# Voter Turnout in a Multidimensional Policy Space*

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**Abstract**

Many factors influence the likelihood of citizens turning out to vote. In this paper we focus our attention on issue voting, that is, on the likelihood that different policies offered by politicians affect the probability of voting. If voters consider both the benefits and the costs of voting, rational voters will only vote when politicians offer differentiated policies. In a multidimensional policy space this implies that citizens only vote when they perceive enough difference on the issues they care about the most. We investigate the role of voter abstention due to indifference in a unidimensional and a multidimensional policy setting using data from the US National Election Studies for 1972-2000 and find support for our predictions: voters perceiving a small difference between the platforms of the Democratic and Republican parties are less likely to vote; and voters who perceive the two parties as more different on a larger number of issues are significantly more likely to vote.

*Keywords:* Turnout, Multidimensional Policy, Issue Voting

## 1 Introduction

Voting in elections is considered one of the most important forms of participation in representative democracies; therefore it is not surprising that a large literature analyzes the determinants and consequences of voter turnout. A wide array of papers considers the role of individual characteristics in determining participation. Among these studies, some papers examine the correlation between the likelihood of turning out to the polls and socioeconomic characteristics, such as income, education, age, and race; other papers study psychological factors, such as the role of (campaign) information, or

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sense of duty. Another body of research looks into the role of political institutions and policy choices in affecting voter turnout.

In the same vein, it has become apparent that political parties diverge in their policies, as do the platforms that each candidate puts forward. As the empirical spatial evidence on candidate divergence developed, the theoretical spatial literature, pioneered by Anthony Downs in 1957, posited that citizens weigh the cost of voting against the benefit of voting, where the latter depends on the probability that their vote affects the electoral outcome. Thus, citizens may choose not to vote when they perceive little benefit from either candidate, or when both candidates offer approximately the same benefit. In this context, spatial models suggest that abstention is likely when voters feel indifferent toward (or alienated from) the parties' policy proposals.

This paper contributes to a large literature addressing abstention due to indifference toward the candidates. In a complex political scenario with many dimensions, political competition leads to the perception of only slight variations among platforms in each dimension. Consequently, only voters who care about many of the issues perceive a difference between platforms that is large enough for their vote to be cast; the rest of the electorate abstains on the grounds that *all politicians offer the same policies* or, as George Wallace put it in 1968:[1]

*"There isn't a dime's worth of difference between the Democratic and Republican parties"*

In this paper we focus on the role of issue voting: we seek to explore whether voters who are indifferent between the two parties are more likely to abstain. Several papers empirically analyze abstention from indifference and abstention from alienation, here we provide a comprehensive empirical study using National Election Studies data from the United States spanning 1972 through 2000. Consistent with previous literature that has investigated this question using data from one or two elections, or differences regarding separate policy issues, we find that voters who perceive the Republican and Democratic parties' platforms to be more distant are significantly more likely to vote. In particular, a voter who perceived the Democratic and Republican parties to be on opposite ends of the spectrum is about as likely to vote as a voter who reports having read about the campaign in a newspaper.

Another contribution of this paper is the focus on a multidimensional policy space. In particular, we allow for the possibility that many voters are only interested in a few policy issues. Consequently, the perceived distance between platforms as computed by a voter who only cares about a few issues may not compensate for her opportunity cost of voting. It thus follows that a number of citizens may perceive "politicians as being all alike" on the dimensions that they consider relevant, and so they ultimately abstain. We capture voters' multidimensional preferences in several ways, and find that individuals who report more issues for which they perceive a substantial difference between the two parties are more likely to vote. In sum, our results suggest that voters who perceive the two parties to be further apart on a larger number of issues are significantly more likely to vote.

We then explore the determinants of differences in perceptions of parties' platforms, as well as the determinants of the number of issues on which individuals perceive parties as distant. A number of

[1] George Wallace was a third-party presidential candidate in 1968.

individual characteristics, and particularly a number of institutional variables, seem to be associated with individuals' perceptions. Among the institutional variables, individuals in states with same-day registration are more likely to perceive the parties as more different on a greater number of issues.

Our results are robust to the inclusion of a series of socioeconomic, demographic, and political controls, state-level institutional controls, state and year fixed-effects, state-specific time trends, and to the model specification. Finally, given the well-known overreporting concern for declared turnout in surveys such as the National Election Studies, we further check for the robustness of our results using only the set of validated votes—in all cases, our results remain the same.

The rest of the paper is organized as follows. In Section 2, we place this study in the context of the existing literature. Section 3 outlines our conceptual framework regarding voters' perceptions of political parties and probability of voting. In Section 4, we describe the data and provide descriptive statistics for the variables that are particularly relevant to our analysis. Section 5 presents the empirical analysis, and Section 6 concludes.

## 2 Related literature

The empirical literature on voter turnout spans several decades and countries. Related to the analysis in this paper, there exists a substantial literature on issue voting in US elections.[2] These papers examine whether the electorate is sensitive to differences in platforms, so-called 'issue differences'. While early work by Campbell *et al* (1960) and others argued that voters were not able to perceive differences between candidates' policies, subsequent evidence has been more supportive of the existence of such sensitivity (Aldrich *et al* 1989, Pomper 1972, Page and Brody 1972—with regards to the Vietnam war—, and Palfrey and Poole 1987).

Several features distinguish our paper from previous empirical studies. First, past work has typically focused on one or two election years only. For instance, Aldrich *et al* (1989) examine US data for the 1980 and 1984 elections, Adams and Merrill (2003) consider the US 1988 presidential election, or Adams *et al* (2006) consider the US 1980-1988 presidential elections. Here, we are able to use data from elections from 1972 through 2000. Second, many of the previous studies do not address turnout directly, but rather focus on the voters' choice between the Democratic and Republican candidates. Third, most previous papers do not control for individual socioeconomic or demographic characteristics. Fourth, most of existing literature does not consider a multidimensional setting. Previous work has focused on the differences in how individuals perceive parties' views on either a unique issue (Aldrich *et al* 1989), or on a number of independent policy issues,[3] but has not considered the number of important issues to voters. Thus one contribution of this paper is that we allow the propensity to vote to vary across voters according to the number of issues they care about. Finally, we explore the difference in voters' perception of parties, and the factors that affect the number of

[2] See Sapiro (2001) for a review on literature that uses data from the National Election Studies.

[3] For example, Thurner and Eymann (2000) using data from the 1990 German election consider how individuals' perceptions each issue is associated with voter turnout.

issues that are salient to voters.[4]

Among previous papers, Palfrey and Poole (1987) is the closest in spirit to this paper's findings that more informed voters perceive platforms to be more different across candidates, and that more informed voters are more likely to vote. However, Palfrey and Poole (1987) does not explore the connection between these features, which is the focus of our paper. Our results suggest that, controlling for information exposure, individuals who perceive more difference between political parties with respect to their preferences are more likely to vote. That is, exposure to information is not the only link between perceptions of parties and the decision to vote.

While we consider an integrated model of voter turnout in our regression work (as in, e.g., Adams and Merrill 2003, Adams *et al* 2006, Plane and Gershtenson 2004), where individuals choose between abstaining from voting, voting for Democrats, and voting for Republicans, in this paper we focus on the decision to vote. One advantage of focusing on the voter turnout decision is that we can then check our results controlling for validated turnout—a similar check cannot be performed on whether the individual voted Democrat or Republican.

Finally, in this paper we focus on abstention due to indifference between the platforms offered by the two political parties. While we also consider abstention due to alienation following much of the standard literature in political science on voter turnout, it does not seem to play an important role in our framework.

# 3 Conceptual framework

## 3.1 Unidimensional policy space

The fundamental equation in the *Calculus of Voting* (Downs 1957) has been widely criticized in the literature, yet it captures the basic trade-off that a voter faces when deciding whether to vote: she will vote if the opportunity cost of going to the polls is lower than the benefit of voting, and will abstain otherwise. In a two-party model, the benefit of voting is given by two terms. The first is the difference in the utility that she derives when her most preferred candidate is elected and the utility derived when the other candidate is elected. Second, this term must be multiplied by the pivotal probability, that is, the likelihood that it will be her vote that tilts the balance resulting in the election of her preferred candidate. In this paper, we focus on the former: the difference in the utility derived from the different candidates. This utility difference may originate in a variety of ways; here we want to analyze whether the perception of differences in the policies advocated by candidates play a role in

[4] It should also be noted that there exists a related literature analyzing the unidimensionality or multidimensionality of US Congress roll-call voting. In a series of influential studies, Keith T. Poole and Howard Rosenthal (e.g., Poole and Rosenthal 1997) argue that roll-call votes show a structure that is largely unidimensional, with a second dimension having a smaller, although sometimes important, influence. In contrast, other work, such as Heckman and Snyder (1997), estimates roll-call voting using linear probability models and argues that congressional voting is based in part on issue-specific characteristics and not just ideology. In particular, they estimate that at least five and perhaps as many as eight attributes are required to rationalize congressional voting patterns. While our paper does not analyze roll-call voting, but rather the decision to turn out at the polls, our findings are more in line with the latter.

the likelihood of turning out to the polls.

In a model where voter $i$'s preferred policy in a unidimensional policy space is denoted by $g^i \in \mathbb{R}$, we assume that voter $i$ gets a disutility equal to the distance between the implemented policy, $g$, and her preferred policy, $g^i$: $U_i(g) = -d(g, g^i) = -|g - g^i|$. We denote by $A_i$ the utility difference for voter $i$ when parties (denotes by $R$ and $L$ respectively) offer policies $g^R$ and $g^L$, $A_i = \left|U_i(g^R) - U_i(g^L)\right|$. We expect $i$'s likelihood to vote to be increasing in $A_i$: that is, we expect that, the larger the perceived distance between the two parties' policies (with respect to the voter's preferred policy), the higher the probability that the agent votes. Note that whenever $g^R = g^L$, the term $A_i$ is 0 for all voters, thus people who turn out to the polls must be doing so for reasons other than the benefits of voting. Similarly, since the policies of the two candidates will lie on either side of the median voter, centrist voters will consider them to be very similar and so optimally decide to abstain. More precisely, the voter whose preferred policy lies midway between the offered policies perceives the two platforms as equally far from her preferred policy, and hence gets no benefit from going to the polls. This is consistent with US electoral data showing that individuals who abstain tend to have more centrist preferences than other individuals; we come back to this point in Section 5.4.[5]

## 3.2 Multidimensional policy space

In the previous subsection we have argued that the larger the perceived distance between the two parties' policies (with respect to the voter's preferred policy), the higher the probability of voting. However, politicians do not offer policies on a single dimension. Party platforms have reached a level of complexity that few voters can grasp. Pennings (2002) compares the *manifestos* of most political parties in the European Union and shows that the policy space is composed by more than two dimensions. Hence, the unidimensional case, even though useful in some instances, may not be an appropriate representation of the complex political arena. A multidimensional model is also consistent with the belief that parties can no longer be classified only through a unidimensional left-right scale.

As important as the dimensionality of the policy space, is the fact that most voters are only interested in a few issues. Consequently, the perceived distance between platforms as computed by a voter who only cares about a few issues may not compensate for her opportunity cost of voting. It follows that a number of citizens may perceive "politicians as being all alike" because candidates do not diverge enough on the policies that those citizens care about. As a result, those citizens will ultimately abstain.

In a multidimensional world, voters calculate the benefit of voting by evaluating the utility difference between candidates in their policy dimensions of interest. For simplicity, we assume that their preferences are additive across policy dimensions. In other words, their disutility from an implemented policy $g$ is computed according to the norm sub one or taxicab norm distance:[6]

$$U_i^h(g) = -d(g, g^i) = -\left(|g_{i_1} - g^i_{i_1}| + ... + |g_{i_n} - g^i_{i_n}|\right)$$

[5] See also Wittman (1977), who argued that the electorate is more ideological than the country as a whole.
[6] Eguia (2009) provides and axiomatic foundation for using the taxicab norm in multidimensional settings.

where policies $i_1$ to $i_n$ are the policies 1 through $n$ that voter $i$ cares about. Note that these policies might differ across voters. More importantly, voters might differ in how much they value each policy dimension, i.e., in some policy dimensions they may derive relatively higher costs when the policy implemented is further away from their preferred policy. Ideally, we would like to have exact information on the relative importance each respondent associates with each policy dimension. Unfortunately, we are restricted by data availability, but we are able to exploit US data from the National Election Studies, which contains information on what respondents consider the (country's) "most important problem".

Our conceptual framework allows for a heuristic rationalization of some stylized facts in voter turnout. It has been found that a greater involvement in social institutions or a higher level of education or income increases the likelihood of an individual citizen turning out to vote.[7] We can integrate these findings and our conceptual framework by assuming that voters who are more involved with social institutions, more educated, or wealthier, tend to be more sensitive to the policies offered by politicians. Following our reasoning, such voters are more likely to vote because they perceive a greater distance between platforms.

# 4 Data and descriptive analysis

We analyze the relationship between voter turnout and voters' perception of political parties on policy issues using data from repeated cross-sections from the American biennial National Electoral Studies (henceforth, NES); in particular, we use the NES 1948-2002 Cumulative Data File (Sapiro *et al* 2001).

The database contains detailed information on respondents' participation in politics, their perceptions about political parties, their ideology, their support of the political system, and their demographic characteristics. Our sample spans the 1972-2000 period. We construct our variables of interest from information about the individuals' positions on specific issues, and about how individuals perceive the Democratic and Republican parties in the United States with respect to those issues.[8] The issues on which respondents are interviewed are: defense spending, health care, guaranteed jobs, aid to African-Americans, rights of the accused, women's equal rights, government services/spending, cooperation with the USSR, urban unrest, and school busing. These questions are asked in different periods, which determines a different sample size in each case. Additionally, there is a general question on ideology that is asked along the same lines.[9] In Table 1 we provide descriptive statistics about scores for all these variables. We also have information on the degree of partisanship of respondents from several different questions.[10] Similarly, we include a proxy for the degree to which respondents consider voting

[7] See, for instance, Schlozman (2002).

[8] For instance, the question regarding the issue of defense spending reads as follows: *Some people believe that we should spend much less money for defense. Where would you place yourself on a* [seven point] *scale, or haven't you thought much about this? Where would you place the Democratic (Republican) party on this scale?* In this given example, scores number one and seven correspond to *greatly decrease defense spending* and *greatly increase defense spending*, respectively.

[9] *We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal* [score equal to one] *to extremely conservative* [score equal to seven]. *Where would you place yourself on this scale, or haven't you thought much about this?*

[10] In one of the questions regarding partisanship respondents are asked: *Generally speaking, do you usually see*

a duty.[11] As a further political control, we use an index of political participation.[12]

Other variables that we consider in the analysis are newspaper information,[13] the income and education levels of the respondent, and demographic variables such as racial/ethnic group, age, gender, religious affiliation, frequency of church attendance, marital status, and number of children in the household. Table 2 shows descriptive statistics for this second set of variables.

Finally, we use a number of state-level variables from Besley and Case (2003) as controls. As institutional controls, we introduce the type of registration in each state (that is, whether an individual can register during the polling day or not, whether there is vehicle license registration, and whether conventional registration is available only).[14] We also consider whether citizens' initiatives are permitted in a state, and we control for the voting age population in the state.

# 5 Empirical analysis

We want to analyze how the perceived distance between parties matters for voting behavior. First, we define a measure of how far parties are from each other with respect to the voter's preferences. Then we analyze whether voters who see the parties as most distant with respect to their preferences are more likely to vote. We examine this using both a unidimensional and a multidimensional measure of perceived distances between party platforms. First, we look at the overall perception that voters have about parties on the liberal/conservative scale. Second, we look at multiple issues: in particular, we capture in several ways the number of issues important to voters.

We then analyze the factors that explain the perceived distance between parties' platforms and perform robustness checks.

## 5.1 Measuring the perceived distance between parties

We have information on how agents perceive their own preferences and the preferences of the Democratic and Republican parties respectively on a number of issues.

*yourself as a Republican, a Democrat, an Independent, or what?* again, a scale is given that ranges between one (*strong Democrat*) and seven (*strong Republican*), with Independents in the middle.

[11] Respondents are asked whether they agree or disagree with the following statement: *If a person doesn't care how an election comes out then that person shouldn't vote in it.* We interpret those who disagree as having a higher sense of duty, as opposed to those who agree with the statement.

[12] Respondents are asked the following questions. 1. *During the campaign, did you talk to any people and try to show them why they should vote for or against one of the parties or candidates?* 2. *Did you go to any political meetings, rallies, fund raising dinners, or things like that in support of a particular candidate?* 3. *Did you do any (other) work for one of the parties or candidates?* 4. *Did you wear a campaign button, put a campaign sticker on your car, or place a sign in your window or in front of your house?* 5. *Did you give money to a political party during this election year? Did you give money to an individual candidate running for public office?* 6. *Have you ever written a letter to any public officials giving them your opinion about something that should be done?* Each answer gets one or zero points depending on whether the respondent answers yes or no respectively. We then use the sum of the points in all six questions as an index of the political participation of that individual.

[13] *Did you read about the campaign in any newspaper?* For 1988, and from 1992 onwards, this question was formulated as *[If the respondent has read a daily newspaper in the past week:] Did you read about the campaign in any newspaper?* For other years, the question was not restricted to a specific period of time.

[14] There is also information on no registration required. This system is only in place in North Dakota.

Recall that in the unidimensional setting, individual $i$ votes whenever $\left|U_i(g^L) - U_i(g^R)\right| \geq c$, that is, whenever the utility distance between the two platforms is large enough. Accordingly, we define

$$A_i = \left|\left|s_i^D - s_i\right| - \left|s_i^R - s_i\right|\right|$$

where $s_i$ is the score given by individual $i$ about her preference on that issue, and $s_i^\kappa$ is the score given by $i$ about party $\kappa$'s policy position. Thus, $A_i$ is a measure of $i$'s perceived distance between party platforms with respect to her preferences.

When we assume a unidimensional policy space we compute $A_i$ using each respondent's answers on the liberal/conservative questions. When we assume a multidimensional policy space we use the respondent's perceived distance between party platforms with respect to her preferences in a variety of dimensions: government health insurance, guaranteed jobs, aid to African-Americans, rights of the accused, urban unrest, women's rights, government services/spending, cooperation with the USSR, and defense spending (see more information about these categories and scores in Section 4). We denote voter $i$'s different perceived distances on issue $j$ by $A_i^j$ $(j = 1, ..., 9)$.

## 5.2 Does the perceived distance between parties matter?

First we would like to explore how individuals' perceptions about political party platforms relate to voter turnout. In our main specification we estimate the following Probit regression:

$$v_{ist} = \alpha_s + \gamma_t + \tau_s + \beta A_{ist} + \phi X_{ist} + \varphi W_{st} + \varepsilon_{ist}$$

where $v_{ist}$ is the voter turnout variable for individual $i$ in state $s$ and year $t$ (which is equal to one if the individual declares that she has voted, and equal to zero if she declares that she has not), $\alpha_s$ is a state fixed-effect, $\gamma_t$ is a year fixed-effect, $\tau_s$ is a state-specific time trend, $A_{ist}$ is the perceived distance between party platforms, $X_{ist}$ is the vector of individual demographic and socioeconomic controls, and $W_{st}$ is a vector of state controls.

In all regressions we cluster our standard errors by state in order to account for the fact that the observations may not necessarily be independent within a given state (Bertrand et al 2004, Wooldridge 2003). In every case, the effect reported in this paper is the marginal effect, that is, the change in the probability for an infinitesimal change at the mean value in each independent, continuous variable and, the discrete change in the probability for dummy variables.

In what follows, first we show results with a measure of $A_i$ that captures a single policy dimension (liberal/conservative); we then show results with measures of $A_i^j$, which consider a multidimensional policy space.

### 5.2.1 Unidimensional policy space: liberal/conservative scale

In Table 3 we present results from running a Probit regression using the liberal/conservative scale as measure of voters' perceived difference between parties. Our goal is to show that the perceived distance between party ideological platforms with respect to $i$'s preferences (captured by $A_i$) is significantly associated with the probability of turning out to vote.

Table 3 shows the estimated coefficients from regressing voter turnout on $A_i$, with state and year fixed-effects, state-specific time trends, and our main political, socioeconomic and demographic individual controls, as described in Section 4. The estimated coefficient for our variable of interest, $A_i$, is positive, suggesting that a larger perceived distance between the Republican and Democratic parties' platforms is associated with a higher probability to vote. This result is in line with previous empirical evidence which finds that the higher the perceived distance between parties on the liberal/conservative scale, the higher the benefits from voting, and hence the higher voter turnout is. Our results show that the perceived ideological distance between the two parties' platforms is significant at the 1 percent level

To have an idea of the magnitude of the effect of $A_i$ on turnout, let us compare this effect with the effect captured by reading about the campaign in a newspaper. The estimate in Table 3 tells us that the probability of voting for someone who has read news reporting about the campaign is 11 percentage points larger. This result is consistent with previous evidence that information exposure is an important determinant of voter turnout (e.g. Palfrey and Poole 1987).[15] In fact, this is one of the very few important determinants identified in the turnout literature thus far. What is the exact magnitude of the $A_i$ effect? The numbers in our analysis suggest that a person who perceives very differentiated ideological platforms (taking the maximum perceived difference, which equals six) will, *ceteris paribus*, have a probability of voting that is 10 percentage points larger than a person who sees no difference between the two platforms. In short, the effect of maximum perceived distance between party platforms is of about the same order of magnitude as the effect of having read about the campaign in a newspaper. Therefore, the perceived distance between party platforms is not only statistically important, but also economically important. Other interesting, though not novel, results, include: individuals are more likely to vote in presidential elections; the probability of voting increases significantly with the degree of partisanship; older, wealthier, and more educated individuals are more likely to vote, and divorced individuals are less likely to vote.

In Table 4 we include further controls. First, we include our proxy for the degree to which respondents consider voting a duty. This variable has a positive and statistically significant effect on turnout; however, our variable of interest is still significant at the 1 percent level and its estimated effect is of about the same size as in Table 3. Second, we introduce a series of state controls from Besley and Case (2003). Registration systems that are easier to use are associated with higher turnout. In this specification, the omitted category is conventional registration, and we include dummy variables for (1) vehicle license registration, for states where so-called "motor-voter" laws tie vehicle license

[15] In our case, this could be due to either agents being more informed about parties' platforms through the newspaper (and this is an effect our variable of interest, $A_i$, might also be picking up), or due to the fact that reading about the campaign reminds voters of the upcoming election. Similarly, one might also think that people who read about the campaign are motivated voters and hence this variable captures, not only how informed the respondent is regarding the upcoming election, but also his own personal involvement in politics.

registration to voter registration; and (2) polling day registration. The effect for a system where registration is not required is captured by the state fixed-effects, because there is only one state that has it in place, North Dakota, and this system has been in place every year during our period of study. We include two additional variables: a dummy variable for whether citizens' initiatives are permitted by the state, and the voting age population.

Contrary to intuition and previous evidence, polling day registration and citizens' initiatives both seem to have negative signs in this regression —we will come back to their effect once we evaluate validated turnout.

### 5.2.2 Multidimensional policy space: perceived distance between parties in multiple issues

Next we analyze individuals' turnout decisions using their perceived distance between party platforms across the nine other policy dimensions, $A_i^j$. The correlations between $A_i$ on the liberal/conservative scale and the $A_i^j$s in the other nine dimensions we have mentioned are in the range 24-36%.

Here we focus on the three dimensions for which we have greater data availability: *guaranteed jobs*, *aid to African-Americans*, and *government services and spending*.

In Table 5 we report our results for the multidimensional case. All our regressions in columns (1)-(3) control for the liberal/conservative scale $A$ as a general measure of how voters view parties. We also control for the previously mentioned socioeconomic and demographic characteristics. Just as in Tables 3 and 4, we find that the liberal/conservative scale $A_i$ is positively and significantly related to turnout in all regressions.

In the first column, we capture the multidimensional preferences by averaging the perceived distance between party platforms across the nine policy dimensions. We treat missing observations as if the individual perceived no difference in those dimensions.[16] Consistent with our conceptual framework, there is a positive relationship between this measure and turnout: controlling for how they view the parties in general ($A_i$), individuals who on average feel there is more difference between the two parties in various other issues are more likely to vote. The effect is statistically significant at the 1 percent level, and is estimated to be larger than that of the liberal/conservative $A$.

In columns (2) and (3) we use a different proxy to capture the interest of each individual in the different issues. Here we count the number of policy dimensions in which the individual perceives a substantial difference between the Democratic and Republican parties. In column (2) we use as regressor the number of issues $j$ for which $A_i^j > 1$, and in column (3) we use the number of issues $j$ for which $A_i^j > 2$. To have an idea of what these measures represent, about 24% of respondents report seeing a difference of more than one between the parties on the guaranteed jobs issue. The figures are 21% each for respondents who see a difference greater than one in aid to African-Americans and government services and spending. Similarly, there are about 15% of respondents who report seeing

[16] The minimum value for this variable is zero, and the maximum is six. The mean is 0.96, with standard deviation equal to 0.95.

the difference in guaranteed jobs between parties as greater than two. The figures are 13% and 12% respectively for respondents who see a difference greater than two in aid to African-Americans and government services and spending.

According to the results in columns (2) and (3), individuals who report more issues for which they perceive a substantial difference between parties are more likely to vote. This is in line with the conceptual framework described above where, in a multidimensional setting, only individuals who care about a large number of issues turn out to vote.

We have also investigated the relationship between alienation and voter turnout. A large empirical literature documents a negative relationship between measures of alienation and turnout (e.g., Thurner and Eymann 2000). We have calculated our measure of alienation as:

$$Alienation_i = \min\{\left|s_i^D - s_i\right|, \left|s_i^R - s_i\right|\}$$

and we have then run the regressions with this measure. In general, we find a negative association between alienation and turnout, but the relationship fails to be statistically significant at standard confidence levels.[17]

### 5.2.3 Robustness checks

**Validated turnout** It has been argued that studies using reported turnout, such as the NES, may suffer from an overreporting problem (Burden 2000). In our case, we calculate real turnout to be 4 to 17 percentage points lower than reported, depending on the vote validation method used (Table 2). There is a possibility that these could be affecting our results: other studies suggest that voters who falsely report their turnout decision tend to be different from the population at large, in particular, more educated, and older (Silver *et al* 1986).

In order to eliminate the possibility that false reports are driving our results, in Table 6 we estimate the regression in Table 4 but now only using *validated* turnout. Table A1 gives information on the real voting patterns of individuals interviewed by the NES. There are three main possibilities: (1) that a person's record was found and that it was confirmed that she had indeed voted (60% of observations), (2) that the person's registration record was found, without a record of that person having voted (19% of observations), and (3) that a registration record was not found, and neither was a record of her vote.[18]

In our first method of vote validation, we consider votes under (1) to be valid, and votes under (2) to

[17] Due to the nature of the retrospective information used in electoral surveys such as the NES, whereby respondents report on past voting decisions as well as on their perceptions on political candidates, there exists the possibility that the positive relationship we find here is partly reflecting double causality. For example, a person who has voted in the elections may justify such decision to herself by thinking that the parties are relatively different. This is a problem common to studies that analyze respondents' retrospective information. In order to deal with that issue one would need to collect information on ideological perceptions previous to the voting decision.

[18] There were also a number of observations in which individuals reported not voting while the validation apparently confirmed their voting. We have interpreted these as missing values. However, our results do not change if we consider those observations as "validated votes".

be false i.e. we classify the latter as abstentions. Votes under (3) remain as missing observations. That is, this method considers only votes for which we have complete information. In our second method of validation, we assume that votes under (3) are also false votes. The rationale for these two methods is that the reality probably falls somewhere in between these two hypotheses. Finding that our results do not change under either extreme possibility would therefore give more credibility to our results. Table 6 shows that our results are robust to the inclusion of only validated votes under either validated method. In fact, our key estimated coefficient is very similar to our benchmark coefficient (in Table 3). In sum, overreporting does not seem to be driving our results. We have checked all our regressions with only the validated samples and this does not change our results. We have included some of these checks in the Tables in the Appendix (see Table A2). The sign for polling day registration, which was negative in Table 3, actually turns positive once we only consider validated turnout.[19] That is, once we consider validated turnout, we do find that in states where polling day registration is possible, individuals are more likely to vote.[20] Finally, citizens' initiatives are not significantly associated with validated voter turnout.

**Integrated voting model** Many previous studies have used an integrated voting model, whereby the decision to vote is made alongside the decision of which way to vote (see e.g., Adams and Merrill 2003 and the references therein). We consider this specification with a multinomial Logit model, where the dependent variable takes either of three values: one, in the case where the individual reports not having voted; two, in the case where the individual reports having voted for the Democrats; three, in the case the person reports having voted for the Republicans.

Table 7 shows that individuals whose perceived difference between the parties is greater are significantly more likely to vote Democratic (column (1)) and significantly more likely to vote Republican (column (2)), than they are to abstain from voting. The effect is significant at the five and one percent levels respectively. Perceiving the parties as more different is associated with a greater probability of voting Republican; we can reject the hypothesis that the effect is the same at the one percent level of significance.

The bottom line from the results in this table is that individuals with a greater perceived difference between the two parties are more likely to either vote Democratic or vote Republican, but in any case they are more likely to vote than to abstain.

**Alternative econometric models** We perform a further robustness check by making sure that our results are not driven by our choice of the Probit model. Columns (1) and (2) in Table A3 respectively provide estimates under the Logit and linear probability models. Both models throw positive significant relationships between our variable of interest and turnout.

[19] Coefficients and t-statistics for state policy controls are not reported in the tables, but the coefficient for vehicle license registration is -0.09, with a t-statistic of 1.33 in absolute terms; the estimated coefficient for polling day registration is 0.99 with t-statistic equal to 4.92.

[20] The omitted category is conventional registration. The effect of *no registration* needed is captured by the state fixed-effects, because it has been in place every year during our period of study in one state only (North Dakota).

## 5.3 What explains the perceived distance between parties?

We have seen that individuals who perceive a substantial difference between parties on a greater number of issues are more likely to vote. Next we would like to see what variables are associated with a greater perceived distance between parties. In Table 8 we present results from running regressions with our broad measure of perceived difference between parties (i.e., $A$ calculated using the liberal/conservative scale) (column (1)), the number of issues $j$ for which $A^j > 1$ (column (2)), and the number of issues $j$ for which $A^j > 2$ (column (3)).

There are certain individual characteristics that seem to be associated with both (1) a higher perceived difference between parties in the liberal/conservative scale (column (1)), and (2) a larger number of issues in which parties are perceived to be different (columns (2) and (3)). Namely, individuals who are more informed about the campaign, more partisan, older, more educated, or wealthier, seem both to perceive parties to be more different in broad terms, and to consider the parties to be different on more issues. Similarly, females seem to both perceive less broad differences between parties, and perceive fewer issues on which parties differ, controlling for socioeconomic characteristics. There is just one group for whom perceiving a larger difference between parties does not coincide with perceiving a large difference in more issues: Hispanics tend to perceive parties as less different in the liberal/conservative scale than whites do, but there are more issues on which they consider the parties to be significantly different from one another.

Regarding the state-level policy variables from Besley and Case (2003), in states where same-day voting registration is possible, voters seem both to perceive parties as more different, and to see more issues where parties are different, compared to states in which only conventional registration is possible. Finally, individuals in states where citizens' initiatives are permitted do not tend to perceive parties to be more differentiated along the liberal/conservative scale, but there are significantly more issues in which they perceive the parties to be different. In sum, in states with institutional settings that make registration easier, and where it is possible to hold citizens' initiatives, voters perceive greater differences between parties on more issues.

## 5.4 Voting patterns of moderates

Here we explore whether individuals who are in the centre of the political spectrum tend to vote less than individuals who are at either extreme. In the spatial framework that we have in mind, it makes sense to think that voters whose ideology is half-way between the two parties' are less likely to vote. In order to test this, we classify voters as being "moderate" when on a liberal/conservative seven point scale they declared that they were *moderate or middle of the road* (i.e., the fourth answer). The first column in Table 9 shows that moderates are less likely to vote than non-moderates. The second column shows that this result is robust to relaxing our classification and instead considering a respondent to be "moderate" if she answered 3, 4 or 5 on the seven point scale.[21]

[21] Table A4 in the appendix provides the corresponding validated turnout regressions.

# 6 Conclusion

Using data from the US National Electoral Studies for 1972-2000 we explore abstention due to indifference toward the parties in both a unidimensional and a multidimensional policy setting.

First, and in line with previous empirical work, we find that perceiving a low difference between the platforms of the Democratic and Republican parties is associated with a decrease in the probability of voting. In particular, we find that an increase from zero perceived difference to the maximum perceived difference between the two parties' ideology is associated with an increase in the probability of voting of about 10 percentage points; an effect similar in size to the effect of having read about the campaign in a newspaper.

Second, and consistent with a multidimensional policy setting, where multiple policy issues are considered, we show that individuals who perceive the two parties as relatively different in a greater number of issues are significantly more likely to vote. While there is a wide literature dealing with ideology scales and voter turnout (e.g., Adams and Merrill 2003), the role of a multidimensional policy space has not been fully studied. We explore what explains the differences in perceptions of parties' platforms, and what explains the number of issues on which individuals perceive parties as distant. A number of individual characteristics, and particularly a number of institutional variables, seem to be associated with individuals' perceptions. Among individual characteristics, individuals who are more informed about the campaign, more partisan, older, more educated, or wealthier, seem both to perceive parties as more different in broad terms, and to see differences between the parties on more issues. However, women seem both to perceive less difference between the parties in general and to perceive fewer issues on which parties differ, controlling for socioeconomic characteristics. Finally, among institutional characteristics, we find that in states with institutional settings that make registration easier, and where it is possible to hold citizens' initiatives, voters perceive greater differences between parties on more issues.

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**Table 1. Individuals' preferences and their perception of political parties' platforms**

| | *Mean Scores* | | |
|---|---|---|---|
| | *Individual* (1) | *Democratic* (2) | *Republican* (3) |
| Government health insurance | 3.84 | 3.04 | 4.83 |
| | (2.14) | (1.55) | (1.56) |
| Jobs guaranteed | 4.35 | 3.21 | 4.83 |
| | (1.87) | (1.48) | (1.48) |
| Aid to African-Americans | 4.45 | 3.18 | 4.49 |
| | (1.81) | (1.46) | (1.48) |
| Rights of the accused | 4.28 | 3.37 | 4.09 |
| | (2.10) | (1.53) | (1.58) |
| Urban unrest | 3.38 | 3.13 | 4.17 |
| | (1.98) | (1.49) | (1.52) |
| Women's equal rights | 2.76 | 2.99 | 3.74 |
| | (1.96) | (1.41) | (1.57) |
| Government services/spending | 3.88 | 3.01 | 4.69 |
| | (1.62) | (1.37) | (1.46) |
| Cooperation with the USSR | 4.06 | 3.35 | 4.38 |
| | (1.83) | (1.36) | (1.51) |
| Defense spending | 3.95 | 3.63 | 5.09 |
| | (1.59) | (1.41) | (1.33) |
| Liberal/Conservative | 4.26 | 3.23 | 4.97 |
| | (1.37) | (1.43) | (1.40) |

Note: standard deviations in parentheses. Scores are given by respondents on a seven-point scale, where the most liberal option gets a score equal to one and the most conservative option gets a score equal to seven. The first column reports the mean of the declared scored by the individual about herself. The second (third) column reports the mean of the scored that the respondent has assigned to the Democratic (Republican) party. See Section 4 for more details.

**Table 2. Voter turnout and demographic and socioeconomic characteristics – descriptive statistics**

| *Variable* | *Mean* | *Standard deviation* |
|---|---|---|
| Turnout (%) | 74.1 | 43.8 |
| Turnout (validated)[1] (%) | 70.4 | 45.7 |
| Turnout (validated)[2] (%) | 57 | 49.5 |
| Newspaper information (=1 if read, =0 otherwise) | 0.66 | 0.47 |
| Partisanship (=1 if partisan, =0 otherwise) | 0.65 | 0.48 |
| Duty (=1 if people should vote, =0 otherwise) | 0.50 | 0.50 |
| Political participation (from 1 to 6) | 1.56 | 0.95 |
| Age | 45.6 | 17.7 |
| Female (%) | 56.0 | 49.6 |
| White (%) | 80.5 | 39.6 |
| African-American (%) | 11.5 | 32.0 |
| Asian (%) | 1.05 | 10.2 |
| Native American (%) | 2.41 | 15.3 |
| Hispanic (%) | 4.34 | 20.4 |
| Protestant (%) | 62.6 | 48.4 |
| Catholic (%) | 24.2 | 42.8 |
| Jewish (%) | 2.19 | 14.6 |
| Other religion or none (%) | 11.0 | 31.3 |
| Attends church every week (%) | 26.9 | 44.3 |
| Attends church almost every week (%) | 11.1 | 31.5 |
| Attends church once or twice a month (%) | 13.5 | 34.2 |
| Attends church a few times a year (%) | 23.8 | 42.6 |
| Never attends church (%) | 20.3 | 40.2 |
| No religious preference (%) | 4.36 | 20.4 |

| | | |
|---|---|---|
| Married and living with spouse (%) | 58.8 | 49.2 |
| Never married (%) | 15.4 | 36.1 |
| Divorced (%) | 9.7 | 29.6 |
| Separated (%) | 3.33 | 17.9 |
| Widowed (%) | 11.1 | 31.4 |
| Partners; not married (%) | 1.7 | 12.8 |
| Number of children (%) | 0.78 | 1.15 |
| Grade school or less (%) | 11 | 31.4 |
| High school (%) | 46 | 50.0 |
| Some college (%) | 22 | 41.7 |
| College or advanced degree (%) | 20 | 40.1 |
| Income category 0 to 16 percentile (%) | 17 | 37.1 |
| Income category 17 to 33 percentile (%) | 17 | 37.2 |
| Income category 34 to 67 percentile (%) | 34 | 47.2 |
| Income category 68 to 95 percentile (%) | 28 | 44.9 |
| Income category 96 to 100 percentile (%) | 52 | 22.1 |

1/The first validation method only includes information for which the registration record was found.
2/The second validation method considers observations for which a registration was not found as if that person had not voted.

**Table 3. Voter turnout and the perceived distance between parties' platforms (with respect to the individual's preferences) – Liberal/Conservative**

| | | Probit |
|---|---|---|
| *A Liberal/Conservative* | | *0.016* |
| | | *(3.44)* |
| Newspaper information (=1 if yes, =0 if not) | | 0.11 |
| | | (5.65) |
| Presidential election | | 0.40 |
| | | (7.28) |
| Female | | 0.02 |
| | | (1.20) |
| Partisan: | Leaning independent | 0.10 |
| | | (4.20) |
| | Weak partisan | 0.09 |
| | | (4.09) |
| | Strong partisan | 0.15 |
| | | (6.25) |
| Age: | 30 – 39 | 0.07 |
| | | (4.69) |
| | 40 – 60 | 0.11 |
| | | (5.47) |
| | Older than 60 | 0.16 |
| | | (7.83) |
| Education: | High school | 0.06 |
| | | (2.57) |
| | Some college | 0.11 |
| | | (4.19) |
| | College or advanced | 0.15 |
| | | (5.74) |
| Income level: | 17 – 33 percentile | 0.03 |
| | | (1.37) |
| | 34 – 67 percentile | 0.08 |
| | | (3.29) |
| | 68 – 95 percentile | 0.08 |
| | | (2.62) |
| | 96 – 100 percentile | 0.09 |
| | | (2.56) |
| Race: | African-American | 0.01 |
| | | (0.18) |
| | Asian | -0.02 |
| | | (0.35) |
| | Native American | -0.11 |
| | | (3.06) |
| | Hispanic | -0.001 |
| | | (0.05) |
| Religion: | Catholic | -0.01 |
| | | (0.28) |
| | Jewish | 0.02 |
| | | (0.53) |
| | Other or none | 0.09 |
| | | (3.35) |
| Church attendance: | Almost every week | -0.03 |
| | | (1.57) |

| | | |
|---|---|---|
| | Once/twice a month | -0.05 |
| | | (2.56) |
| | Few times a year | -0.07 |
| | | (3.26) |
| | Never | -0.12 |
| | | (5.55) |
| | No religious preference | -0.24 |
| | | (4.58) |
| Marital status: | Never married | 0.01 |
| | | (0.33) |
| | Divorced | -0.04 |
| | | (1.95) |
| | Separated | -0.04 |
| | | (1.13) |
| | Widowed | -0.02 |
| | | (0.76) |
| | Partners | 0.01 |
| | | (0.17) |
| | Number of children | 0.01 |
| | | (0.84) |
| | State fixed-effects | YES |
| | Year fixed-effects | YES |
| | State-specific time trends | YES |
| | predicted probability | 0.72 |
| | Number of observations | 7754 |

Note: t-statistics calculated with standard errors clustered at the state level in parentheses. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table 4. Voter turnout and the perceived distance between parties' platforms (with respect to the individual's preferences) – Liberal/Conservative – Other controls**

| Probit | |
|---|---|
| *A Liberal/Conservative* | *0.019* |
| | *(4.40)* |
| Newspaper information (=1 if yes, =0 if not) | 0.16 |
| | (8.37) |
| Duty | 0.09 |
| | (7.02) |
| Vehicle license registration | 0.02 |
| | (0.52) |
| Polling day registration possible | -1.00 |
| | (9.37) |
| Voting age population | 0.00 |
| | (0.51) |
| Citizens' initiatives permitted | -1.00 |
| | (10.5) |
| Socioeconomic and demographic controls | YES |
| State fixed-effects | YES |
| Year fixed-effects | YES |
| State-specific time trends | YES |
| predicted probability | 0.83 |
| Number of observations | 4295 |

Notes: t-statistics calculated with standard errors clustered at the state level in parentheses. The omitted voter registration system is conventional voter registration. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table 5. Voter turnout and the perceived distance between parties' platforms (with respect to the individual's preferences) – Multiple Issues**

| Probit | (1) | (2) | (3) |
|---|---|---|---|
| A Liberal/Conservative | 0.013<br>(2.81) | 0.014<br>(2.83) | 0.014<br>(2.77) |
| Mean other As | 0.018<br>(3.84) | | |
| Number of issues with A larger than one | | 0.017<br>(3.35) | |
| Number of issues with A larger than two | | | 0.017<br>(2.09) |
| Newspaper information (=1 if yes, =0 if not) | 0.10<br>(5.79) | 0.10<br>(5.62) | 0.10<br>(5.64) |
| Socioeconomic and demographic controls | YES | YES | YES |
| State fixed-effects | YES | YES | YES |
| Year fixed-effects | YES | YES | YES |
| State-specific time trends | YES | YES | YES |
| predicted probability | 0.73 | 0.72 | 0.72 |
| Number of observations | 7203 | 7754 | 7754 |

Notes: t-statistics calculated with standard errors clustered at the state level in parentheses. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table 6. Validated voter turnout and the perceived distance between parties' platforms (with respect to the individual's preferences) – Liberal/Conservative dimension**

| Probit | (1)<br>Validation 1 | (2)<br>Validation 2 |
|---|---|---|
| *A Liberal/Conservative* | *0.015*<br>*(3.18)* | *0.020*<br>*(3.40)* |
| Newspaper information (=1 if yes, =0 if not) | 0.10<br>(4.63) | 0.15<br>(6.12) |
| Socioeconomic and demographic controls | YES | YES |
| State controls | YES | YES |
| State fixed-effects | YES | YES |
| Year fixed-effects | YES | YES |
| State-specific time trends | YES | YES |
| predicted probability | 0.89 | 0.82 |
| Number of observations | 3726 | 4132 |

Notes: the first validation method (column (1)) only includes information for which the registration record was found. The second validation method (column (2)) considers observations for which a registration was not found as if that person had not voted. t-statistics calculated with standard errors clustered at the state level in parentheses. See Section 5 for details about the estimation procedure. Data details are in Section 4. An extended version of this table (Table A2) in the appendix provides estimates for all variables in the socioeconomic and demographic controls and state controls groups.

**Table 7. Integrated voter turnout and the perceived distance between parties' platforms (with respect to the individual's preferences) – Liberal/Conservative dimension**

| Multinomial logit | (1) Voted Democratic | (2) Voted Republican |
|---|---|---|
| *A Liberal/Conservative* | *0.10* | *0.19* |
| | *(2.07)* | *(4.22)* |
| Newspaper information (=1 if yes, =0 if not) | 1.07 | 0.83 |
| | (6.04) | (4.56) |
| Socioeconomic and demographic controls | YES | YES |
| State controls | YES | YES |
| State fixed-effects | YES | YES |
| Year fixed-effects | YES | YES |
| State-specific time trends | YES | YES |
| Number of observations | 4967 | 4967 |

Notes: t-statistics calculated with standard errors clustered at the state level in parentheses. The comparison group corresponds to individuals who report abstaining from voting. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table 8. Determinants of the perceived distance between parties' platforms (with respect to the individual's preferences)**

| *Dependent variable*: | | A Liberal/Conser-vative | Number of issues with A larger than one | Number of issues with A larger than two |
|---|---|---|---|---|
| OLS | | (1) | (2) | (3) |
| Newspaper information (=1 if yes, =0 if not) | | 0.07 | 0.13 | 0.08 |
| | | (1.70) | (8.93) | (5.89) |
| Presidential election | | 0.02 | -0.36 | -0.23 |
| | | (0.04) | (7.35) | (6.06) |
| Female | | -0.13 | -0.12 | -0.06 |
| | | (4.57) | (5.98) | (3.73) |
| Partisan: | Leaning independent | 0.58 | 0.31 | 0.15 |
| | | (10.9) | (13.5) | (9.45) |
| | Weak partisan | 0.51 | 0.25 | 0.12 |
| | | (9.88) | (10.4) | (7.07) |
| | Strong partisan | 1.22 | 0.59 | 0.39 |
| | | (20.9) | (21.3) | (16.2) |
| Age: | 30 – 39 | 0.09 | 0.11 | 0.07 |
| | | (1.88) | (4.80) | (4.04) |
| | 40 – 60 | 0.07 | 0.09 | 0.07 |
| | | (1.80) | (3.17) | (4.67) |
| | Older than 60 | -0.05 | -0.00 | 0.03 |
| | | (1.07) | (0.02) | (0.97) |
| Education: | High school | -0.02 | 0.13 | 0.06 |
| | | (0.03) | (5.00) | (2.75) |
| | Some college | 0.23 | 0.33 | 0.19 |
| | | (3.17) | (10.4) | (6.34) |
| | College or advanced | 0.37 | 0.53 | 0.27 |
| | | (5.08) | (14.9) | (10.7) |
| Income level: | 17 – 33 percentile | -0.01 | -0.01 | -0.01 |
| | | (0.08) | (0.47) | (0.71) |
| | 34 – 67 percentile | -0.03 | -0.01 | -0.03 |
| | | (0.52) | (0.25) | (1.54) |
| | 68 – 95 percentile | 0.02 | 0.05 | -0.01 |
| | | (0.27) | (1.73) | (0.63) |
| | 96 – 100 percentile | 0.13 | 0.19 | 0.10 |
| | | (2.10) | (5.27) | (2.80) |
| Race: | African-American | 0.01 | 0.19 | 0.19 |
| | | (0.21) | (5.44) | (5.25) |
| | Asian | -0.46 | -0.23 | -0.16 |
| | | (6.60) | (2.47) | (3.82) |
| | Native American | -0.24 | 0.04 | 0.02 |
| | | (1.94) | (0.49) | (0.55) |
| | Hispanic | -0.22 | 0.06 | 0.05 |
| | | (3.57) | (1.77) | (2.13) |
| Religion: | Catholic | -0.08 | -0.00 | -0.01 |
| | | (3.26) | (0.00) | (0.75) |
| | Jewish | 0.10 | -0.01 | -0.00 |
| | | (1.21) | (0.60) | (0.05) |
| | Other or none | -0.00 | -0.00 | 0.01 |
| | | (0.08) | (0.15) | (0.41) |

| | | | | |
|---|---|---|---|---|
| Church attendance: | Almost every week | -0.12 | -0.00 | 0.03 |
| | | (2.29) | (0.09) | (1.53) |
| | Once/twice a month | -0.16 | -0.04 | 0.01 |
| | | (3.22) | (1.78) | (0.69) |
| | Few times a year | -0.17 | 0.02 | 0.02 |
| | | (3.64) | (0.96) | (1.33) |
| | Never | -0.06 | 0.07 | 0.07 |
| | | (0.94) | (2.70) | (3.31) |
| | No religious preference | -0.00 | 0.08 | 0.03 |
| | | (0.08) | (1.68) | (0.76) |
| Marital status: | Never married | 0.03 | -0.01 | 0.01 |
| | | (0.55) | (0.26) | (0.80) |
| | Divorced | 0.04 | 0.00 | 0.01 |
| | | (0.69) | (0.10) | (0.23) |
| | Separated | 0.12 | 0.05 | 0.03 |
| | | (1.03) | (0.96) | (0.74) |
| | Widowed | -0.04 | -0.05 | -0.05 |
| | | (0.55) | (2.18) | (2.52) |
| | Partners | 0.13 | -0.01 | 0.04 |
| | | (1.28) | (0.12) | (1.14) |
| Number of children | | -0.03 | -0.01 | 0.00 |
| | | (1.60) | (1.30) | (0.04) |
| Vehicle license registration | | -0.07 | -0.03 | -0.02 |
| | | (0.58) | (0.77) | (0.47) |
| Polling day registration possible | | 0.67 | 0.04 | 0.11 |
| | | (4.80) | (0.84) | (1.88) |
| Voting age population | | 0.00 | -0.00 | -0.00 |
| | | (0.91) | (0.86) | (0.34) |
| Citizens' initiatives permitted | | -30.1 | -14.4 | -113 |
| | | (0.86) | (0.81) | (8.60) |
| State fixed-effects | | YES | YES | YES |
| Year fixed-effects | | YES | YES | YES |
| State-specific time trends | | YES | YES | YES |
| Number of observations | | 7908 | 12108 | 12108 |

Note: t-statistics calculated with standard errors clustered at the state level in parentheses. The omitted voter registration system is conventional voter registration. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table 9. Voting patterns of moderates**

| *Dependent variable*: Voter Turnout (=1 if voted, =0 if not voted) | | |
|---|---|---|
| Probit | (1) | (2) |
| Strict moderate voters | -0.03<br>(2.63) | |
| Broadly moderate voters | | -0.02<br>(1.92) |
| Newspaper information | 0.13<br>(7.36) | 0.13<br>(7.38) |
| Socioeconomic and demographic controls | YES | YES |
| State fixed-effects | YES | YES |
| Year fixed-effects | YES | YES |
| State-specific time trends | YES | YES |
| Predicted probability | 0.70 | 0.70 |
| Number of observations | 8552 | 8552 |

Note: t-statistics calculated with standard errors clustered at the state level in parentheses. *Strict moderates* includes only those individuals who, on a seven-point scale, have reported four points ("moderate"). *Broadly moderates* includes those individuals who, on a seven-point scale, have reported either three ("slightly liberal"), four ("moderate"), or five ("slightly conservative") points. Newspaper information and a presidential dummy have also been included. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table A1. Vote validation**

| *Vote Validated* | *Observations* | *Percent* |
|---|---|---|
| Yes | 7219 | 60 |
| Registration record found, no record of voting | 2241 | 18.6 |
| No registration record found, no record of voting | 2564 | 21.3 |

Notes: See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table A2. Validated voter turnout and the perceived distance between parties' platforms (with respect to the individual's preferences) – Liberal/Conservative dimension (extended Table 6)**

| Probit | | (1) Validation 1 | (2) Validation 2 |
|---|---|---|---|
| *A Liberal/Conservative* | | *0.015* | *0.020* |
| | | *(3.18)* | *(3.40)* |
| Newspaper information (=1 if yes, =0 if not) | | 0.10 | 0.15 |
| | | (4.63) | (6.12) |
| Presidential election | | 0.18 | 0.62 |
| | | (5.73) | (16.3) |
| Female | | 0.02 | 0.03 |
| | | (1.71) | (1.81) |
| Partisan: | Leaning independent | 0.06 | 0.08 |
| | | (2.83) | (3.30) |
| | Weak partisan | 0.04 | 0.07 |
| | | (2.08) | (3.02) |
| | Strong partisan | 0.09 | 0.15 |
| | | (4.45) | (5.87) |
| Age: | 30 – 39 | 0.05 | 0.08 |
| | | (3.94) | (4.95) |
| | 40 – 60 | 0.08 | 0.14 |
| | | (5.17) | (7.48) |
| | More than 60 | 0.11 | 0.19 |
| | | (6.88) | (9.62) |
| Education: | High school | 0.03 | 0.04 |
| | | (1.43) | (1.42) |
| | Some college | 0.05 | 0.09 |
| | | (2.18) | (3.06) |
| | College or advanced | 0.10 | 0.15 |
| | | (3.72) | (4.86) |
| Income level: | 17 – 33 percentile | 0.03 | 0.04 |
| | | (2.65) | (1.94) |
| | 34 – 67 percentile | 0.06 | 0.10 |
| | | (3.10) | (3.83) |
| | 68 – 95 percentile | 0.07 | 0.11 |
| | | (4.05) | (4.21) |
| | 95 – 100 percentile | 0.07 | 0.11 |
| | | (3.47) | (4.60) |
| Race: | Black | -0.03 | -0.07 |
| | | (1.52) | (2.76) |
| | Asian | -0.05 | -0.18 |
| | | (0.96) | (2.16) |
| | Native American | -0.09 | -0.13 |
| | | (1.90) | (2.60) |
| | Hispanic | -0.02 | -0.04 |
| | | (0.46) | (0.89) |
| Religion: | Catholic | -0.01 | -0.01 |
| | | (0.93) | (0.69) |
| | Jewish | 0.03 | 0.02 |
| | | (0.82) | (0.52) |
| | Other or none | 0.03 | 0.03 |
| | | (0.66) | (0.55) |

| | | | |
|---|---|---|---|
| Church attendance: | Almost every week | -0.07 | -0.07 |
| | | (2.52) | (2.29) |
| | Once/twice a month | -0.09 | -0.12 |
| | | (3.20) | (3.55) |
| | Few times a year | -0.08 | -0.11 |
| | | (4.06) | (4.50) |
| | Never | -0.14 | -0.17 |
| | | (4.60) | (5.10) |
| | No religious preference | -0.14 | -0.17 |
| | | (2.57) | (2.43) |
| Marital status: | Never married | 0.02 | -0.03 |
| | | (1.03) | (1.24) |
| | Divorced | -0.07 | -0.08 |
| | | (3.68) | (3.68) |
| | Separated | -0.03 | -0.07 |
| | | (1.00) | (1.70) |
| | Widowed | -0.03 | -0.07 |
| | | (1.30) | (2.02) |
| | Partners | -0.07 | -0.08 |
| | | (1.63) | (1.38) |
| Number of children | | 0.00 | 0.01 |
| | | (0.14) | (0.92) |
| State controls: | Vehicle license registration | -0.09 | -0.03 |
| | | (1.33) | (0.60) |
| | Polling day registration possible | 0.99 | 1.00 |
| | | (4.92) | (7.75) |
| | Voting age population | 0.00 | 0.00 |
| | | (1.73) | (2.25) |
| | Citizens' initiatives permitted | 1.00 | 1.00 |
| | | (0.27) | (1.80) |
| State fixed-effects | | YES | YES |
| Year fixed-effects | | YES | YES |
| State-specific time trends | | YES | YES |
| Number of observations | | 3726 | 4132 |

Notes: the first validation method (column (1)) only includes information for which the registration record was found. The second validation method (column (2)) considers observations for which a registration was not found as if that person had not voted. t-statistics calculated with standard errors clustered at the state level in parentheses. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table A3. Logit and linear probability models**

| *Dependent variable*: Voter Turnout (=1 if voted, =0 if not voted) | | |
|---|---|---|
| | (1)<br>Logit | (2)<br>OLS |
| *A Liberal/Conservative* | *0.08*<br>*(3.25)* | *0.01*<br>*(3.24)* |
| Newspaper information | 0.50<br>(5.39) | 0.10<br>(5.64) |
| Socioeconomic and demographic controls | YES | YES |
| State fixed-effects | YES | YES |
| Year fixed-effects | YES | YES |
| State-specific time trends | YES | YES |
| Number of observations | 7754 | 7754 |

Notes: t-statistics calculated with standard errors clustered at the state level. A presidential election dummy has also been included. See Section 5 for details about the estimation procedure. Data details are in Section 4.

**Table A4. Voting patterns of moderates – Validated Turnout**

*Dependent variable*: Voter Turnout (=1 if voted, =0 if not voted)

| Probit | (1) Validation 1 | (2) Validation 2 | (3) Validation 1 | (4) Validation 2 |
|---|---|---|---|---|
| Strict moderate voters | -0.02<br>(1.45) | -0.03<br>(1.74) | | |
| Broadly moderate voters | | | -0.02<br>(1.81) | -0.02<br>(1.45) |
| Newspaper information | 0.12<br>(5.68) | 0.18<br>(6.89) | 0.12<br>(5.59) | 0.18<br>(6.87) |
| Socioeconomic and demographic controls | YES | YES | YES | YES |
| State fixed-effects | YES | YES | YES | YES |
| Year fixed-effects | YES | YES | YES | YES |
| State-specific time trends | YES | YES | YES | YES |
| Predicted probability | 0.87 | 0.80 | 0.87 | 0.80 |
| Number of observations | 4060 | 4547 | 4060 | 4547 |

Note: t-statistics calculated with standard errors clustered at the state level in parentheses. *Strict moderates* includes only those individuals who, on a seven-point scale, have reported four points ("moderate"). *Broadly moderates* includes those individuals who, on a seven-point scale, have reported either three ("slightly liberal"), four ("moderate"), or five ("slightly conservative") points. Newspaper information and a presidential dummy have also been included. See Section 5 for details about the estimation procedure. Data details are in Section 4.