Income Inequality and Policy Representation in the American States

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Abstract

Government representation of public opinion is a central component of democracy. Previous studies have documented a robust congruence between aggregated public opinion and public policies in the American states. However, an equally important question for evaluating the quality of democracy is: Who does government respond to when formulating public policies? I investigate differential policy representation based on citizens’ household incomes and find that citizens with low incomes receive little substantive political representation (compared to more affluent citizens) in the policy decisions made by their state governments. This unequal policy representation occurs for both the general liberalism of state policies and on specific social issues like the death penalty and abortion. These findings suggest that examining the variation in political inequality across the fifty states can help scholars to better understand and explain “unequal democracy” in the United States.
Government representation of public opinion is the cornerstone of American democracy. As V.O. Key (1961, 7) put it, “Unless mass views have some place in the shaping of policy, all the talk about democracy is nonsense.” Over the past fifty years, political scientists using various research techniques have compiled strong empirical evidence that government policies tend to correspond to the aggregated political opinions of the public at both the national (Page and Shapiro 1983; Monroe 1998; Erikson, MacKuen, and Stimson 2002) and state levels (Nice 1983; Erikson, Wright, and McIver 1993; Hill and Hinton-Anderson 1995; for a review see Burstein 2003).

However, an equally important question for evaluating the quality of democracy is: Who do elected officials respond to when making public policy decisions? While the robust congruence between aggregate public opinion and policy is encouraging from a democratic theory standpoint, it is also likely that some citizens tend to have their political opinions better represented than others. If so, then concerns that the United States is increasingly an “unequal democracy” (Bartels 2008) may be quite warranted. This paper uses the variation in citizens’ opinions and public policies across the American states to examine whether state governments respond to their citizens as political equals. Specifically, I ask whether citizens with low incomes are underrepresented by the policy decisions made by state governments when compared to more affluent citizens.

1 In addition to congruence between citizens’ political ideologies and general policy liberalism in the states, scholars have also found a close correspondence between public opinion and state policy for specific issue areas such as abortion (Norrander and Wilcox 1999; Arceneaux 2002; Burden 2005), the death penalty (Mooney and Lee 2000), environmental policy (Hays, Esler, and Hays 1996), gay rights policies (Haider-Markel and Kaufman 2006; Lax and Phillips 2009b); hate crime legislation (Grattet, Jenness, and Curry 1998; Haider-Markel 2002), and the generosity of welfare benefits (Hill, Leighley, and Hinton-Anderson 1995; Fording 1997).
Background

Political scientists and political observers more generally have long warned that political representation in the United States is tainted by an upper class bias such that wealthier citizens have more influence over government policy decisions than the poor (e.g., Schattschneider 1960; Dahl 1961). The most common theoretical explanation for unequal political representation is the fact that the more affluent tend to participate more in politics – whether it be voting, contributing to or volunteering for a campaign, contacting elected officials, or any other participatory act – compared to disadvantaged citizens (Verba and Nie 1972; Wolfinger and Rosenstone 1980; Rosenstone and Hanson 1993; Verba, Schlozman, and Brady 1995). If elected officials are more responsive to citizens who actively get involved in politics (Martin 2003; Griffin and Newman 2005) and affluent citizens are significantly more likely to get involved than citizens with low incomes, then the fact that elected officials are more responsive to the political opinions of their high income constituents should come as no surprise.\footnote{Another possible explanation for unequal political representation is a “selection effect” of those who are elected to serve in government (Bartels 2008, 281). If a state’s governor and legislators are disproportionately affluent compared to the general population, their policy decisions may most closely mirror the political opinions of the wealthy simply because they are “like minded.”} As Verba, Schlozman, and Brady (1995, 14) predicted in their seminal study of political participation, “inequalities in activity are likely to be associated with inequalities in governmental responsiveness.”

But, as the American Political Science Association Taskforce on Inequality and American Democracy (Jacobs and Skocpol 2005, 124) recently lamented: “Unfortunately, political scientists have done surprisingly little to investigate the extent of actual inequalities of government responsiveness to public opinion – that is, whether distinct segments of the country exert more influence than others.” While political scientists have devoted considerable attention to documenting unequal political participation, or “inputs” into the political system (Piven and
Cloward 1988; Hill and Leighley 1994; Verba, Schlozman, and Brady 1995; Verba 2003), most have tended to shy away from actually assessing whether elected officials equally weigh their constituents’ opinions when making important policy decisions. As Larry Bartels (2008, 253) aptly points out, “For the most part, scholars of political participation have treated actual patterns of government responsiveness as someone else’s problem.”

A series of very recent studies have sought to correct this problem and more fully understand unequal political representation in the United States. Jacobs and Page (2005) use parallel opinion surveys of the public and political elites to show that internationally oriented business leaders leverage more influence over American foreign policy decisions than the opinions of the general public. Gilens (2005) collects data from nearly 2,000 individual public opinion poll questions and finds that subsequent federal government policy decisions disproportionately reflect the views of the affluent, and this is especially true when the preferences of the rich and poor diverge. He concludes that congruence between the political opinions of the poor and government policy tends to arise only in instances where the poor share similar attitudes with the wealthy. Bartels (2008) examines the link between political factors and growing economic inequality and demonstrates that the opinions of affluent constituents strongly predict the voting behavior of their Senators (both their revealed general voting ideology and specific roll call votes) while the opinions of those with low incomes display little or no relationship. In short, this emerging literature points to “unequal democracy” in American politics.

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3 One reason for the large literature on unequal levels of political participation is that it is relatively easy to measure in a way that inequalities in political representation are not. As Verba and Orren (1985, 15) point out: “Political equality cannot be gauged in the same way as economic inequality. There is no metric such as money, no statistic such as the Gini index, and no body of data comparing countries. There are, however, relevant data on political participation.”
Amidst growing evidence at the national level, scholars are only beginning to identify and investigate unequal political representation at the state level.\textsuperscript{4} Rigby and Wright (2011) uncover evidence that the general ideological tone of state economic policies tend to be most responsive to the opinions of the rich and hardly at all to the poor.\textsuperscript{5} In contrast, they find more egalitarian political representation using a summary measure of state policy on social issues such as abortion, the death penalty, and laws intended to combat discrimination based on sexual orientation. One shortcoming of their study is that it fails to assess the equality of political representation on \textit{specific policy issues}, instead opting to assess the correspondence between aggregated measures of both opinion and policy. This current study improves on Rigby and Wright’s findings by (1) assessing unequal political representation for specific state policies and (2) subjecting the differences in responsiveness to each income group to more rigorous statistical scrutiny.

That we know so little about the equality of political representation in the states is surprising when one surveys the expansive American state politics literature (e.g., Gray and Hanson 2008). Many state government policy decisions have an immediate and direct impact on citizens’ daily lives and, moreover, the policymaking process in the states presents a narrower arena of political conflict which (potentially) provides greater opportunity for powerful economic interests to dominate the legislative process and bias policy responsiveness toward the opinions of the wealthy. So, there are compelling reasons to further examine the equality of

\textsuperscript{4} At the city government level, an earlier study of public opinion and policy in 51 American cities found that city policies tended to respond most to the opinions of citizens with higher socioeconomic status (Schumaker and Getter 1977). In contrast, Berry, Portney, and Thomson (1993) found little economic bias in policy responsiveness for the cities they studied.

\textsuperscript{5} Rigby and Wright derive separate summary measures of citizens’ general economic and social attitudes by (after imputing a significant amount of missing data across survey items) factor analyzing multiple opinion items from the 2000 and 2004 National Annenberg Election Surveys and collapsing the mean opinion measure of low, middle, and high income respondents within each state. They then derive separate summary measures of state policy on economic and social issues by factor analyzing a set of state policies for each area.
political representation in the American states and investigate if the political inequality documented at the national level extends similarly to the states.

**Do Citizens With Different Incomes Have Different Political Opinions?**

Studies that assess unequal political representation are built on the fundamental premise that the “haves” and “have-nots” (Key 1949) possess different opinions about what the government should do in concrete policy areas like health care, education, tax policy, and income assistance to the poor. This expectation of differences in opinion across income groups and social classes has been the guiding premise for the recent studies of unequal political representation in the United States discussed above (Gilens 2005; Jacobs and Page 2005; Bartels 2008; Rigby and Wright 2011).

Why would we expect citizens with different incomes to have different political opinions? First, people with different incomes have, by definition, different material circumstances and, therefore, different interests in regards to how the government can assist them (Hacker 2002). For example, whereas in a wealthy household there is likely little concern about day-to-day survival and purchasing basic consumer goods, this can become a persisting and daily anxiety for people further and further down the nation’s income distribution. As a consequence, people with lower incomes are likely to support more active government intervention into the economy to reduce this anxiety by providing a social safety net and protections against joblessness, food insecurity, or losing one’s health insurance. Economic self interest, then, likely leads people with low incomes to adopt policy opinions that call for an expanded role for government in ensuring a basic standard of living. Put simply, different life
experiences between the affluent and the poor likely lead them to adopt different opinions on basic political questions about the government’s role in the economy.

A second reason that political opinions likely vary across income groups derives from the fact that, in general, a person’s social networks are closely tied to their own economic status. Living in an affluent neighborhood and socializing in an environment primarily made up of others from affluent backgrounds helps to crystallize similar political views (Baldassarri and Bearman 2007). In the same way, living in a low income neighborhood composed largely of people from disadvantaged backgrounds will have the same crystallizing effect on opinions. If so, then the increasing economic segregation in housing patterns in the United States (Dreier, Mollenkopf, and Swanstrom 2001) may lead to increasing consolidation of opinions among citizens with similar economic situations as citizens essentially “sort” themselves by socioeconomic status (Jargowsky 1996; Gimpel and Schuknecht 2001, 2003; Bishop 2009).

Third, the two major political parties in the United States at least partly target their policy messages and mobilization efforts based on demographic characteristics like income status. Given that Democrats traditionally receive greater support among citizens with low incomes while more affluent individuals tend to give greater support to the Republican Party (McCarty, Poole, and Rosenthal 2006; Bartels 2008; Gelman et al. 2008), the two parties do what we would expect vote-maximizing agents to do by identifying this preexisting support and targeting their electoral messages accordingly. To the extent that the political signals sent by campaigns and elected officials help to shape and inform the political preferences of the public (Hill and Hurley 1999, 2003), these targeted efforts by political parties may serve to further reinforce and even exacerbate preference differences across income groups.
Despite these reasons to expect citizens with different incomes to adopt different political opinions, the premise has recently come under increased scrutiny. In an article appropriately titled “On the Limits to Inequality in Representation,” Soroka and Wlezien (2008, 319) compare citizens’ opinions on government spending and find that “differences in preferences across income brackets are in fact small and insignificant,” especially when compared to differences across education levels and partisan identification. Using General Social Survey (GSS) data from 1973 to 2004, they show that across income terciles roughly the same proportion of respondents think the government is spending “too little” (compared to “too much”) on defense, foreign aid, education, health, cities, crime, and the environment. They do, however, find rather large differences in opinion about welfare spending (an area where one might expect income to strongly predict preferences), with citizens in the lowest income tercile much less supportive of cuts to welfare compared to the middle and upper terciles. In general, however, they conclude that concerns about unequal representation that arise from the premise that the rich and poor have different political opinions are exaggerated.

In contrast, Gilens (2009) takes advantage of nearly 2,000 individual polling items and finds substantial “preference gaps” between the rich and the poor (defined as citizens at the ninetieth and tenth income percentiles, respectively). These differences in opinion are especially large for welfare spending and the government’s role in income redistribution. For example, Gilens documents differences of over thirty percentage points between the rich and poor for

\[6\] Soroka and Wlezien (2008) compute net spending preferences by subtracting the percentage of respondents who think the government is spending “too much” from the percentage who think the government is spending “too little.”

\[7\] Ura and Ellis (2008) arrive at a similar conclusion. Aggregating spending preferences from the GSS for ten issue areas, they compute a separate “policy mood” measure for each income quartile from 1974 to 2004. In general, wealthier Americans are more ideologically conservative than poorer citizens, but the difference in opinion liberalism between each income quartile is rather modest. Moreover, they find that the policy mood of each income quartile moves in a similar direction over time. They conclude that because political opinions do not significantly differ, “it may be simply impossible for elected officials to perceive and react differently to the ‘scope of government’ preferences of different income groups” (Ura and Ellis 2008, 791).
opinions on welfare spending, the generosity of unemployment benefits, and employer health insurance mandates (with poor citizens favoring increased government spending/intervention for each issue). Given these findings, Gilens (2009, 340) concludes that “preferences across income groups do differ by significant amounts on a large range of issues. Consequently, it is hard to escape the conclusion that public policy in the United States would look rather different if poor Americans had the influence over government policy that affluent Americans appear to enjoy.”

The following analysis evaluates the extent to which state policies are differentially representative of the ideology and opinions of citizens with different incomes. Before conducting the analysis, however, I also illustrate the extent to which political ideology and policy opinions differ across income groups within each state. These differences are central for the study of income inequality and political representation because if the rich and poor have similar ideologies and policy preferences, there would be little reason to be concerned about an upper class bias in policymaking. In short, if political opinions do not differ, then assessing unequal political representation is of little normative or practical consequence.

**Evaluating the Equality of Political Representation**

Although political representation is central for American democracy, there is little consensus on how best to measure the concept. Accordingly, political scientists have experimented with a variety of different ways of assessing the link between the people and their government (Achen 1978). One crucial distinction is whether public opinion is compared to the roll call voting behavior of individual elected officials (Miller and Stokes 1963; Achen 1978; Powell 1982; Bartels 1991; Clinton 2006) or to public policy outcomes (Page and Shapiro 1983; Erikson, Wright, and McIver 1993; Erikson, Stimson, and Mackuen 2002; Wlezien 2004). In
this paper, I focus on the latter, *policy representation*, because government policy is the final link of the chain that begins with citizens’ inputs (their political opinions and behaviors) into the political system. In the political representation literature, this type of political representation is commonly referred to as “collective” representation. As Weisberg (1978, 547) writes, “Whether or not a particular legislator follows his or her constituency is an important question, but this question is not necessarily the most appropriate one if we ask ‘do representatives represent?’” Accordingly, I examine not whether a particular state legislator’s roll call votes match up with his or her constituents’ opinions, but whether the content of the public policies implemented by state governments are, in general, more responsive to the opinions of some citizens as compared to others.\(^8\)

To assess the opinion-policy linkage, I use a “responsiveness” method that utilizes spatial variation across political units (in this case, the states) to assess the relationship between public opinion and public policy (Achen 1978; Erikson, Wright, and McIver 1993; Ansolabehere, Snyder, and Stewart 2001; Burden 2005; Griffin and Newman 2005, 2008; Bartels 2008: Lax and Phillips 2009b). This method examines whether as public opinion becomes more liberal across the states, public policies also become more liberal (and, of course, whether as opinion becomes more conservative, policy also becomes more conservative). To assess unequal political representation, I examine whether the opinions of citizens with low, middle, and high incomes predict policy across the states when all three opinion measures are included as predictors simultaneously in a single regression model. Doing so allows me to evaluate the relative influence of each income group’s opinions and compare it to the others (Bartels 2008).

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\(^8\) As Sidney Verba (2003, 666) states, “Political equality in its fullest sense would be equal policy output.”
To measure public opinion, I combine data from the 2000 and 2004 National Annenberg Election Surveys (NAES), two random digit dialing rolling cross sectional surveys conducted in the months leading up to the 2000 and 2004 presidential elections. For years, scholars of public opinion in the states have wrestled with the problem of not having enough respondents in public opinion polls to make reliable state-level estimates and inferences. One way to address this problem is to pool surveys over a long period of time (Erikson, Wright, and McIver 1993). Another way is to simulate state opinion by using national polls and multi-level modeling to derive estimates for the states based on demographic characteristics (Park, Gelman, and Bafumi 2006; Lax and Phillips 2009a, 2009b). The major advantage of these two NAES surveys is their sheer sample size (nearly 130,000 respondents when they are pooled together) which allows a large enough sample without having to aggregate across years or simulate state opinion. This large sample size is especially important because I disaggregate the opinion data by state and then again into three separate income groups.

Because income is a continuous variable (as compared to race/ethnicity or gender) that is artificially divided into discrete categories in most public opinion surveys, any researcher assessing unequal representation is forced to make a decision on how to split up survey respondents into groups. To assess whether state public policies are more responsive to some segments of the population compared to others, I split the sample into three groups based on self-reported household income. These groups are: Low Income ($0-$35,000), Middle Income

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9 One concern with this data is that respondents were selected from a random national sample and not a random sample from each state, which may introduce measurement error for state public opinion and lead to underestimating the relationship between opinion and policy. However, since respondents were selected randomly at the national level, each state sample is also randomly generated which is evidenced by the proportion of respondents in the sample residing in each state very closely approximating that state’s actual share of the national population.

10 The question wording for household income in the 2000 NAES is: “Last year, what was your total household income before taxes? Just stop me when I get to the right category. Less than $10,000; $10,000 to less than
($35,000-$75,000), and High Income ($75,000 or greater).\footnote{When I instead use income cutoffs that, as close as possible, divide citizens into three equally sized income groups within states, the results are substantively similar to those I report in Tables 1 and 2.} As a share of the national sample of respondents, the income groups are, respectively, 35.8\%, 37.8\%, and 26.4\% of the population. Breaking citizens into three groups based on household income is a common technique used in other recent studies of unequal political representation (Bartels 2008; Erikson and Bhatti 2011; Rigby and Wright 2011) and these specific income cutoffs were chosen because they most closely divide the national sample into three equally sized groups. By dividing citizens into these three income groups, I am able to evaluate differential government responsiveness while still maintaining large enough sample sizes within states and within income groups to reliably estimate public opinion.

One issue that arises using this method is that the median household income varies widely across the states, so different proportions of households will fall into each of the three income categories depending on the state in question. For example, averaging across 2002-2004, the United States Census Bureau reported West Virginia had the lowest median household income at $32,589 while New Hampshire had the highest at $57,352.\footnote{Source: U.S. Census Bureau, Current Population Survey, 2003, 2004, and 2005 Annual Social and Economic Supplements.} Combining the 2000 and 2004 waves of the NAES, the breakdown of the percentage of the state sample that falls into the low income, middle, and high income category for West Virginia vs. New Hampshire is, respectively, 50\% vs. 27\%, 36\% vs. 37\%, and 14\% vs. 36\%. These differences in group size are important for the study of representation (Griffin and Newman 2008), since we would expect
government to be more responsive to the opinions of a demographic group if it makes up a larger proportion of the population. To econometrically account for differences in the distribution of household income across the states, I weight the opinion measure for each income group by its proportion of the total state population in the same way as Clinton (2006), Bartels (2008), Erikson and Bhatti (2011), and Rigby and Wright (2011).¹³

I measure citizens’ general political ideology (Erikson, Wright, and McIver 1993) as well as their opinions for specific issues (Gilens 2005). Both general political ideology and specific issue preferences vary, often considerably, across income groups within states (Gilens 2009; but see Soroka and Wlezien 2008; Ura and Ellis 2008). To measure citizens’ general political ideology, I use the following item from the NAES: “Generally speaking, would you describe your political views as very conservative, conservative, moderate, liberal, or very liberal?” I then collapse the data to derive a mean of this -2 to +2 scale for each of the three income groups within each state.¹⁴ Measures of citizens’ self-reported political ideology have been commonly used to measure public opinion in previous studies of political representation (e.g., Erikson, Wright, and McIver 1993; Gray et al. 2004; Griffin and Flavin 2007; Bartels 2008).

Measuring opinions for specific political issues is more difficult, especially because the NAES was primarily designed as a national survey to examine the dynamics of presidential campaigns. As such, several of the policy items ask specifically about what the federal government should or should not do on a particular issue. However, because this is the best source of data with a sample size large enough to make reliable state-level opinion estimates, I

¹³ This weighting is accomplished by multiplying the measure of state opinion for each income group by its proportion of the total state population.

¹⁴ Pooling the 2000 and 2004 NAES together yields a total of 128,428 respondents who answered both the general political ideology and self-reported household income items. All states except Delaware (N=336), North Dakota (N=346), and Wyoming (N=295) have a sample size of over 400 respondents. Alaska and Hawaii were not surveyed, so all analyses in this paper report results from the remaining 48 states.
proceed on the assumption that preferences on what the national government should do will, generally, extend to preferences about state government action as well (see Norrander 2001; Brace et al. 2002; Park, Gelman, and Bafumi 2006).

I examine unequal policy responsiveness on three salient social issues: (1) the death penalty, (2) abortion, and (3) gun control laws. These three particular issues were chosen because they are “easy” issues (Carmines and Stimson 1980) that are salient among citizens but not particularly complex. While the details of welfare expenditures or the progressivity of the tax code may be too technical for most citizens to pay much attention to, citizens can reasonably be expected to hold coherent opinions on the death penalty, abortion, and gun control without extensive knowledge about politics. Previous research has argued and empirically demonstrated that elected officials are most likely to follow public opinion on these types of “easy” issues (Gormley 1986; Hagen, Lascher, and Camobreco 2001; Hurley and Hill 2003). Below, I list the question wording used for each issue, along with the response coding and sample size that was asked the question. All responses are collapsed to derive a mean opinion value for each income group within each state.15

(1) Death penalty: “Do you personally favor or oppose the death penalty for some crimes?”
   (0=Favor, 1=Oppose, 2000 wave, N=29,429)

(2) Abortion: “Ban all abortions – should the federal government do this or not?” (0=Ban,
   1=Do not ban, 2000 and 2004 waves, N=78,770)16

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15 For all issues, more “liberal” opinions are coded higher.

16 The results reported in Column 2 of Table 2 of this paper are substantively similar when I use an alternative measure of abortion opinion (“Do you personally favor or oppose making it harder for a woman to get an abortion?”) that makes no mention of the federal government, and when I use an alternative measure of state abortion policies (Sorens, Muedini, and Ruger 2008). I opt to use the measure of abortion opinion listed above because it has more than twice the number of respondents (78,770 compared to 31,501) that allows for a more reliable measure of public opinion on abortion for the three income groups within each state.
(3) **Gun control:** “Restricting the kinds of guns that people can buy – should the federal government do more about this, the same as now, less or nothing at all?” (1=Nothing at all, 2=Less, 3=Same, 4=More, 2000 and 2004 waves, N= 87,210)\(^{17}\)

As discussed above, there is some question about to what extent the political opinions of citizens with low, middle, and high incomes differ (Soroka and Wlezien 2008; Ura and Ellis 2008; Erikson and Bhatti 2011). These differences are central for the study of income inequality and political representation because if the rich and poor have similar ideologies and policy preferences, policy decisions that represent the opinions of the rich would necessarily also represent the opinions of the poor. To evaluate differences in political ideology by income, I generate three graphs that show, respectively, the difference in mean ideology within each state between (1) low and middle income citizens, (2) low and high income citizens, and (3) middle and high income citizens. For each graph, more liberal mean ideology is coded higher so a state where the bar is above zero indicates that the first group listed in the graph’s title is more liberal than the second group listed using the five point ideological scale (-2 to +2). Figure 1(A) reveals that citizens in the low income group report being more liberal than citizens in the middle income group in 37 out of the 48 states in the analysis. Figure 1(B) reveals that citizens in the low income group report being more liberal than citizens in the high income group in 38 out of the 48 states. In contrast, the difference in the mean reported ideology between citizens in the middle and high income group reveals no clear pattern, with roughly half of the states having more liberal citizens in the middle income group and the other half more liberal citizens in the

\(^{17}\) The results reported in Column 3 of Table 2 of this paper are substantively similar when I use an alternative measure of opinion on gun control (“Do you personally favor or oppose requiring a license for a person to buy a handgun?”) that makes no mention of the federal government. I opt to use the measure of opinion on gun control listed above because it has nearly three times the number of respondents (87,210 compared to 29,456) that allows for a more reliable measure of public opinion on gun control for the three income groups within each state.
high income group (see Figure 1(C)). In sum, the largest difference in self-reported ideology appears to be between citizens in the low income group when compared to the other two income groups, with citizens in the low income group consistently more liberal than their more affluent state counterparts.\footnote{One possible explanation for perceived unequal policy representation for different income groups is that there are substantial differences in the variance of ideology within groups. For example, if the ideologies of citizens in the middle and high income groups were more stable and consistent than the ideologies of citizens in the low income group, we would expect the coefficients for the middle and high income groups to be more precise because there is more reliability and less “error” in the measurement of mean ideology. This might lead a researcher to conclude unequal policy representation exists when, in reality, the result is simply a byproduct of measurement error. To investigate this concern, I first examined the variance of each income group’s self-reported ideologies within each state. The average within-state variances for each income group are not statistically different from one another. A second way to investigate this concern is to calculate the reliability for each income group’s ideology measure. The reliability estimates for the low, middle, and high income ideology measures across the states using the 2000 and 2004 NAES are .91, .96, and .96, respectively. Reliability was calculated using the following equation: (total variance – error variance)/total variance. For each income group, the higher the proportion of variance that comes from across the states as opposed to within each state, the higher the reliability and more confident we can be that the mean ideology estimate is measuring actual differences in political ideologies across the states and not random “noise” (Jones and Norrander 1996). When I use an errors-in-variables regression model that accounts for the slightly different reliability of the ideology measure for each income group, the results are substantively identical to those reported in Table 1.}

For the three social issues, the same pattern (citizens with low incomes holding the most distinct political opinions) generally holds. For the death penalty, low income citizens report more liberal attitudes. Averaging values across the states, citizens in the low income group are six percentage points more likely to be against the use of the death penalty compared to citizens in the middle income group and four percentage points more likely to be against the death penalty compared to citizens in the high income group. In contrast, for attitudes on abortion, citizens in the low income group report more conservative attitudes compared to their more affluent state counterparts. Again averaging values across the states, citizens in the low income group are four percentage points more likely to think abortion should be banned compared to citizens in the middle income group and six percentage points more likely to think abortion
should be banned compared to citizens in the high income group. For both issues, these differences are larger than the difference between the middle and high income groups (citizens in the middle income group are, on average, one percentage point more supportive of the death penalty and three percentage points more likely to think abortion should be banned). In sum, there are substantive differences in general political ideology and opinions on specific issues between citizens in different income groups within states, and the largest differences are between citizens with low incomes and their more affluent state counterparts in the middle and high income categories.

I then turn to assessing the relationship between citizens’ opinions and public policy. To measure public policy, I require both general measures of the “liberalism” (Klingman and Lammers 1984) of policy outputs and data on death penalty, abortion, and gun control policies across the states. In their seminal book on state opinion and policy, Erikson, Wright, and McIver (1993) developed a composite index of state policy liberalism using eight policy areas for which liberals and conservatives typically disagree. Gray et al. (2004) updated this policy liberalism measure for 2000 using the following five policy items: (1) state regulation of firearms as measured by state gun laws; (2) scorecard of state abortion laws in 2000; (3) an index of welfare stringency that accounts for Temporary Assistance to Needy Families (TANF) rules of eligibility and work requirements for 1997-99; (4) a dummy measure of state right-to-work laws in 2001; and (5) a measure of tax progressivity calculated as a ratio of the average tax burden of the highest five percent of a state's earners to the average tax burden of the lowest forty percent of a

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19 The same pattern in differences in opinions between income groups holds for opinions on gun control policy as well (measured on a 1-4 scale with higher values indicating a preference for more stringent gun control policies). Across the states, citizens in the low income group prefer more stringent gun control laws compared with citizens in both the middle and high income groups. These differences are again larger than the difference in opinion between citizens in the middle and high income groups (with citizens in the high income group preferring more stringent gun control laws at a rate slightly higher than citizens in the middle income group).
state’s earners. These five components are then standardized and summed in an additive index such that more liberal state policies are coded higher. I use this index as my first measure of the general ideological tone of state policy.

Second, a recent article by Sorens, Muedini, and Ruger (2008) provides a rich source of data on state policies in twenty different areas ranging from public assistance spending to gun control to campaign finance laws to health insurance regulations. In addition to specific statutes and spending data, the authors provide a summary index of policy liberalism for each state that they derive by factor analyzing their entire range of policies. I use this composite score as a second measure of general policy liberalism. Together, the two policy liberalism measures represent the uni-dimensional liberal/conservative ideology of state policy decisions that correspond well to the measure of citizens’ general political ideologies described above.

I also use measures of specific state policies that are intended to match up as closely as possible with the opinion measures on the three social issues described above. This allows me to assess whether state policy on a particular issue is responsive to opinion on that same particular issue. The policy measures and the data source they are drawn from are described below:

(1) *Death penalty:* Does the state have a law allowing legal execution of prisoners? (0=Yes, 1=No, data from Sorens, Muedini, and Ruger 2008)

(2) *Abortion:* Scorecard of state abortion laws (More “pro-choice” laws coded higher, data from Gray et al. 2004)

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20 Gray et al. (2004) argue that using these policy items, as opposed to a measure of per capita expenditures for different policy areas, precludes the possibility that policy liberalism is simply a proxy for a state’s wealth. The five measures produce a Cronbach’s alpha of .63.

21 The state policy data can be accessed online at www.statepolicyindex.com.


23 Consistent with measures of public opinion, all issue areas are coded such that “liberal” policies are coded higher.
(3) **Gun control:** First principal component of 24 state gun laws (Stricter gun control laws coded higher, data from Sorens, Muedini, and Ruger 2008)

To measure policy representation, I use a “responsiveness” model (Erikson, Wright, and McIver 1993; Burden 2005; Griffin and Newman 2005: Bartels 2008; Lax and Phillips 2009b) which assesses whether states with more liberal public opinion have more liberal public policies (and whether states with more conservative opinion have more conservative policies). By including a separate measure of opinion for each income group, the model measures the relative influence of each on state policy (Bartels 2008). A positive and statistically significant coefficient for an income group’s population-weighted opinion measure indicates that, across the American states, an income group’s mean ideology is a significant predictor of state policy. Moreover, I am then able to evaluate unequal policy representation by assessing whether the coefficients for each income group are statistically different from one another.²⁴

I also include a variable for the proportion of a state’s residents in each income category (with the high income category as the reference category). This allows each income group its own separate intercept instead of artificially forcing a similar opinion intercept across all three income groups (see Erikson and Bhatti 2011; Rigby and Wright 2011). Stated in equation form, using ordinary least squares regression I model policy representation as follows:

\[ P = \alpha + \beta_1(L^\ast LI) + \beta_2(M^\ast MI) + \beta_3(H^\ast HI) + \beta_4(LI) + \beta_5(MI) + \varepsilon \]

where \( P \) is state public policy; \( L, M, H \) are mean opinion measures for low, middle, and high income respondents in each state, respectively; and \( LI, MI, \) and \( HI \) are the proportion of residents in that state that fall into the low, middle, and high income categories, respectively.

²⁴ The assessment of the statistical difference between the coefficients for each income group improves upon Rigby and Wright (2011) who do not undertake this procedure in their study.
Results

I begin by assessing the relationship between citizens’ general liberal/conservative political ideology and state policy liberalism. Table 1, Columns 1 and 2 report OLS coefficients from regressing policy on the three income group ideology measures using the two different measures of state general policy liberalism described above. Column 1 uses the measure of policy liberalism created by Gray et al. (2004) and reveals that only the mean opinion for citizens in the middle income group significantly predicts state policy (i.e. the coefficient is bounded above zero at conventional levels of statistical significance). Column 2 uses the measure of policy liberalism created by Sorens, Muedini, and Ruger (2008) and shows that the coefficients for both middle and high income opinion are positive and bounded above zero. In contrast, in both Columns 1 and 2 the coefficient for low income ideology is not statistically different from zero which reveals little government responsiveness to the general political ideology of citizens in households making less than $35,000 per year.

The bottom panel of Table 1 reports the results of three Wald tests that assess, respectively, whether the regression coefficient for low income ideology is significantly less in magnitude than the coefficient for middle and high income ideology and whether the coefficient for middle income ideology is significantly less in magnitude than the coefficient for high income ideology (using a one-tailed test). For Column 1, the coefficient for low income ideology is not statistically different from the middle or high income ideology coefficients. However, for Column 2, the low income ideology coefficient is statistically smaller (p<.10) compared to the coefficients for both middle and high income ideology. From this initial

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25 In contrast, the coefficient estimates for middle and high income ideology/opinion are never statistically different from one another in any of the models reported in Tables 1 and 2.
analysis, the political inequality that others have found at the national level (Gilens 2005; Bartels 2008) appears to extend to the states as well.26

[Table 1 about here]

To test the robustness of these results, I use entirely different data for both citizens’ political ideology and states’ policy liberalism. To measure citizens’ ideology, I pool data from the 1988-1990-1992 Senate Election Study conducted by the American National Election Studies (also see Bartels 2008, Chapter 9). This data set is useful because it was stratified to include roughly an equal number of respondents from each state (a minimum of 150 and an average of 185). Respondents are divided by state into those with a household income below $20,000, those between $20,000 and $40,000, and those above $40,000. Citizens’ general liberal/conservative political ideology is again used to measure public opinion.27 Like before, I weight the opinion data by the proportion of respondents in each state that fall into that income category and include separate terms for the proportion of citizens in the low and middle income groups to allow each group its own intercept in the regression model.

---

26 Because income and education are correlated at a fairly high level across the American public, focusing on inequalities in political representation based on citizens’ income might actually be picking up inequalities in political representation based on citizens’ level of education. To investigate if the results displayed in Table 1 are merely a proxy for unequal political influence based on level of education, I replicate the same analysis by splitting citizens into three groups based on level of education (high school diploma or less, some college, four year college degree or more) and weight each group’s political ideology by its proportion of the total state population. I find no clear pattern of unequal political representation based on citizens’ level of education [Reviewers see Table R-1]. In fact, this analysis suggests that citizens with a high school diploma or less enjoy the same level or even more political influence when compared to citizens with at least a four year college degree. In short, citizens with low incomes appear to be more politically disadvantaged than citizens with low levels of education (also see Gilens 2005).

27 The NES ideology item is asked on a 1-7 scale. I flipped and rescaled the variable to run from -3 (very conservative) to +3 (very liberal). The question wording is as follows: “We hear a lot of talk these days about liberals and conservatives. Think about a ruler for measuring political views that people might hold, from liberal to conservative. On this ruler, which goes from one to seven, a measurement of one means very liberal political views, and a measurement of seven would be very conservative. Just like a regular ruler, it has points in between, at 2, 3, 4, 5 or 6. Where would you place yourself on this ruler, remembering that 1 is very liberal and 7 is very conservative, or haven’t you thought much about this?”
To measure the general ideological tone of state policies, I use the original state policy liberalism index created by Erikson, Wright, and McIver (1993, 75-77). The index is a composite of eight different policy areas including level of education spending, the scope of Medicaid eligibility, the scope of Aid to Families with Dependent Children eligibility, consumer protection laws, liberal criminal justice approaches, legalization of gambling, Equal Rights Amendment ratification, and tax progressivity. The results of this regression are displayed in Column 3 of Table 1. Again, both the coefficients for middle and high income ideology are positive and statistically significant. But, most importantly, the coefficient for low income opinion is again not statistically different from zero (in fact, the estimate is negative) and is significantly smaller (p<.10) than the coefficients for both middle and high income opinion. Using alternative data from over a decade earlier, the same result holds: the general political ideologies of citizens with low incomes do not predict the policy decisions made by state governments.  

I next examine differential political representation on specific policy issues by assessing the relationship between citizens’ opinions and state policy on three social issues: the death penalty, abortion, and gun control laws. All policies are coded such that more liberal preferences and policies are coded higher.

[Table 2 about here]

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28 Each income group’s mean political ideology is included in a single regression model to allow them to compete with one another for influence. However, one concern with including measures of the mean ideology for low, middle, and high income groups in a single model is the possibility that high collinearity among the three measures may inflate the standard errors for the coefficients and lead to imprecise estimates. Indeed, low income ideology is correlated with middle income ideology at .76 and with high income ideology at .79 (middle and high income ideology are correlated at .90). To investigate this concern, I regressed the three measures of state policy liberalism on each income group’s mean ideology separately. This modeling strategy reveals (as expected, given the ideology measures are moderately to highly correlated with one another) that each income group’s ideology is a statistically significant predictor of the liberalism of state public policies [Reviewers see Table R-2]. However, the analysis also reveals that the coefficient for the high income group is consistently larger than the coefficient for the low income group, indicating that state public policy liberalism is more sensitive to the opinions of citizen’s in the high income group even when each income group’s ideology is modeled separately.
Table 2 displays the results from regressing these three measures of policy on population weighted measures of opinion for low, middle, and high income citizens (items used to construct the opinion and policy measures are described above). For the death penalty, the opinions of citizens in both the middle and high income categories strongly predict policy.\textsuperscript{29} For abortion, only the opinions of citizens in the high income group significantly predict state policy. For gun control laws, the opinion measures for middle and high income are both positively signed, but the coefficients are not bounded above zero. Most importantly, similar to the analysis for general political ideology presented above, the mean opinion of citizens in the low income group does not predict any of the three state policies (the coefficient estimate is actually negative for gun control policy, but not statistically different from zero) and is significantly smaller (p<.10) than the coefficient for high income opinion for all three policy areas. In sum, whether measured as general state policy liberalism or state policy on specific social issues, citizens with low incomes receive little substantive political representation in the policy decisions made by state governments.\textsuperscript{30}

Conclusion

The correspondence between citizens’ opinions and public policy is the “bottom line” for American democracy. A large political science literature has been dedicated to demonstrating that citizens’ aggregated opinions strongly predict the tone of public policy in both state (e.g.,

\textsuperscript{29} Because the death penalty is the only dichotomous policy measure (0=death penalty is legal, 1=no death penalty), a probit estimator is used in Column 1 of Table 2.

\textsuperscript{30} I also modeled each social policy as a function of each income group’s opinion separately [Reviewers see Table R-3]. Much like the analysis for political ideology and state policy liberalism, all three income groups’ opinions strongly predict policy (because group opinions are correlated with one another). However, for the death penalty and gun control policy, citizens in the low income group appear to have the smallest influence over state policy when compared to the other groups. For abortion policy, the low income group appears to have roughly the same influence as citizens in the middle income group when each income group’s opinion is modeled separately.
Erikson, Wright, and McIver 1993) and national politics (e.g., Erikson, MacKuen, and Stimson 2002). Far less attention has been paid to the question: Are citizens’ opinions represented equally? Recent studies at the national level (Gilens 2005; Bartels 2008) report that the opinions of the poor are especially underrepresented in the policymaking process across a wide array of policy domains.

This paper extends this new line of inquiry to the American states and uncovers similar results. Assessing the relationship between citizens’ general political ideology and state policy, the opinions of citizens in the middle and high income groups are reflected in state public policies while the opinions of the poor are consistently underrepresented. If “A key characteristic of a democracy is the continued responsiveness of the government to the preferences of its citizens, considered as political equals” (Dahl 1971, 1), the democratic process in the American states appears to fall short of this standard. This finding is especially disconcerting in light of growing evidence that economic inequality and political inequality interact and exacerbate one another (McCarty, Poole, and Rosenthal 2006; Bartels 2008; Kelly 2009).

Unequal political representation applies not just to the general ideological tone of state policy but to specific social issues as well, “easy” issues where we might expect more equal representation to occur since rich and poor constituents alike are more likely to formulate coherent and consistent preferences (Gormley 1986; Hagen, Lascher, and Camobreo 2001; Hurley and Hill 2003). Whereas the correspondence between citizens’ general political ideology and the general ideological tone of state policy might be murky, there should be little cloudiness in the relationship between citizens’ opinions and policy for specific and salient issues like abortion or the death penalty. Even so, on the types of issues where we might expect
disadvantaged citizens to fare the best, I find little evidence that their opinions are reflected in the policy decisions made by state governments when compared to more affluent citizens.

Recent studies of unequal political representation (Gilens 2005; Bartels 2008) have documented wide disparities between the rich and the poor but stop short of explaining why these disparities occur. Although political scientists and pundits have speculated for decades about the underlying causes of unequal political influence (including inequalities in rates of voting, contacting elected officials, and contributing to campaigns), empirical investigation of this topic remains startling limited. As a result, we still have an inadequate understanding and little concrete evidence about the precise mechanisms by which economic inequality is reproduced as political inequality. To further our understanding, future studies should attempt to measure and take advantage of the variation in the equality of political representation across the American states to explain why it occurs.
References


Table 1: Unequal Policy Representation for General Policy Liberalism

<table>
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<tr>
<th>Policy Liberalism Data Source</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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</thead>
<tbody>
<tr>
<td>Gray et al. (2004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sorens, Muedini, and Ruger (2008)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erikson, Wright, and McIver (1993)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Income Ideology</td>
<td>10.962</td>
<td>2.185</td>
<td>-0.228</td>
</tr>
<tr>
<td></td>
<td>[10.744]</td>
<td>[11.779]</td>
<td>[1.032]</td>
</tr>
<tr>
<td>Middle Income Ideology</td>
<td>27.357**</td>
<td>29.673**</td>
<td>2.534**</td>
</tr>
<tr>
<td></td>
<td>[11.240]</td>
<td>[12.323]</td>
<td>[1.117]</td>
</tr>
<tr>
<td>High Income Ideology</td>
<td>16.358</td>
<td>36.055*</td>
<td>4.454***</td>
</tr>
<tr>
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<td>[16.431]</td>
<td>[18.015]</td>
<td>[1.382]</td>
</tr>
<tr>
<td>% Low Income</td>
<td>5.768</td>
<td>-18.405**</td>
<td>-3.753*</td>
</tr>
<tr>
<td></td>
<td>[6.913]</td>
<td>[7.579]</td>
<td>[1.910]</td>
</tr>
<tr>
<td>% Middle Income</td>
<td>-21.806</td>
<td>-53.212***</td>
<td>-2.746</td>
</tr>
<tr>
<td></td>
<td>[13.783]</td>
<td>[15.112]</td>
<td>[2.780]</td>
</tr>
<tr>
<td>Constant</td>
<td>9.547</td>
<td>31.306***</td>
<td>3.100**</td>
</tr>
<tr>
<td></td>
<td>[5.789]</td>
<td>[6.346]</td>
<td>[1.169]</td>
</tr>
<tr>
<td>R²</td>
<td>.65</td>
<td>.81</td>
<td>.52</td>
</tr>
<tr>
<td>N</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

Wald Test p-value:
- Low Income Ideology < Middle Income Ideology
  .166 .071 .055
- Low Income Ideology < High Income Ideology
  .406 .089 .008
- Middle Income Ideology < High Income Ideology
  .665 .411 .157

Data source for dependent variable (state policy liberalism) listed above each column.
Cell entries in top panel are OLS regression coefficients with standard errors reported below in brackets.
* denotes p< .10; ** p< .05; *** p< .01. Two-tailed test.
Table 2: Unequal Policy Representation for Social Issues

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Death Penalty</th>
<th>Abortion</th>
<th>Gun Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>.50</td>
<td>.51</td>
<td>.64</td>
</tr>
<tr>
<td>N</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

Wald Test p-value:
- Low Income Opinion < Middle Income Opinion: .222 .062 .080
- Low Income Opinion < High Income Opinion: .042 .012 .019
- Middle Income Opinion < High Income Opinion: .150 .173 .487

Dependent variable (specific state policy) listed above each column.
Cell entries in top panel are probit (Column 1) and OLS (Columns 2 and 3) regression coefficients with standard errors reported below in brackets.
* denotes p< .10; ** p< .05; *** p< .01. Two-tailed test.
Figure 1(A) – (C): Differences in Income Group Ideological Liberalism, by State

(A) Average Liberalism of Citizens within Income Groups:
Low (<$35,000) minus Middle ($35,000 - $75,000), by State

(B) Average Liberalism of Citizens within Income Groups:
Low (<$35,000) minus High (>=$75,000), by State

(C) Average Liberalism of Citizens within Income Groups:
Middle ($35,000 - $75,000) minus High (>=$75,000), by State
### Table R-1: Education Groups and Political Representation

<table>
<thead>
<tr>
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<tr>
<td>Data Source</td>
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<td></td>
<td></td>
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<td>High School or Less Ideology</td>
<td>43.450**</td>
<td>42.006*</td>
<td>0.507</td>
</tr>
<tr>
<td></td>
<td>[16.756]</td>
<td>[22.234]</td>
<td>[0.948]</td>
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<tr>
<td>Some College Ideology</td>
<td>-23.567*</td>
<td>7.535</td>
<td>3.378**</td>
</tr>
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<td>[13.094]</td>
<td>[17.375]</td>
<td>[1.388]</td>
</tr>
<tr>
<td>Four Year College Degree or More Ideology</td>
<td>28.431***</td>
<td>23.494**</td>
<td>3.536***</td>
</tr>
<tr>
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<td>[8.090]</td>
<td>[10.735]</td>
<td>[1.288]</td>
</tr>
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<td>% High School or Less</td>
<td>6.252</td>
<td>-8.997</td>
<td>-2.515</td>
</tr>
<tr>
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<td>[8.336]</td>
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<td>[2.087]</td>
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<td>% Some College</td>
<td>-21.171**</td>
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<td>[9.342]</td>
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<tr>
<td>Constant</td>
<td>7.462</td>
<td>18.969***</td>
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</tr>
<tr>
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<td>[3.958]</td>
<td>[5.252]</td>
<td>[1.625]</td>
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<tr>
<td>R²</td>
<td>.72</td>
<td>.77</td>
<td>.46</td>
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<tr>
<td>N</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

Wald Test p-value:
- High School or Less ≠ Some College: .009  .297  .134
- High School or Less ≠ Four Year Degree: .490  .521  .082
- Some College ≠ Four Year Degree: .006  .512  .941

Data source for dependent variable (state policy liberalism) listed above each column.

Cell entries in top panel are OLS regression coefficients with standard errors reported below in brackets.

* denotes p< .10; ** p< .05; *** p< .01. Two-tailed test.
<table>
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<tr>
<th>Policy Liberalism Data Source</th>
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<tr>
<td>Gray et al. (2004)</td>
<td>2000/2004 Annenberg</td>
<td>43.344***</td>
<td>68.262***</td>
<td>2.823***</td>
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<td></td>
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<td>[7.138]</td>
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<td>Erikson, Wright, and McIver (1993)</td>
<td>1988-1992 NES Senate Study</td>
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<td></td>
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<td>[0.487]</td>
<td>[0.594]</td>
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<tr>
<td></td>
<td></td>
<td>R²</td>
<td>.44</td>
<td>.51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

| Middle Income Ideology        |                            | 38.091***    | 61.362***    | 4.718***     |
|                               |                            | [4.633]      | [5.756]      | [1.061]      |
|                               |                            | Constant    | 2.977***     | 4.892***     | 0.875***     |
|                               |                            | [0.487]      | [0.594]      | [0.231]      |
|                               |                            | R²          | .59          | .71          | .30          |
|                               |                            | N          | 48           | 48           | 48           |

| High Income Ideology          |                            | 61.464***    | 93.913***    | 6.299***     |
|                               |                            | [8.250]      | [11.579]     | [1.411]      |
|                               |                            | Constant    | 2.562***     | 3.998***     | 0.737***     |
|                               |                            | [0.476]      | [0.668]      | [0.205]      |
|                               |                            | R²          | .55          | .59          | .30          |
|                               |                            | N          | 48           | 48           | 48           |

Data source for dependent variable (state policy liberalism) listed above each column. Cell entries are OLS regression coefficients with standard errors reported below in brackets. * denotes p< .10; ** p< .05; *** p< .01. Two-tailed test.
Table R-3: Separate Models for Each Income Group, Social Issues

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Death Penalty</th>
<th>Abortion</th>
<th>Gun Control</th>
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</thead>
<tbody>
<tr>
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<td>6.694**</td>
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<td>-32.265***</td>
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<tr>
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<td>[0.931]</td>
<td>[1.197]</td>
<td>[5.938]</td>
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<tr>
<td>R²</td>
<td>.10</td>
<td>.34</td>
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<tr>
<td>N</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td><strong>Middle Income Opinion</strong></td>
<td>7.566**</td>
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<td>11.353***</td>
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<td>N</td>
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<td>48</td>
<td>48</td>
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<td><strong>High Income Opinion</strong></td>
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<td>R²</td>
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<td>.39</td>
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<td>48</td>
</tr>
</tbody>
</table>

Dependent variable (specific state policy) listed above each column.
Cell entries are probit (Column 1) and OLS (Columns 2 and 3) regression coefficients with standard errors reported below in brackets.
* denotes p< .10; ** p< .05; *** p< .01. Two-tailed test.