Direct Democracy and Individual Interest Group Membership

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Acknowledgements: We thank Josh Dyck, Justin Phillips, Caroline Tolbert, and seminar participants at the University of Nebraska, Lincoln for valuable comments; we thank Caroline Tolbert and Ben Earnhart for assistance with some of the data used in this analysis.
Abstract

Direct democracy has been shown to increase the number and diversity of interest groups in American states, but no research has extended this finding to the individual level. Direct democracy may influence individual joining behavior through three distinct processes: first, by affecting the interest group population in a state, direct democracy should increase opportunity for joining. Second, by allowing the circumvention of the legislature, direct democracy opens new policy areas for representation, which may increase the scope and level of political conflict and draw in new participants. Third, direct democracy, by providing more opportunity for involvement in the policy-making process, may create a more engaged and interested citizenry, spurring the joining of interest groups. To test this theory, we utilize data from the pooled General Social Survey questions on group membership merged with state-level measures of the presence and use of the initiative process. Using multilevel modeling to test the initiative’s effect on individual joining behavior, we find that the initiative does indeed foster greater levels of group membership.

Keywords: direct democracy, initiative process, interest groups, political participation, multi-level models
The design of political institutions has wide-reaching consequences for representation in the political process. By encouraging or deterring participation by citizens, institutions can increase the legitimacy of the political process and help produce more representative outcomes. A prominent example is the direct initiative process, as currently practiced in twenty-four of the American states, which has been shown to influence representation across many facets of the political process. By allowing ordinary citizens to propose and vote directly on legislation, this process allows citizens to circumvent the legislative process and fundamentally changes the incentives citizens face for participating in the political process.¹

Scholars have documented a multitude of consequences based on the presence and use of the initiative process. At the aggregate level, direct legislation often leads to different policy outcomes that are more consistent with voters’ preferences (Gerber 1999; Matsusaka 2005). It also leads to participation by more organized interests and, most importantly, helps alleviate the pro-business bias inherent in interest representation (Boehmke 2002, 2005a). At the individual level, citizens in direct legislation states often exhibit a more participatory and engaged nature, reflected most commonly in increased rates of turnout (Schlozman and Yohai 2008; Tolbert, Grummel and Smith 2001; Smith 2001), and occasionally through increased political knowledge (Schlozman and Yohai 2008; Smith and Tolbert 2004).²

In this paper we provide a link between two of these various findings, thereby filling an important gap in our understanding of how the initiative process influences representation. In particular, we link existing findings that demonstrate greater representation by and representativeness of organized interests at the aggregate level with those demonstrating greater rates of political participation at the individual level. This link is critical to help further our understanding of the initiative process. Knowing that it fosters greater representation among
interest group communities is an important step, but the aggregate nature of these data necessarily omits several steps in the chain of representation. Initiative states may have more groups, but does this correspond to greater participation in the interest group system?

To examine the effect of the initiative process on group membership, we use individual level data from the General Social Survey on respondent participation in organized interests. We link these data with state-level characteristics such as the initiative process, and use multilevel modeling to account for the fact that individual decisions about group membership are made within the context of state-level institutions as well as other state-level characteristics that we may not observe. To develop our hypotheses, we link theories of individual participation, theories of the initiative process, and theories of state interest group communities in order to develop a richer theoretical understanding of how various factors jointly influence representation of citizens by organized interests.

The Initiative Process, Interest Groups and Individual Participation

How might the initiative process affect individual membership in organized interests? In this section we tie together theories and findings from three different literatures to help us develop hypotheses about the effect of direct legislation on individual membership in groups. Because of the gap between aggregate findings about the effect of the initiative process on interest communities and individual participation, we focus on the link between these distinct strands of research.

The Initiative Process and Interest Groups
The initiative process influences interest group populations by changing the incentives that groups face for mobilization and, ultimately, policy influence (Gerber 1996; Boehmke 2005a). Because the ability to propose legislation directly to voters provides groups an alternative path of influence that circumvents the legislative process, groups that are traditionally disadvantaged in the legislature see greater advantage to mobilizing and pressing their policy concerns. Further, success with the initiative process is aided by the availability of both monetary resources and a large membership (Gerber 1999; Boehmke 2003). Groups that are better suited to use the initiative process, both out of necessity and through a comparative resource advantage, are therefore typically drawn from the underrepresented part of the potential group universe. This changes the balance of representation in initiative states.

These changes manifest themselves in a number of ways. First, the initiative process increases the number of interest groups lobbying in a state by about twenty-five percent (Boehmke 2002, 2005a; Tolbert and Smith 2005). Second, the additional groups are disproportionately citizen groups, which typically represent broad-based interests in society, rather than economic interests that represent business and management interests (Boehmke 2002, 2005a). Group-level data confirm this shift, with groups in initiative states tending to have more members than groups in non-initiative states (Boehmke 2005a). Third, groups in initiative states rely more on outside lobbying tactics to influence government action, since mobilizing members and organizing public displays of support closely correspond with the strategies necessary for passing an initiative (Boehmke 2005a). Fourth, interest groups in initiative states, in particular citizen and membership groups, exhibit greater uniqueness (i.e., groups that only register in one state) and turnover as measured by entry and exit rates into a state’s lobbying community (Boehmke 2008). These changes give citizens in initiative states greater numerical opportunity
for joining organized interests and, by increasing the diversity of opportunities and possibly the responsiveness of the system to citizens’ concerns, may give them more attractive options as well.

*The Initiative Process and Individual Participation*

One of the goals of Populist and Progressive reformers for direct legislation in the early 1900s – when the majority of direct legislation states adopted the process – was to increase the role of the common citizen in the political process. The hope was that by giving voters a greater stake in the political process, they would become more knowledgeable and more interested in political participation. Discussion among voters would lead to an increase in civic culture and a more engaged citizenry (see, e.g., Smith and Tolbert 2004, Ch. 1).

The initiative process influences citizens’ civic engagement in a number of ways. First, consider voting rates. In the short run, likely non-voters may be stirred to show up on Election Day due to the presence of specific ballot measures that they care about. Scholars have found that this effect increases with the number of initiatives on the ballot, with the effect particularly strong and consistently significant in midterm elections (Schlozman and Yohai 2008; Smith and Tolbert 2004; Tolbert, Grummel and Smith 2001; Tolbert, McNeal. and Smith 2003; Tolbert and Smith 2004) or with highly salient initiatives (Lacey 2005; Smith 2001). Each initiative increases statewide turnout by roughly one percent in midterm elections and anywhere from zero to half a percent in Presidential elections.³

In the long run, citizens in initiative states may in fact acquire a more participatory nature, which would produce greater participation rates in states with consistent use of direct democracy over many years, independent of the number of initiatives on the current ballot.
While it is difficult to parse these two distinct effects empirically, Dyck and Seabrook (2010) take an interesting tack and find that California voters who had recently emigrated from initiative states were slightly, but statistically significantly, more likely to turn out than voters who had recently emigrated from states without the initiative process. Thus, voters with a history of voting on initiatives were more likely to participate than those without such a history, even in the same electoral environment. This demonstrates that the initiative process may have a broader, cumulative effect beyond the immediate effect of specific measures that appear in a single election.

In addition to voting, the initiative process influences citizens in a number of other ways, though these results are not as robust as those for turnout. The rate at which individuals make campaign contributions to federal Political Action Committees increases with the number of initiatives on the ballot in some election cycles, but not in others (Tolbert, McNeal and Smith 2003). Citizens sometimes do slightly better on tests of general political knowledge, answering more questions correctly (Smith and Tolbert 2004; Tolbert, McNeal and Smith 2003), with the effects most consistent for voters’ knowledge about parties’ ideological positions as opposed to nonvoters’ knowledge or anyone’s general political knowledge (Schlozman and Yohai 2008). More broadly, some studies find that citizens residing in states with high initiative use feel more politically efficacious, reporting greater understanding of political issues, more confidence in their ability to participate, a greater say in government, and increased informedness about politics than individuals in lower-use and non-initiative states (Bowler and Donovan 2002; Smith and Tolbert 2004). While recent studies (e.g., Dyck 2009; Dyck and Lascher 2009; Schlozman and Yohai 2008) that use multiple sources and study many years have called into question some
of these findings, particularly those on efficacy and trust, the balance of evidence indicates that
the initiative process may affect citizen behavior and participation in various ways.

*The Initiative Process and Individual Group Membership*

All of the changes discussed so far in this section have implications for individual
membership decisions. First, and quite simply, initiative states have more groups for individuals
to join. This alone could produce a greater membership rate if individuals join groups based on
the available offerings. For example, Rothenberg’s (1992) theory of experiential search argues
that people join groups to try them out and then continue their membership if they like what they
learn. With more groups in initiative states, individuals would be more likely to find a group that
they like and continue as members of the group.

Beyond mere numerical opportunity, however, we have reason to believe that many of
those groups will be more attractive to potential members as well. Since initiative states have a
greater number and higher proportion of citizen groups, individuals will likely encounter more
groups that they sympathize with. More groups will have open memberships and, with a greater
reliance on membership-intensive outside lobbying strategies, may devote more time to
recruiting or retaining members, particularly in the course of heated initiative campaigns.
Further, the additional groups often deal with issues that have made little headway in the
legislature, creating the opportunity for representation in issue areas in which there might
otherwise be none. A more attractive menu of group offerings will therefore also increase the
rate at which individuals join groups.

This expansion of the scope of conflict also suggests that the initiative process increases
the motivation and opportunity for individuals to join groups. Groups that propose initiatives
favor policies that were rebuffed in the legislature (Boehmke and Patty 2007), creating a cycle of mobilization by groups seizing on the outside option offered by the initiative and counter-mobilization by established interests whose interests the legislature was likely defending (Truman 1951; Walker 1991). Ballot measures and their associated campaigns raise the profile of issues and intensify the stakes of the debate with an all or nothing vote on Election Day. Groups campaign more publicly during issue campaigns than for debates in the legislature, recruiting new members and contributions to strengthen their side. Media coverage of the issue increases. This increase in the scope and intensity of conflict provides individuals greater opportunity to join and makes groups work harder to win their support.

In addition to these changes in groups, we know that individuals in initiative states generally have higher rates of political participation across a host of other forms. If, as Progressive reformers intended, and the majority of empirical research finds, direct legislation does produce a more participatory citizenry, then individuals in initiative states may be more likely to join groups to pursue their interests. Further, to the extent that citizens in direct legislation states possess more political information and believe that government listens to them more, they should have an increased willingness and ability to join existing groups.

Put together, then, we expect that the initiative process influences individual group membership rates in three ways: first by increasing membership opportunities, second by increasing the level of conflict, and third by engendering a more participatory citizenry. Either of these is sufficient for greater membership rates in direct legislation states. We now test this hypothesis with individual-level data on group membership over three decades.

Data on Individual Group Membership
In order to test whether the initiative process increases individual membership rates, we use data from the General Social Survey (GSS) cumulative file, which covers the period 1974-2004. The GSS has long asked a series of questions on group membership, which makes it perfect for our purposes. In particular, the Topical Module on Socio-Political Participation includes a question on membership (question number 328) in sixteen different types of organizations, including fraternal groups, political clubs, labor unions, farm organizations, youth groups, and professional associations. These questions were asked in sixteen out of twenty-three survey years from 1974 to 2004. Because of our interest in individuals’ membership decisions in general rather than membership in any one type of group, we combine respondents’ answers to these questions by creating an indicator variable for whether they reported membership in at least one group as well as a variable counting the number of categories with at least one membership. All together, we have almost 21,000 observations for these variables. While the GSS employs a stratified sampling procedure that leads to geographic clustering of individuals, studies have shown that pooling GSS data over time produces “remarkably representative” states samples (Brace, Sims-Butler, Arceneux, and Johnson 2002). Further, we reconstructed Erikson, Wright, and McIver’s (1993) ideology scores with the GSS data and found a correlation of 0.69 with their original measure.

In order to identify whether individuals reside in an initiative state, we had to merge in information on state of residence. While this variable is not available in the public version of the GSS, individuals can purchase state identifiers for it from the National Opinion Research Center. Using these identifiers, then, we merged the GSS data with information on state characteristics, including whether a respondent resided in a state with the direct initiative process as well as the number of initiatives that appeared on statewide ballots each year. These variables
allow us to test our hypothesis about the effect of direct democracy in general, as well as the
effect of current and long-term initiative use, on group membership decisions.

In addition to direct-legislation variables, we also added other state-level information,
including gross state product, ideology, and total population. We include these variables largely
because they have been shown to influence the size of state communities of organized interests,
thereby allowing us to rule out alternate explanations related to the opportunity for individuals to
join interest groups and isolate the initiative process’ contribution to membership decisions. Gray
and Lowery’s Energy-Stability-Area (ESA) model of the size and diversity of state lobbying
communities (Gray and Lowery 1996) and subsequent work motivate our choice of variables.
First, gross state product (GSP) corresponds to the area component of the ESA model and
measures a state’s carrying capacity – the number of groups it can support.\(^8\) States with larger
populations also tend to have more groups (Lowry 2005). State liberal ideology also tends to
increase the number of registered lobbying groups, particularly citizen groups (Boehmke 2002;
2005a), as well as the number of non-profit groups (Lowry 2005); these groups constitute the
primary opportunity for individual memberships. We use Erikson, Wright and McIver’s (1993)
measure of state liberal ideology. Relatedly, we include an indicator for southern states and for
racial diversity in a state’s population, both of which have been shown to depress the rate of
political participation (Key 1949; Patterson and Caldeira 1983; Hill and Leighley 1999; Putnam
2000; Smith and Tolbert 2004).\(^9\)

We also control for a number of individual-level variables that may influence group
membership, volunteerism, and political participation more broadly. Past work has identified
several individual attributes that influence or at least correlate with participation in politics, non-
political groups, or informal volunteering. Traditional socioeconomic status variables dominate
the list. Educational attainment and income (Rosenstone and Hansen 1993; Verba, Schlozman and Brady 1995; McPhereson and Rotolo 1996) as well as age (Strate et al. 1989; Rosenstone and Hansen 1993) generally fit under Verba, Schlozman and Brady’s (1995) category of resources needed for participation: “time, money, and civic skills” (271). Participation in groups takes energy and time, placing opportunity costs on the participant, so we expect better-educated, wealthier, and older citizens to have the money, skills, and time required. Having children at home may increase the parental involvement in group activities, in part due to their involvement in school social networks (Wilson 2000; Wuthnow 1998). However, having children at home, particularly young children, may pose time constraints on involvement in outside groups. We include the number of children a respondent has in the analysis but do not have an expectation regarding its effect on group membership.

Church attendance, by creating important social networks that expose individuals to opportunities for volunteering and can be mobilized by organized groups for recruitment and engagement, should also be positively related to group membership (Park and Smith 2000; Wilson and Janowski 1995; Djupe and Grant 2001). Further, greater church attendance can lead to the development of civic skills which may spillover into the political realm (Verba, Scholzman and Brady 1995; Peterson 1992).

Attitudes are also known to affect participation. For participation in politics and political organizations in particular, intensity of partisan identification can affect both the likelihood of being mobilized by groups and the probability of participating (Verba, Scholzman and Brady 1995; Milbrath 1965). Racial and gender differences persist in joining behavior and participation (e.g. Verba et al. 1993; Schlozman et al. 1995). We control for these factors as well.
All together, then, our data consist of sixteen pooled surveys over almost thirty years, with different individuals in each survey. We measure each of our independent variables in the same year as the associated survey, with all of them varying over time except for the aggregate measure of ideology and the indicator for Southern states. The initiative indicator varies over time only because Mississippi adopted the process in 1992. Initiative use also increased over the period studied, starting at 0.89 initiatives per year and increasing about 0.06 per year. To account for any exogenous over-time trends in membership rates we include a set of year fixed effects (note that we do not report these coefficients in our tables for parsimony).

Since we analyze both whether an individual has any group memberships and the total number of memberships, we estimate logit and count models of group membership, respectively. Our data are hierarchically structured, with individual respondents nested within states. We care about both individual and state level effects and believe both to influence joining behavior. But traditional logit or count models do not account for the clustered nature of the data, potentially resulting in inefficient yet unbiased coefficient estimates. Artificially deflated standard errors associated with regression estimates of group level covariates make statistical inferences from such a model possibly inaccurate and increase the probability of finding a statistically significant effect of state-level variables where none exists (Rabe-Hesketh and Skrondal 2007). In order to create a parsimonious model that adequately accounts for these statistical problems, we estimate mixed effects multilevel logit and Poisson models in addition to a standard logit model with standard errors clustered by state.

The mixed effects model allows both random and fixed effects. It accounts for the hierarchical structure of the data by allowing the intercept to vary by state; in other words, we allow for the possibility of underlying heterogeneity of the intercept values across the states. This
heterogeneity is assumed to be normally distributed; we can draw estimates from this distribution that help account for between-state heterogeneity in interest group membership. The mixed effect approach is also flexible, allowing coefficients, not just intercepts, to vary by state (e.g., see Gelman and Hill 2007). The models presented here have two random effects: a varying intercept and a varying slope for the church attendance variable. Preliminary results identified church attendance as a particularly important individual level variable in the model. Further, the influence of church attendance on political participation has been shown to vary by denominational affiliation (Verba, Schlozman and Brady 1995), which in turn shows strong geographic patterns. Zelinsky (1961), for example, identifies seven distinct, geographically concentrated religious subcultures in the U.S. This geographical dispersion of denominational attachment, combined with differing patterns of religiosity among the states and varying social norms regarding religious attendance, may create heterogeneity in the effect of church attendance on group membership. Based on this reasoning, we allow the slope of church attendance to vary across states, essentially modeling the underlying heterogeneity in the way church attendance influences group membership across the states.\textsuperscript{10}

**Difference in Membership Rates by Initiative Presence and Use**

Figure 1 provides a first assessment of our hypothesis. We plot the proportions of respondents in initiative and non-initiative states that report membership in at least one group over time. In all but three years, the rate of group membership in initiative states exceeds that in non-initiative states, consistent with our hypothesis. Over the entire period, 68.85\% of respondents in non-initiative states and 70.94\% in initiative states belong to groups; a difference in proportions test indicates that this difference is highly significant (p=.001). The difference
appears greatest in the late 1970s, around the time of Proposition 13 in California and the resurgence of the initiative process in general, and in the early 1990s, a period of high initiative use. While we do not have much data after the early 1990s, the one comparison in the twenty-first century shows little difference in rates.

A similar calculation across the different categories of groups finds that respondents reported membership in 1.80 of the sixteen categories in initiative states compared to 1.74 in non-initiative states; this difference is also significant (p=.014). Combined with the significant results for membership rates, then, this first look at our data offers support for our hypothesis. We now move to a regression analysis to control for a variety of individual and state-level factors that might also influence group membership rates.

[Figure 1 About Here.]

Tables 1 through 3 present multilevel logit, clustered logit, and multilevel Poisson results. Each includes three variations on the model. In the first two, we include both an indicator variables for states that have the initiative process and a count of the number of initiatives appearing on that states ballot over a six year period. We also measured initiative use with the number of initiatives on the ballot each year, but found that that variable had no effect on group membership, suggesting a longer-term effect of use of the process. While the two included initiative variables capture distinct theoretical consequences of the process, correlation between the two (0.58) makes it hard to disentangle their effects. In the third model, then, we only include the usage variable. Finally, the second two models differ from the first by omitting two variables included to test whether Gray and Lowery’s (1996) theory of aggregate interest group formation influences individual decisions on membership. State population and gross state product are highly correlated with each other (0.97) and with the initiative use variable (0.55, 0.6
respectively). Neither variable approaches statistical significance, even if we exclude them one at a time.\textsuperscript{11}

[Table 1 about Here.]

Table 1 presents the results from mixed effects multilevel logit models, all of which allow both the state level intercept and the slope on church attendance to vary by state. All three models provide varying levels of support for our hypothesis. While the coefficient for initiative use only reaches statistical significance in the final model (p=.09), this could be because the correlation between the use and presence of the initiative inflates the standard error on the use variable when we the indicator variable is included. Interpretation in the first two models is more complicated given that we must account for both the presence and use of the initiative process to determine its combined effect. While we present a more detailed set of first differences in a moment, here we note that a joint test of significance indicates a significant effect at the .10 level when initiative use exceeds 23 measures over a six year period for the second model. For the first model, the significance level drops only to 0.13 at that point, reaching a minimum of 0.125 with 36 measures. Given the correlation between population, GSP, and initiative use, this inflation of the standard errors is not surprising and given that none of them approaches traditional significance levels, the findings in models 2 and 3 provide evidence that the initiative process matters, though almost exclusively through the frequency of use.

For the most part, the rest of the independent variables included perform according to expectations. As noted, the state level variables of state ideology, population size, and gross state product produce no significant effects on the likelihood of belonging to at least one group. Ideology comes closest with p values near 0.16. In contrast, Southern states and states with greater minority diversity both have significantly lower rates of group membership. Overall,
these results suggest that little of the variation in group membership rates results from aggregate characteristics of states that influence the total number of interest groups as described in Gray and Lowery’s ESA model, though this is perhaps not surprising since many of the groups included in our data set may not regularly lobby state government or are local in nature.

The individual level variables largely confirm previous research on political participation and group membership. SES variables reinforce Verba, Scholzman and Brady’s (1995) assertion that resources are essential for participation. Education, income, and age are all positively and significantly related with belonging to a group. Strong partisans are also significantly more likely than weak partisans or independents to be a member of at least one group, adding support to Milbrath’s (1965) focus on attitudinal intensity as an important predictor of political participation. Having children, perhaps due to the cross-cutting expectations of increased social networks but less available time, has no significant effect on joining behavior. Women exhibit lower membership rates than men, while we find no statistical difference in group membership rates between African Americans and other racial groups. Finally, church attendance is a strong predictor of group membership. As the frequency of church attendance increases, the likelihood of belonging to at least one group does as well.

In addition to these coefficients, we have included random effects by state and also let the slope of church attendance vary across states. The variance components section of Table 1 gives us evidence that a highly significant, though relatively small, amount of variance in the probability of belonging to a group results from the varying effects of church attendance across states.

[Table 2 About Here.]
Table 2 shows that our results persist and are strengthened by estimating a logit model with standard errors clustered by state. In all three specifications, initiative use has a positive and significant effect, with p values no greater than .011. Again, the indicator variable is nowhere near significance and even has a negative sign. A joint test of significance rejects the null hypothesis at the .05 level when the number of measures exceeds 10 in the first model and 12 in the second model. Most of the individual level coefficients remain unchanged from the multilevel model, but the state level ones do differ slightly. In particular, the effect of southern states dips slightly below the .10 threshold for significance.

[Table 3 About Here.]

Table 3 reports the results from our multilevel Poisson models that explain the number of the sixteen group categories with at least one membership. These results mirror those from our multilevel logit model reported in Table 1. Neither initiative variable achieves significance when we include them both, though they are much closer, with p values below 0.2. When we conduct the joint significance test, we find that it achieves statistical significance at the .05 level or better when the number of initiatives exceeds eight in the first model and nine in the second. In the third model, the coefficient for initiative use achieves significance at the .05 level. Among the other variables, individual level results remain largely unchanged, whereas state level variables exhibit some differences. Specifically, state ideology is now significant whereas minority diversity is not.

In order to properly interpret our statistical findings and to better understand the substantive consequences of these findings, we use our estimates to perform a series of first difference calculations for a hypothetical, typical respondent (see, e.g., King, Tomz, and Wittenberg 2000). We focus on the estimated change in membership rates that results from
changes in an individual’s exposure to direct democracy and differing levels of initiative use. To do this, we first create a hypothetical respondent who has the median value of all continuous variables in the data set and the minimum values for all indicator variables. We then calculate the predicted probability of group membership or the expected number of group memberships when this individual resides in a state without the initiative process. We then repeat this calculation for the same individual residing in an initiative state with various levels of initiative use ranging from zero to fifty-six, the largest number of initiatives over a six year period in our data.

To account for the uncertainty in our estimates, we repeat this procedure for one thousand draws of the parameter estimates, recording the average change in the quantity of interest as well as the values corresponding to ninety and ninety-five percent confidence intervals. These procedures were performed for the logit model using Clarify (Tomz, Wittenberg, and King 2003); for the multilevel models we performed them manually, accounting for the random effects by additionally drawing 300 random variates from the distribution implied by each of the 1000 draws of the parameter vector.13

[Figure 2 About Here.]

Figure 2 displays the expected change in the rate or number of group memberships resulting from different levels of initiative use over a six-year period for each of our three models for specifications 2 and 3. In the top row we present the results from models that include the initiative indicator variable while the bottom row summarizes the results when we exclude it. The results show a positive effect of the initiative process on group membership ranging from near zero with few initiatives on the ballot to almost eight percent at the maximum value of initiative use. For the two Poisson models, the effect ranges from a little more than zero to almost 1.5 more categories of groups, against an average number of about 1.7.
Importantly, the ninety percent confidence interval usually does not include zero much of time, as indicated by its medium and darker shaded regions. The medium shaded region indicates values for which the 90% confidence interval does not include zero while the darker shaded region corresponds to values for which a 95% confidence interval would also not include zero (all tests are two-tailed). For the three models that exclude the initiative process indicator variable, the confidence interval never includes zero. For the other three models, it does not include zero with at least modest initiative use over a six year period. This occurs with 10 initiatives on the ballot for the logit model, with twenty-three for the multilevel logit model, and with only four for the multilevel Poisson model. As the dashed line representing the cumulative distribution of the number of initiatives appearing on the ballot over a six-year period indicates, over two-thirds of initiative states have at least four measures on the ballot, one-third has at least ten, and one-sixth has at least twenty. Overall then, our results indicate that the initiative process significantly increases the rate and number of memberships, particularly for states with moderate to high initiative usage.

In comparison to other variables, the substantive effect of the initiative process with the median number of initiatives over a six-year period roughly doubles that of being a strong partisan (compared to weak or non-partisans), equals the effect of age and gender, and is between one-half and one-third the magnitude of income, education and church attendance. Overall, then, the effect of the initiative, while somewhat modest in size, does not appear to be trivial and rivals the substantive role of other factors long known to influence interest group populations and joining behavior. Further, when aggregated across millions of individuals in a state, the overall effect on the political system could be quite substantial.
Discussion and Conclusion

In this paper we have argued that the initiative process affects the rate at which individuals join organized interests. The literature on the initiative indicates three causal mechanisms: first, the presence of the initiative process creates more citizen and membership groups to join (Boehmke 2002; 2005a); second, direct democracy may expand the scope of conflict within a state, drawing in new participants mobilized around issues addressed through the initiative process; and third, initiative use may stimulate political participation, encouraging individuals to join groups for deeper opportunities for participation (Tolbert and Smith 2005). Utilizing survey data that span the last four decades and a mixed-effects multilevel modeling approach, we provide evidence that the initiative process does indeed increase individuals’ likelihood of group membership.

Our theoretical arguments suggest multiple explanations for the initiative process’ effect on individual group membership. The simple presence of the initiative process, whether by increasing the number and types of groups active in a state or by engendering a more participatory citizenry, may influence joining behavior. Complementarily, we argued that participation in groups may be related to the use of the initiative process’ role in stimulating turnout, interest in politics, or increasing conflict, either in the short or longer terms. Our results indicate that the increase in group membership results largely from the latter, though the effect accumulates over time rather than resulting only from current-year usage. That use matters only when considered over many years suggests that the increased rate of membership may result from increased conflict related to the issues contested in initiative campaigns, rather than through short term mobilizations related to a single election. At this point however, we can not
distinguish between conflict resulting from the initiative process and the general level of conflict within a state.

There is still much to understand about the role of the initiative in individual joining behavior. We do not know what sorts of people are affected by the process or if the effect of the process differs by state context beyond the frequency of use. Further, the observed decline in the difference in membership rates in 2004 indicated by Figure 1 suggests the possibility that the effect may be changing over time. Such questions appear to be fertile areas for further research on the initiative process and interest group membership.

Our results also raise important questions about how the initiative process ultimately influences representation of individuals through organized interests. For example, how does the presence and opportunity of more potential members influence organized interests’ decisions? Does it further their reliance on outside lobbying? Does it influence the types of issues on which they choose to focus? Does it make them more responsive to members’ preferences? These potential links suggest that an integrated approach could advance our understanding of the interaction between institutions, interests, and individuals.
Notes

1 See Cronin (1989), Ellis (2002), or Magleby (1984) for general information about the history and current use of the initiative process.

2 Most, but not all, studies reach these conclusions – see, e.g., Lascher, Hagen and Rochlin (1996).

3 Early studies of the initiative and turnout tended to find no effect (e.g., Magleby 1984). More recent studies employing multiple regression and various data sets consistently find effects in midterm elections and occasionally in Presidential elections.

4 See Benz and Stutzer (2004) for similar evidence of the positive effect of initiatives and referendums on citizen knowledge in the European Union and across Swiss cantons.


6 The University of Iowa’s ICPSR representative contacted Tom Smith at the NORC to obtain these data. In order to protect respondents’ identities, we consented to the GSS standard restricted use agreement, which forbids sharing the state identifiers. Because we include variables that would uniquely identify states, we therefore can not make our final data available to other researchers. We have, however, provided replication files on our website at http://www.fredboehmke.net, so that anyone who purchases the identifiers for themselves may replicate our results.

7 Data on initiative use up to 2000 is from the Initiative and Referendum Institute’s statewide initiative database (see Boehmke 2005b), with 2001-2004 filled in with data obtained from Caroline Tolbert.

8 While it is typical to include GSP and its square to account for density dependence (i.e., the number of groups increases at a decreasing rate), we omit this extra term for reasons of parsimony and note that it was not significant and did not affect our results.

9 We construct our measure of racial diversity as $Diversity = 1 - (\%white^2 + \%black^2 + \%asian^2 + \%nativeamerican^2)$. As with previous measures (e.g., Hero and Tolbert 1996; Lieberson 1969), ours relies on decennial census data and is therefore constant within decades. There are a couple minor differences between our variables, which are essentially one minus a Hirschmann-Herfindahl index of diversity and are calculated by summing the squared proportion of all categories. First, the Hero and Tolbert measure omits Native Americans. Second, since data before 1980 do not include information on the size of the Hispanic population, we omit this category.
Empirically, our data do show variation in the strength of the relationship between church attendance and group membership depending on state of residence. We compared the Somers’ $d_{yx}$ measure of association between church attendance and group membership for all states in the dataset. The Somers’ $d_{yx}$ values range from a low of .078 in Connecticut to a high of .290 in Illinois.

Further, analysis of the Akaike Information Criterion and Bayesian Information Criterion values for the models suggests dropping state population and gross state product improves the fit of the model.

Note that the Poisson model can be interpreted as the percent of categories with a membership. Typically, one controls for the maximum number of events through an exposure variable. Since the maximum is the same for all respondents, this variable is a constant and is subsumed into the intercept term.

We used 1000 and 300 draws here since larger numbers created a data set that exceeded 32-bit Stata’s 1GB memory capacity. With 1000 draws of the coefficient vectors and 300 draws of the random error for each of them over 57 different values of initiative use, this results in almost 17 million estimates.


Democracy on Citizens and Political Organizations in the American States. University of
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443-464.

Tolbert, Caroline and Daniel A. Smith. 2005. “The Educative Effects of Ballot Initiatives on
Voter Turnout.” American Politics Research 33: 283-309.

Tolbert, Caroline; John Grummel; and Daniel A. Smith. 2001. “The Effects of Ballot Initiatives

Tolbert, Caroline J.; Ramona McNeal; and Daniel A. Smith. 2003. “Enhancing Civic
Engagement: The Effect of Direct Democracy on Political Participation and Knowledge.”

Tomz, Michael, Jason Wittenberg, and Gary King. 2003. CLARIFY: Software for Interpreting
and Presenting Statistical Results. Version 2.1. Stanford University, University of
Wisconsin, and Harvard University. January 5. Available at http://gking.harvard.edu/.

New York: Knopf.


Table 1.
Multilevel Logit Model of the Effect of the Initiative Process on Individual Group Membership, 1974-2004

<table>
<thead>
<tr>
<th>State Level</th>
<th>Coef.</th>
<th>SE</th>
<th>p</th>
<th>Coef.</th>
<th>SE</th>
<th>p</th>
<th>Coef.</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.674</td>
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<td>0.098</td>
<td>0.724</td>
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<tr>
<td>Initiative Use – Six Year</td>
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<td>0.136</td>
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<td>0.063</td>
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<td>0.033</td>
<td>-0.815</td>
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<td>0.028</td>
<td>-0.329</td>
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<tr>
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</table>

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<th>p</th>
<th>Coef.</th>
<th>SE</th>
<th>p</th>
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<td>0.000</td>
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<td>0.043</td>
<td>0.000</td>
<td>0.231</td>
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<td>0.000</td>
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<td>Intercept</td>
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<td>0.000</td>
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</table>

| Individual N | 18778 | 18778 | 18778 |
| State N | 46 | 46 | 46 |
| Log Likelihood | -9701.537 | -9701.783 | -9701.846 |
| AIC | 19471.073 | 19467.567 | 19465.693 |
| BIC | 19737.648 | 19718.461 | 19708.746 |

Note. Source: General Social Survey with additional state identifiers merged with state-level contextual data. Estimated using `xtmelogit` command in Stata 10.
Table 2.
Logit Model of the Effect of the Initiative Process on Individual Group Membership, 1974-2004

<table>
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<tr>
<th></th>
<th>Coef.</th>
<th>SE</th>
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<th>Coef.</th>
<th>SE</th>
<th>p</th>
<th>Coef.</th>
<th>SE</th>
<th>p</th>
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<td>-1.116</td>
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<tr>
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<td>0.763</td>
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<tr>
<td>Partisans</td>
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<tr>
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*Note.* Source: General Social Survey with additional state identifiers merged with state-level contextual data. Standard errors clustered by state.
Table 3.
Multilevel Poisson Model of the Effect of the Initiative Process on the Number of Individual Group Memberships, 1974-2004

<table>
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<th>Coef.</th>
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<td>0.050</td>
<td>0.038</td>
<td>0.182</td>
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<td>0.001</td>
<td>-0.010</td>
<td>0.003</td>
<td>0.000</td>
</tr>
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<td>0.805</td>
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<td>0.741</td>
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<td>0.000</td>
<td>0.098</td>
<td>0.005</td>
<td>0.000</td>
<td>0.098</td>
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<td>0.000</td>
<td>0.108</td>
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</tr>
<tr>
<td>Income</td>
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<td>0.002</td>
<td>0.000</td>
<td>0.039</td>
<td>0.002</td>
<td>0.000</td>
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</tr>
<tr>
<td>Age</td>
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<td>0.000</td>
<td>0.003</td>
<td>0.000</td>
<td>0.000</td>
<td>0.003</td>
<td>0.000</td>
<td>0.000</td>
</tr>
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<td>-1.580</td>
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*Note.* Source: General Social Survey with additional state identifiers merged with state-level contextual data. Estimated using *xtmepoisson* command in Stata 10.
Figure 1.
Average Rates of Individual Group Membership by Initiative State Residence, 1974-2004

Note. Source: General Social Survey with additional state identifiers merged with state-level contextual data.
Figure 2.
Effect of the Initiative Process and Initiative Use on Group Membership

Including Initiative Indicator

Excluding Initiative Indicator

Note. Source: General Social Survey with additional state identifiers merged with state-level contextual data. Shaded areas represent a 90% confidence interval, estimated with the fifth and ninety-fifth percentiles of the estimates: the lighter shaded portion includes zero, the medium shaded region excludes zero at the .10 level, and the darker shaded region indicates that zero is excluded at the .05 level as well (all tests two-tailed). First differences represent the changes in the predicted probability of belonging to at least one group for the logit and multilevel logit models and in the expected number of the sixteen categories with a membership for the Poisson models. Results for the logit model calculated with Clarify (Tomz, King and Wittenberg 2003). Results for the multilevel models calculated by the authors: we resampled the parameter vector 600 times, then for each draw we generated 600 draws from the estimated distribution of the random effects, then we repeated for each value of the initiative use variable. All other variables held at the median (continuous) or modal values (dichotomous).