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Participation in the Wake of Adversity: Blame Attribution and Policy-Oriented Evaluations

Ines Levin[1] · **J. Andrew Sinclair**[2] · **R. Michael Alvarez**[3]

Abstract In this paper we investigate to what extent perceptions of economic conditions, policy-oriented evaluations, and blame attribution affected Californians' involvement in political activities in 2010. We use a statistical methodology that allows us to study not only the behavior of the average citizen, but also the behavior of "types" of citizens with latent predispositions that incline them toward participation or abstention. The 2010 election is an excellent case study, because it was a period when citizens were still suffering the consequences of the 2008 financial crisis and many were concerned about the state's budgetary crisis. We find that individuals who blamed one of the parties for the problems with the budget process, and who held a position on the 2010 Affordable Care Act, were often considerably more likely to participate. We also find, however, that the impact of economic evaluations, positions on the health care reform, and blame attributions was contingent on citizens' latent participation propensities and depended on the class of political activity.

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✉ Ines Levin
ilevin@uga.edu

J. Andrew Sinclair
j.andrew.sinclair@nyu.edu

R. Michael Alvarez
rma@hss.caltech.edu

[1] University of Georgia, Athens, GA, USA

[2] New York University, New York, NY, USA

[3] California Institute of Technology, Pasadena, CA, USA

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Introduction

In the aftermath of the presidential election and financial collapse of 2008, widespread economic adversity cast a shadow over an American political scene enmeshed in national debate about economic policies.[1] The economic downturn, and these debates about controversial issues, affected citizens' support for government intervention (Malhotra and Margalit 2010; Margalit 2013; Popp and Rudolph 2011) and fueled political protests and a variety of social movements (Bennett 2012; Skocpol and Williamson 2013) ahead of the 2010 midterm election. In this period the loosely affiliated "Tea Party" groups organized and attempted to influence political outcomes (Arcenaux and Nicholson 2012; Skocpol and Williamson 2013). In 2011 the "Occupy" protests began in New York in September. Although voter participation itself did not achieve historic levels in the 2010 mid-term elections, the nation gazed upon a very active and turbulent political scene, with many different active mechanisms for citizen engagement. How did voters try to hold politicians accountable? And which voters stayed away while others actively engaged in these diverse activities?

The notion already exists in the political science literature that voters use their own judgment about observable circumstances to try to hold politicians accountable (Fiorina 1981) and indeed this sits centrally in some notions of a functioning democracy in the absence of some minimal rationality conditions on voting (Riker 1982). Scholars have also explored the availability of conventional and unconventional forms of participation beyond voting (Marsh and Kaase 1979). Nevertheless, many scholars have dedicated most of their efforts to studying the determinants of voter turnout, generally ignoring the broader set of alternatives for political action. In addition, previous studies of political participation in the United States have also focused mostly on sociological explanations of participation (Brady et al. 1995; Wolfinger and Rosenstone 1980), largely disregarding the independent effects of political attitudes and identifiable, but difficult to measure, participation propensities. This has led to a narrow conceptual and empirical understanding of political participation.

In this study we focus on data from California before the 2010 General Election. California politics shared much with the national picture, if perhaps in more extreme circumstances: sluggish economic growth, high unemployment, and some of the highest foreclosure rates in the nation (Financial Crisis Inquiry Commission 2011, p. 403). The heated debate at the national level, over such controversial topics as the health care bill, entered into state politics through a competitive and high-profile race for the United States Senate. The state's politics also reflected the national

[1] For example: the Emergency Economic Stabilization Act of 2008 (the "financial system bailout"), the American Recovery and Reinvestment Act of 2009 (the "fiscal stimulus package"), and the 2010 Patient Protection and Affordable Care Act (the "health care bill" or "Obamacare").

mood: California's state legislature, like Congress, suffered from polarizing stalemates and fierce disagreement over the state budget (Cummins 2012). Furthermore, California's frequent exercise of direct democracy through the initiative process creates unique opportunities for citizen involvement (Smith and Tolbert 2004), and may foster not only electoral participation (Boehmke and Alvarez 2014; Smith 2011; Tolbert et al. 2001), but also group-joining behavior (Boehmke and Bowen 2010) and other forms of political participation. Nevertheless, in a political environment filled with so many sources of dissatisfaction, the precise triggers for political participation may differ, and the effects may vary across types of citizens; furthermore, political *activists* may respond differently, and choose different modes of participation, when compared to political *apathetics*. The exploration of this complexity distinguishes our study from previous research.

The rest of the paper is structured as follows. First, we review existing theories about the relationship between economic adversity, policy-oriented evaluations, and political participation; we note the theoretical need for our key methodological contribution, and then combine these to state our own hypotheses. Then, we describe the data used in our analysis and introduce at greater length our model of political participation, taking care to explain why, compared to standard empirical approaches, our method allows gaining a more general understanding of the determinants of individual involvement in political activities. Lastly, we present our results, evaluate whether the evidence supports our hypotheses, and proceed to the conclusion. We find evidence that more precise triggers—relative to evaluations of the economy as a whole, policy evaluations on health care, and opinions on blame attribution—matter more for participation; we also find that the impact varied considerably depending on the class of activity and citizens' latent participation propensities.

Economic Adversity and Political Participation

This paper adds to the extensive, but narrowly focused, literature on the impact of the economy on political activity. A widely tested theory of economic voting holds that individuals reward the incumbent candidate or party when the economy is doing well, but punish them when the economy is doing poorly (Downs 1957; Fiorina 1981; Key 1966; Kramer 1971). Scholars have considered both the effect of personal problems ("pocket-book" concerns such as struggling to make ends meet or being unemployed) and economic problems affecting the wider community or the nation ("sociotropic" or socially-located concerns such as dissatisfaction with the state of the economy, the unemployment rate, or the evolution of consumer prices).

While previous studies have found little to no evidence of a relationship between personal economic problems and voter choice (Kiewiet 1983; Kinder and Kiewiet 1979; Alvarez and Nagler 1995; Lewis-Beck and Stegmeier 2000), scholars have found that macroeconomic conditions and evaluations of the incumbent's handling of the national economy affect voters' decisions (Fiorina 1981; Hibbs 1982; Kramer 1971). From an informational point of view, these results seem surprising, as facts about an individual's own personal conditions seem more readily available than facts about national economic conditions and government performance (Lohmann

1994). An explanation given by some scholars is that the reward-punishment hypothesis only holds when the individual believes the government is responsible for the situation or ought to help solve a problem or concern (Feldman 1982); while individuals do not hold the government responsible for their own personal circumstances, they do so for collective circumstances affecting the wider community or nation (Brody and Sniderman 1977; Sniderman and Brody 1977). According to Kaase and Marsh (1979), feelings of deprivation become politicized only when the problem is collectively-relevant and when it is possible to attribute responsibility to political authorities.

But what is the effect of economic perceptions on political participation? In the past, it has been argued that the nature of the economic problem—whether it gives rise to collective or self-located concerns—determines the direction of the influence of economic evaluations on political participation. On the one hand, there is the mobilization hypothesis, according to which socially-located economic concerns motivate the individual to get involved in politics (Rosenstone 1982; Sniderman and Brody 1977). During periods of economic adversity, in particular, realized macroeconomic outcomes might fail to meet individual's expectations, giving rise to feelings of deprivation and dissatisfaction that could in turn motivate political action (Thomassen 1989). On the other hand, there is the withdrawal hypothesis, according to which self-located economic concerns inhibit participation due to lack of politically-relevant resources or need to focus on solving immediate "bread and butter" problems (Rosenstone 1982; Sniderman and Brody 1977). Lastly, there are those who argue that self-located economic concerns should not affect participation—particularly in America—because most citizens are self-reliant and prefer to cope with personal problems of their own (Lane 1959; Rosenstone 1982).

Existing evidence of this demand for accountability is mixed. Some studies fail to find evidence of mobilization effects of adverse macroeconomic conditions, but find instead that self-located concerns inhibit participation (Brody and Sniderman 1977; Rosenstone 1982). Others find only a weak link between economic deprivation and involvement in political activities (Barnes et al. 1979), or that, if anything, personal concerns stimulate participation (Heunks 1989). Heunks (ibid.) finds that individuals reporting a high level of self-reliance are more active than other citizens. Moreover, the intensity and direction of the effect of economic adversity on political participation appears to depend on the economic context of the election (Southwell 1988), and on the existence of social programs that may alleviate some of the most pressing concerns caused by economic adversity (Radcliff 1992). Since previous findings are generally inconclusive, investigating the impact of economic evaluations on political participation in the aftermath of the 2008 financial crisis could greatly contribute to illuminating our understanding of the consequences of economic adversity.

Policy-Oriented Participation

It is possible that individuals are more selective, and do not focus on the overall state of the economy or their pocket-book. Rather, perhaps voters focus on specific issues such as unemployment and welfare programs, rewarding or punishing the

incumbent depending on its handling of that particular policy area. This behavior has been termed "policy-oriented" economic voting (Kiewiet 1983; Lewis-Beck and Stegmeier 2000). Even among studies of the influence of economic evaluations on voter choice, little has been done to assess the impact of voters' evaluations of specific economic policies (Lewis-Beck and Stegmeier 2000). While scholars often study the impact of economic issue preferences such as support for government intervention in the economy, they rarely study the effect of support for specific policies or of policy-oriented concerns associated with recent government actions. Due to the characteristics of the economic and political context ahead of the general election that year, the 2010 election provides an opportunity to study the impact of policy-oriented considerations on civic engagement.

The 2010 midterm election was considered by many as a referendum on the performance of the federal administration (Aldrich et al. 2014; Jacobson 2011a, b; Konisky and Richardson 2012). Strong opposition to Obama's landmark legislative policies (in particular, the 2009 fiscal stimulus package and the 2010 health care reform) among Republicans fueled the emergence of the Tea Party movement and drove conservative voters to participate in the midterm election in support of Tea Party-backed candidates (Aldrich et al. 2014; Arcenaux and Nicholson 2012; Jacobson 2011a, b). On the other hand, while health care is usually considered a non-economic issue, support for Obama's health care bill might have been partially driven by personal economic experiences in the aftermath of the 2008 financial crisis. Also, as the Affordable Care Act provided subsidized health care coverage for eligible individuals and households, it may be perceived as an economic issue because of the direct "pocketbook" effect it might have for many individuals and households. Such was the salience of national issues ahead of the 2010 midterm election that some scholars concluded that local matters were overshadowed by debate around Obama's legislative agenda (Jacobson 2011a, b).

Previous studies have shown that exposure to information about the economy affects attitudes toward policy issues (Enns and Kellstedt 2008). Feelings of economic insecurity, as well as messages about the economy fostering such feelings, have been found to increase public support for government-sponsored social safety programs (Hacker et al. 2013; Mughan and Lacy 2002), including health care reforms intended to address health worries, such as rising health care costs and fears of losing health insurance coverage (Hacker et al. 2013). Additionally, it has been found that negative news coverage of the economy and policy issues raises political awareness and creates a heightened sense of "social threat" that may, in turn, cause citizens to participate and vote at unusual rates (Martin 2008).

How, then, did attitudes toward health care reform affect political participation? Carmines et al. (2011) argue that voters who have ideological positions consistent with the positions of polarized parties "should find participation less challenging and frustrating" (ibid., p. 331). If that is the case, either support or opposition to the bill (stances aligned with the positions of the Democratic and Republican party, respectively), could have stimulated political involvement. Yet it is also possible that specific attitudes toward the bill affected participation through other channels. An interest in protecting future benefits, for instance, could have driven supporters

of the recently enacted law to participate in politics at higher rates than usual (Campbell 2012). An interest in expressing their dissatisfaction with the president's expansive policy agenda, in turn, could have driven conservative voters' to action. In the past, the implementation of social programs during periods of economic downturn was associated with the emergence of anti-welfare movements (Hacker 2004). Polling evidence indicates that a similar phenomenon took place in 2010; with those opposing Obama's health care reform being the target of mobilization efforts by conservative groups and unusually engaged by the inflamed debate around the consequences of the reform (Aldrich et al. 2014; Arcenaux and Nicholson 2012; Jacobson 2011a, b; Konisky and Richardson 2012).

We view specific policy-oriented activity as another benefit-centered type of participation. Especially in this environment of voter dissatisfaction, mistrust of government, and animosity towards political parties, policy-oriented concerns may stimulate more and different types of political engagement, with effects potentially differing across types of voters.

Blame Attribution and Political Participation

State economic issues were an important factor in the 2010 elections in California. One particularly salient issue was the continuing inability of the state legislature to produce and pass a budget on time. In October 10, 2010, the Los Angeles Times published a story about California's "unsettled environment" toward the November 2 General Election, an environment "where Arnold Schwarzenegger is lumbering to the end of his tenure as governor with dismal ratings, where the Legislature's popularity is as low as the unemployment rate is high and where faith in the future is utterly absent" (Decker 2010b). By that date—which coincided with the end of the data collection period corresponding to the survey used in this study—the state had growing budget deficits and, more than 2 months after the due date of the budget (according to the state's constitution), politicians in Sacramento failed to reach an agreement about how to deal with the problem and did not pass a budget. According to a joint report published in October 2010 by the Pew Center on the States and the Public Policy Institute of California, in a public opinion survey conducted earlier that year "only 9 percent of respondents give the California legislature positive marks for its work on fiscal issues" (Pew, Center on the States and the Public Policy Institute of California 2011, p. 39). Californians were concerned about budget cuts, particularly in the areas of public education and health care.[2]

Individuals may evaluate different aspects of politicians' responsibility for legislative failure: responsibility for causing the problem; responsibility for failing to alleviate or solve the problem; and responsibility for not performing up to expectations (Iyengar 1991; Peffley 1984). Attributions of responsibility for problems with state budget processes, in particular, may vary across states as a function of the institutional context, such as the distribution of budgetary power

[2] See Alvarez and Sinclair (2015) for further discussion of politics and public opinion in California at this point in time, and for more details regarding the subsequent political consequences.

among branches of government—who is in charge of preparing the budget and whether the legislature is allowed to modify the budget at will—and whether the government is divided along partisan lines (Rudolph 2003). Due to the existence of divided government prior to the 2010 election (since there was a Republican governor and both legislative chambers had a Democratic majority), sharing of budgetary powers between the executive (Republican Party) and legislative (Democratic Party) branches of government,[3] and blurry partisan allegiances of some of the main political actors,[4] it was not easy for California voters to attribute blame to political parties for the problems with the budget process. Based on our own figures, almost all registered voters in California thought that either one (43 %) or both (53 %) major parties were responsible for the problems with the budget process.

Why should responsibility attributions matter for political behavior, and particularly, for political participation? Responsibility attributions politicize political evaluations (Iyengar 1991; Peffley 1984; Sniderman and Brody 1977) and enable voters to engage in rational retrospective voting (Feldman 1982; Iyengar 1991). In addition to providing a link between personal or societal problems and political evaluations, responsibility attributions are a psychological cue which can "powerfully influence self-images, evaluations of other people, and emotional arousal" (Iyengar 1991, p. 9), and may thus affect political behavior.

While studies of the impact of responsibility attributions often consider the direction of blame (Arcenaux 2003), we are interested in a different aspect of blame attribution which is more closely related to political participation: whether blame is concentrated on a single party, or distributed among the two major parties. This question has not been studied in the context of electoral participation nor conventional civic engagement. Our expectation is that the concentration of blame on a clear identifiable target is likely to have mobilization effects. This is consistent with arguments made in the literature on social movements, that the opening of political opportunities can facilitate coordination and collective action (Tarrow 1994). The concentration of blame on a single political actor represents a political opportunity, as it is likely to provide a "focal point for action" (Tucker 2007, p. 541; also see Javeline 2003). Moreover, focusing blame on a single party implies the existence of an obvious alternative, and could motivate the involvement of those individuals eager to replace the incumbent governor or legislator by an opposition challenger.

[3] The governor in California is in charge of preparing the budget and submitting it to both legislative chambers; the legislature is allowed to make amendments to the bill. The legislature must pass the budget by June 15 and, until the approval of Proposition 25 in November 2010, passage of the law required a super-majority vote in each chamber, empowering legislative Republicans as well. After the budget passes the legislature, the governor may sign or veto the bill—in which case a supermajority of the legislature may vote to override the veto.

[4] Governor Schwarzenegger was considered "a moderate Republican" with "liberal views on social issues" (Chandler and Kousser 2008), and often clashed with legislators of both parties.

Types of Individuals, Diverse Accountability Actions

Standard approaches for studying political participation make restrictive assumptions about the incidence of unobserved factors on the likelihood of individuals' involvement in political activities. In particular, scholars typically apply models built on the assumption that after controlling for a series of explanatory variables (often only socio-demographic attributes), no systematic differences in participation remain across individuals. In other words, traditional approaches assume that—conditional on measured covariates—seemingly similar individuals have equal participation probabilities. As we show in our results, this assumption can lead to misleading conclusions about the impact of measured attributes (particularly, policy-oriented evaluations and blame attributions) on political participation whenever unobserved factors affecting participation are unequally distributed in the population, making some individuals much more (or less) likely to participate in political activities than others. Recent computational advances enable us to estimate more general models that allow relaxing this assumption, and learn about systematic differences in participation propensities that are caused by the unequal exposure to latent (that is, unobserved) factors or circumstances.

This type of modeling approach helps us address the nuance of political participation. The idea that individuals have difficult-to-observe preferences that involve non-material goods, like a sense of duty, appears in a variety of useful political theories, ranging from the sense of "duty" in the "Calculus of Voting" (Riker and Ordeshook 1968) to many theories of political protest (see Lohmann 1994). The psychic benefit from participation can help ensure that a public good (monitoring and holding accountable public officials) is produced (see Olson 1965). And that these participation propensities might be channeled through different outlets, based on a number of individual judgments, comports with other existing theories of participation as well (Lohmann 1994).

Hypotheses

Building on this extensive theoretical framework, we construct two main hypotheses. Our rich data, and our modeling approach, will allow us to test these hypotheses at some considerable depth, so we elaborate our expectations. We are fitting a nuanced view of political participation into a traditional cost-benefit tradeoff.

H1 Voters are more inclined to participate as the perceived need to hold politicians accountable increases. Consistent with this expectation would be (H1a) general concerns about the economy spur participation; (H1b) specific concerns about economic and social policy and political party blame should drive participation; (H1c) the influence of these concerns should be greatest for specific activities most directly tied to electoral politics.

H2 Voters should be less inclined to participate as costs increase or are magnified by diminished accountability options. Consistent with this expectation would be

(H2a) personal economic concerns inhibit participation, potentially through lower levels of available resources; (H2b) voters who blame both political parties or who have no specific policy preferences should perceive participation costs as relatively greater and thus participate less; (H2c) the influence of increased or magnified costs should be greatest for the most demanding activities.

The modeling strategy, described below, allows us to address these nuanced hypotheses systematically and in-depth.

Methodology

The model applied in this paper can accommodate situations where—holding constant measured factors that might affect people's motivation to participate in political activities and ability to bear participation costs—some individuals are predisposed toward abstention and others are predisposed toward activism. Varying latent predispositions can be a result of characteristics of the social and political context in which individuals find themselves (Cho et al. 2006) and of individual attributes such as: personality traits (Mondak et al. 2010); sense of civic responsibility (Youniss et al. 1997); need to acquire or express a social identity (Fowler and Kam 2007; Uhlaner 1989); and position within social networks (Sinclair 2012), that while often not directly measurable or rarely identified in non-experimental settings, have been shown to greatly affect tendencies toward political involvement. In other words, our model is consistent with situations where even though some individuals "look the same" in terms of their access to politically-relevant resources and other measured attributes, they nevertheless participate with disparate intensities in political activities due to systematic differences in unobserved factors. This is the right model for these times of economic uncertainty, since we want to be able to estimate the effect of economic adversity on specific types of citizens who may otherwise be predisposed toward participation or abstention.

We study the determinants of involvement in each political activity by simultaneously modeling each binary decision using a separate equation, and explaining participation as a function of our variables of interest—evaluations of the state's and personal outlook, benefit- centered concerns, and attributions of responsibility for the handling of the budget process. In order to control for individuals' ability to bear participation costs, we include measures of demographic and socio-economic characteristics, since these individual attributes are thought to affect individuals' access to politically-relevant resources and skills (Brady et al. 1995; Verba et al. 1995). Additionally, we control for indicators of party identification and ideology, since these factors might affect both evaluations of the government's performance and participation decisions.

We use finite mixture modeling to allow the intercept of each activity-specific equation to vary across latent participatory types, in order to capture and account for latent heterogeneities in conventional political participation (Frühwirth-Schnatter

2006; Hill and Kriesi 2001).[5] This method allows classifying respondents into a finite number of participatory types based on systematic heterogeneities in participation that remain after controlling for the set of individual attributes mentioned in the previous paragraph. In particular, we classify respondents into the following three participatory types: activists, who systematically *over-participate* across a wide range of political activities compared to expectations for a typical respondent, and are thus are classified as having high latent participation propensities; apathetics, who systematically *under-participate*, and are thus classified has having low latent participation propensities; and middle-propensity types, who do not systematically under- nor over-participate.

More formally, our model specification can be written as:

$$y_{ij} \sim Bernoulli(p_{ij})$$

$$p_{ij} = (1 + e^{-u_{ij}})^{-1}$$

$$u_{ij} = \alpha_{T(i)j} + x_i\beta_j$$

where y_{ij} is a binary indicator of involvement in activity j by individual i; u_{ij} is the linear predictor associated with involvement in activity j by individual i; p_{ij} is the probability that individual i participates in activity j, which is related to the linear predictor u_{ij} through a logistic link function; $\alpha_{T(i)j}$ is an intercept that varies by activity j and depends on the participatory type of individual i, $T(i) \in$ {apathetic, middle-propensity, activist}; x_i is a vector of measured attributes corresponding to individual i; and β_j is a vector of activity-specific coefficients.[6] Differences in intercepts ($\alpha_{T(i)j}$'s) across types do not only lead to variation in baseline participation probabilities (average p_{ij}'s), but also to differences in the effect of covariates included in the model (e.g. education and economic evaluations) across types, as the relationship between the linear predictor (u_{ij}) and participation probabilities (p_{ij}) is non-linear.

Since the linear predictor of the regression model controls for the influence of demographic variables and other potentially relevant measured attributes, the estimated

[5] We assume that there is a single dimension of conventional political participation, and we break participants into the three classes discussed in the text. The single dimensional model makes sense for the US, as there is very little unconventional political participation—little protesting, little civil disobedience, and few instances of other types of political participation outside the typical political space. Nor does the data available here allow for the estimation and examination of a two-dimensional (e.g., conventional and unconventional participatory dimensions) model. Such a model is better suited for use in other democratic nations, where there is a much greater use of unconventional political participation, such as Argentina (Alvarez et al. 2015).

[6] We estimate our mixture model using a Bayesian approach, whereby population parameters are not treated as fixed quantities but as random variables that follow probability distributions (Jackman 2000). We use our survey data and MCMC simulation methods to learn about the characteristics of these distributions. In doing so, we assume that intercepts ($\alpha_{T(i)j}$'s) follow mixture distributions (that is, "weighted combinations" of distributions, as described by Imai and Tingley 2012, p. 221) and model activity-specific slopes (β_j's) using a multilevel approach by assuming that they are drawn from a common distribution with mean μ_β and variance σ^2_β. The multilevel approach is appealing when making multiple comparisons, as it leads to wider bayesian posterior intervals for model coefficients and implies that there is no need for multiple comparisons corrections (Gelman et al. 2012).

participatory types capture systematic differences in behavior that cannot be explained by these factors. Although we cannot identity the separate influence of each unobserved drive (e.g. distinguishing the influence of unmeasured personality traits from that of unmeasured social identities), we can nonetheless learn about the joint influence of these factors on overall participation propensities, which in turn may affect: (1) baseline participation rates; and (2) the relationship between explanatory variables included in the model and the likelihood of involvement in each political activity.

Our model is more general (i.e., imposes less restrictive distributional assumptions) than standard approaches used to model binary decisions to participate in political activities. Standard logistic regressions, for instance, are nested within the model described above, as they represent a special case where activity-specific intercepts are not allowed to vary across individuals as a function of participatory type (that is where there are no T types and therefore $\alpha_{T(i)j}$'s are replaced by a fixed α_j's). Thus, the mixture modeling approach is appealing because it allows relaxing restrictive and unrealistic assumptions underlying standard models of political participation, as well as learning about the joint influence of latent individual attributes—in this case, unmeasurable qualities that might drive individuals toward or away from participation—through a non-arbitrary, data-informed, assignment of respondents into latent participatory types.

The 2010 California Survey

The California statewide survey was conducted online by YouGov/Polimetrix between September 15, 2010, and October 10, 2010. It includes interviews of 1000 registered Democrats, 1000 registered Republicans, and 1000 registered decline-to-state voters (DTS).[7] In order to compute descriptive statistics representative of the state population, weights were constructed to take into account the actual proportions of Republican, Democratic, and DTS registered voters in the population.

Our dependent variables are based on answers to a question about involvement in the following electoral and non-electoral political activities during the year preceding the survey: Contacting or visiting a public official to express an opinion; Attending a meeting where political issues are discussed; Buying or boycotting a certain product or service because of the social or political values of the company that provides it; Taking part in a march, rally, protest or demonstration; Expressing a political opinion online; Showing support for a particular political candidate or party by distributing campaign materials, putting up a political sign or bumper sticker; Donating money to a candidate, campaign, or political organization. All

[7] Thus, we use survey self-reports of political behavior, attitudes, and opinions, to test our hypotheses, building upon decades of research using survey and polling data to study political behavior. There are of course other ways to study political behavior, using other forms of observational data or experimental approaches. While those alternatives have their own merits, observational or experimental data do not allow us to easily test hypotheses that are fundamentally about how individuals perceive their economic situation, nor how who they may blame if they perceive that some political actor needs to be held accountable for how the individual perceives their economic situation.

items in this list were in the "check all that apply" style, which we interpret as "yes" if checked, and "no" otherwise.

The weighted distribution of responses to the question about involvement in political activities, sorted according to frequency, is the following: 57 % say that they expressed an opinion online; 46 % say that they boycotted a product for social or political reasons; 42 % say that they contacted a public official; 41 % say that they donated money to a candidate, campaign, or organization; 26 % say that they attended a political meeting; 26 % say that they volunteered for a candidate or campaign; and 18 % say that they took part in protests or demonstrations.

The 2010 General Election in California drew large turnout—more than 59 % of registered voters, the highest figure since the 1994 gubernatorial election (Decker 2010a). In addition to the previous set of questions, we consider information about voter turnout drawn from two validated indicators of voting in the primary election of June 2010 and then in the general election of November 2010. These validated voting indicators were provided by YouGov/Polimetrix, and were obtained from information contained in the voter history file. According to voter records, 68 % of respondents participated in the June primary, and 87 % participated in the November general election.

Turning to the explanatory variables considered in our analysis; in order to assess the impact of economic evaluations, we used typical questions about prospective evaluations of the California economy and personal finances. In response to the questions about the state's economic outlook, 40 % say the economy in California was going to get worse, 31 % say it would be about the same, 17 % say it would improve, and 12 % reported not knowing. Also, 27 % say their personal finances were going to get worse, 45 % say they would be about the same, 21 % say they would improve, and 7 % said that they did not know. These questions are prospective in nature, as they ask voters to consider forecasts of statewide and personal economic conditions, rather than focus on past economic performance. Since finding and processing information about future economic conditions is costly; it is likely that responses to these questions are largely based on recent economic performance (Downs 1957).

To assess the impact of benefit-centered concerns, we asked the following question about support for Obama's health care reform: "Did you approve or disapprove of the health care bill recently passed by Congress?", with response alternatives "Approve"; "Disapprove"; "Don't have strong feelings about it"; "Haven't heard about the health care bill"; and "Don't know." Respondents were slightly more inclined toward opposition to the reform: 37 % reported approval; 45 % reported disapproval; 11 % reported having no strong feelings; and 5 % reported not knowing. Only 2 % reported having not heard about the bill. Consistently with the intense polarization of the debate around the reform at the national level, respondents' positions closely matched the stances of their respective parties: approval of the bill was 64 % among Democrats and only 4 % among Republicans; conversely, disapproval was 12 % among Democrats and 89 % among Republicans. Independents, in turn, exhibited intermediate positions, with 21 % approving of the bill, and 53 % disapproving. The diversity of responses allows us

to examine the relationship between positions on the health care reform and political participation.[8]

To evaluate the influence of blame attributions, we asked the following question about responsibility for the problems with the state's budget process: "If you believe there is a problem with the California state government budgeting process, who do you believe is most responsible?" Responses: The Republican Party; the Democratic Party; Both; Neither. All respondents were asked this question; 21 % chose the Republican Party, 22 % chose the Democratic Party, 53 % chose both parties, and 4 % chose neither party. As expected, Republicans were likely to attribute blame to the Democratic Party (48 % of Republicans), and Democrats were likely to attribute blame to the Republican Party (37 % of Democrats). Still, Republicans and Democrats often blamed both parties for the problems with the budget process (46 and 54 % of Republicans and Democrats, respectively). Among Independents, 69 % attributed blame to both parties, 18 % attributed blame to the Democratic Party, 8 % attributed blame to the Republican Party. The variation in responses allows us to compare the behavior of voters—be they Republicans, Democrats, or Independents—who attribute blame to a single party, or to both parties.[9]

Participation in California

We estimated our model via Markov Chain Monte Carlo (MCMC) methods, using the software package JAGS (Plummer 2012). We ran three parallel chains for 50,000 iterations, saving one out of every 25 draws and discarding the first half of each chain. Gelman and Rubin (1992)'s Potential Scale Reduction Factors stood below 1.3 for the parameters of both models, suggesting that model parameters converged to their stable posterior distribution (ibid.). The Bayesian estimation of the mixture yields samples from the posterior distribution of model parameters and assignment into participatory types that can be used to summarize the distribution of quantities of interest. We found that 34.8 % of the sample was classified as having an apathetic participatory type, 52.1 % as having a middle-intensity participatory type, and 13.1 % as having an activist participatory type.

Average Effects

The coefficients of the linear predictor are difficult to interpret in the case of logistic regressions with intercepts following a mixture distribution, since coefficient values

[8] In our data analysis, we include two dummy variables quantifying attitudes toward the health care reform: one indicating support and the other one indicating opposition, with "Don't have strong feelings about it" as the baseline category. Individuals who reported "Don't know" or "Haven't heard" about the bill were dropped from the analysis.

[9] Our data analysis includes one binary indicator of blame attribution for the problems with the budget process, taking value 1 if the respondent blames a single party (*either* the Republican *or* the Democratic Party) and 0 if the respondent blames *both* the Democratic *and* the Republican Party. Individuals who reported blaming neither party were dropped from the analysis.

do not have a direct interpretation and also because covariate effects vary across participatory types.[10] Therefore, instead of reporting information about coefficient values, we simulated marginal effects of changes in each explanatory variable—both on average and for each participatory type—on the likelihood of involvement in each political activity. Table 1 gives mean values and 90 % posterior intervals for the effect of a marginal change in each measured attribute on participation probabilities (p_{ij}'s). Effects were computed for a hypothetical individual, by taking the average across participatory types.[11]

Results presented in Table 1 indicate that evaluations of the state's economy generally have no significant effect on political participation, except for buying or boycotting a product for political reasons and expressing opinions online, where there are 3.5 and 2.7 percentage point mobilization effects, respectively, of switching economic outlooks from staying the same to deteriorating. Similarly, we found no significant effect of individuals' personal financial outlooks, except for voting in primaries and donating money, where those who expect their finances to get worse are paradoxically 3.1 and 2.9 percentage points *more* likely to donate and vote, respectively than those expecting their personal finances to remain stable. Thus, our findings lend little support for the hypothesis that general economic concerns stimulate participation, and contradict the hypothesis that pocketbook concerns inhibit participation. Even though general evaluations of the state's economy and personal finances have only small effects on specific activities, it is still possible that policy-oriented evaluations or blame attributions for the performance of the state's government do encourage participation.

Indeed, in line with our expectation that benefit-centered concerns drive participation, we found that respondents who oppose the health care bill are considerably more likely to participate than those reporting indifference, although generally as likely to get involved in political activities as those who support it. These findings indicate that strong policy stances drive participation and that both sides of the issue are equally represented among activists (with the exception of boycotting and donating, where those who support the bill are 8.2 and 7.4 percentage points more likely to participate, respectively). In particular, those taking a stance on the health care bill are 15.3 percentage points more likely to express their opinions online relative to those reporting indifference, and 12.4 percentage points more likely to vote in the primary election. Effects are also large (between 7 and 12 percentage points) in the case of activities such as attending political meetings, contacting government officials, buying or boycotting products for political reasons, and voting in the general election. Effects are smaller for more demanding activities such as protesting and working for campaigns, yet are still sizable (between 4 and 6 percentage points, respectively). Thus, contrary to our

[10] Figure A.1 in the supplementary material gives the distribution of model coefficients for each political activity. Although these plots are not useful for assessing the magnitude of covariate effects, they provide an idea of the sign and statistical significance of each covariate.

[11] The hypothetical individual has the following baseline characteristics: male, college graduate, annual household income between $60,000 and $80,000, age 40–59, White, Independent, middle of the road ideology, thinks the state's economy and personal finances will stay the same, blames both parties for the problems with the budget process, and opposes the health care bill.

Table 1 Average effects

	Protest			Campaign			Meeting			Donate		
	5 %	Mean	95 %	5 %	Mean	95 %	5 %	Mean	95 %	5 %	Mean	95 %
Baseline	9.4	12.2	15.3	13.6	17.0	20.6	18.8	22.5	26.7	20.6	25.2	30.1
Male to female	−0.9	0.6	2.1	−0.6	1.2	3.1	−2.3	−0.4	1.5	−2.8	−0.3	2.1
Education college to post-grad	0.4	1.3	2.2	−0.8	0.2	1.3	1.4	2.6	4.0	0.9	2.4	3.8
Income $60–80 to $100–200	−2.2	−1.2	−0.3	0.7	1.9	3.2	0.9	2.2	3.8	6.8	8.7	10.8
Age 40–59 to 18–39	−4.5	−2.6	−0.8	−5.6	−3.3	−1.2	−4.7	−2.1	0.5	−9.7	−6.8	−3.8
Age 40–59 to 60+	−1.8	0.5	2.9	0.4	3.5	6.8	0.7	4.3	8.3	15.0	19.7	24.7
White to Non-White	−1.9	−0.2	1.5	−3.1	−1.1	1.0	−2.6	−0.4	2.1	−4.2	−1.5	1.2
PID: Independent to Republican	−2.6	0.0	2.4	−1.8	1.4	4.7	−6.0	−2.4	0.8	0.2	5.0	9.5
PID: Independent to Democrat	−1.8	0.7	3.2	1.2	4.8	8.9	−2.1	1.4	4.9	1.7	6.6	11.7
Ideology: moderate to conservative	2.1	4.4	6.8	3.8	6.7	10.0	3.0	6.1	9.5	5.1	9.0	12.9
Ideology: moderate to liberal	3.8	6.8	10.1	1.8	4.8	8.1	1.3	4.6	8.2	4.3	8.0	12.1
CA economy: same to worse	−0.2	1.0	2.4	−1.1	0.4	1.8	0.0	1.7	3.5	−2.4	−0.5	1.4
Pers. finances: same to worse	−0.5	0.7	2.0	−1.2	0.3	1.7	−1.0	0.5	2.2	0.8	2.9	5.1
Blame: both parties to one	2.3	4.0	5.9	3.2	5.2	7.5	2.8	5.1	7.5	5.5	8.1	10.9
Health care bill: oppose to no opinion	−6.9	−4.5	−2.4	−8.9	−6.1	−3.5	−11.1	−7.8	−4.8	−12.8	−8.8	−5.1
Health care bill: oppose to support	−2.3	0.3	2.8	−3.4	−0.4	2.5	−5.0	−1.7	1.6	2.9	7.4	12.1

Table 1 continued

	Contact			Boycott			Online			Vote Primary			Vote General		
	5 %	Mean	95 %	5 %	Mean	95 %	5 %	Mean	95 %	5 %	Mean	95 %	5 %	Mean	95 %
Baseline	34.6	40.1	46.0	32.1	37.8	43.6	48.9	54.6	60.2	58.6	64.7	70.6	82.2	86.8	90.5
Male to female	−2.9	−0.1	2.7	−0.2	2.8	5.8	−5.7	−2.5	0.6	−3.0	0.2	3.4	−1.0	1.2	3.5
Education college to post-grad	2.2	3.9	5.6	2.2	3.9	5.5	1.8	3.5	5.2	1.1	2.9	4.8	0.1	1.4	2.7
Income $60–80 to $100–200	−0.7	1.2	3.0	0.0	1.9	3.8	−2.7	−0.7	1.3	−1.3	0.8	2.8	0.7	2.1	3.7
Age 40–59 to 18–39	−13.1	−9.2	−5.4	−9.5	−5.4	−1.3	−8.8	−4.7	−0.4	−15.2	−10.7	−6.4	−8.7	−5.1	−1.8
Age 40–59 to 60+	8.5	13.1	17.7	−6.8	−2.3	2.3	−3.9	0.6	5.2	18.2	22.2	26.3	6.5	9.4	12.7
White to Non-White	−7.4	−4.2	−1.0	−9.4	−6.2	−3.0	−7.8	−4.4	−0.9	−8.9	−5.2	−1.5	−7.2	−3.9	−1.0
PID: Independent to Republican	−9.7	−4.4	0.7	−9.6	−4.1	1.1	−3.5	1.6	6.6	−2.6	2.8	8.2	−0.5	2.9	6.8
PID: Independent to Democrat	−7.4	−1.8	3.4	−3.5	1.7	6.9	−2.1	2.8	7.5	−2.9	2.3	7.7	−1.3	1.9	5.4
Ideology: moderate to conservative	4.4	8.6	12.9	5.0	9.2	13.6	4.7	8.7	12.8	6.2	10.3	14.3	2.0	4.4	7.1
Ideology: moderate to liberal	4.4	8.7	13.0	13.1	17.6	22.1	4.8	8.9	12.8	−1.9	2.7	7.2	1.0	3.7	6.5
CA economy: same to worse	−0.1	2.4	4.8	1.0	3.5	6.0	0.2	2.7	5.2	−5.1	−2.1	0.7	−1.8	0.1	1.9
Pers. finances: same to worse	−0.2	2.2	4.5	−1.1	1.3	3.7	−1.8	0.7	3.1	0.5	3.1	5.6	−2.5	−0.3	1.4
Blame: both parties to one	3.8	6.7	9.7	2.3	5.2	8.3	6.1	9.0	11.9	2.4	5.7	8.8	2.2	4.3	6.6
Health care bill: oppose to no opinion	−16.3	−11.6	−6.9	−14.2	−9.3	−4.3	−20.7	−15.3	−10.3	−18.2	−12.4	−6.4	−14.0	−9.2	−5.1
Health care bill: oppose to support	−1.7	3.2	8.2	3.0	8.2	13.2	−5.2	−0.2	4.8	−3.3	2.0	7.4	−3.4	0.3	3.8

The table gives means and 90 % credible intervals for baseline participation probabilities (first row), as well as changes in participation probabilities caused by marginal changes in explanatory variables (rows 2 to last). Participation probabilities and marginal effects correspond to a hypothetical individual (see footnote 11)

expectations, specific policy concerns stimulate participation in electoral politics, as well as participation in activities more remote from campaigns and elections.

Consistent with our expectation about the influence of blame on participation, we found that attribution of responsibility for problems with the state's budget process played an important role in influencing participation decisions in California. Specifically, we found that holding one specific party responsible for the problems with the budget process (instead of attributing responsibility to both parties) has a positive and significant effect on involvement in all political activities. Those who attribute blame to one specific party instead of to both parties are about 9.0 percentage points more likely to express their opinions online, 8.1 percentage points more likely to donate to candidates or campaigns, and about 6.7 percentage points more likely to contact government officials. For other activities, the focus of blame attributions has a mobilization effect that ranges between 4 and 6 percentage points. Once again, we confirm that policy concerns motivate involvement in both electoral and non-electoral activities, as well as in both low-cost and more taxing activities.

In order to obtain accurate estimates of the impact of our variables of interest on political participation, it was important to control for ideological orientations, direction of partisan attachments, and demographic attributes, since these factors might affect both political involvement and perceived government performance. Before proceeding to the next section, we briefly describe some of the interesting correlations that we found between other individual attributes included in our model and political participation. Starting with political attitudes, we found that partisan attachments are not generally associated with involvement in political activities, with the exception of donating to candidates or campaigns, where Democrats and Republicans are 6.6 and 5.0 percentage points more likely to contribute, respectively, than Independents; as well as working for campaigns, where Democrats are 4.8 percentage points more likely to do so than Independents. The strength of ideological orientations, in contrast, is strongly and positively associated with involvement in most political activities, regardless of the direction of ideology (liberal or conservative). The impact of switching ideological orientation from middle-of-the-road to liberal or conservative exceeds 4 percentage points for all activities, except for voting, where the impact of liberal ideology is lower in magnitude (and non-significant in the case of voting in the primary election).

To control for the differential access to politically-relevant resources, we also included a variety of socio-demographic attributes. Beginning with gender, we did not find significant differences between the level of participation of men and women. Education, in turn, is positively associated with involvement in most activities, except for working for campaigns. The impact of a marginal increase in educational attainment is particularly large for activities such as expressing opinions online, contacting government officials, and buying or boycotting a product for political reasons, where the magnitude of marginal effects exceeds 3 percentage points. Income, in contrast, is strongly associated with donating to a candidate or campaign (where the marginal effect exceeds 8 percentage points); slightly associated with working for campaigns, attending meetings, and voting in the general election; and negatively associated with participating in protests. The relationship between age and participation also varies considerably across activities.

While, the likelihood of donating, contacting officials, and voting in either the primary or general election increases steadily with age; the relationship is non-linear in the case of protesting and buying or boycotting a product for political reasons, where middle-aged individuals are as likely to participate as senior respondents, but more likely to participate relative to the young. Lastly, we found a strong and negative relationship between non-White race and involvement in several political activities.[12] In particular, non-White individuals are less likely to vote in either the primary or the general election, to boycott products for political reasons, to contact government officials, and to express their opinions online, with the magnitude of marginal effects ranging between 3 and 7 percentage points.

Effects by Participatory Type

In addition to studying the behavior of the average citizen, we investigate *who*, among different *types* of citizens, is more likely to participate and in *what* class of political activity. Due to differences in latent predispositions, certain types of citizens (who we call *activists)* participate at high rates in most political activities, and other types (who we call *apathetics*) abstain from most forms of political participation.

Relaxing the assumption of identical distribution of other factors—as we do in this paper by allowing model intercepts to vary across citizens with different participatory types—is not inconsequential. As we show next, doing so leads to differences in baseline participation probabilities across types. The upper plot in Fig. 1 shows baseline participation probabilities for a hypothetical individual, computed by taking the average across participatory types. These percentages closely resemble average levels of involvement in each activity in the whole sample. The lower plot shows how averages can be misleading, since the degree of involvement varies markedly depending on the individual's participatory type. Holding socio-demographic characteristics and other measured attributes constant, the hypothetical individual is about 75 % likely to participate in all activities when assigned an activist type, but less than 25 % likely to participate in most activities (except voting) when assigned an apathetic type. Differences in baseline participation probabilities across types are largest for costly activities such as participation in protests (where apathetic types participate 1 % percent of the time, and activist types participate 60 % of the time), and lowest for less time-consuming and simpler activities such as voting in the general election (where apathetic types participate 74 % of the time, and activist types participate 96 % of the time).

Not only baseline participation probabilities, but also marginal effects, vary across participatory types even when all other variables are held constant. Apathetics are ex-ante highly unlikely to participate in costly activities such as protesting and working for campaigns, implying that marginal effects will be very low for this participatory type and class of political activity. No marginal increase in politically-relevant resources, exposure to information, or concern about economic

[12] The non-White indicator encompasses Asians, Blacks, Hispanics, Native Americans, and unspecified non-White races.

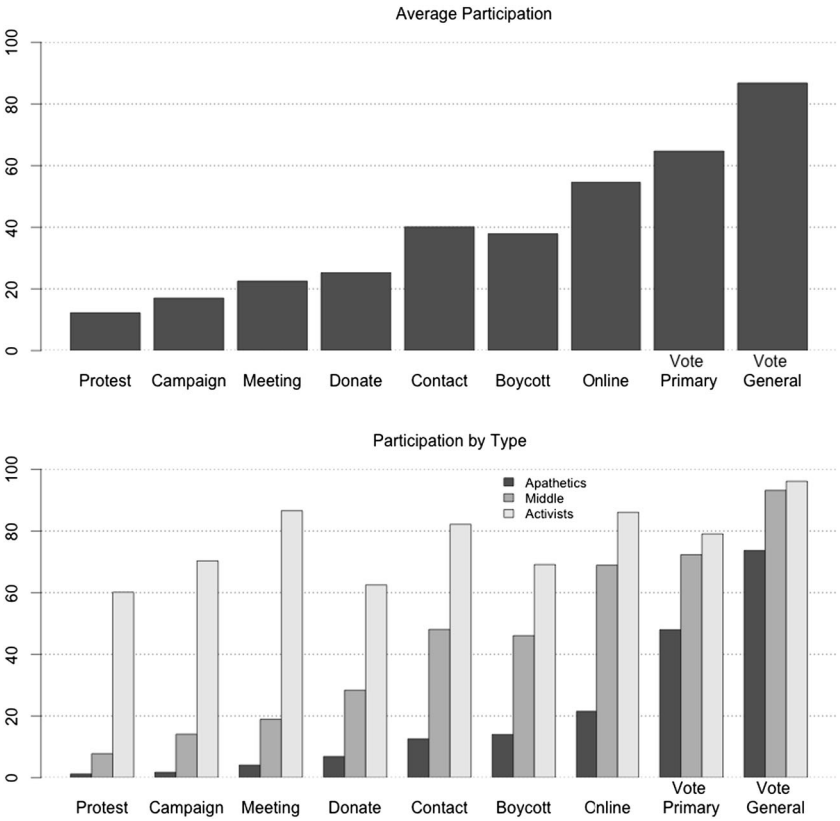

Fig. 1 Participation probabilities by political activity. The *upper figure* gives baseline participation probabilities for a hypothetical individual (see footnote 11) computed by taking the average across latent participatory types. The *lower figure* gives baseline participation probabilities for individuals with similar hypothetical characteristics, but with varying latent participatory types

matters or policy issues, will be large enough to convince apathetics to get involved in costly political activities. In the case of activities where apathetics have substantial, albeit relatively small, participation probability (such as boycotting a product for political reasons or contacting public officials), however, a marginal change in measured attributes may have considerable effects on their likelihood of involvement. Activists, in turn, are ex-ante very likely to participate in simple and less time-consuming activities such as voting and expressing an opinion online; meaning that an increase in their level of concern for political affairs, or in their access to politically-relevant resources will not make them any more likely to participate, since they are already almost sure to do so. In the case of activists, marginal effects will be largest for activities where their baseline likelihood of involvement stands considerably below 100 %, such as making a donation to candidates or campaigns, or participating in protests.

The effects of changes in economic evaluations, blame attributions, and attitudes toward the health care bill, in particular, deviate considerably from average predictions depending on the specific of political activity and individuals' participatory type.[13] A worsening in the state's economic outlook increases the likelihood of attending political meetings and participation in consumer boycotts, and expressing opinions online, especially for middle-propensity citizens (see upper plot in Fig. 2). Expected deterioration in personal finances, in turn, lead to higher likelihood of donating to political candidates or campaigns, especially for activists and middle-propensity citizens; and also to higher probability of voting in primaries, especially for apathetics (see lower plot in Fig. 2). Nonetheless, it is still the case that changes in economic and financial outlooks have no significant effects in involvement in most other political activities.

The latter results contrast sharply with those found for attitudes toward the health care reform. The impact of switching support for the bill from indifference to opposition varies across political activities and participatory types (see upper plot in Fig. 3). In the case of apathetics, the effect is small in the case of costly activities like protesting or working for campaigns, and large in the case of easier activities like voting or expressing opinions online; and exactly the opposite takes place in the case of activists. Switching positions from opposition to support, however, has generally no significant effects (see lower plot in Fig. 3), except in the case of donating and participating in consumer boycotts where effects are sizable and positive, and slightly larger for activists and middle-propensity types relative to apathetics.

The marginal effect of switching the focus of blame attribution for problems with the state's budget process also varies across political activities and participatory types. As shown in Table 1, blaming one party for problems with the budget process, instead of blaming both parties, sharply increases involvement in all political activities. But the impact of blame attributions varies by participatory type depending on the specific political activity (see Fig. 4). In the case of costly activities such as protesting and working for campaigns, the effect is negligible for apathetics but large for activists; and conversely, in the case of less time-consuming and simpler activities such as voting and expressing opinions online, the effect is relatively large for apathetics but small for activists.

Discussion

Students of political participation tend to focus on studying the determinants of voter turnout. We do not intend to marginalize voting. Voting in elections is a unique activity and a fundamental condition for the existence of a representative democracy. Voting is not only the most common form of political involvement but also is the only activity that guarantees equal influence of all those who choose to participate, through the "one person, one vote" principle. Nevertheless, citizens can

[13] Table A.2 in the supplementary material gives marginal effects by participatory type for all covariates included in the mixture model and for each political activity.

Fig. 2 Marginal effect of economic evaluations. *Bars* indicate changes in participation probabilities produced by worsening economic and financial outlooks. *Different colors* correspond to different latent participatory types. *Dashed vertical lines* correspond to 90 % credible intervals

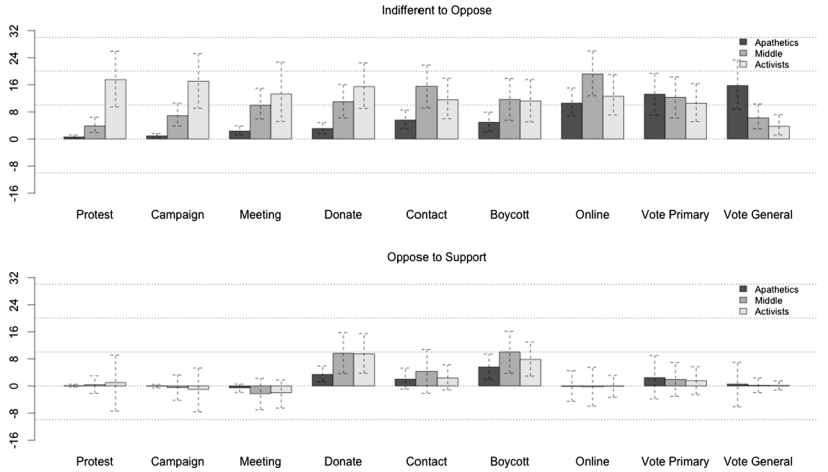

Fig. 3 Marginal effects of support for health care bill. *Bars* indicate changes in participation probabilities produced by marginal changes in support for the Affordable Care Act. *Different colors* correspond to different latent participatory types. *Dashed vertical lines* correspond to 90 % credible intervals

seek to affect political outcomes in many other ways—they can try to influence the nomination, election, and appointment of public officials by donating or volunteering for campaigns; they can seek to affect the decisions made by public officials at the local and federal level; and may also seek to influence the political involvement of other individuals, including family, friends, co-workers, and people they meet online or during everyday activities. Some of the activities included here

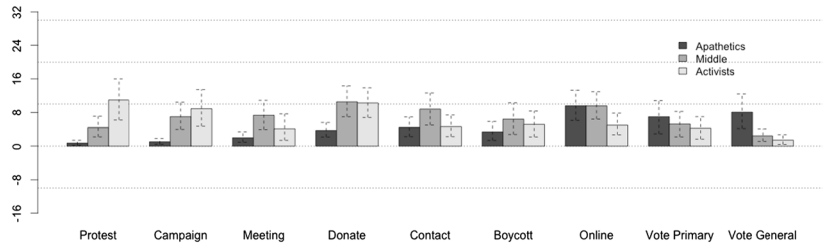

Fig. 4 Marginal effects of blame attributions. *Bars* indicate changes in participation probabilities produced by changing the focus of blame from both parties to a single party. *Different colors* correspond to different latent participatory types. *Dashed vertical lines* correspond to 90 % credible intervals

could in turn induce other like-minded citizens to vote, increasing the individual's total ability to move policy in their preferred direction. In order to evaluate whether preferences and needs are equally represented, we need to look beyond what happens at the ballot box.

Moving beyond voting to political participation in general, we found that dissatisfaction with the state's economic conditions motivated greater political participation in activities such as participation in consumer boycotts and attending political meetings. This supports our hypothesis regarding the mobilization effect of socially-located concerns. Deterioration in one's personal financial outlook, paradoxically, increased the likelihood of donating money to political candidates and campaigns, contrary to the hypothesis of inhibition effect of self-located concerns. We also found that attitudes toward public matters closely related to the state or nation's economic performance (such as the handling of the states' budget process or the 2010 health care bill) strongly affected political participation during the 2010 electoral cycle. We hypothesized that attributing blame to a single party, instead of both parties, could have mobilization effects as the existence of a clear alternative (the party not perceived as responsible for the problem) should raise the expected benefits of participation, and focalized blame attributions could facilitate coordination and collective action. We found support for this hypothesis, since individuals who blamed either the Democratic Party or the Republican Party were significantly more likely to participate in all activities.

Our findings have important implications for democratic accountability and representation. Personal stances on benefit-centered issues and dissatisfaction with the handling of the budget process do not only affect government approval and voter choice. Those who have a party to blame for mismanagement of the state's purse, for instance, are not only likely to punish that party but also are more visible in many aspects of politics. The impact of policy-oriented evaluations and blame attributions is, however, not constant across citizens.

Even when all relevant measured factors are held constant, some citizens are systematically more (or less) likely than others to participate in political activities. This is so because there are a host of factors that affect political involvement that remain unmeasured, and are unequally distributed across segments of the population. The existence of these unequally distributed factors leads to latent heterogeneities in participation, since it implies that while some citizens are ex-ante

predisposed toward involvement, others are predisposed toward abstention. Although some political scientists have talked at length about the existence of predispositions toward political involvement (see for instance, Milbrath 1960, 1977), the type of statistical models usually applied in empirical studies tend to assume that all relevant differences between citizens are observed and explicitly accounted-for within the model. By applying a more general model that accommodates heterogeneities in the distribution of unobserved factors, we have shown that the traditional assumption of "homogeneous distribution of other factors" is unrealistic.

We showed that there are types of citizens (apathetics) who are predisposed toward abstention especially in the case of costly and complex activities; and others (activists) who are predisposed toward participation, especially for simple activities that are not very time consuming. Moreover, we showed that these differences should be taken into account if one is to gain an understanding of the impact of changes in measured attributes on individual involvement in each activity: when tough economic times hit, not all voters' behavior is equally affected. As we showed before, depending on baseline likelihood of involvement and type of political activity, changes in measured attributes are more likely to affect the level of involvement of certain types of citizens. Thus, the methodology applied in this paper can be used to improve our broad understanding of political participation relative to what could be learned with commonly applied techniques.

Some of our findings may not generalize beyond this particular context, as the aftermath of the 2007–2009 financial crisis took place within a very special political climate—one that saw the emergence of conservative Tea Party movements across the country and bitter debates over far-reaching presidential initiatives. Latent sources of heterogeneity, as well as their influence, may also be contingent on social and political circumstances, and may well vary over time. The cross-sectional data used in this study does not allow exploring these questions, and we thus leave them for future research. Another limitation of the use of cross-sectional non-experimental data is that we cannot unequivocally establish the direction of causality; although it is possible that policy-oriented concerns and blame attributions foster participation, it is also possible that politically active individuals develop strong feelings toward these issues as a consequence of their political involvement. For these reasons, another recommended avenue for future research is the study of similar questions using suitable panel data or an experimental approach.

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