON: Public Opinion and Death Penalty Policy Under Direct Democracy Institutions: A Dynamic Analysis of the American States
(Under the direction of Frank R. Baumgartner.)

This paper assesses the conditional effect of direct democracy on death penalty policy in the American states. I argue that these institutions have played an integral role in maintaining capital punishment in the United States by enhancing responsiveness to public preferences, which are generally supportive of the death penalty. The findings provide some support for my expectations, showing that direct democracy amplifies the effect of public opinion on policy, even if it does not necessarily increase the probability that policy will be congruent with majority preferences. This paper also overcomes a methodological limitation of prior studies on this subject, which employ a cross-sectional research design. Because public opinion—especially on the death penalty—and policy evolve over time, such a design can produce misleading results due to its static nature. Using the longitudinal research design promoted by Lewis and Jacobsmeier (2017), in combination with yearly state-level death penalty opinion estimates computed by Gelman and Shirley (2015), I am able to account for the dynamic nature of opinion and policy.

TABLE OF CONTENTS

LIST OF TABLES v

LIST OF FIGURES vi

INTRODUCTION 1

Public Opinion, Direct Democracy, and Policy Representation 3

Theory and Hypotheses 5

The Utility of Dynamic Analyses 9

Data and Methods 10

Results 17

Conclusion 25

APPENDIX 29

REFERENCES 35

LIST OF TABLES

Table

1 Summary Statistics for Dichotomous Variables 11

2 Summary Statistics for Continuous Variables 13

3 Event History Models of Death Penalty Reinstatement, 1972-2006 19

4 Event History Models of Death Penalty Reinstatement with Interaction Terms, 1972-2006 20

5 Logistic Regression Models of Policy Responsiveness, 1982-2006 22

6 Logistic Regression Models of Policy Responsiveness with Interaction Terms, 1982-2006 23

7 Logistic Regression Models of Policy Congruence, 1982-2006 25

8 State Reinstatement of the Death Penalty After *Furman v. Georgia* 29

9 Event History Models of Death Penalty Reinstatement, 1972-2006 (All States) 30

10 Event History Models of Death Penalty Reinstatement with Interaction Terms, 1972-2006 (All States) 30

11 Logistic Regression Models of Policy Responsiveness without Southern States, 1982-2006 31

12 Logistic Regression Models of Policy Responsiveness with Interaction Terms and without Southern States, 1982-2006 31

13 Logistic Regression Models of Policy Responsiveness with Yearly Fixed Effects, 1982-2006 32

14 Logistic Regression Models of Policy Responsiveness with Interaction Terms and Yearly Fixed Effects 1982-2006 32

LIST OF FIGURES

Figure

1 Death Penalty Support by State, 1972-2006. 8

2 Marginal Effects of Public Opinion on Risk of Death Penalty Reinstatement by Direct Democracy, 1972-2006 (Model 3). 20

3 Marginal Effects of Public Opinion on Risk of Death Penalty Reinstatement by Direct Democracy Impact, 1972-2006 (Model 4). 21

4 Marginal Effects of Public Opinion on Probability of Having the Death Penalty by Direct Democracy, 1982-2006 (Model 7). 23

5 Marginal Effects of Public Opinion on Probability of Having the Death Penalty by Direct Democracy Impact, 1982-2006 (Model 8). 24

6 Survival Function by Direct Democracy (Model 1) 33

7 Survival Function by Direct Democracy Impact (Model 2) 33

8 Probability of Having the Death Penalty by Direct Democracy (Model 5) . 34

9 Probability of Having the Death Penalty by Direct Democracy Impact (Model 6) 34

INTRODUCTION

In May 2015, Nebraska did what no conservative state had done in over 40 years. In defiance of the state's Republican governor, Pete Ricketts, its unicameral, nonpartisan legislature passed a bill abolishing capital punishment. For a time at least, it seemed that Nebraska had become the sixth state since 2007 to legislatively abolish the death penalty. Central to the argument of the bill's proponents was the inordinate cost of maintaining the capital punishment system, combined with the fact that no execution had been carried out in the state since 1997. Conservative legislators, citing their committment to reducing government waste and inefficiency, apparently found these points persuasive.

It would not be long, however, before an organized effort to undo the repeal bill was underway. Later that summer, an interest group called Nebraskans for the Death Penalty, with the financial backing of the Ricketts family, launched a popular referendum campaign. The petition secured enough signatures to not only qualify for the ballot in the 2016 elections but also to suspend the enactment of the bill. To the dismay of death penalty opponents, Nebraska voters overwhelmingly opted to reinstate capital punishment on Election Day 2016, marking the fifth time a state had done so since 1976, the year considered to represent the beginning of the modern death penalty system.[1] This prolonged, and ultimately unsuccessful, abolition attempt demonstrates the role of direct democracy in maintaining capital punishment in the U.S.

Despite Nebraska's failure to end capital punishment, long-term trends suggest the death penalty is in decline in the United States as a whole, especially when measured in terms of usage. Over the past two decades, both death sentences and executions have declined precipitously as attention to wrongful convictions has risen (Baumgartner, De Boef and Boydstun 2008). In many states, executions have become so rare that the death penalty is

[1] The other states to have done so were Oregon (1978 and 1984), California (1978), and Massachusetts (1982).

effectively a more expensive form of life imprisonment without the possibility of parole (LWOP) (Baumgartner, Davidson, Johnson, Krishnamurthy and Wilson 2018). Indeed, those condemned to death usually see their sentences reduced to LWOP. But even among the inmates who never leave death row, the lengthy appeals process, which sometimes spans over 20 years, and the frequency of stays of execution mean there is a strong possibility that they will never be executed. Further, as of April 2018, four states—Pennsylvania, Oregon, Washington, and Colorado—have gubernatorial-imposed moratoria on executions. In short, with the exception of a small number of states—most notably Texas—the death penalty is virtually extinct in practice.

Yet, the death penalty remains a legal punishment in 31 states. The question motivating this paper, therefore, is why a criminal justice policy that is significantly more costly than the alternative while usually resulting in the same penalty is still on the books in the majority of states. It would be a mistake to discount the role of public opinion (Erikson, Wright and McIver 1993), which remains solidly behind the death penalty, at least in the abstract, despite recent increases in anti-death penalty sentiment (Baumgartner, De Boef and Boydstun 2008; Baumgartner et al. 2018; Enns 2016). As illustrated by the case of Nebraska, though, a state's institutional arrangements can affect policy by conditioning the effect of public opinion. I argue that direct democracy institutions—principally the ballot initiative and popular referendum—provide an additional layer of protection to death penalty statutes by directly and indirectly enhancing government's responsiveness to public preferences. This paper also addresses the related question of whether direct democracy increases the likelihood that policy will be congruent with majority preferences. While the results provide some evidence that direct democracy fosters policy responsiveness, they fail to support my expectations regarding policy congruence.

After reviewing the relevant literature, I discuss the theoretical reasons underlying the connection between direct democracy and policy representation. From there, I explain the advantages a longitudinal design such as the one used in this study provides in assessing policy representation over the more conventional cross-sectional approach. I then test my expectations using both event history and cross-sectional time series data. The event history

models analyze the role direct democracy played in encouraging states to reinstate capital punishment after *Furman v. Georgia* (1972), the landmark ruling in which the Supreme Court invalidated all existing death penalty statutes due to their "abritrary and capricious" nature. Such an analysis is absent from most scholarly accounts of this major intervention (e.g., Mooney and Lee 2000; Jacobs and Carmichael 2002; but see Boehmke 2005). These models provide an initial test of the hypothesized relationship between direct democracy and policy responsiveness. Next, I make use of cross-sectional time series data covering over two decades of the post-*Furman* death penalty era, which offer an alternative method for assessing policy responsiveness. This dataset also allows me to examine whether direct democracy improves policy congruence. The paper concludes with a discussion of the implications of the findings for the future of death penalty policy.

Public Opinion, Direct Democracy, and Policy Representation

Scholars of representation understand policy responsiveness and policy congruence to be related yet distinct concepts (e.g., Campbell 1981; Eulau and Karps 1977; Kuklinski 1979). Responsiveness is defined as the extent to which "policy reacts to public opinion" (Lewis and Jacobsmeier 2017, 443). In order for a state to be considered responsive, there must only exist a positive correlation between opinion and policy. Congruence, on the other hand, measures whether "policy actually matches majority opinion" (Lax and Phillips 2012, 148). It is more difficult for states to achieve congruence than responsiveness. As such, a state can be classified as responsive even if it fails to exhibit congruence. After all, the fact that policy is inconsistent with majority opinion some or even much of the time does not mean that public opinion does not matter at all (Lax and Phillips 2009*a*). This fact is made evident by Lax and Phillips (2012), who generate policy-specific, state-level opinion estimates across a wide range of policies and find that although states are highly responsive to public opinion, policy is incongruent with majority preferences about half the time (see also Erikson, Wright and McIver 1993).

Contrary to the findings of early studies (e.g., Treadway 1985), scholars now generally accept that state policy is, at least to some extent, representative of public preferences (e.g.,

Gray, Lowery, Fellowes and McAtee 2004; Caughey and Warshaw 2018). But public opinion is not the only determinant of public policy. Indeed, policy variation across the states is also a function of their institutional differences, including the presence or absence of direct democracy (Lupia, Krupnikov, Levine, Piston and Hagen-Jamar 2010). First championed by Progressive and Populist reformers (Sullivan 1893), direct democracy initially had the effect of moving state policy leftward, at least in the fiscal realm (Matsusaka 2000). More recently, though, it has aided conservatives in realizing much of their policy agenda. Direct democracy states, typically defined as those with the initiative or popular referendum, have been predisposed to enact tax limitation measures (Matsusaka 1995); anti-minority policies (Lewis 2013; Lewis and Jacobsmeier 2017), including same-sex marriage bans, English-only laws, and affirmative actions bans; and restrictive abortion laws (Gerber 1996; Arceneaux 2002). Most notably for my study, these institutions also increase the probability that a state will have the death penalty (Gerber 1999). The somewhat contradictory findings from this literature suggest that direct democracy does not inherently bias policy in a liberal or conservative direction; rather, by giving citizens agenda-setting power, it increases the influence of median voter preferences, which vary across issues and evolve over time. In other words, the effect of direct democracy on policy is conditional on public opinion (Lupia and Matsusaka 2004).

Some work, however, casts doubt on the existence of a relationship between direct democracy and policy representation. Studies examining a wide array of policies typically find little or no connection between the two. Lascher, Hagen, and Rochlin (1996) examine whether state policy outcomes, operationalized in terms of expenditures, are more consistent with public opinion in initiative states than in non-initiative states. They find that this is the case for only two of the eight policies under examination. Similarly, Lax and Phillips (2012), using the state-policy as the unit of analysis, find no relationship between direct democracy and responsiveness or congruence on 39 policies encompassing eight issue areas. Moreover, direct democracy does not appear to enhance government's responsiveness to a citizenry's general ideological orientation, implying that any impact it has is issue-specific. Caughey and Warshaw (2018) construct dynamic measures of state

mass liberalism on both the economic and social dimensions and find that direct democracy does not condition the effect of opinion on the overall liberalism of state policy in either domain (see also Burden 2005).

Studies reporting a responsiveness-enhancing effect of direct democracy, by contrast, tend to deal exclusively with highly salient and nontechnical issues such as those mentioned previously. On such "easy" issues, instead of relying on interest groups and other intermediaries to communicate their views to lawmakers, voters themselves are capable of sending clear signals about their preferences (Carmines and Stimson 1980; Mooney and Lee 2000). The theory that direct democracy enhances policy representation, which I will explicate in the next section, depends upon voters being able to make their views known to elected officials or, if necessary, at the ballot box— assumptions that are clearly truer for morality issues than for arcane issues that receive little media attention.

Theory and Hypotheses

Due to the death penalty's status as a salient morality issue, state governments should be especially attuned to public attitudes toward it (Mooney and Lee 2000). As a consequence, even non-direct democracy states should be highly responsive to death penalty opinion. There is reason to believe, however, that this responsiveness will be amplified in direct democracy states. The institutions principally responsible for this effect are the initiative and popular referendum, which enable voters to circumvent the representative system in passing and repealing laws, respectively. Unlike the legislative referendum, both types of measures originate from the citizenry rather than the legislature. As envisioned by the Progressives, by affording citizens direct control over policymaking, direct democracy enhances policy representation; if lawmakers refuse to pass a popular policy or, worse, enact a law despite public opposition, voters have recourse to change policy without the participation of the legislature.

Of course, in order for direct democracy to serve its intended purpose, voters must be aware when policy conflicts with their preferences. It would not be unreasonable to

question whether they possess this ability. Early public opinion research seemed to indicate that citizens generally pay little attention to politics, particularly at the state level (Campbell, Converse, Miller and Stokes 1960; Converse 1964; Treadway 1985). But it has since become evident that interest groups and political elites serve to compensate for voters' low levels of information in the direct democracy realm, educating them about the issues on the ballot through paid media and other campaign activity (Tolbert, McNeal and Smith 2003; Smith and Tolbert 2009; Boehmke 2002, 2005). Further, voters should require less education about highly salient, "gut-level" issues than other, more complex issues (e.g., Nicholson 2003) This means that, in addition to being more likely to have a prior opinion about the death penalty, they should be more aware of the current state of policy as well as when an initiative or referendum campaign concerning it is ongoing. Voters also have more motivation to turn out when issues they deem to be fundamental are at stake (Tolbert, Grummel and Smith 2001). For these reasons, the death penalty lends itself to initiative and referendum campaigns and, indeed, is regularly a subject of them.

More important for my purposes, direct democracy can influence policy through *indirect* means. In other words, voters do not need to actually utilize these institutions in order for them to alter public policy. Direct democracy constrains the behavior of legislators by encouraging them to pass legislation that approximates median voter preferences (Gerber 1996, 1999). Consider a scenario in which median voter preferences are distant from the status quo policy. Under these circumstances, if the legislature's preferences are closer to the status quo than those of the median voter, lawmakers may not feel compelled to pass a new policy. If, however, there exists a credible threat that voters will pass an initiative in line with their preferences, the legislature may pass a more moderate version of the policy in the hope of preempting extreme change. Because policy change can also come about by repealing existing legislation, similar dynamics should be at play under the popular referendum. Notably, an explicit ballot proposal need not exist in order for lawmakers to perceive a threat to be credible; the public would likely notice and care if the legislature were to subvert majority will on an issue as prominent and fundamental as the death penalty, making it feasible that the resulting outcry could culminate in a successful initiative or referendum

campaign.

Direct democracy can operate as a catalyst for policy change even when lawmakers and voters have similar preferences. In their attempt to secure reelection, lawmakers routinely tout their role in passing popular policies (Mayhew 1974). Collectively, they advertise legislative accomplishments that they feel would help their party win or maintain control of government (Downs 1957; Kang and Powell 2010). The ability of both individual politicians and parties to engage in "credit-claiming," however, is compromised if such policies are passed through direct democracy instead of the regular legislative process (Lewis, Wood and Jacobsmeier 2014). It is in their interest, then, to act before voters take matters into their own hands. As a result, direct democracy should hasten the legislature's response to changes in opinion, provided that the issue is sufficiently salient to voters (Lewis and Jacobsmeier 2017; Arceneaux 2002).

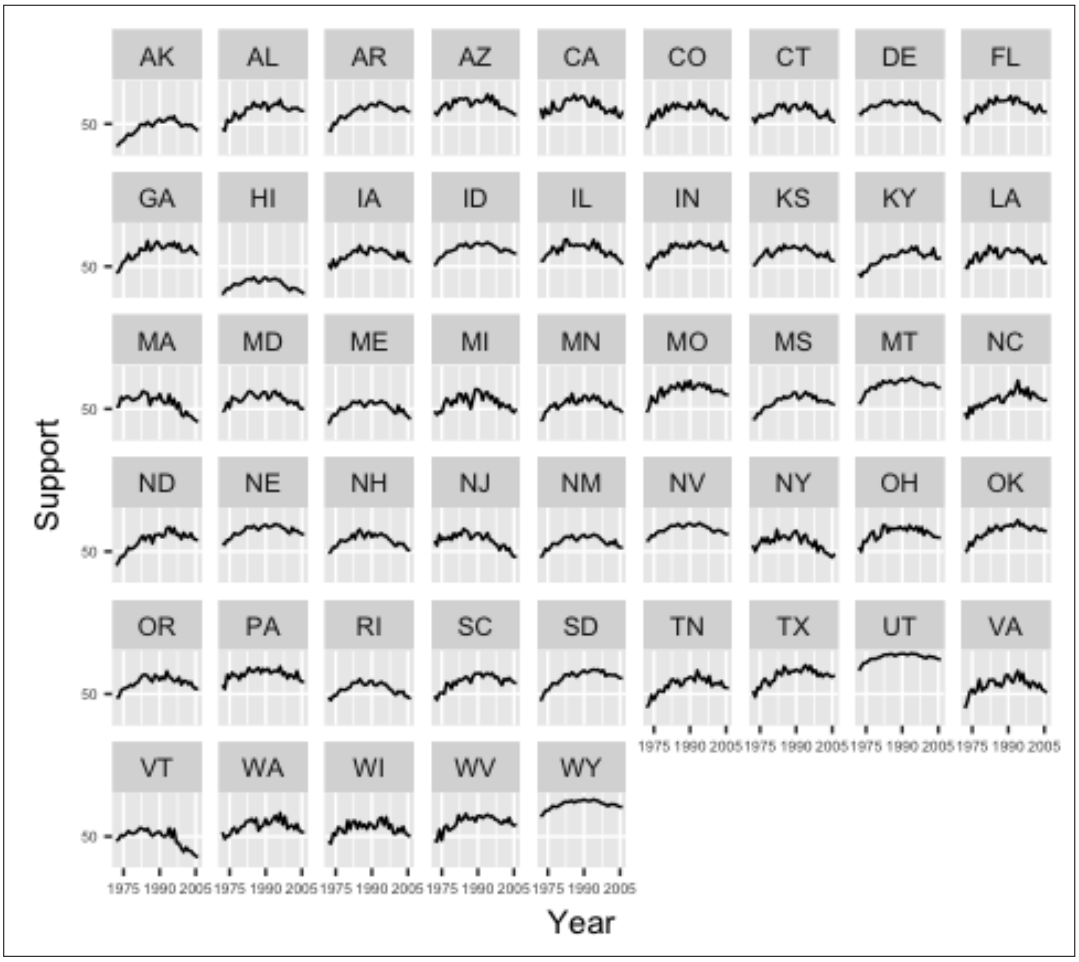
Finally, by offering an alternative means of affecting policy, direct democracy fosters the formation of interest groups, particularly those with a citizen orientation (Boehmke 2002, 2005). Citizen groups are more likely than economic groups to benefit from direct democracy campaigns, which are better suited for policies with broad public support than policies that appeal to only a narrow constituency (Gerber 1999). By diversifying and democratizing the interest group system, which tends to be dominated by businesss interests (Schattschneider 1960), direct democracy should assist citizens in communicating their preferences and applying pressure—through lobbying and campaign spending—to elected officials (Hall and Wayman 1990; Langbein 1986).

As outlined above, there are multiple avenues through which direct democracy can enhance policy representation. These theoretical linkages lead me to the following hypotheses, the first of which deals with responsiveness and therefore describes an interactive relationship:

H_1: The effect of public opinion on death penalty policy is greater in direct democracy states than in non-direct democracy states.

H_2: The probability that death penalty policy will be congruent with majority opinion is greater in direct democracy states than in non-direct democracy states.

Fig. 1: Death Penalty Support by State, 1972-2006.



Source: Gelman and Shirley (2015)

In addition, when public opinion leans strongly in one direction, it is reasonable to expect direct democracy to bias policy in that direction. I anticipate that these institutions have had this effect in the case of the death penalty, considering that public opinion was unequivocally pro-death penalty in most states during the period under examination. This is made evident in Figure 1, which plots the level of public support for the death penalty for all states from 1972 to 2006. In about 89 percent of state-years, it commanded majority support. The next hypotheses follow from my expectations regarding the effects of direct democracy on policy representation:

H_3: Following *Furman*, direct democracy states were faster to reinstate the death penalty than non-direct democracy states.

H_4: The probability of a state having the death penalty is greater in direct democracy states than in non-direct democracy states.

The Utility of Dynamic Analyses

Virtually every study asssessing the effects of direct democracy on policy representation employs a cross-sectional research design. The dominance of this approach is largely due to the difficulty state politics scholars historically faced in obtaining dynamic estimates of policy-specific opinion. Erikson, Wright, and McIver's (1993) seminal work represents a significant step forward in developing subnational opinion estimates, introducing the method of disaggregation, which allows researchers to generate state-level opinion estimates by pooling large numbers of national surveys. But a major drawback to this approach is that the researcher must typically utilize surveys spanning multiple years in order to obtain sufficient within-state samples, thereby making it unsuitable for generating time-varying estimates. This problem has since been overcome by multilevel regression and poststratification (MRP), a technique developed by Park, Gelman, and Bafumi (2006) and popularized by Lax and Phillips (2009*a*; 2009*b*; 2012). This method involves first modeling individual-level opinion as a function of demographics and state-level factors and then weighting the predictions by population data (Lax and Phillips 2009*b*). In contrast to disaggregation, MRP has been demonstrated to produce reliable estimates of opinion using national surveys with as few as 1,400 respondents. Hence, assuming the researcher has access to the necessary individual-level survey and population data, it is possible to produce dynamic estimates under this approach. Such estimates were unavailable to those who previously examined the relationship between direct democracy and capital punishment, suggesting the topic is worth revisiting (Gerber 1999; Boehmke 2005).

As Lewis and Jacobsmeier (2017) point out, when it comes to the study of policy representation, longitudinal designs are preferable to cross-sectional ones. By allowing for temporal variation in policy, longitudinal studies account for the possibility that policy may be reflective of public opinion in some years but not others, thereby providing a more complete and accurate picture of policy congruence. The static nature of cross-sectional

analyses, by contrast, puts them at risk of over- or underestimating a state's level of congruence. Another advantage of longitudinal designs, particularly those employing event history analysis, is their ability to measure the speed at which states react to opinion. After all, there could be long gaps between otherwise similar states adopting a policy, as was the case following *Furman*; not until 1994, for example, did Kansas reinstate the death penalty—a full two decades after most other states had done so, even though the majority of Kansans supported capital punishment during the entire intervening period (Gelman and Shirley 2015). A cross-sectional study would mistakenly assess two states as equally responsiveness just because they both had the policy of interest at the time of the study.

Due to their ability to utilize time-varying measures of opinion, longitudinal analyses can properly account for the highly dynamic nature of state-level public opinion on the death penalty (Gelman and Shirley 2015; Pacheco 2014). Thus, even in the absence of policy change, longitudinal designs can provide greater insight into policy representation than cross-sectional ones. Indeed, it can be informative if a state failed to adopt a policy despite growing public support for it over time or, conversely, defied popular will in refusing to end an increasingly unpopular policy. Longitudinal analyses also provide a more comprehensive picture of policy congruence, which can result from not just policy coming into alignment with opinion but the reverse as well (Lewis and Jacobsmeier 2017). A cross-sectional study, on the other hand, cannot appropriately handle states that transition from congruence to incongruence, or vice versa, as a result of changes in opinion.

Data and Methods

I first evaluate the impact of direct democracy on policy responsiveness with event history analysis (EHA). More specifically, I estimate Cox Proportional Hazards models, with the exact partial likelihood method for handling ties (Box-Steffensmeier and Jones 2004). In EHA, the goal is to explain the hazard rate, the probability that a subject will experience an event at a given point in time. The *observed* dependent variable, however, is a dummy variable indicating the occurrence of an event— in this case, state legislative reenactment of capital punishment for first-degree murder or the equivalent offense following *Furman*.

Table 1: Summary Statistics for Dichotomous Variables

	Frequency of observations	% of observations
Event History Models		
Reinstatement	38	14
No reinstatement	238	86
Direct democracy	58	21
No direct democracy	218	79
Prior abolition	144	52
No prior abolition	132	48
Divided government	145	53
Unified government	131	47
South	30	11
Non-South	146	89
Logistic Regression Models		
Death penalty	899	73
No death penalty	326	27
Direct democracy	564	46
No direct democracy	661	54
South	275	22
Non-South	950	78
Congruent policy	966	79
Incongruent policy	259	21
Elected court	1050	86
Appointed court	175	14

Unlike conventional logistic regression, EHA properly accounts for right-censoring, which occurs when a subject does not experience an event before the end of the study period. Of the 41 states that comprised the initial risk set, three did not experience the event. Table 8, which is in the appendix, lists the years that states reinstated their statutes. Notably, only two reinstatements (California in 1973 and Oregon in 1978) occurred as the direct result of a citizen initiative, suggesting that if direct democracy accelerated reinstatement, it largely did so through indirect means. Table 1 presents descriptive statistics for all the dichotomous variables that appear in the models.

I include in the initial risk set every state that had the death penalty for conventional murder cases in 1960. I chose to use this date as the cut-off because it excludes states that were historically abolitionist and thus not "at risk" of passing a revised death penalty statute in response to *Furman*.[2] The risk set does, however, include the states that significantly

[2] Including all states in the model does not substantively change the results. See Tables 9 and 10 in the

restricted or outright abolished the death penalty during the brief abolitionist wave of the 1960s, since some of them later restored it. I include a dummy variable denoting the five states—Iowa, New Mexico, New York, Vermont, and West Virginia—that either abolished the death penalty or significantly restricted its scope in the years leading up to *Furman*.

I further test Hypothesis 1 with cross-sectional time series data spanning 1982 to 2006. This dataset contains 49 states, and the dependent variable is a dichotomous indicator of whether the state had the death penalty during the year.[3] Thus, even though both these and the event history models assess responsiveness, the former estimate the odds of having the death penalty, whereas the latter estimate the time to reinstatement. The summary statistics for the dependent variable in Table 1 show that, from 1982 to 2006, capital punishment was on the books in most state-years. While little policy change occurred during this period, there was, as previously mentioned, substantial opinion change. Thus, there are still benefits to be had from utilizing longitudinal data. I estimate logistic regressions with state random effects to adjust for the correlation of errors within states.

In both the Cox and logistic regression models, I employ two measures of direct democracy. The first is a binary indicator of whether the state has the initiative or popular referendum. Eighteen states meet these criteria in the event history dataset, while 23 do so in the cross-sectional time series dataset.[4] Besides having intuitive appeal, this measure is also the one that appears most frequently in the literature (e.g., Gerber 1996, 1999; Lax and Phillips 2012). A limitation of measuring direct democracy with a dummy variable, though, is that this measure does not account for the varying restrictiveness of these institutions from state to state. Hence, in some of the models, I substitute Lewis' (2013) measure of "direct democracy impact." I devise this measure using principal components analysis, and it is based off the number of inititiaves and popular referenda that reached the ballot during the study period, as well as Donovan and Bowler's (2004) Qualification

---

appendix.

[3] I exclude Nebraska because its legislature is nonpartisan.

[4] The latter figure includes Mississippi, which adopted the constitutional initiative in 1992.

Table 2: Summary Statistics for Continuous Variables

	Minimum	Maximum	Mean	Standard Deviation
Event History Models				
Direct democracy impact	0	5.00	0.73	1.48
Public opinion$_{t-1}$	30.20	73.77	55.36	10.22
Murder rate$_{t-1}$	1	18.5	6.29	4.12
Racial threat	70.33	99.93	78.48	7.54
Inmates per 100,000	0	1.64	0.14	0.27
Party control of government	0	1	0.62	0.35
Political culture	1.66	9	4.50	2.36
Adopting neighbors	0	6	2.30	1.88
Logistic Regression Models				
Direct democracy impact	0	5.80	1.33	1.65
Public opinion$_{t-1}$	24.01	91.04	65.03	9.88
Murder rate$_{t-1}$	0.20	20.30	6.11	3.41
Racial threat	54.28	99.31	84.65	9.10
Party control of government	0	1	0.57	0.35
Political culture	1	9	5.09	2.58
Neighboring states	0	8	3.54	1.96
Citizen ideology$_{t-1}$	-40.2	5.72	-15.03	8.12
Size of opinion majority$_{t-1}$	0.057	41.04	16.13	7.96
Change in opinion$_{t-1}$	0	13.37	3.09	2.47
Party competition	59.18	99.99	86.93	10.21
Legislative professionalism	2.70	65.90	20	13.07

Difficulty and Legislative Insulation Indices. The Qualification Difficulty Index takes into account the obstacles voters face in getting an initiative or referendum on the ballot, with particular emphasis on the state's petition signature requirements, while the Legislative Insulation Index measures the extent to which the legislature is able to amend voter-approved measures. All non-direct democracy states receive the minimum direct democracy impact score of zero, whereas the states that rely on these institutions most heavily—Oregon and California—receive a score of around five. Table 2 displays the summary statistics for direct democracy impact as well as the other continuous variables that appear in the models.

As Hypothesis 1 implies, I am particularly interested in the interaction of public opinion and direct democracy. I obtained yearly state-level estimates of death penalty support from Gelman and Shirley (2015), who computed them for the years 1953 to 2005 using Bayesian MRP. They utilized similarly worded survey questions from Gallup and the General Social Survey asking respondents whether they favored the death penalty "for persons

convicted of murder." The summary statistics for death penalty opinion in Table 2 show that, on average, well over a majority of Americans favored the death penalty from the 1970s to the mid-2000s (also see Figure 1). Consistent with previous studies (e.g., Page and Shapiro 1983), I lag the opinion measure by one year. This time gap gives state governments a reasonable amount of time to respond to changes in opinion, while also ensuring that opinion precedes policy, thus reducing the possibility of endogeneity. Furthermore, in order to ensure that the legislature is responding to citizens' issue-specific views, rather than their general ideological orientation, I include a lagged measure of citizen ideology when possible.[5] Using Enns and Koch's (2013) yearly MRP estimates of citizen ideology, I subtracted the percentage of liberals from the percentage of conservatives in each state (Lewis and Jacobsmeier 2017).

The models control for several other factors that could plausibly affect the likelihood that a state will reinstate or retain the death penalty. Policy is thought to be at least partly a function of a state's political conditions. Accordingly, I include Klarner's (2003) measure of party control of government. The variable runs from 0 to 1, with higher scores indicating states where the Democratic Party controls more branches of government. I include this control because the Republican Party is generally considered to be more supportive of capital punishment. Additionally, when modeling post-*Furman* reinstatements, I include a dummy variable denoting the presence of divided government. Under divided party control, there is a greater need for compromise, and so lawmakers typically encounter more obstacles in enacting legislation (Berry and Berry 1990; Hansen 1983).

Also exclusive to the event history models is a variable measuring the death penalty's salience at a given point in time. The reason I include such a variable is that policy change is most likely to occur when an issue is at or near the top of the agenda (Haider-Markel and Meier 1996; Baumgartner and Jones 1993). Similar to previous studies (e.g., Emmert and Traut 2003), I measure salience with a lagged count of the number of stories under the "capital punishment" heading in the *New York Times Index*. Baumgartner, De Boef and

[5] This measure is only available from 1976 to 2010, so I cannot use it in the event history models.

Boydstun (2008), from whom I obtained these data, demonstrate that the *Times'* coverage of the death penalty is representative of the media environment as a whole, making it an appropriate proxy for the issue's salience.

Another set of controls considers the role of political geography. Regional diffusion commonly serves as an explanation for state policy adoption (e.g., Walker 1969; Gray 1973). Such models rely on social learning theory in positing that states emulate policies adopted by their neighbors. The variable controlling for the effects of regional diffusion is a count of the number of neighboring states with an active death penalty statute. Like countless other studies in the state politics literature, I also include a dummy variable for the 11 Southern states that comprised the Confederacy. The South dummy serves an important role when studying the racialized issue of the death penalty due to the region's unique history of racial conflict and oppression. Moreover, the modern death penalty is largely a Southern phenomenon (Baumgartner et al. 2018).[6]

Previous research has found that the related but arguably independent concepts of racial threat and political culture influence death penalty policy (Fisher and Pratt 2006; Jacobs and Carmichael 2002). Under racial threat theory, the death penalty may serve as a means by which whites attempt to impose social control on growing minority populations. The relationship, however, should be nonlinear, in that once the minority group reaches a certain threshold, it should have gained enough political power to move policy in the other direction. I compute my measure of racial threat using the following formula: $100 - |70 - \textit{percentage of white population}|$ (Baumgartner, Box-Steffensmeier and Campbell 2018). Other types of states that have been found to be predisposed to have the death penalty are those with traditionalistic, as opposed to moralistic or individualistic, political cultures (Fisher and Pratt 2006). In traditionalistic states, which tend to be less racially homogeneous, government is viewed as a vehicle for elites to control the masses (Hero and Tolbert 1996). Punitive criminal justice policies such as the death penalty are thus

[6] I am unable to insert a South dummy in the logistic regression model because all Southern states had the death penalty from 1982 to 2006. Instead, I estimated models without the 11 Southern states. Tables 11 and 12 in the appendix display these results.

considered essential to maintaining law and order. In all my analyses, I use Sharkansky's (1969) measure of political culture, which ranges from one for moralistic states to nine for traditionalistic states.

The final set of controls in the responsiveness models account for two seemingly related factors: the prevalence of homicide in a state and the extent to which it relies on the death penalty as a punishment. Because of the popular belief that the death penalty is a deterrent to murder, high murder rates should encourage states to adopt and preserve the death penalty. I obtained yearly data on each state's homicide rate from the FBI's Uniform Crime Reports. I lag this variable by one year in order to give elected officials adequate time to respond to changes in the murder rate. In the event history models, I also control for the size of each state's death row population per 100,000 people prior to *Furman*, because it is reasonable to expect that states that used the death penalty more frequently responded to the ruling with greater urgency. These data come from the Bureau of Justice Statistics' 1971-72 Capital Punishment Report.[7]

The remaining models seek to explain the effect of direct democracy on policy congruence. The data are again in cross-sectional time series form and cover the 1982 to 2006 time frame, but this time the dependent variable indicates whether state death penalty policy in a given year matches majority opinion. As shown by the summary statistics for the congruence variable in Table 1, policy was congruent with majority opinion 79 percent of the time, a figure far exceeding that found in Lax and Phillips (2012), who examine policy congruence across 39 policies. As mentioned previously, due to its salience and easily understandable nature, the death penalty is the sort of issue on which one would expect states to exhibit a high level of congruence. Because the dependent variable is dichotomous, I again estimate logistic regressions with state random effects. However, since the proportion of states with congruent policies varies from year to year—primarily due to shifts in opinion over time—I specify these models with fixed effects for year. The independent variable of

[7] I do not specify the logistic regression with fixed effects for year because there is very little policy change during the study period. However, adding year dummies to the models does not substantively change the results (see Tables 13 and 14 in the appendix.)

interest is either the direct democracy dummy or direct democracy impact.

The models also control for institutional and political factors that may impact policy congruence. Previous studies show that judges who must run in either retention or regular elections are under added pressure to follow public opinion (Canes-Wrone, Clark and Kelly 2014). Therefore, I use a dummy variable to signify states whose supreme court judges are subject to election. I also control for legislative professionalism, because legislators in professionalized institutions have more of the resources needed to gauge public opinion and quickly respond to changes in it. I measure legislative professionalism with the Squire Index (Squire 1992; Squire 2007; Squire 2017). Another important factor to consider is the level of political competition in a state, which I measure with a folded Ranney Index (Ranney 1976). Intense two-party competition should incentivize the parties to cater to public preferences.

In addition, the nature of public opinion in a state may make it more or less likely that policy will match majority opinion. The wider the margin by which voters favor a certain policy, the clearer their views should be to government, and the more pressure they should collectively be able to apply to it (Lewis and Jacobsmeier 2017). In states with more divided electorates, by contrast, lawmakers have less ability to gauge public opinion as well as less incentive to follow it. I calculate the size of the opinion majority by taking the absolute value of 50 minus the level of support for the death penalty in the previous year. Similarly, states experiencing constant shifts in public opinion should have more difficulty attaining policy congruence than states where public opinion is relatively stable. I thus include a lagged variable indicating the extent to which opinion changed from one year to the next.

Results

Table 3 reports the results for the event history models without the interaction terms, thereby allowing for a test of whether direct democracy accelerated reinstatement of the death penalty after *Furman*. The coefficients are hazard ratios; thus, values over one indicate variables associated with an increase in the relative risk of reinstatement, while values

below one indicate variables associated with a decrease in this risk. The results provide support for my expectation that direct democracy expedited reinstatement. The statistically significant hazard ratio of 7.31 in Model 1 shows that, in a given year, the "hazard" of reinstating the death penalty is over seven times higher in direct democracy states, all else equal. Put another way, the survival function, which estimates the probability that a state did not experience the event up until a specific point in time, shows that the probability that a direct democracy state did not reinstate the death penalty by 1976, the year the Supreme Court authorized the restoration of the death penalty in *Gregg v. Georgia*, is .32, compared to .86 for non-direct democracy states (see Figure 6 in the appendix). The results fail to support other common explanations for policy adoption. Although the coefficient for death penalty opinion takes on the expected positive sign, it falls just short of the conventional level of statistical significance (p=.071). The coefficients for political culture, regional diffusion, and racial threat are also insignificant and, in the case of the latter two, in the wrong direction.

Model 2 substitutes direct democracy impact for the direct democracy dummy. Nonetheless, the results tell a similar story. The hazard ratio of 1.99 indicates that for every one-point increase in direct democracy impact, the risk that a state will adopt a revised death penalty statute grows by 99 percent, all else equal. For states with a direct democracy impact score between two and five, a range that includes all but two direct democracy states, the probability of not reinstating the death penalty before 1976 ranges from 61 percent to two percent. For non-direct democracy states, on the other hand, this probability is 88 percent (see Figure 7 in the appendix). The death penalty opinion variable in this model is statistically significant as well, with a one standard deviation increase in public support for the death penalty (the equivalent of about ten percentage points) increasing states' risk of reinstatement by about 120 percent. Also unlike the previous model, states controlled by the Republican Party are at a significantly higher risk of reinstatement than those where the Democratic Party holds more power.

The models in Table 4 add an interaction term for direct democracy and public opinion. Contrary to expectations, there is no significant interactive relationship between the

Table 3: Event History Models of Death Penalty Reinstatement, 1972-2006

	(1)		(2)	
Direct democracy	7.31*	(5.23)	—	—
Direct democracy impact	—	—	1.99*	(0.46)
Public opinion$_{t-1}$	1.09	(0.05)	1.12*	(0.06)
Neighboring states	0.79	(0.23)	0.68	(0.21)
Murder rate$_{t-1}$	1.23	(0.19)	1.27	(0.21)
Inmates per 100,000	3.05	(3.08)	2.81	(2.95)
Party control of government	0.20	(0.18)	0.16*	(0.15)
Political culture	1.14	(0.21)	1.25	(0.24)
Prior abolition	0.17*	(0.15)	0.15*	(0.14)
Racial threat	0.95	(0.07)	0.94	(0.07)
Divided government	0.44	(0.23)	0.41	(0.22)
South	4.04	(4.12)	4.23	(4.41)
Salience$_{t-1}$	1.00	(0.01)	1.00	(0.01)
Log likelihood	−43.23		−41.97	

Notes: Coefficients are hazard ratios. Standard errors in parentheses. N=276.
*p $<$.05, two-tailed

two variables, as evidenced by the statistically insignificant and only slightly greater-than-one hazard ratio. While Figure 2 shows that the marginal effect of public opinion is slightly greater in direct democracy states than in states without direct democracy, neither effect is statistically indistinguishable from zero. The results for Model 4, which uses the more nuanced measure of direct democracy impact, are similar. The coefficient for the interaction term is again statistically insignificant, and Figure 3 shows only a very small upward trend in the marginal effect of opinion as direct democracy impact increases. At all levels of direct democracy impact, the effects are indistinguishable from zero. In sum, the tendency of direct democracy states to more swiftly amend their death penalty statutes in response to *Furman* was not contingent on public opinion.

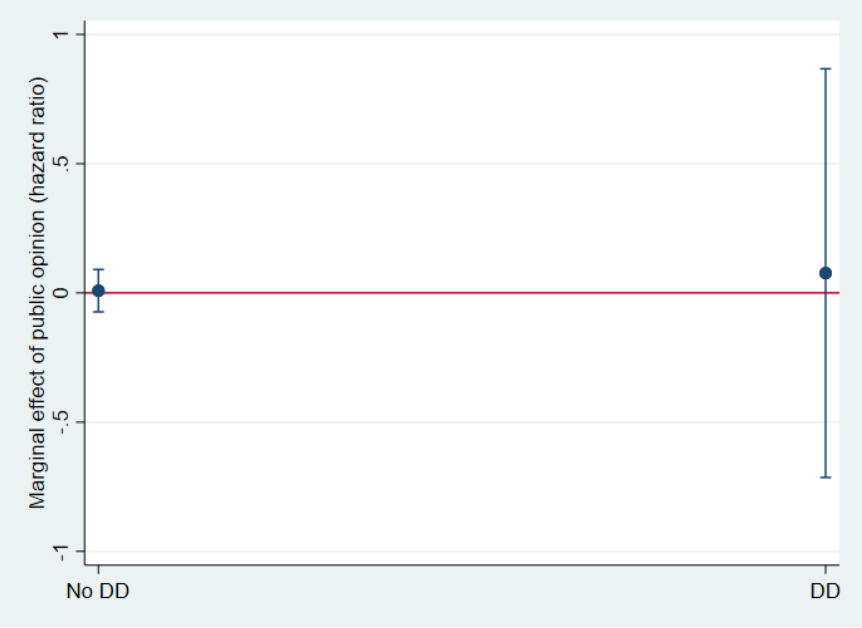
Whereas the previous analyses estimated the amount of time it took states to respond to *Furman*, the following models address the more fundamental question of which states are more likely to have the death penalty in the first place. Because these are fundamentally different concepts, the results may not necessarily be the same. In contrast to the event history models, the data contain both retentionist and abolitionist states and are arranged in cross-sectional time series form, with a dichotomous indicator of whether the state has

Table 4: Event History Models of Death Penalty Reinstatement with Interaction Terms, 1972-2006

	(3)		(4)	
Direct democracy	7.16*	(5.15)	—	—
Direct democracy X public opinion$_{t-1}$	1.02	(0.08)	—	—
Direct democracy impact	—	—	2.05*	(0.49)
Direct democracy impact X public opinion$_{t-1}$	—	—	1.03	(0.03)
Public opinion$_{t-1}$	1.08	(0.07)	1.12*	(0.06)
Neighboring states	0.80	(0.24)	0.71	(0.23)
Murder rate$_{t-1}$	1.22	(0.20)	1.24	(0.21)
Inmates per 100,000	2.99	(3.00)	2.44	(2.57)
Party control of government	0.21	(0.19)	0.17*	(0.15)
Political culture	1.14	(0.21)	1.24	(0.24)
Prior abolition	0.16*	(0.15)	0.14*	(0.13)
Racial threat	0.96	(0.07)	0.95	(0.07)
Divided government	0.44	(0.23)	0.39	(0.21)
South	3.75	(3.93)	3.49	(3.70)
Salience$_{t-1}$	1.00	(0.01)	1.00	(0.01)
Log likelihood	−43.19		−41.47	

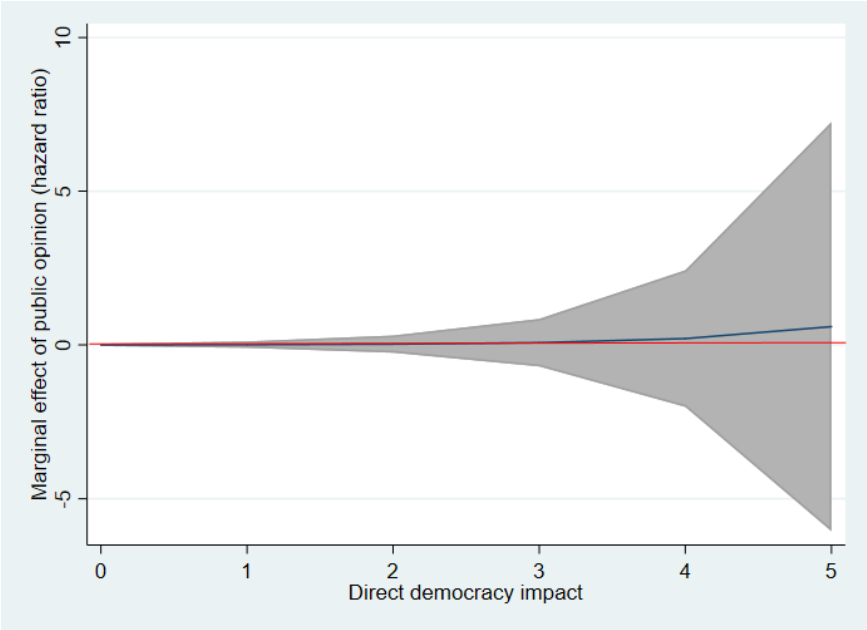
Notes: Coefficients are hazard ratios. Standard errors in parentheses.
N=276.
*p <.05, two-tailed

Fig. 2: Marginal Effects of Public Opinion on Risk of Death Penalty Reinstatement by Direct Democracy, 1972-2006 (Model 3).



Note: Error bars are 95 percent confidence intervals.

Fig. 3: Marginal Effects of Public Opinion on Risk of Death Penalty Reinstatement by Direct Democracy Impact, 1972-2006 (Model 4).



Note: Shaded region represents 95 percent confidence intervals.

the death penalty serving as the dependent variable. The observation period begins in 1982, by which time most death penalty statutes were no longer in flux. The logistic regression results in Tables 5 and 6 strongly support my expectations regarding direct democracy. States with either the initiative or popular referendum are more likely to have the death penalty, as evidenced by the large, positive, and statistically significant coefficient in Model 5. The size of the effect can be more easily understood in terms of predicted probabilities. Controlling for other factors, the probability that a direct democracy state will have the death penalty is .82, compared to .71 for states without direct democracy (see FIgure 8 in the appendix). The results for Model 6, which makes use of direct democracy impact rather than the direct democracy dummy, validate this finding, showing that the probability of a state having the death penalty increases as the impact of these institutions grows. In fact, in states with a direct democracy impact score of five, this probability is 88 percent (see Figure 9 in the appendix). In contrast to the event history models, but consistent with previous literature, the logistic regression models provide support for the racial threat and political culture theories. Additionally, even after accounting for citizen ideology, public opinion remains a significant predictor of death penalty policy, suggesting that states are

Table 5: Logistic Regression Models of Policy Responsiveness, 1982-2006

	(5)		(6)	
Direct democracy	5.66*	(2.17)	—	—
Direct democracy impact	—	—	2.35*	(0.89)
Public opinion$_{t-1}$	0.27*	(0.06)	0.26*	(0.08)
Neighboring states	0.82	(0.48)	0.90	(0.52)
Murder rate$_{t-1}$	−0.66*	(0.19)	−0.66*	(0.26)
Party control of government	−0.24	(1.61)	−0.29	(1.74)
Political culture	2.18*	(0.51)	3.43*	(1.04)
Racial threat	0.56*	(0.11)	0.50	(0.31)
Citizen ideology$_{t-1}$	−0.17*	(0.05)	−0.18*	(0.05)
Constant	−68.48*	(11.12)	−69.70*	(28.75)
ln(σ_u^2)	4.89	(0.45)	5.03	(0.73)
σ_u	11.52	(2.59)	12.39	(4.51)
ρ	0.98	(0.01)	0.98	(0.01)
Log likelihood	−71.00		−70.16	

Notes: Coefficients are log odds. Standard errors in parentheses.
N=1,225.
*p $<$.05, two-tailed

responsive to citizens' issue-specific views, not just their general ideological orientation.

The models in Table 6, which include the interaction of direct democracy and public opinion, provide evidence that, when it comes to whether states have the death penalty, direct democracy enhances responsiveness to public opinion. As expected, in both models, the interaction of direct democracy and public opinion is statistically significant. The marginal effects plots in Figures 4 and 5 display this interactive relationship. Figure 4 shows that the marginal effect of public opinion is over three times higher in direct democracy states than in non-direct democracy states. Moreover, only for direct democracy states is this effect statistically indistinguishable from zero, casting doubt on whether non-direct democracy states are responsive to opinion at all. Figure 5 provides further support for my theory, demonstrating that as direct democracy impact increases, so too does the effect of public opinion. It is clear, though, that there are diminished returns to increases in direct democracy impact. Once a state reaches a direct democracy impact level of four, the effect nearly levels off.

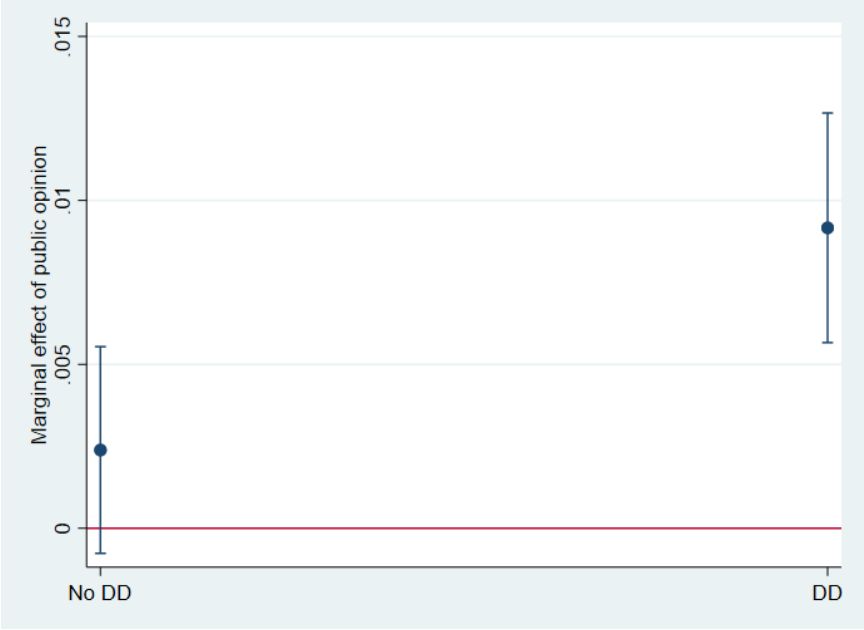
The remaining analyses explore the effect of direct democracy on policy congruence. The dependent variable indicates whether policy aligns with majority preferences. Ac-

Table 6: Logistic Regression Models of Policy Responsiveness with Interaction Terms, 1982-2006

	(7)		(8)	
Direct democracy	4.66*	(2.24)	—	—
Direct democracy X public opinion	0.48*	(0.14)	—	—
Direct democracy impact	—	—	2.55*	(0.84)
Direct democracy impact X public opinion	—	—	0.10*	(0.03)
Public opinion$_{t-1}$	0.11	(0.08)	0.29*	(0.07)
Neighboring states	1.81*	(0.48)	1.11*	(0.49)
Murder rate$_{t-1}$	−0.44	(0.23)	−0.52*	(0.21)
Party control of government	−0.65	(1.68)	−0.43	(1.71)
Political culture	2.06*	(0.50)	3.11*	(0.62)
Racial threat	0.60*	(0.12)	0.56*	(0.14)
Citizen ideology$_{t-1}$	−0.14*	(0.05)	−0.15*	(0.05)
Constant	−58.38*	(9.97)	−54.26*	(10.61)
ln(σ_u^2)	4.75	(0.48)	4.98	(0.46)
σ_u	10.75	(2.56)	12.05	(2.75)
ρ	0.97	(0.01)	0.98	(0.01)
Log likelihood	−65.45		−67.00	

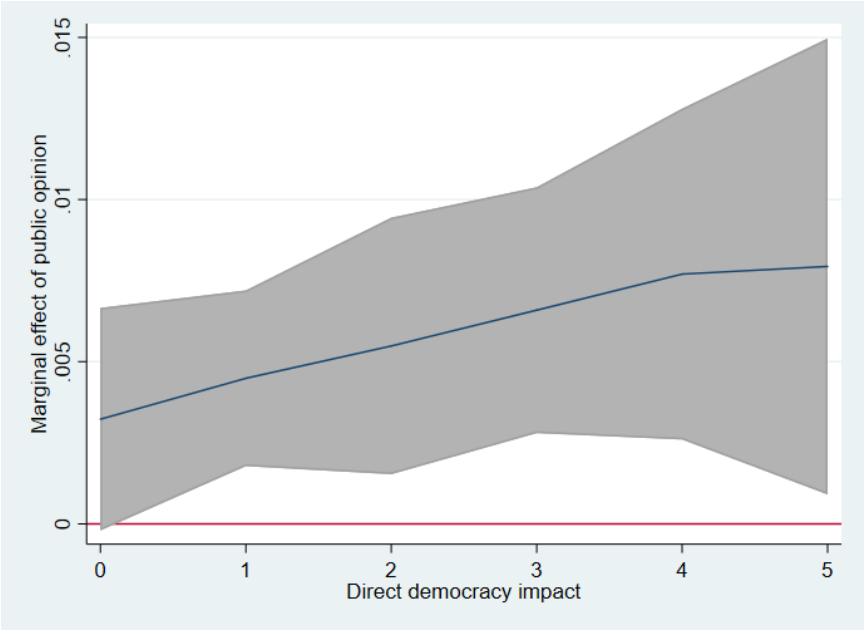
Notes: Coefficients are log odds. Standard errors in parentheses.
N=1,225.
*p <.05, two-tailed

Fig. 4: Marginal Effects of Public Opinion on Probability of Having the Death Penalty by Direct Democracy, 1982-2006 (Model 7).



Note: Error bars are 95 percent confidence intervals.

Fig. 5: Marginal Effects of Public Opinion on Probability of Having the Death Penalty by Direct Democracy Impact, 1982-2006 (Model 8).



Note: Shaded region represents 95 percent confidence intervals.

cordingly, retentionist states where a majority of citizens support the death penalty would be coded as having congruent policy, as would abolitionist states where the death penalty commands less than majority support. As mentioned previously, while both direct and non-direct democracy states should exhibit high levels of policy congruence on the death penalty, policy should be more likely to match majority will in direct democracy states. A bivariate comparison of proportions test provides preliminary support for this expectation. From 1982 to 2006, policy was congruent with majority opinion 83.3 percent of the time in direct democracy states, compared to 75.03 percent of the time in states without direct democracy. This over eight-percentage point difference is statistically significant ($p < .001$).

Table 7 reports the results for the logistic regression models, which provide a more sophisticated test of the congruence hypothesis. The results are similar regardless of the measure of direct democracy used. The coefficient for the direct democracy dummy used in Model 9 is fairly large and positively signed, as expected. However, the large standard error prevents it from being statistically significant ($p = .448$). Likewise, in Model 10, the coefficient for direct democracy impact is in the expected direction but statistically

Table 7: Logistic Regression Models of Policy Congruence, 1982-2006

	(9)		(10)	
Direct democracy	1.32	(1.74)	—	—
Direct democracy impact	—	—	0.42	(0.51)
Size of opinion majority$_{t-1}$	0.20*	(0.06)	0.20*	(0.06)
Change in opinion$_{t-1}$	−0.01	(0.08)	−0.01	(0.08)
Legislative professionalism	−0.09*	(0.03)	−0.09*	(0.03)
Party competition	−0.06	(0.03)	−0.06	(0.03)
Elected court	−0.38	(2.23)	−0.33	(2.23)
Constant	11.35*	(3.60)	11.31*	(3.61)
ln(σ_u^2)	4.30	(0.36)	4.30	(0.36)
σ_u	8.57	(1.52)	8.57	(1.52)
ρ	0.96	(0.01)	0.96	(0.01)
Log likelihood	−158.26		−158.29	

Notes: Coefficients are log odds. Standard errors in parentheses.
N=1,225.
*p $<$.05, two-tailed

insignificant (p = .412). Not surprisingly, there is a higher probability of congruence in states with larger opinion majorities. Policy is about 10 percent less likely to be congruent in states where public opinion is evenly divided than in states with the mean opinion majority margin (about 16 percentage points).

Conclusion

This paper applied the longitudinal research design promoted by Lewis and Jacobsmeier (2017) to the study of how direct democracy conditions the effect of public opinion on death penalty policy. Such a design, which is only possible due to recent breakthroughs in measuring state-level opinion, allows for a more comprehensive analysis of policy representation. Overall, the findings present a mixed picture. I first used event history analysis to examine the role direct democracy played in encouraging states to reinstate the death penalty following *Furman*. As expected, direct democracy states were significantly quicker to amend their statutes in response to the ruling. Their tendency to do so, though, was not dependent on public opinion, suggesting that direct democracy, in and of itself, had this effect. At first glance, this finding is perplexing because, in theory, direct democracy should not inherently bias policy in one direction or the other (Lupia and Matsusaka 2004).

However, the thermostatic model of public opinion, in concert with my theory, may offer an explanation. Consistent with the thermostatic model, which holds that policy change causes public opinion to move in the opposite direction (Soroka and Wlezien 2010; Erikson, Mackuen and Stimson 2002), support for the death penalty rose dramatically after *Furman* (Baumgartner et al. 2018). But even if death penalty support in a state was still relatively low, lawmakers may have believed that support would continue to rise as the public's impatience with elected officials' failure to rectify what was widely perceived as judicial overreach grew. Were the death penalty to eventually enjoy majority support, there would be a real threat of an initiative campaign to reinstate it. Voters elsewhere had already sent a powerful signal that, if necessary, they were willing to act unilaterally to thwart supposed judicial activism: Outraged by the California Supreme Court's decision to invalidate the state's death penalty law in the months preceding *Furman*, California voters amended the state constitution on the following Election Day to explicitly allow for the death penalty, before any state legislature had amended its statute in accordance with *Furman*. States, of course, do not exist in a vacuum; rather, they learn from each other (Berry and Berry 1990). Hence, legislators in other states probably understood that what transpired in California could also happen in their states. It was in the interest of lawmakers to forestall such initiative campaigns, which—if successful—would have denied them the ability to claim credit for having restored the death penalty themselves. In short, therefore, legislators in direct democracy states were under added pressure to respond prematurely to the growing tide of support for the death penalty.

The subsequent analyses used logistic regression on cross-sectional time series data to provide an alternative test of the responsiveness hypothesis, with the results lending support to my expectation that public opinion has a greater impact on death penalty policy in direct democracy states. By extension, the models also revealed that such states are more likely to have the death penalty. Importantly, the logistic regression models differed from the event history ones in that they predicted whether a state will have the death penalty, rather than the time to reinstatement. This distinction may help to explain the conflicting results regarding responsiveness to public opinion: after the historic intervention that was

Furman, states were operating in an environment in which death penalty support was clearly on the upswing. My theory allows for the possibility that when lawmakers have greater certainty about where public opinion is headed, direct democracy alone can promote policy change in the corresponding direction. In such a scenario, because lawmakers do not want to forfeit a future opportunity to credit-claim, the current state of public opinion may not be so important.

The cross-sectional time series data also revealed, however, that the enhanced responsiveness brought about by direct democracy institutions does not translate into enhanced congruence. The reason direct democracy can simultaneously promote responsiveness but not congruence is that the bar for achieving the latter form of policy representation is much higher (Lax and Phillips 2012). Indeed, public opinion need only have some effect on policy in order for a state to exhibit responsiveness, while congruence requires that policy actually be aligned with majority preferences (Lax and Phillips 2009*a*).

My findings have implications for the future of the death penalty in the United States. Although I find that direct democracy increases the probability that a state will have the death penalty, theory and real-world events suggest that direct democracy is not inherently pro-death penalty. As explained previously, these institutions instead increase the influence of median voter preferences (Lupia and Matsusaka 2004), and it just so happens that the public was strongly pro-death penalty during the late twentieth century (Baumgartner et al. 2018; Enns 2016). Since then, however, public opinion has turned against the death penalty (Baumgartner, De Boef and Boydstun 2008). Should it continue to do so, direct democracy states may actually lead the way in abolishing it. This would not be the first time that direct democracy has had such an effect. For example, In 1964, when public support for the death penalty was only slightly lower than it is now, Oregon voters abolished the death penalty through the initiative process. Although they later voted to reinstate the death penalty in 1978, the fact remains that direct democracy can also aid death penalty opponents in achieving their policy goals. It would thus not be surprising if, in the coming years, citizens abolished or significantly restricted the scope of the death penalty via the initiative process or if legislators in direct democracy states, sensing that such an initiative

was impending, did so themselves.

APPENDIX

Table 8: State Reinstatement of the Death Penalty After *Furman v. Georgia*

State	Year Reinstated
Alabama	1976
California	1973*
Colorado	1974
Connecticut	1973
Delaware	1974
Florida	1972
Georgia	1973
Idaho	1973
Illinois	1974
Indiana	1973
Iowa	—
Kansas	1994
Kentucky	1974
Louisiana	1973
Maryland	1975
Massachusetts	1979
Mississippi	1974
Missouri	1975
Montana	1973
Nevada	1973
New Hampshire	1974
New Jersey	1982
New Mexico	1979
New York	1995
North Carolina	1974
Ohio	1973
Oklahoma	1973
Oregon	1978*
Pennsylvania	1974
South Carolina	1974
South Dakota	1979
Tennessee	1974
Texas	1973
Utah	1973
Vermont	—
Virginia	1975
Washington	1975
West Virginia	—
Wyoming	1973

* Indicates reinstatement through citizen initiative
Source: Bureau of Justice Statistics' Capital Punishment Reports

Table 9: Event History Models of Death Penalty Reinstatement, 1972-2006 (All States)

	(11)		(12)	
Direct democracy	3.70*	(2.18)	—	—
Direct democracy impact	—	—	1.55*	(0.27)
Public opinion$_{t-1}$	1.11*	(0.05)	1.13*	(0.05)
Neighboring states	0.99	(0.27)	0.91	(0.26)
Murder rate$_{t-1}$	1.22	(0.18)	1.25	(0.19)
Inmates per 100,000	2.84	(2.82)	2.55	(2.58)
Party control of government	0.32	(0.27)	0.30	(0.26)
Political culture	1.19	(0.22)	1.28	(0.24)
Prior abolition	0.08*	(0.07)	0.07*	(0.07)
Racial threat	0.93	(0.07)	0.92	(0.07)
Divided government	0.47	(0.24)	0.47	(0.24)
South	3.86	(3.87)	3.74	(3.78)
Salience$_{t-1}$	1.00	(0.01)	1.00	(0.01)
Log likelihood	−46.94		−46.18	

Notes: Coefficients are hazard ratios. Standard errors in parentheses. N=556.
*p <.05, two-tailed

Table 10: Event History Models of Death Penalty Reinstatement with Interaction Terms, 1972-2006 (All States)

	(13)		(14)	
Direct democracy	3.99*	(2.44)	—	—
Direct democracy X public opinion$_{t-1}$	0.97*	(0.06)	—	—
Direct democracy impact	—	—	1.58*	(0.29)
Direct democracy impact X public opinion$_{t-1}$	—	—	0.99	(0.02)
Public opinion$_{t-1}$	1.13*	(0.06)	1.13*	(0.06)
Neighboring states	0.96	(0.27)	0.88	(0.26)
Murder rate$_{t-1}$	1.23	(0.18)	1.25	(0.19)
Inmates per 100,000	3.00	(3.03)	2.75	(2.85)
Party control of government	0.30	(0.26)	0.28	(0.24)
Political culture	1.20	(0.22)	1.29	(0.25)
Prior abolition	0.08*	(0.08)	0.08*	(0.07)
Racial threat	0.92	(0.07)	0.92	(0.07)
Divided government	0.46	(0.24)	0.46	(0.24)
South	4.44	(4.65)	4.18	(4.37)
Salience$_{t-1}$	1.00	(0.01)	0.99	(0.01)
Log likelihood	−46.83		−46.09	

Notes: Coefficients are hazard ratios. Standard errors in parentheses. N=556.
*p <.05, two-tailed

Table 11: Logistic Regression Models of Policy Responsiveness without Southern States, 1982-2006

	(15)		(16)	
Direct democracy	4.27*	(1.47)	—	—
Direct democracy impact	—	—	0.79*	(0.33)
Public opinion$_{t-1}$	0.28*	(0.06)	0.21*	(0.07)
Neighboring states	0.00	(0.40)	0.43	(0.33)
Murder rate$_{t-1}$	−0.71*	(0.21)	−0.60*	(0.20)
Party control of government	0.02	(1.61)	−0.22	(1.45)
Political culture	0.54	(0.42)	0.53	(0.48)
Racial threat	0.59*	(0.08)	0.39*	(0.10)
Citizen ideology$_{t-1}$	−0.20*	(0.05)	−0.16*	(0.05)
Constant	−64.86*	(8.96)	−43.70*	(10.62)
ln(σ_u^2)	4.79	(0.52)	4.90	(0.58)
σ_u	10.99	(2.83)	11.59	(3.33)
ρ	0.97	(0.01)	0.98	(0.01)
Log likelihood	−68.04		−69.43	

Notes: Coefficients are log odds. Standard errors in parentheses.
N=950.
*p <.05, two-tailed

Table 12: Logistic Regression Models of Policy Responsiveness with Interaction Terms and without Southern States, 1982-2006

	(17)		(18)	
Direct democracy	3.17	(2.46)	—	—
Direct democracy X public opinion	0.43*	(0.14)	—	—
Direct democracy impact	—	—	0.72*	(0.28)
Direct democracy impact X public opinion	—	—	0.08*	(0.03)
Public opinion$_{t-1}$	0.11	(0.08)	0.25*	(0.05)
Neighboring states	1.50*	(0.58)	0.42	(0.28)
Murder rate$_{t-1}$	−0.50*	(0.21)	−0.56*	(0.17)
Party control of government	−0.53	(1.69)	0.20	(1.37)
Political culture	1.56*	(0.68)	0.40	(0.34)
Racial threat	0.52*	(0.12)	0.43*	(0.07)
Citizen ideology$_{t-1}$	−0.15*	(0.05)	−0.14*	(0.04)
Constant	−47.48*	(10.73)	−32.92*	(5.31)
ln(σ_u^2)	4.95	(0.54)	4.50	(0.51)
σ_u	11.89	(3.19)	9.48	(2.44)
ρ	0.98	(0.01)	0.96	(0.02)
Log likelihood	−64.53		−65.82	

Notes: Coefficients are log odds. Standard errors in parentheses.
N=950.
*p <.05, two-tailed

Table 13: Logistic Regression Models of Policy Responsiveness with Yearly Fixed Effects, 1982-2006

	(19)		(20)	
Direct democracy	5.37*	(2.43)	—	—
Direct democracy impact	—	—	3.53*	(0.96)
Public opinion$_{t-1}$	0.62*	(0.13)	0.67*	(0.17)
Neighboring states	−0.58	(0.60)	−1.13	(0.75)
Murder rate$_{t-1}$	−0.54	(0.30)	−0.59	(0.31)
Party control of government	2.43	(2.41)	2.42	(2.42)
Political culture	2.90*	(0.64)	5.36*	(0.74)
Racial threat	0.30*	(0.14)	0.48*	(0.16)
Citizen ideology$_{t-1}$	−0.10	(0.11)	−0.11	(0.12)
Constant	−69.23*	(14.63)	−95.33*	(15.72)
ln(σ_u^2)	5.48	(0.53)	5.77	(0.37)
σ_u	15.51	(4.08)	17.88	(3.29)
ρ	0.99	(0.01)	0.99	(0.00)
Log likelihood	−62.22		−59.86	

Notes: Coefficients are log odds. Standard errors in parentheses.
N=1,225.
*p <.05, two-tailed

Table 14: Logistic Regression Models of Policy Responsiveness with Interaction Terms and Yearly Fixed Effects 1982-2006

	(21)		(22)	
Direct democracy	4.29	(4.49)	—	—
Direct democracy X public opinion	0.66*	(0.21)	—	—
Direct democracy impact	—	—	2.44*	(0.75)
Direct democracy impact X public opinion	—	—	0.15*	(0.04)
Public opinion$_{t-1}$	0.40*	(0.14)	0.79*	(0.15)
Neighboring states	1.02	(0.91)	0.35	(0.62)
Murder rate$_{t-1}$	−0.39	(0.33)	−0.52	(0.32)
Party control of government	3.49	(2.30)	4.63	(2.64)
Political culture	2.61*	(0.83)	4.25*	(0.67)
Racial threat	0.72*	(0.18)	0.63*	(0.13)
Citizen ideology$_{t-1}$	−0.07	(0.12)	−0.04	(0.11)
Constant	−66.50*	(15.09)	−61.03*	(10.40)
ln(σ_u^2)	5.22	(0.51)	5.46	(0.43)
σ_u	13.61	(3.48)	15.33	(3.32)
ρ	0.98	(0.01)	0.99	(0.01)
Log likelihood	−55.44		−56.67	

Notes: Coefficients are log odds. Standard errors in parentheses.
N=1,225.
*p <.05, two-tailed

Fig. 6: Survival Function by Direct Democracy (Model 1)

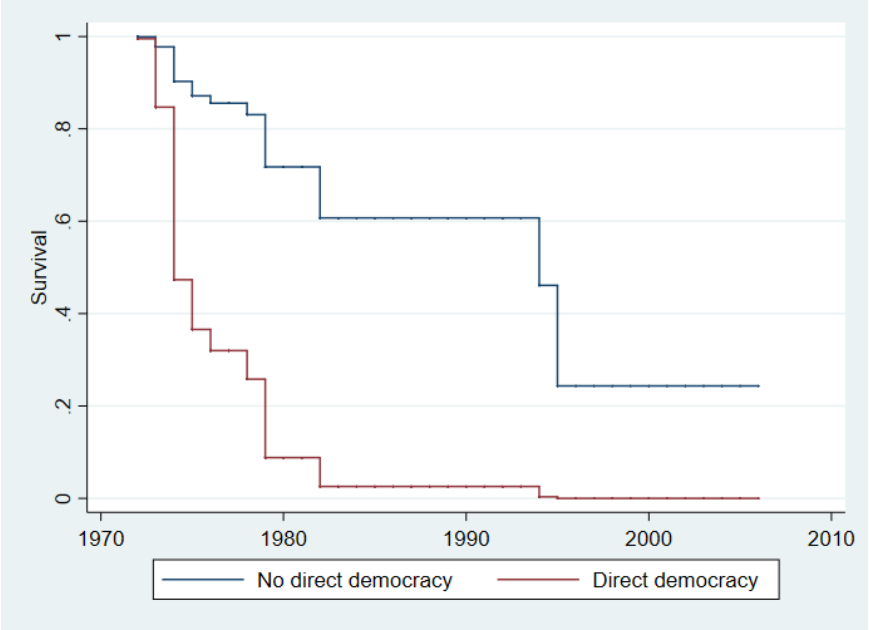


Fig. 7: Survival Function by Direct Democracy Impact (Model 2)

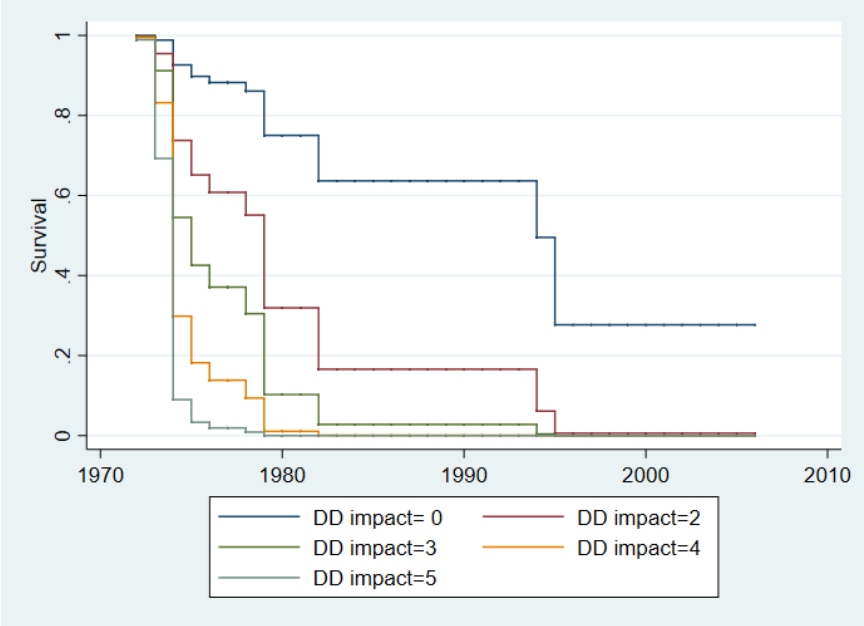
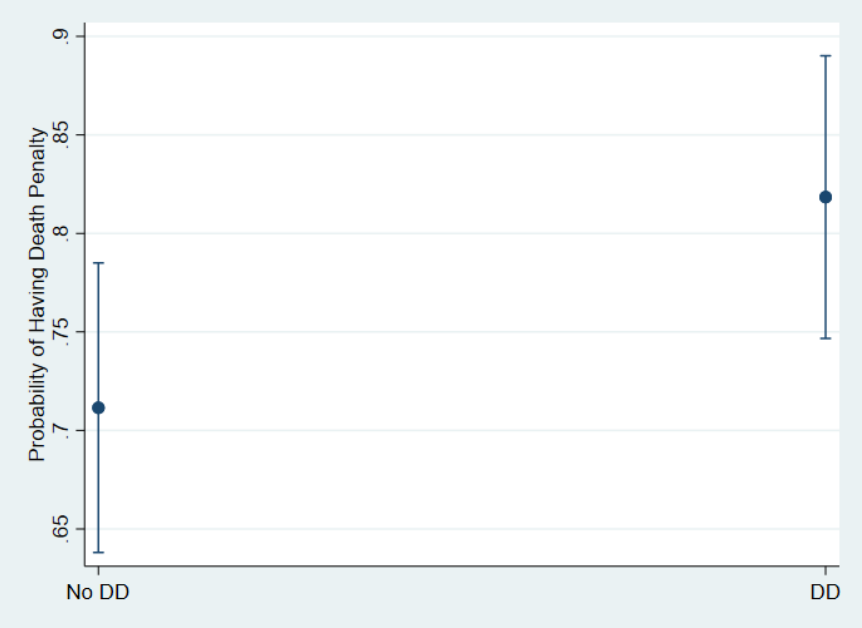
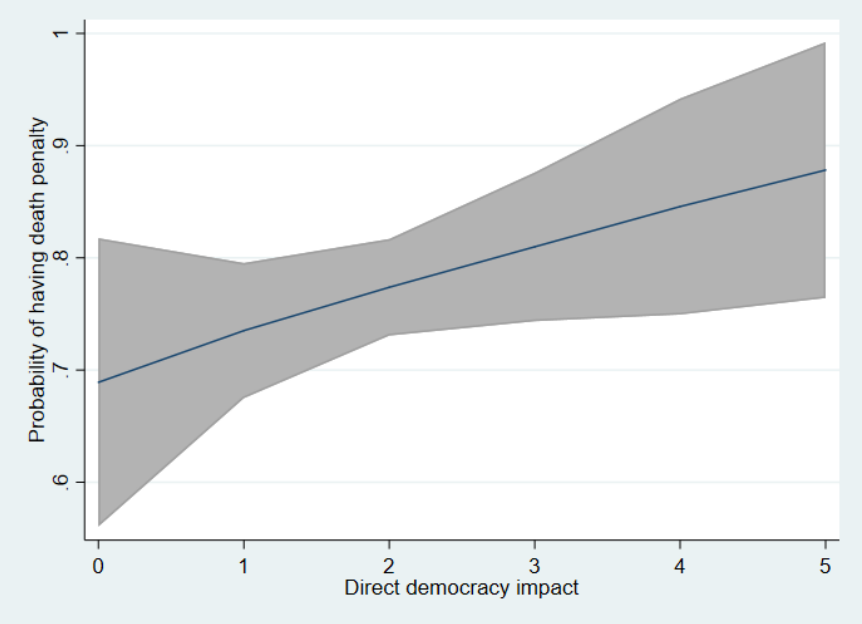


Fig. 8: Probability of Having the Death Penalty by Direct Democracy (Model 5)



Note: Error bars are 95 percent confidence intervals.

Fig. 9: Probability of Having the Death Penalty by Direct Democracy Impact (Model 6)



Note: Shaded region represents 95 percent confidence intervals.

REFERENCES

Arceneaux, Kevin. 2002. "Direct Democracy and the Link between Public Opinion and State Abortion Policy." *State Politics and Policy Quarterly* 2(4):372–387.

Baumgartner, Frank R. and Bryan D. Jones. 1993. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.

Baumgartner, Frank R., Janet M. Box-Steffensmeier and Benjamin W. Campbell. 2018. "Event dependence in U.S. executions." *PLoS ONE* 13(1):1–13.

Baumgartner, Frank R., Marty Davidson, Kaneesha R. Johnson, Arvind Krishnamurthy and Colin P. Wilson. 2018. *Deadly Justice: A Statistical Portrait of the Death Penalty*. New York: Oxford University Press.

Baumgartner, Frank R., Suzanna De Boef and Amber E. Boydstun. 2008. *The Decline of the Death Penalty and the Discovery of Innocence*. New York: Cambridge University Press.

Berry, Frances Stokes and William D. Berry. 1990. "State Lottery Adoptions as Policy Innovations: An Event History Analysis." *American Political Science Review* 84(2):395–415.

Boehmke, Frederick J. 2002. "The Effect of Direct Democracy on the Size and Diversity of State Interest Group Populations." *Journal of Politics* 64(3):827–844.

Boehmke, Frederick J. 2005. *The Indirect Effect of Direct Legislation: How Institutions Shape Interest Group Systems*. Columbus, OH Ohio State University Press.

Bowler, Shaun and Todd Donovan. 2004. "Measuring the Effect of Direct Democracy on State Policy: Not All Initiatives Are Created Equal." *State Politics and Policy Quarterly* 4(3):345–363.

Box-Steffensmeier, Janet M. and Bradford S. Jones. 2004. *Event History Modeling: A Guide for Social Scientists*. New York: Cambridge University Press.

Burden, Barry C. 2005. "Institutions and Policy Representation in the States." *State Politics and Policy Quarterly* 5(4):373–393.

Campbell, Angus, Philip Converse, Warren Miller and Donald Stokes. 1960. *The American Voter*. Chicago: University of Chicago Press.

Campbell, James E. 1981. "Electoral Competition and the Congressional Connection: the Marginality Hypothesis Reconsidered." *Political Methodology* 7(2):55–70.

Canes-Wrone, Brandice, Tom S. Clark and Jason P. Kelly. 2014. "Judicial Selection and Death Penalty Decisions." *The American Political Science Review* 108(1):23–39.

Carmines, Edward G. and James A. Stimson. 1980. "The Two Faces of Issue Voting." *The American Political Science Review* 74(1):78–91.

Caughey, Devin and Christopher Warshaw. 2018. "Policy Preferences and Policy Change: Dynamic Responsiveness in the American States, 1936–2014." *American Political Science Review* 112(2):249–266.

Converse, Phillip E. 1964. The Nature of Belief Systems in Mass Publics. In *Ideology and Discontent*, ed. David Apter. New York: Free Press.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.

Emmert, Craig F. and Carol Ann Traut. 2003. "Bans on Executing the Mentally Retarded: An Event History Analysis of State Policy Adoption." *State and Local Government Review* 35(2):112–122.

Enns, Peter K. 2016. *Incarceration Nation: How the United States Became the Most Punitive Democracy in the World*. New York: Cambridge University Press.

Enns, Peter K. and Julianna Koch. 2013. "Public Opinion in the U.S. States: 1956 to 2010." *State Politics and Policy Quarterly* 13(3):349–372.

Erikson, Robert, Gerald C. Wright and John P. McIver. 1993. *Statehouse Democracy: Public Opinion and Policy in the American States*. New York: Cambridge University Press.

Erikson, Robert S., Michael B. Mackuen and James A. Stimson. 2002. *The Macro Polity*. New York: Cambridge University Press.

Eulau, Heinz and Paul D. Karps. 1977. "The Puzzle of Representation: Specifying the Components of Responsiveness." *Legislative Studies Quarterly* 2(3):233–254.

Fisher, Patrick and Travis Pratt. 2006. "Political Culture and the Death Penalty." *Criminal Justice Policy Review* 17(1):48–60.

Gelman, Andrew and Ken Shirley. 2015. "Hierarchical Models for Estimating State and Demographic Trends in US Death Penalty Public Opinion." *Statistics in Society* 178(1):1–28.

Gerber, Elizabeth R. 1996. "Legislative Response to the Threat of Popular Initiatives." *American Journal of Political Science* 40(1):99–128.

Gerber, Elizabeth R. 1999. *The Populist Paradox: Interest Group Influence and the Promise of Direct Legislation*. Princeton University Press.

Gray, Virginia. 1973. "Innovation in the States: A Diffusion Study." *American Political Science Review* 67(4):1174–1185.

Gray, Virginia, David Lowery, Matthew Fellowes and Andrea McAtee. 2004. "Public Opinion, Public Policy, and Organized Interests in the American States." *Political Research Quarterly* 57(3):411–420.

Haider-Markel, Donald P. and Kenneth J. Meier. 1996. "The Politics of Gay and Lesbian Rights: Expanding the Scope of Conflict." *Journal of Politics* 58(2):332–349.

Hall, Richard L. and Frank W. Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *American Political Science Review* 84(3):797–820.

Hansen, Susan. 1983. *The Politics of Taxation*. Westport, CT: Praeger.

Hero, Rodney E. and Caroline J. Tolbert. 1996. "A Racial/Ethnic Diversity Interpretation of Politics and Policy in the States of the U.S." *American Journal of Political Science* 40(3):851–871.

Jacobs, David and Jason T. Carmichael. 2002. "The Political Sociology of the Death Penalty: A Pooled Time-Series Analysis." *American Sociological Review* 67(1):109–131.

Kang, Shin-Goo and G. Bingham Powell. 2010. "Representation and Policy Responsiveness: The Median Voter, Election Rules, and Redistributive Welfare Spending." *Journal of Politics* 72(4):1014–1028.

Klarner, Carl K. 2003. "The Measurement of the Partisan Balance State Government." *State Politics and Policy Quarterly* 3(3):309–319.

Kuklinski, James H. 1979. "Representative-Constituency Linkages: A Review Article." *Legislative Studies Quarterly* 4(1):121–140.

Langbein, Laura I. 1986. "Money and Access: Some Empirical Evidence." *Journal of Politics* 48(4):1052–1062.

Lascher, Edward L., Michael G. Hagen and Steven A. Rochlin. 1996. "Gun Behind the Door? Ballot Initiatives, State Policies and Public Opinion." *Journal of Politics* 58(3):760–775.

Lax, Jeffrey R. and Justin H. Phillips. 2009*a*. "Gay Rights in the States: Public Opinion and Policy Responsiveness." *American Political Science Review* 103(3):367–386.

Lax, Jeffrey R. and Justin H. Phillips. 2009*b*. "How Should We Estimate Public Opinion in the States?" *American Journal of Political Science* 53(1):107–121.

Lax, Jeffrey R. and Justin H. Phillips. 2012. "The Democratic Deficit in the States." *American Journal of Political Science* 56(1).

Lewis, Daniel C. 2013. *Direct Democracy and Minority Rights: A Critical Assessment of the Tyranny of the Majority in the American States*. New York: Routledge.

Lewis, Daniel C., Frederick S. Wood and Matthew L. Jacobsmeier. 2014. "Public Opinion and Judicial Behavior in Direct Democracy Systems: Gay Rights in the American States." *State Politics and Policy Quarterly* 14(4):367–388.

Lewis, Daniel C. and Matthew L. Jacobsmeier. 2017. "Evaluating Policy Representation with Dynamic MRP Estimates: Direct Democracy and Same-Sex Relationship Policies in the United States." *State Politics and Policy Quarterly* 17(2):441–464.

Lupia, Arthur and John G. Matsusaka. 2004. "Direct Democracy: New Approaches to Old Questions." *Annual Review of Political Science* 7:463–482.

Lupia, Arthur, Yanna Krupnikov, Adam Seth Levine, Spencer Piston and Alexander Von Hagen-Jamar. 2010. "Why State Constitutions Differ in their Treatment of Same-Sex Marriage." *Journal of Politics* 72(4):1222–1235.

Matsusaka, John G. 1995. "Fiscal Effects of the Voter Initiative: Evidence from the Last 30 Years." *Journal of Political Economy* 103(3):587–623.

Matsusaka, John G. 2000. "Fiscal Effects of the Voter Initiative in the First Half of the Twentieth Century." *The Journal of Law and Economics* 43(2).

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

Mooney, Christopher Z and Mei-Hsien Lee. 2000. "The Influence of Values on Consensus and Contentious Morality Policy: U.S. Death Penalty Reform, 1956-82." *Journal of Politics* 62(1):223–239.

Nicholson, Stephen P. 2003. "The Political Environment and Ballot Proposition Awareness." *American Journal of Political Science* 47(3):403–410.

Pacheco, Julianna. 2014. "Measuring and Evaluating Changes in State Opinion Across Eight Issues." *American Politics Research* 42(6):986–1009.

Page, Benjamin I. and Robert Y. Shapiro. 1983. "Effects of Public Opinion on Policy." *The American Political Science Review* 77(1):175–190.

Park, David K., Andrew Gelman and Joseph Bafumi. 2006. State Level Opinions from National Surveys: Poststratification Using Multilevel Logistic Regression. In *Public Opinion in State Politics*, ed. Jeffrey E. Cohen. Stanford, CA: Stanford University Press.

Ranney, Austin. 1976. Parties in State Politics. In *Politics in the American States: A Comparative Analysis*, ed. Herbert Jacob and Kenneth N. Vines. Boston: Little, Brown.

Schattschneider, E.E. 1960. *The Semi-Sovereign People*. New York: Holt, Rinehart, and Winston.

Sharkansky, Ira. 1969. "The Utility of Elazar's Political Culture: A Research Note." *Polity* 2(1):66–83.

Smith, Daniel A. and Caroline J. Tolbert. 2009. *Educated by Initiative: The Dffects of Direct Democracy on Citizens and Political Organizations in the American States*. Ann Arbor, MI: University of Michigan Press.

Soroka, Stuart N. and Christopher Wlezien. 2010. *Degrees of Democracy: Politics, Public Opinion, and Policy.* New York: Cambridge University Press.

Squire, Peverill. 1992. "Legislative Professionalization and Membership Diversity in State

Legislatures." *Legislative Studies Quarterly* 17(1):69–79.

Squire, Peverill. 2007. "Measuring State Legislative Professionalism: The Squire Index Revisited." *State Politics and Policy Quarterly* 7(2):211–227.

Squire, Peverill. 2017. "A Squire Index Update." *State Politics and Policy Quarterly* 17(4):361–371.

Sullivan, J.W. 1893. *Direct Legislation by the Citizenship through the Initiative and Referendum.* New York: True Nationalist Publishing.

Tolbert, Caroline J., Ramona S. McNeal and Daniel A. Smith. 2003. "Enhancing Civic Engagement: The Effect of Direct Democracy on Political Participation and Knowledge." *State Politics and Policy Quarterly* 3(1):23–41.

Tolbert, Caroline, John A. Grummel and Daniel A. Smith. 2001. "The Effects of Ballot Initiatives on Voter Turnout in the American States." *American Politics Research* 29(6):625–648.

Treadway, Jack M. 1985. *Public Policymaking in the States*. New York: Praeger.

Walker, Jack L. 1969. "The Diffusion of Innovations among the American States." *American Political Science Review* 63(3):880–899.