Spending Priorities in Direct Democracy States

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ABSTRACT

This paper examines whether direct democracy institutions, like ballot initiatives and referenda, influence government policies. Existing literature has produced mixed evidence, showing a conservative effect, a responsiveness-enhancing effect that is contingent on public preferences, and a null effect. Our study examines state spending patterns in order to test the effect of direct democracy institutions on the *nature* of state spending and, more broadly, on overall policy outcomes. Using the State Policy Priorities measure, we find that direct democracy states, on average, do tend to prioritize spending on collective goods policies like law enforcement and highways, but this difference seems to be contingent on a state's public opinion. The results support the theory that direct democracy enhances government responsiveness to the public, even when using broad measures like the policy priority scale.

One of the most important questions asked about direct democracy are whether direct democracy institutions have an impact on government policies (Lupia and Matsusaka 2004). In the U.S., this broad question has drawn considerable attention, particularly in terms of state fiscal policy. In the wake of the 1978 California Tax Revolt, which culminated in the passage of Proposition 13, anti-tax crusaders and political scientists alike realized the impact that citizen legislation could have on state taxes and spending. Indeed, subsequent research has compellingly shown that initiative states tend to collect less revenue and, in turn, spend less than states without these direct democracy institutions (Matsusaka 2004). From this line of research, it is clear that direct democracy institutions can affect the size of state budgets and the amount of state spending, but it is less clear how they affect the *nature* of this spending and subsequently a state's policy priorities.

Existing research leads to contrasting expectations as to how direct democracy affects the nature of state spending and state policy priorities. On the one hand, evidence of shrinking budgets and less government spending suggests that direct democracy institutions may have a conservative impact on state policy priorities (e.g. Matsusaka 2004). On the other hand, studies have also shown that direct democracy can strengthen the link between public preferences and policy outcomes (e.g. Gerber 1996). This implies that the effect of direct democracy institutions varies depending on the attitudes of the public, with the overall impact increasing congruence between the public and spending priorities. Other studies, meanwhile, find that direct democracy does not significantly affect policy outcomes (e.g. Lascher, Hagen, and Rochlin 1996). In this paper, we explore the questions of whether and how direct democracy institutions

influence the nature of state government spending by examining the policy priorities of the states. Results suggest that though direct democracy states often do have significantly different policy priorities from non-direct democracy states, this difference is contingent on the public ideology of the states.

BACKGROUND

Again, studies on the impact of direct democracy institutions on state policy have, in general, produced three distinct findings. The first is a null finding – that direct democracy does not significantly affect policy outcomes or policy congruence with public opinion (Camobreco 1998; Lascher, Hagen, and Rochlin 1996; Monogan, Gray, and Lowery 2007). Several explanations for these null findings have been offered. One is that ballot initiatives and referendums are imperfect reflections of the public's ideal policies and with limited choices can do little to enhance the state policy responsiveness (Camobreco 1998; Lascher, Hagen, and Rochlin 1996).

Another reason for these null findings may be the ability of interest groups to utilize direct democracy institutions for their own interests rather than the public interest (Gerber 1999; Lascher, Hagen, and Rochlin 1996; Monogan, Gray, and Lowery 2007). Thus, the ability of organized interests to exploit these institutions may actually undermine any increased responsiveness to the public's preferences that citizen legislation might have otherwise caused. Also, an underlying assumption of arguments for increased policy responsiveness in direct democracy states is that state legislators and policymakers are inherently unresponsive. This assumption may not be valid, as

numerous studies have shown public opinion to influence policy outcomes in all states (Erikson, Wright, and McIver 1993; Gray et al. 2004; Schneider and Jacoby 2006).

Other research, meanwhile, has found evidence that direct democracy does significantly impact policy outcomes. One set of studies finds a conservative influence of direct democracy on state public policy. In particular, this effect is evident when examining state fiscal policy (Gerber 1999; Matsusaka 1995; 2000; Matsusaka 2004; Matsusaka and McCarty 2001). Examining a "blizzard of data", Matsusaka (2004) shows compelling evidence that direct democracy states spent less, taxed less, and decentralized spending more than states without direct democracy institutions from 1960 to 1990. Other studies find that states with direct democracy are more likely to adopt policies that restrict government's ability to enact new taxes and spending measures (Tolbert, Lowenstein, and Donovan 1998) and are less likely to have a state income tax (Gerber 1999). Evidence of a similar conservative effect on fiscal policy has also been found outside the United States (Feld and Matsusaka 2004; Schaltegger and Feld 2001).

A more recent study shows a conservative impact of direct democracy on social issues as well (Matsusaka 2007), but this effect seems to be majoritarian in nature – reflecting the preferences of public. This finding is in accord with a third line of research which supports the Progressive argument that direct democracy institutions increase policy congruence with public preferences. Gerber (1996), extending upon the agenda-setter model (Romer and Rosenthal 1979), theoretically demonstrates how this policy congruence in direct democracy states is achieved. Obviously direct democracy can directly influence the content of state policy through ballot initiatives and referendum (which should reflect the preferences of the majority of the voting public), but these

institutions can also indirectly influence policy outcomes by affecting the behavior of legislators. Ballot initiatives and referendums can send signals to legislators about preference of the public and can also serve as agenda setters. Thus, direct democracy can influence policy outcomes whether or not a ballot proposal is actually passed. Empirical evidence of this policy congruence between public opinion and policy outcomes has been garnered by several studies, particularly those that examine social issues like gay rights and abortion (Arceneaux 2002; Burden 2005; Gerber 1996; 1999; Matsusaka 1995; 2007).

As a consequence of the varying findings of the existing research on the effect of direct democracy, our study of the nature of state spending patterns faces three competing expectations – a null effect, a conservative effect, and an effect contingent on the public preferences. The null effect was found in general measures of policy liberalism and among various components of that measure. The conservative effect was found mainly in fiscal policy and the contingent effect was prevalent in social policy. Since a state's spending patterns should not only reflect their fiscal policy, but also their overall policy priorities, it is not clear how direct democracy has affected these patterns. Thus, we test three hypotheses. The first is the null hypothesis that predicts no significant difference in state spending patterns between states with direct democracy institutions and those without these institutions. The second is the conservative hypothesis that predicts that states with direct democracy institutions will have more conservative spending patterns than states without these institutions. The last hypothesis expects that states with direct democracy institutions will have spending patterns that are more responsive to public opinion than states without these institutions.

STATE SPENDING PATTERNS

The raw data for our measure of state spending patterns consist of yearly state general expenditures in nine program areas: education, welfare, hospitals, health, highways, law enforcement, corrections, parks/natural resources, and government administration. Taken together, these program areas encompass the vast majority of substantive concerns that typically confront state governments; the nine spending categories comprise from 70.4% to 95.8% of total yearly state government general expenditures (Jacoby and Schneider 2001). The state spending data cover the time period from 1982 to 2005. All of the spending information is obtained from *State Government Finances* (U.S. Bureau of the Census 1983-2006).

Our analysis seeks to examine the states' *relative* spending priorities across different program areas. Hence, we use a measure developed by Jacoby and Schneider (2001) which allows us to identify how states divide up their available pools of resources. The policy priority measure is based upon a specific geometric representation, often called a spatial proximity model, of the state spending data. There are many specific techniques that have been employed to estimate the parameters of the spatial proximity model. In order to develop their measure of policy priorities, Jacoby and Schneider use a metric, least-squares unfolding method developed by Keith Poole (1984). This method produces a set of point locations so that the squared correlations between distances and data values are maximized, or alternatively, such that the squared errors are minimized.

The spatial proximity model produces two distinct sets of points: One set of 50 state points and a second set of nine policy points. For both sets of points, the relative positions of the points are determined by the empirical expenditure values. States with

similar spending profiles will have points that are located close to each other along the dimension; states with markedly different spending priorities have larger distances between their points. A similar distance rule applies to the policies points. Policies that exhibit contrasting spending patterns (i.e., high relative expenditures in one policy area coincide with small expenditures in another) will be shown as widely separated points.

Figure 1 shows a dot plot of the mean scores for policy points. The scores break down into two distinct groups, with the programs designed to meet the needs of specific constituencies falling on the left-side of the continuum, and programs that have broader, more general constituencies located on the right end of the dimension. Thus, the empirical evidence suggests that state policy priorities range along a dimension from particularized benefits to collective goods (Jacoby and Schneider 2001; Peterson 1996; Schneider and Jacoby 2006). To be clear, those policies that fall towards the particularized benefit side of the spectrum tend to be redistributive in nature and include spending on healthcare and welfare. Those policies that are located on the collective goods side of the scale tend to be focused more on local and economic development and include spending on law enforcement, parks and highways (e.g. Barrilleaux and Berkman 2003).

Figure 2 shows the dot plot for the states. Note that the state points are located along the same dimension as the policy points. Therefore, the points that fall near the right side of the plot represent states that spend more on education, highways, and natural resources—i.e., collective goods. The points closer to the left side of the plot identify states that tend to devote larger portions of their budgets to particularized benefits. States that balance their spending more evenly across these two contrasting sets of policy areas

have point locations near the middle of the plotting region. This scale of policy priorities corresponds closely to the tradition liberal-conservative ideological dimension. As seen in Figure 3, states that give priority to collective goods programs tend to be more conservative, while more liberal states tend to favor programs that provide particularized benefits. The correlation between state policy priorities and citizen ideology two variables is moderately high at -0.437, though the association is stronger towards the conservative end of the continuum.

DIRECT DEMOCRACY & STATE POLICY PRIORITIES

Using the individual state policy priority points to depict the nature of state spending patterns, as well as a broader reflection of the state's policy commitments, we can examine whether direct democracy states are significantly different from states without direct democracy. Perhaps the simplest way to do this is by comparing the mean policy priorities between the two groups of states. Table 1 shows the results of a difference of means test between the 24 states with direct democracy institutions and the 26 states without direct democracy institutions. Direct democracy states have a significantly higher mean policy priority score, indicating that these states allocate relatively more of their resources towards programs like law enforcement, parks and corrections. Conversely, non-direct democracy states have a significantly lower mean policy priority score, indicating a higher spending priority on programs like healthcare, hospitals and welfare. As the conservative hypothesis predicts, direct democracy states, on average, do seem to have more conservative spending patterns by emphasizing spending on policies that provide collective goods.

Comparing the mean policy priority scores over time also yields a similar outcome. Figure 4 tracks the mean policy priorities of direct democracy states and states without direct democracy institutions from 1982 to 2004. Throughout the time period under examination direct democracy states have higher policy priority scores than states without these institutions. The pattern displayed in the graph also supports the conservative effect hypothesis, but it is not clear whether the differences between the lines are statistically significant. Table 2 presents the results of yearly difference of means tests for comparisons between direct democracy states and states without direct democracy institutions. These tests reveal that the policy priorities of the groups of states are statistically indistinguishable at traditional levels of significance for the first half of the time series. However, in the early 1990's the gap widens showing a clear difference between the states with direct democracy institutions and those without. Around the same time that this difference expands to reach traditional levels of significance, there was also a spike in the use of ballot initiatives in the U.S. Figure 5 shows that as initiative use grows in the 1990's, so do the differences in policy priorities between direct democracy states and non-direct democracy states. In fact, the correlation between the difference and initiative use is moderately high at 0.45.[1] Though this association is far from definitive, is does suggest that initiative use may be associated with the widening difference between the policy priorities of direct democracy states and non-direct democracy states.

Thus far, we've presented results that tend to support the conservative effects hypothesis and refute the null effects hypothesis. However, this evidence has not gone far in assessing the hypothesis that direct democracy increases the effect of public

[1] The correlation is 0.50 if we lag initiative use by one year.

opinion on policy outcomes. One way to address this question is to examine the relationship between public preferences and state policy priorities. To gauge broad public preferences we use the citizen ideology measure developed by Berry, Ringquist, Fording and Hanson (1998). Based on electoral outcomes and the voting patterns of congressional candidates, this indirect measure more closely approximates the conceptualization of political ideology as the public mood rather than the conceptualization of political ideology as self-identification used by survey-based measures (Berry et al. 2007).[2] For our purposes, the public mood conceptualization is more appropriate in assessing whether government responsiveness to public preferences and demands is enhanced by direct democracy institutions.

Figure 6 shows the scatterplot of state policy priority scores versus citizen ideology, with the direct democracy states plotted separately from the states without direct democracy institutions. The cloud of points displays similar patterns between the two groups of states, but there does seem to be a difference in the OLS lines. These lines reveal that the direct democracy states tend to have slightly higher policy priority scores when the public is more conservative and lower policy priority scores when the public is more liberal. This creates a steeper slope on the OLS line for direct democracy states, suggesting that these states may be more responsive to public preferences than non-direct democracy states. The regression coefficients and R-squared statistics from bivaraiate regressions support this graphical result. In direct democracy states, citizen ideology has a coefficient of -0.297 and an R-squared of 0.288. For non-direct democracy states, these

[2] For a more complete and detailed discussion of the various approaches to measuring state public opinion see the series of articles publish in the summer 2007 edition of *State Politics and Policy Quarterly* (volume 7, number 2) by Berry et al.; Brace, Arceneaux, Johnson and Ulbig; Erikson, Wright and McIver; and Norrander.

statistics are -0.150 and 0.091, respectively. Again, this supports the hypothesis that direct democracy institutions enhance responsiveness of government to the preferences of the public.

While the results of bivariate analyses are far from conclusive, they do provide a preliminary picture of the impact that direct democracy institutions may have on how states prioritize their spending. Comparisons of the mean policy priorities in the two types of states seemed to show a conservative impact. Although this supports the conservative effects hypotheses, it is still not clear that this difference is due to direct democracy institutions since we have not yet controlled for other determinants of state policy priorities. Figure 6, meanwhile, showed less of a difference between direct democracy states and non-direct democracy states in terms of overall distribution of policy priorities scores. What was evident, though, was the difference in the slopes of the OLS lines. This was more supportive of the hypothesis that direct democracy institutions enhance congruence between governmental policy and public preferences. At no point in the analysis thus far has direct democracy displayed a null effect on policy priorities. However, to build on these initial findings, we need to account for other factors that can influence a state's spending patterns to see if the effect of direct democracy still holds.

MULTIVARIATE ANALYSIS

Consequently, in order to better assess the effects of direct democracy on state policy priorities, it is necessary to take a multivariate approach to account for factors such as public opinion, partisanship and state demographics (among others). We do so by extending upon the model of state policy priorities developed by Schneider and Jacoby

(2006). The original model conceives of state policy priorities as a function of citizen ideology, electorate partisanship, interest groups, and region.

As in the previous analysis of public preferences, the Berry et al. (1998) measure is used to assess citizen ideology. To gauge the mass partisanship of the states, Erikson, Wright and McIver's (1993) survey-based measure is used.[3] Higher scores indicate more Republican identification while lower scores indicate more Democratic identification. Two interest group variables are included that are based on Gray and Lowery's (1996, 1998) categorization of all registered, organized interests in a state. The first interest group variable is the proportion of groups in each state that focus on collective goods (law enforcement, parks, corrections, government administration, highways and education). The second interest group variable is the proportion of groups that focus on particularized benefits (healthcare, hospitals, and welfare).

Along with these four variables, we add indicators of direct democracy institutions, replace the regional variables with demographic variables, and add variables measuring intergovernmental revenue streams. The simplest measure of direct democracy is a dichotomous indicator of whether or not a state has direct democracy institutions. 24 states have some form of direct democracy – direct initiatives, indirect initiatives and/or popular referenda. However, since the specific direct democracy institutions do vary across the states, we also employ a more nuanced measure of direct democracy impact that can distinguish between the various institutional arrangements of the direct democracy states. This variable was created using principle components

[3] In order to provide sufficient observations across the different states, the partisanship scores used here are the aggregated partisanship from 1997 to 2000. See Erikson, Robert S., Gerald C. Wright and John P. McIver. 2006. "Public Opinion in the States: A Quarter Century of Change and Stability". In *Public Opinion in the States*, edited by J. Cohen. Palo Alto, CA: Stanford University Press.

analysis of three commonly used measures of direct democracy: a legislative insulation index, a qualification difficulty index and a count of the number of initiatives considered in the state.

The first two indices were developed by Donovan and Bowler (2004) to measure legislative insulation and qualification difficulty. The legislative insulation index gauges the extent to which the legislature is isolated from the effects of direct democracy and accounts for whether the legislature can modify citizen legislative outcomes and how difficult this modification process is, and whether there are subject limits to citizen legislation (among other factors). California is the least insulated, with institutional characteristics like the inability to modify initiatives, no fiscal restrictions on initiatives and no indirect initiatives. Direct democracy should have more of an impact on policy outcomes in states with less insulated legislatures. The qualification index measures how difficult it is to qualify for the ballot in each state. Qualification restrictions include geographic distribution of signatures requirements, the proportion of signature required, and substantive subject matter restrictions (among others). Oregon tops the qualification index list with relatively minimal requirements to place a proposal on the ballot. In states like Oregon, with relatively low qualification requirements, direct democracy institutions should have a large impact on policy decisions. The last measure is a simple count of the number of initiatives used. The impact of citizen legislation should be greater in states that use these institutions more often (Pippen, Bowler, and Donovan 2002).

The principle components analysis produces a single component that accounts for over 92 percent of the variance of these three measures of direct democracy impact. As used in this study, the resultant direct democracy impact score ranges from zero for non-

direct democracy states to nearly five for Oregon, which uses ballot initiatives frequently, has less insulated legislature and has some of the easiest qualification requirements in the country. The average score for direct democracy states is 3.1. Table 3 shows the direct democracy impact score generated from the principle components analysis, along with its three component measures of direct democracy.

The original regional dummy variables are omitted from this analysis because they tend to be highly correlated with the dichotomous indicator of direct democracy. In particular, direct democracy measures are highly collinear with the west and south regions. Western states led the adoption of direct democracy institutions in the late 19th and early 20th centuries, and today eleven of thirteen western states have direct democracy institutions. In the south, only three of thirteen states have direct democracy institutions. To account for other types of state variation, however, we include controls for population (logged) and per capita income in the model (in addition to the variables that gauge citizen ideology and mass partisanship).

Lastly, we added two variables to measure intergovernmental revenue streams. The first is the percentage of state revenue generated from federal sources, and the second is the percentage state revenue generated from local sources. Since state revenue is supplemented by revenue from both federal and local governments, we expect that this additional revenue would influence state spending.[4] This intergovernmental revenue is often allocated towards particular policy areas to provide incentives for state spending in those areas and is usually targeted towards more redistributive programs like healthcare and welfare (Baumgartner and Jones 1993; Peterson 1981; Ringquist and Garand 1999).

[4] In addition, we also tested whether local revenue would affect state spending patterns by supplanting state efforts in particular policy areas like education. In alternative specifications of the models, this variable was consistently insignificant and is not include here.

Thus, states with higher proportions of intergovernmental revenue should have lower policy priority scores.

The data used in this analysis cover a three year period, from 1998 to 2000, and cover the 48 continental states. Given the cross-sectional, time series nature of the data set, we use Prais-Winston regression with panel-corrected standard errors and allow for first-order autoregressive patterns in the residuals. We lag all the independent variables one year to ensure the correct interpretations of causal direction.

Results

The estimates from the Prais-Winston regressions are presented in Table 4.[5] Results from both models are shown, one with the dichotomous indicator of direct democracy and one using the direct democracy impact measure generated from the principle components analysis. In both models, the autoregression parameter (rho) is quite large, at 0.652 and 0.643, respectively. This demonstrates that there is a fairly strong autoregressive pattern in the residual which is unsurprising given the incremental nature state budgeting and policy making. Indeed, state policy priority scores, themselves, reflect this incrementalism and tend to change slowly over time.

The primary results of interest for this study are the direct democracy coefficients. In both models, the coefficients are statistically indistinguishable from zero. Contrary to the findings from the previous section, the presence of direct democracy institutions does not seem to have an impact on a state's policy priorities. This obviously supports the null

[5] The dependent variable, state policy priorities has been multiplied by 100 in order to produce reasonably sized coefficients.

hypothesis. From these models, it seems that the differences seen earlier in state policy priorities may be driven entirely by the other factors.

The impacts of these other determinants of policy priorities can be seen farther down in the models. While citizen ideology does not have a significant effect on policy priorities, state mass partisanship significantly affects these spending patterns. States with more Republican identifiers tend to have higher policy priority scores. In addition, both of the two interest group variables reach traditional levels of statistical significance. As expected, states with relatively higher proportions of organized interests that pursue particularized benefits have, on average, lower policy priority scores. Surprisingly, the proportion of groups in a state that pursues collective goods also has a positive impact on state policy priorities. From these results, it seems that an increase in the proportion of both sets of groups increases the spending priority given to more policy areas that allocate collective goods. The size of state populations also has a significant effect: larger states, on average, have lower policy priority scores and emphasize spending on more liberal policy areas like healthcare and welfare. Finally, the influence of intergovernmental revenue is evident from these models. Both local and federal intergovernmental revenue tends to decrease a state's policy priority score, as expected. It seems that increased proportions of state revenue from other levels of government impacts spending patterns by prioritizing more redistributive policies like healthcare and welfare.

In all, the estimates from these models tend to support the null hypothesis. When controlling for other significant determinants of policy priorities, like state partisanship, organized interests, and intergovernmental revenue, the policy priorities of direct

democracy states are no different form other states. While these models do provide direct tests of the null hypothesis versus the conservative effect hypothesis, they cannot speak to the third hypothesis. To test this hypothesis it is necessary to include an interaction term between the direct democracy variables and citizen ideology.

The results from the models including the interaction term are shown in Table 5. Though most of the results are similar to the first two models, the coefficients on the direct democracy variables are quite different. In both models the direct democracy coefficient is positive and statistically significant. Keep in mind that these coefficients are the impact of direct democracy on policy priorities in states that have a citizen ideology of zero (the most conservative score). With the most conservative citizens, it makes sense that direct democracy states would have higher policy priorities than similar states without direct democracy institutions. This coefficient provides some support for the contingent hypothesis. However, to fully assess this hypothesis we need to examine the impact of citizen ideology across the different institutional systems.

The first model uses a dummy variable to measure the presence of direct democracy, and thus creates a relatively more simple interpretation of the interaction. The impact of citizen ideology in non-direct democracy states is clearly insignificant, as indicated by the citizen ideology coefficient. To compare this to the effect of citizen ideology in direct democracy states, it is necessary to combine the interaction coefficient with the citizen ideology coefficient. This produces a negative and statistically significant coefficient (-0.097 with a p-value of 0.012), which suggests that among direct democracy states, those with more a more liberal citizenry tend to have lower policy priority scores and prioritize spending toward redistributive policies. Thus, the results

from Model 3 show that direct democracy institutions enhance the impact of citizen ideology on policy priorities.

For the next model, which uses the direct democracy impact measure, the interaction term and the effect of citizen ideology are easier to interpret graphically. Figure 7 plots the effects of citizen ideology as the direct democracy impact variable changes, as well as the confidence intervals. From these graphs, there is a clear contingent effect of citizen ideology depending on a state's direct democracy institutions. Like in Model 5, the coefficient for the citizen ideology variable is insignificant for states without direct democracy. In fact, citizen ideology seems to have a negligible effect for direct democracy states with more restrictive arrangements. However, among states that use initiatives more often, which have less insulated legislatures and easier qualification requirements, citizen ideology is an increasingly significant determinant of state spending patterns. The average direct democracy impact score is 3.11, which produces a significant negative impact of citizen ideology on policy priorities. Indeed, most direct democracy states have impact score high enough to enhance the effect of citizen ideology to a significant level.

Moving down the results, most of the results remain the same as in the first two models. Partisanship significantly influences policy priorities, with Democratic states emphasizing spending on more liberal policy areas. Interest groups that lobby on more conservative policies can significantly influence state spending patterns. Unlike the previous models, however, interest groups that lobby on more liberal or redistributive programs do not a have significant impact. This is not surprising, given the literature on interest group organization and mobilization (e.g. Olson 1965; Salisbury 1969; Wilson

1974). State population also has a significant impact on policy priorities, with smaller states prioritizing spending on more developmental programs and collective good policies. Finally, the impact of intergovernmental revenue is consistent with the previous findings. These revenue streams seem to push states to spend relatively more on programs like healthcare and welfare.

CONCLUSION

We began this study by asking whether and how direct democracy affects state policy, specifically focusing on spending patterns and policy priorities. Clearly, the answers to these questions are neither simple nor straight-forward. As evidenced by the existing literature, scholars have generated contrasting expectations as to how and if direct democracy impacts state policy outcomes. Despite the difficulty in disentangling the influences of direct democracy on public policy, our analysis has been able to demonstrate a few key pieces to this puzzle.

First, in examining state policy priorities we are able to not only examine fiscal policy, but also simultaneously to look at how fiscal policy decisions affect broader policy priorities. Using the state policy priority score, we were able to directly compare the spending patterns of the state to each other in a systematic way. The results demonstrated a significant difference in the policy priorities of direct democracy states versus states without direct democracy institutions. On average, direct democracy states have given a higher priority to programs that produce collective goods while non-direct democracy states have favored spending on programs that produce particularized benefits.

This difference between the two types of states, however, did not hold up once other determinants of state spending were accounted for. Rather, the multivariate analysis, mirroring the scatterplot from Figure 6 suggests that the impact of direct democracy is contingent on citizen preferences. When the state citizenry is conservative direct democracy states will give higher priority to spending on policies that provide collective goods compared to non-direct democracy states. When the citizenry is liberal direct democracy states will have spending patterns that prioritize redistributive policies that target benefits to particular segments of society compared to the spending patterns of non-direct democracy states. This finding supports the theory that direct democracy enhances governmental responsiveness to the public and is consistent with previous literature that has demonstrated this type of policy congruence (Arceneaux 2002; Bowler and Donovan 1998; Burden 2005; Gerber 1996; Gerber and Hug 2001; Matsusaka 1995). The results here, however, are distinct in that they show increased policy responsiveness by direct democracy states across a spectrum of policy areas. Much of the previous literature has shown increased governmental responsiveness on individual issues but not on broader array of state policies. While the influence of direct democracy institutions may certainly vary by policy area (Burden 2005), we show that for spending priorities citizen legislation does have a significant overall impact.

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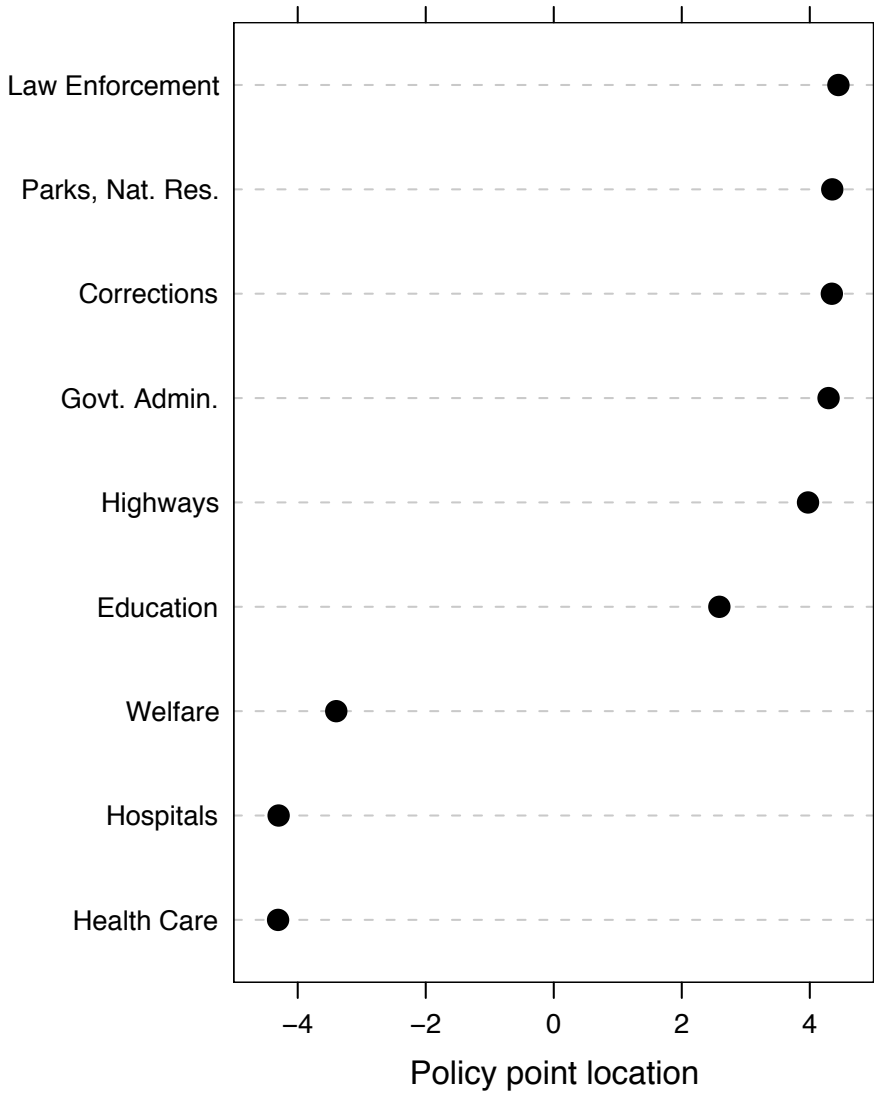
Figure 1: Dot plot showing unfolded point coordinates for policy areas.



Data Source: Output from unfolding analysis of state spending data, 1982-2005.

Figure 2. Mean State Policy Priority Scores

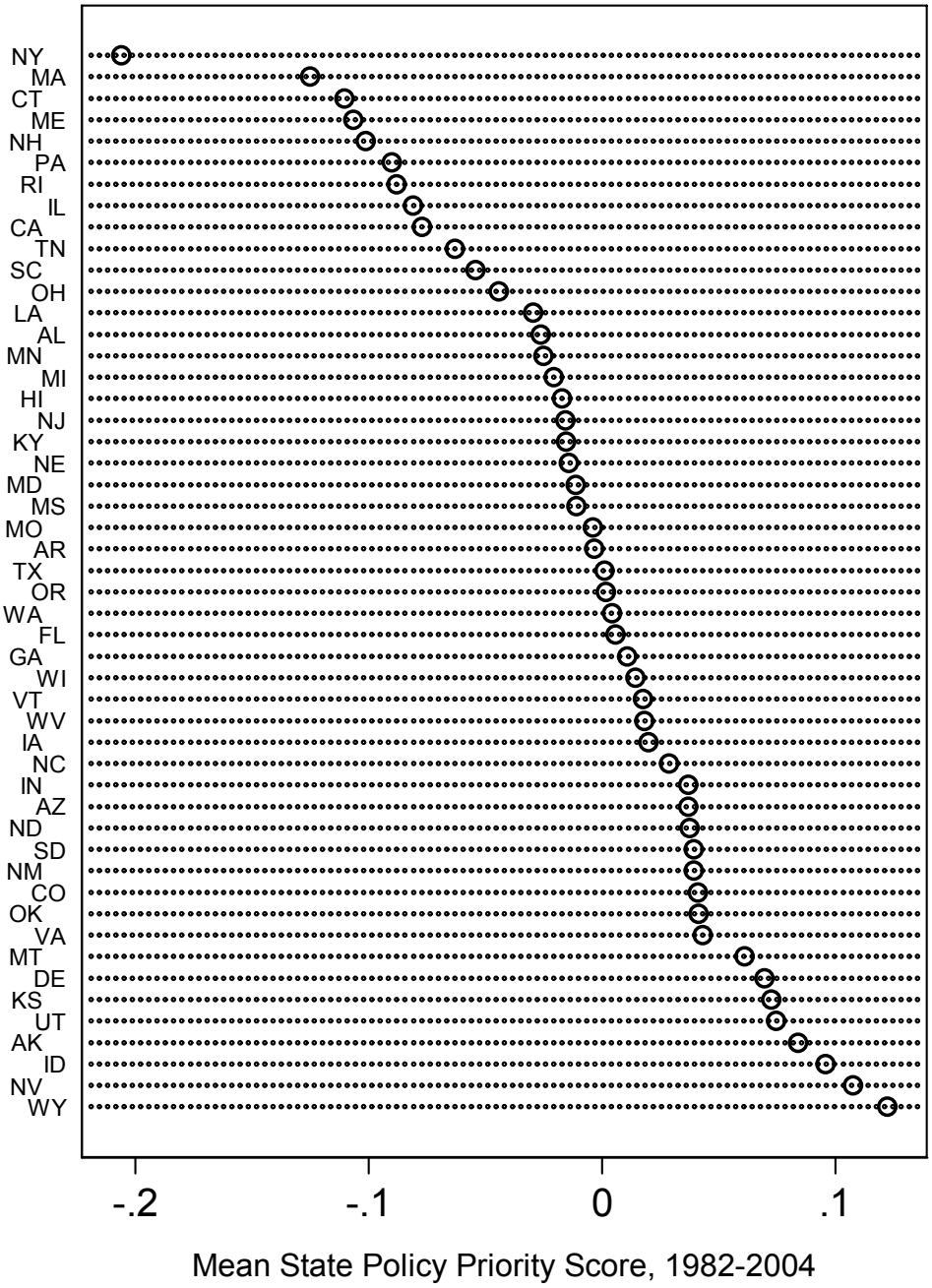


Figure 3. State Policy Priority Scores vs. Citizen Ideology

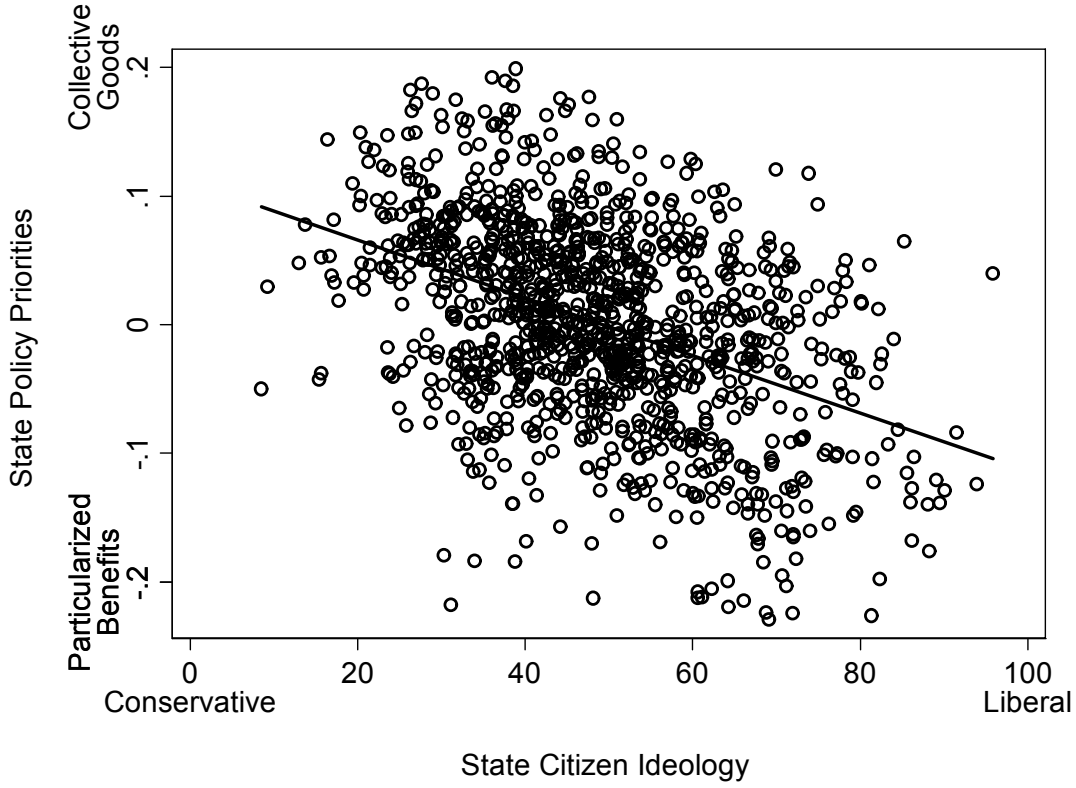


Table 1. Comparison of Mean Policy Priorities, 1982-2004

States	Mean Policy Priority	Difference
No Direct Democracy (26 states[a])	-0.979	
		-2.533*
Direct Democracy (24 states[a])	1.554	

[a]Mississippi adopted direct democracy institutions in 1992. Prior to this time there were 23 states with direct democracy institutions and 27 without.
*Difference of means is statistically significant at the 0.001 level

Figure 4. Mean Policy Priorities by Direct Democracy, 1982-2004

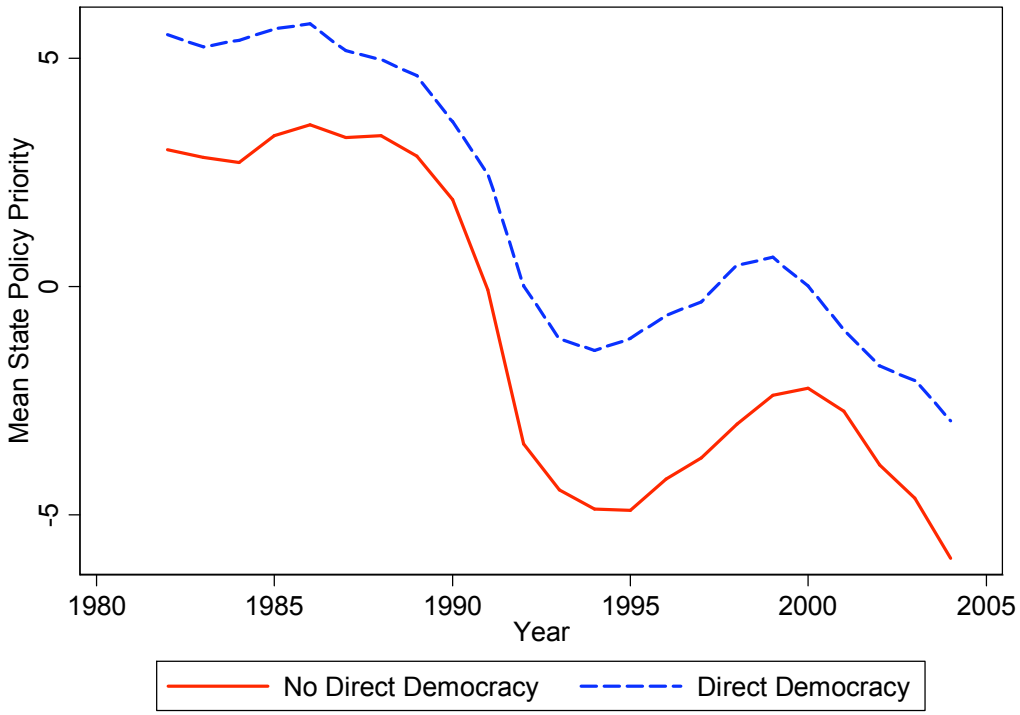


Table 2. Differences in Mean Policy Priority Scores, by Year

Year	Difference	P-value*
1982	2.519	-0.151
1983	2.426	-0.157
1984	2.673	-0.127
1985	2.342	-0.159
1986	2.212	-0.157
1987	1.905	-0.182
1988	1.664	-0.204
1989	1.758	-0.184
1990	1.700	-0.191
1991	2.537	-0.113
1992	3.458	-0.051
1993	3.302	-0.051
1994	3.476	-0.055
1995	3.769	-0.034
1996	3.591	-0.036
1997	3.411	-0.040
1998	3.487	-0.035
1999	3.024	-0.060
2000	2.230	-0.119
2001	1.788	-0.159
2002	2.170	-0.104
2003	2.581	-0.067
2004	3.004	-0.040
Overall	2.533	0.000

* P-values are for one-tailed tests

Figure 5. Mean Policy Priorities by Direct Democracy & Initiative Use, 1982-2004

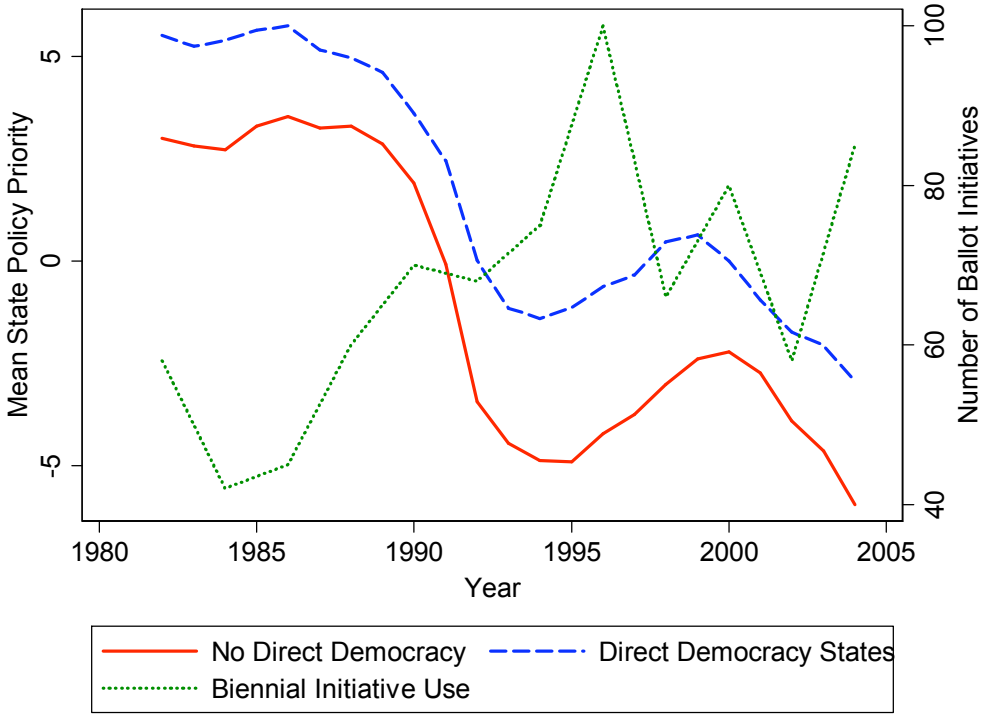


Figure 6. Policy Priorities vs. Citizen Ideology, 1982-2004

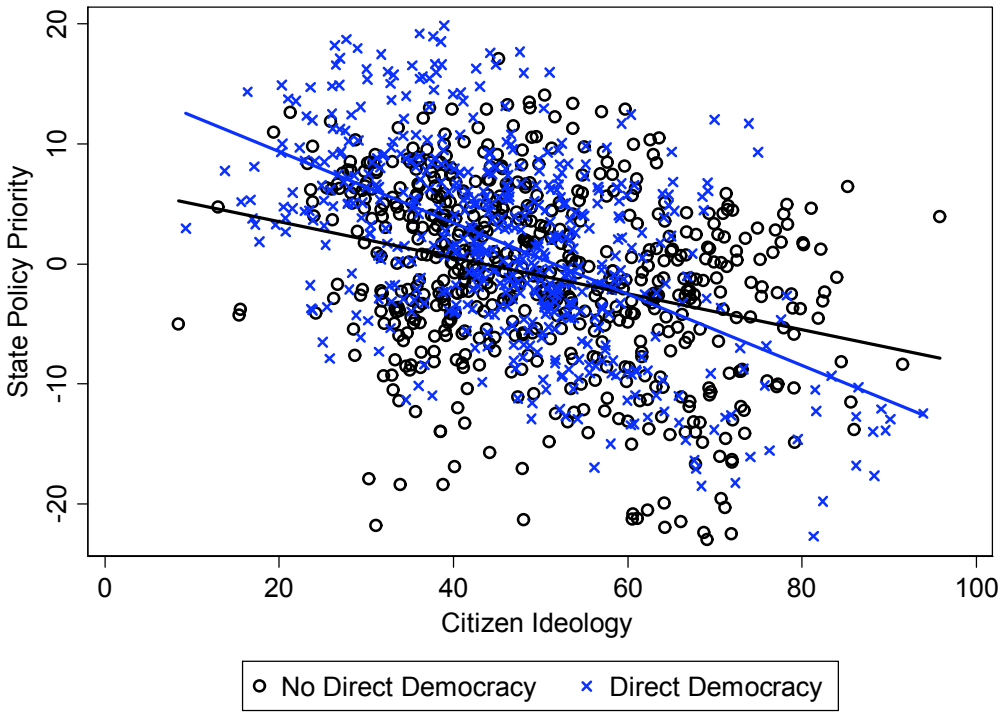


Table 3. Measures of Direct Democracy

State	Legislative Insulation Index*	Qualification Difficulty Index*	Initiative Use 1982-2004	Direct Democracy Impact Score
Wyoming	1	1	1	1.148
Mississippi	3	2	1	1.4
Illinois	5	3	0	1.846
Maine	2	3	14	2.373
Alaska	4	2	15	2.53
Massachusetts	2	4	11	2.594
Nebraska	4	3	12	2.594
Arkansas	8	5	8	2.735
Missouri	4	4	11	2.874
Florida	5	3	16	2.963
Utah	6	4	4	2.994
Nevada	5	3	17	3.002
Ohio	4	5	8	3.081
Oklahoma	6	4	4	3.081
Montana	4	4	16	3.125
Idaho	6	5	6	3.493
South Dakota	6	5	9	3.54
Washington	6	4	36	3.64
Michigan	7	5	9	3.794
Arizona	7	4	19	3.83
California	9	6	67	3.889
North Dakota	7	6	11	4.123
Colorado	7	6	35	4.509
Oregon	7	7	56	4.959

*Indices are reversed from original coding

Table 4. Determinants of State Policy Priorities, 1998-2000

	(1) Direct Democracy	(2) Direct Democracy Impact
Direct Democracy Variable	-1.176	-0.138
	(1.083)	(0.275)
Citizen Ideology	-0.049	-0.052
	(0.043)	(0.043)
Party Identification	11.351**	10.523**
	(3.561)	(3.042)
Groups – Collective Goods	0.388**	0.341**
	(0.064)	(0.071)
Groups – Particularized Benefits	0.166*	0.129*
	(0.078)	(0.065)
Population (log)	-2.646**	-2.656**
	(0.433)	(0.422)
Income per Capita	-0.000	-0.000
	(0.000)	(0.000)
Local Revenue	-2.283**	-2.238**
	(0.268)	(0.266)
Federal Revenue	-0.756**	-0.741**
	(0.175)	(0.175)
Intercept	24.764**	26.850**
	(7.388)	(7.325)
Rho (autoregression)	0.652	0.643
R^2	0.491	0.491

Notes: 144 observations (AK & HI excluded); Panel corrected standards errors in parentheses
*p<.05; **p<.01

Table 5. Determinants of State Policy Priorities with Interaction Term, 1998-2000

	(3) Direct Democracy	(4) Direct Democracy Impact
Direct Democracy Variable	3.930*	0.965*
	(1.697)	(0.589)
Citizen Ideology	0.007	-0.014
	(0.045)	(0.047)
Direct Democracy*Citizen Ideology	-0.104**	-0.022**
	(0.022)	(0.010)
Party Identification	12.392**	11.242**
	(3.145)	(3.134)
Groups – Collective Goods	0.349**	0.328**
	(0.071)	(0.072)
Groups – Particularized Benefits	0.127	0.092
	(0.090)	(0.082)
Population (log)	-2.435**	-2.474**
	(0.454)	(0.457)
Income per Capita	-0.000	-0.000
	(0.000)	(0.000)
Local Revenue	-2.410**	-2.342**
	(0.283)	(0.297)
Federal Revenue	-0.753**	-0.685**
	(0.179)	(0.181)
Intercept	23.598**	23.847**
	(7.390)	(7.600)
Rho (autoregression)	0.629	0.684
R^2	0.511	0.480

Notes: 144 observations (AK & HI excluded); Panel corrected standards errors in parentheses
# p<.1; *p<.05; **p<.01 (one-tailed tests where appropriate)

Figure 7. Effect of Citizen Ideology, By Direct Democracy Impact