

# Turning Out Unlikely Voters? A Field Experiment In The Top-Two Primary\*

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**Abstract:** Those who turn out in American primary elections are a small and unrepresentative subset of the population. Why do citizens forgo participation in nominating contests yet vote in general elections? We argue that limited contact lowers participation in primary elections. We present results from a randomized field experiment with 150,000 letters in California's 2014 primary. Each letter went to one of the four million Californians who had participated in recent general elections but not in primaries. We find that a single letter increased the rate of turnout from 9.3 to 9.8 percent. This increase is more than twice the average effect calculated in a recent meta-analysis, represents a proportional increase of 5.4 percent, and persists into the general election for voters aged 59 and older. Our experiment shows that registrants who typically abstain from primaries - and who are thus often ignored by campaigns - can be effectively mobilized.

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Elections give Americans their “primary control on the government,” as James Madison explained in *Federalist 51*. While many theories of individual political behavior predict little or no participation (e.g., a rational choice approach such as Downs, 1957), many Americans do turn out to vote. Yet one puzzle is that many make the effort to vote at general elections but do not do so in primary elections. This is surprising, because primaries limit the choices on offer at the general election, and limited choices at the general election may limit the eventual representation of these voters. Given that many citizens undertake the cost to participate in general elections, why do they abstain from doing so in primary elections?

Low participation in primary elections may have serious consequences for the policies implemented by American government. Uneven participation in general elections is ruded as a source of unequal representation (e.g., Brady, Verba, and Schlozman, 1995; Rosenstone and Hansen, 2003), yet the problem may be even more acute in primary elections with notably lower levels of turnout (e.g., McGhee, 2014). In California, for example, turnout among registered voters in federal general elections from 2000 to 2010 averaged 65.5% while turnout in federal primary elections averaged 40.8%. Some suggest that primary elections are implicated in the increasing divergence in voting patterns between Democrats and Republicans in Congress (e.g., Fiorina and Abrams, 2009; Hill, 2014; Jacobson, 2012).

Political reformers have tried to increase participation and representativeness in primary elections by way of institutional changes to the rules governing nomination contests. Much of their energy has focused on the creation of “top-two” primaries in which any voter, regardless of party affiliation, can choose from among the full list of candidates, with the two leading vote-getters advancing to November (again, without regard to the candidate’s party affiliation). Reformers hoped to increase participation by opening primaries to a wider range of voters, even independents, and by giving voters of all partisan stripes a broader range of choices. Under these rules, primary turnout becomes even more critical. Because only two candidates, potentially from a single party, move forward to the general election, the choices for the November electorate are limited by the choices of the primary electorate. Voters in the state of Washington and in California backed propositions

to institute the new rules in 2008 and in 2010 respectively, with voters rejecting the reform in Arizona in 2012 and in Oregon in 2014.

In our view, institutional hurdles are one of two potential explanations for lower turnout in primary elections than general elections. Institutions such as closed primaries are somewhat odd as an explanation for low participation because registered voters under most institutions can select their party of registration without much cost and participate in whichever primary they choose. While top-two primaries change the way the nomination contests translate into candidates on the ballot at the general election, other nominating arrangements currently in practice do not preclude voters from selecting the same candidate elected to office were they to participate effectively at the nomination stage.<sup>1</sup>

We argue that a more likely explanation for the limited participation in primaries is lack of mobilization activity in nominating elections. A decade of findings from randomized mobilization experiments demonstrates that canvassing and letters increase the turnout of the voters whom campaigns choose to target (e.g., Gerber and Green, 2000; Green and Gerber, 2008; Gerber, Green, and Larimer, 2008; Gerber, Green, and Nickerson, 2003). Of course, the extent of mobilization depends upon the extent of targeting from campaigns. At the general election, parties and affiliated interest groups are active in addition to the candidates' campaigns themselves. At the nomination stage, in contrast, parties tend to stay on the sidelines and mobilization activity, to the extent it occurs, comes only from the candidates themselves. With finite resources, candidates often target only those voters they expect to participate in the primary, which usually means those who have voted in past primaries.

Ignoring registrants without previous record of primary turnout is a common strategy according to candidates running for statewide office in California in 2014. In a telephone interview with the authors in June 2014, one candidate for Secretary of State explained that his mailers “were not going to people who don’t vote in primaries.” One of his opponents told us that he “sent out two

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<sup>1</sup> And, in fact, in most cases the top-two primary has generated a contest between the Democrat and Republican at the general election that many observers would have predicted to occur under the old rules. This observation may also explain why many efforts to uncover an influence of primary rules on polarization have failed to do so (an argument made by Hill, 2014).

direct mail pieces to Republican voters who turn out frequently in primaries.” Contacting only previous primary voters may create a vicious cycle that leaves those who have not participated in the past on the sidelines.

Thus, an empirical question is whether the primary institution or contact is a more relevant factor for participation, especially for the set of citizens who vote in general elections but do not typically vote in primary elections. In this paper, we explore these two explanations for low turnout in primaries, looking first at whether an institutional change alone boosts participation and then at the impact of a randomized get-out-the-vote (GOTV) experiment that we ran in California’s 2014 top-two primary. Answering the first question is relatively straightforward. While institutions like the top-two primary invite broader participation, the record so far shows that they do not guarantee an increase in primary turnout or a broadening of the types of voters who participate. In the first two elections in which it was implemented in California, for example, the top-two primary did not lead to increased participation. Turnout in the June primaries was 31.1% in 2012 and 25.1% in 2014, down from 28.2% and 33.3% in the 2008 and the 2010 congressional primaries (the former of which was held separately from the presidential primary). In the next section, we examine the composition of these electorates more closely to show that the top-two did not notably broaden the primary electorate along demographic or partisan lines. To date, the top-two reform has not delivered on its promise to increase participation in California.

To support our argument that to get new voters to participate in primaries requires contact, we then present results from a large-scale, block-randomized field experiment surrounding the June 3, 2014 top-two congressional primary election in California. We partnered with a non-partisan group to send letters to a random sample of 150,000 Californians who had voted in the 2012 general election but had not voted in any recent primary election. We sent each recipient one of three letters to test three types of contact that might be relevant to non-participation: a letter presenting the details of the election and reminding them to vote, a letter providing information about how the top-two primary works, and a letter presenting the low level of turnout by that registrant’s party of registration in the June, 2012 primary elections. These letters test three theories of non-

participation: that non-voters are in general not contacted by interested parties or non-partisan actors in the lead up to primary elections with even a simple reminder to vote, that non-voters are confused by the new primary institution, and that non-voters do not know about the low level of participation of registrants like them.

We find that all three letters had similar effects on turnout for our target population of registrants who had not previously participated in primary elections. Our average treatment effect is about 0.5 percentage points, more than twice the average effect of 0.2 percentage points from a recent meta-analysis of 79 non-partisan mailings (Green, McGrath, and Aronow, 2013, p. 31). With a base rate of turnout for this group in this election of 9.3 percent, our single-letter treatments had a proportional increase on turnout of about five percent. For voters aged 59 and over, the 0.5 percentage point boost in turnout persisted into the November general election, even though we did not contact any registrants after the primary. Investigating heterogeneity in the treatment effects, we find that the letter presenting the election date and reminding the registrant to vote was more effective for those registered non-partisan or with third parties, while the letter presenting low levels of turnout for fellow registrants was more effective for older registrants. We find that the letter presenting the election date and reminding the registrant to vote was more effective for those registered non-partisan or with third parties, while the letter presenting low levels of turnout for fellow registrants was more effective for older registrants.

The central result from our analysis is that these voters who would normally not be contacted by campaigns or election administrators because they hadn't previously voted in primaries ("low-propensity voters" in the parlance of campaigns) respond to simple informational letters to the same or even greater degree as citizens respond to such letters in general elections. Thus, while institutional reform to nomination procedures may be part of increasing participation in primary elections and making them more representative, our results suggest that new voters must be contacted and encouraged. Increasing participation in top-two primary elections may be especially important given the higher stakes under this nominating institution, but mobilizing still requires outreach.

This article makes three contributions. First, we use a rigorous, large, randomized experiment to show that citizens who do not participate in primary elections can be brought to the polls, the first such experiment to our knowledge in a top-two primary. We show that what appears to matter is contact of any kind, not specific information or motivations – at least those that we tested. This evidence explains why institutional reforms have not, by themselves, delivered on promises of reforming participation in primary elections, and suggests pathways for new efforts to translate institutional reform to individual behavior. Second, we use the large number of registrants sent treatment letters in our experiment to explore heterogeneity in treatment effects; we ask both whether a specific mobilizing message works better, and also whether certain types of registrant are more responsive to mobilization. While one might expect variation in responsiveness to these letters about the top-two institution by characteristics such as partisanship or age, we find quite limited heterogeneity. This suggests that what differentiates voters from non-voters is larger than what differentiates within the non-voter population.

Finally, and perhaps most importantly, our results show that the set of citizens who participate in primaries is not a fixed group of the most politically active, to the exclusion of all others. Rather, the fact that we can bring to the polls registrants who normally abstain from primaries by sending each a single letter suggests that turnout in primaries is dynamic and contingent on context and campaign activity. It is reasonable to extend our results to believe that many more citizens might participate in primary elections if they are provided the information and motivation to do so, but that this information and motivation must be fostered. Few elite actors have had the motivation to foster broad participation in closed primary institutions but, especially under top-two primary systems, an avenue may now be open for entrepreneurial candidates and campaigns to create new coalitions of primary voters.

Our essay proceeds as follows. First, we detail the history of the top-two primary reform, its motivations and initial results. We then explore how turnout varied with the implementation of the top-two primary in California across individual-level characteristics such as age and party. We then present the theories of non-participation that motivated the design of our field experiment,

present that design and the results. We explore whether the treatment effect varies with the type of individual receiving it or by the type of letter, and offer a discussion and concluding remarks.

## **A new institution ... but little change in participation**

The most recent round of primary election reforms began when “blanket primaries” in Alaska, California, and Washington were struck down as unconstitutional with the Supreme Court’s *Democratic Party v. Jones* in 2000. After this decision, California instituted a “semiclosed” primary in which registered partisans would vote only in their party’s nominating contests, while independent voters could take part in a primary if and only if a party chose to let them in. Concerned that this left nonpartisans with no guaranteed voice, and that partisan primaries led to the election of ideologically extreme candidates, advocates proposed the top-two as a constitutionally permissible solution to both problems.<sup>2</sup> Following the example of the state of Washington,<sup>3</sup> California adopted the top-two through the 2010 Proposition 14, a measure placed on the ballot by legislators as part of a concession in budget negotiations with a moderate Republican lawmaker.

Advocates of the top-two made a clear prediction that it would lead to an increase in voter turnout, especially among those who were not registered with a major party and thus given a limited role under the existing system. For instance, during the campaign for Proposition 14, the nonprofit organization California Forward released a report by T. Anthony Quinn and R. Michael Alvarez with a press release under the headline “Primary Reform Could Boost Voter Participation.” It began, “According to a new report published by California Forward, a non-partisan ‘top two’ primary system would likely boost turnout of independent voters as well as voters registered with particular parties.”<sup>4</sup> A prominent group supporting Proposition 14, the Independent Voter Project, claimed soon after its passage that, “The polarization that is fostered by low primary election voter

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<sup>2</sup>The blanket primary was overturned in *Democratic Party v. Jones* because, as a nominating contest, it forced parties to associate themselves with voters from other parties or from no parties. Because the top-two does not select party nominees - it merely selects two November contestants, regardless of party, the US Supreme Court upheld its constitutionality in *Washington State Grange v. Washington Republican Party* 2008.

<sup>3</sup>Washington voters backed the top two as Initiative Measure 872 in 2004, but because of a legal challenge by the state’s parties, it was not implemented until 2008.

<sup>4</sup> See <http://www.cafwd.org/press-releases/entry/primary-reform-could-boost-voter-participa>

turnout is reduced by Prop 14,” and that “the open primary will increase voter turnout.”<sup>5</sup>

### **Have the predictions of top-two advocates been realized?**

As we presented above, turnout in the first two federal primaries held under the top-two institution in California was lower than in the two primaries held prior to reform – 28.2% and 33.3% of registered voters in 2008 and 2010 under the old rules, compared to 31.1% and 25.1% in 2012 and 2014 under the top-two rules. We present here individual analysis to show that the reform also had minimal influence on its second goal, broadening the diversity of those who participate in primary elections. To do so, we analyze individual turnout decisions from the California statewide voter file. We use voter files produced relatively proximate to each election to minimize the influence of attrition on analysis of turnout.<sup>6</sup> Each file contains the records for around 17 million registered voters in California, along with their history of turnout in recent elections and individual characteristics. We investigate how the predictors of turnout changed across these four primary elections under the old and new institutional rules.

We present in Figure 1 a slopeplot of turnout for different age and party groups in congressional primaries. The left side of the figure plots turnout under the old rules in the congressional primaries of 2008 and 2010, and the right side turnout under the top-two institution in 2012 and 2014. Each line connects turnout for the same group between the two institutions. For example, the line at the top of the plot connects the turnout of those aged 70 to 79 at the time of each election, which was 58.6 percent in 2008 and 2010 and declined to 56.4 percent in 2012 and 2014.

Figure 1 shows first that the promise of the top-two primary to increase participation failed to obtain in all but one of the groups we consider. The only group to see an increase in turnout is the group of 18-19 year olds, moving from a rate of 7.0 percent to a rate of 8.2 percent. The overall decline in turnout under the top-two institution did not occur exactly the same across all groups, but is relatively constant. Two groups that were predicted by advocates to increase their participation in response to this reform – those registered with third parties or “no-party-preference” voters

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<sup>5</sup> See Peace, 2010, <http://ivn.us/2012/05/10/the-parties-are-afraid-of-californias-new-open-pri>

<sup>6</sup> We use files from August 2014, January 2013, January 2011, and March 2009 to characterize the four elections. As voter files are a snapshot, the 2014 file misses many of the records for those who turned out in older elections.



(independents) who were not guaranteed a vote in any party's primary before the move to the top-two – also show declines in turnout (18.9 to 15.9 and 17.7 to 17.2, respectively).<sup>7</sup> Thus, not only did the top two fail to increase participation in the aggregate, it did not even increase participation among those whom one might think would be most likely to respond.<sup>8</sup>

Other factors that have changed over time in California are certainly at play, and we cannot attribute the drop in turnout to the causal impact of the top-two rules. What we can conclude is that the top-two primary to date has neither increased aggregate turnout in primary elections, nor has it appeared to broaden the partisan composition of those who do participate. In the next section, we present our field experiment testing whether contact of three different flavors increases participation in the top-two primary.

### **An experiment to mobilize primary turnout**

The central question that our experiment is designed to answer is this: Are voters who typically abstain from primaries but have voted in general elections responsive to a mobilization message delivered in a single letter? Past research has shown that this sort of treatment applied to wider populations of voters in general elections brings, on average, a 0.2 percentage point increase in turnout (Green, McGrath, and Aronow, 2013, p. 31).

One argument is that voters who received our appeal are mobilized to a similar extent as general election voters, indicating that many registrants stay home due to lack of contact or knowledge about primary elections. Alternatively, the conventional wisdom of campaign professionals may hold: Attempting to mobilize voters who had not previously voted in a primary is a lost cause. To test this argument, we ran a randomized field experiment to estimate the causal effect of campaign contact on turnout among primary non-voters. We partnered with California Common Cause, a non-partisan non-profit organization dedicated to fostering transparency and accountability in political institutions, to deliver these letters on their letterhead. The main analysis of our experiment

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<sup>7</sup> McGhee (2014) argues that while the top two did not appear to bring more voters to the polls, it did give the independent voters who participated a more consequential role in candidate contests.

<sup>8</sup> In Supplemental Table S2, we present pooled multiple regression models predicting turnout using these data. The regression coefficients confirm the graphical presentation of Figure 1.

compares registrants that we sent a letter to against a control group without contact to test our hypothesis.

We also designed three variants of our treatment to explore the mechanisms through which mobilization, if it indeed occurs, takes place. All three letters deliver basic contact, but each is designed to test a different mechanism that might limit the influence of the top-two institution on individual turnout behavior. We note that these mechanisms are not necessarily specific to the top-two institution, but that the functioning of the top-two nomination system in many ways amplifies their relevance.<sup>9</sup>

The first mechanism we consider is that non-voters are in general not contacted by interested parties during the campaign, and are not otherwise urged to participate. They may not be attentive to advertising, perhaps even unaware that there is an upcoming election. Without contact, nothing drives them to the polls. As we noted above, many candidates and election professionals say that they do not waste resources on contacting voters that they do not expect to vote. Registrants without a record of participating in previous primaries may receive little or no communication about the primary election, and research consistently shows campaign contact of many kinds is an important influence on turnout (e.g., Caldeira and Patterson, 1982; Green and Gerber, 2008; Holbrook and McClurg, 2005).

If this mechanism is at work, then we will find that contact through our first letter, which provides basic information about the election and a reminder to vote, is just as effective as the more detailed letters described below. We present examples of all three letters in whole in the Supplemental Information, but in this section provide a brief description. The basic election information letter introduces the upcoming election date, poll hours, rules for absentee ballots (because a large proportion of our target population was registered to vote by mail), and encourages the registrant to participate. The other two letters include exactly the same text as the basic letter, but also include additional information intended to test one of other mechanisms.

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<sup>9</sup> Our experiment targeted voters who had previously participated in general elections but not in primary elections. This suggests that two factors that might keep those who have never voted from participating, familiarity and comfort with the voting process (e.g., Gerber et al., 2013) or comfort with the political system broadly, were not impediments to voting for this set of registrants.

Our second candidate mechanism is that non-voters may be confused about the new primary institution. California has changed its primary rules three times in the last 16 years and the top-two institution is anything but simple to understand. Especially for citizens who pay limited attention to political news and are on the margins of turning out or not election to election, these changes may be sufficiently confusing to deter participation. Further, many non-voters may not appreciate the greater importance of the top-two primary in generating the limited set of two choices in the general election. Our second treatment letter provides the same basic information as our first letter, but also information on the functioning and importance of the top-two institution. It explains how the top-two primary works, starting a paragraph with “All Californians, regardless of party of registration, now have a voice in primary elections.” The paragraph references Proposition 14, and then gives a bullet list of important features of the reform: “All voters can now vote in the primary election”; “All candidates appear on one ballot”; “Candidates are not nominated by the party”; “Any voter can vote for any candidate”; “The two candidates with the most votes move on to the General Election in November.”<sup>10</sup> If voters have been deterred from turning out in past primaries because of confusion about their rules and their importance, they should turn out at the highest rates when they are sent this letter.

The third potential mechanism is that non-voters may not appreciate the low level of turnout in primary elections, and especially of other voters who share their preferences. Many non-voters may feel that the primary election is for others to worry about, and that they will engage at the general election. Our third treatment letter provides the same basic information as our first letter, but also information about the level of turnout in the 2012 congressional primary for each registrant’s party of registration, and encourages them to think about the importance of turnout for those who are like them. Specifically, the partisan identity letter added two paragraphs to the content of the informational letter. The first presented the rate of turnout for registrants of the same party as the recipient from the June 2012 top-two primary: “In the last California primary election, held in 2012, only [YY]% of voters like you registered [Party label] turned out to vote and make their

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<sup>10</sup> This content was borrowed from other efforts by Common Cause and the Los Angeles City Clerk to explain the top-two primary in previous election outreach.

voices heard. Voting in the primary election determines the candidates for the general election.” The turnout rates presented were 15.8 (registered with third parties), 18.5 percent (no party preference), 28.6 percent (Democrats), and 37.7 percent (Republicans). The second paragraph was a more standard encouragement to vote so that the voter’s voice be heard, “Your voice starts with your vote. As a voter, you help decide who will lead us.” We designed this letter with the goal of motivating individuals to participate through delivering information not only about the low level of turnout in the previous primary election, but also by an appeal to what may be part of their political identity, their party of registration. We suspected that registrants who had previously not voted in primaries might be more likely to do so when they learned how few who shared their partisan identity were participating in these elections. If a sense of the importance of participating in primaries as a partisan group is important to voters, then this third letter should provide the greatest stimulus to turnout.<sup>11</sup>

### **Experimental design**

To test to what extent basic contact and each of these potential factors of non-participation might mobilize registrants to primary elections, we ran our field experiment during the June 3, 2014 congressional primary election in California. The target population of our experiment was general election voters who had not recently participated in primary elections. To a random sample of such voters, we sent one of three treatment letters connected to the three theories of non-participation. Our research design is, first, to compare the effect of each letter on turnout to those randomly assigned to receive no letter, and, second, to compare the three letters to each other. This experiment evaluates two questions: can primary non-voters be brought to the polls by simple election communication? And, are some messages related to factors of non-participation more effective than

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<sup>11</sup> We were aware at the time of the design that presenting this descriptive social norm of low turnout may lead to a norm-consistent behavior of not voting (e.g., Cialdini, Reno, and Kallgren, 1990; Gerber and Rogers, 2009). We felt that level of turnout among the recipient’s party of registration was a relevant fact, and absence of this knowledge might be keeping some potential voters at home. In fact, we find that those receiving this letter turn out at higher rates than control registrants, showing that this descriptive norm did not lead to lower turnout behavior on average. Of course, the norm-consistent behavior may depend on whether the level of turnout presented in the letter was higher or lower than the recipient’s prior belief; if higher than expected, it might imply norm-consistent behavior is to vote, while if lower norm-consistent may be to abstain. Interestingly, we find heterogeneity in the effect of this letter, with larger effects on older registrants not registered as Democrats or Republicans.

others on these primary non-voters?

To implement our field experiment, we enumerated a target population from the March, 2014 California statewide voter file. We selected registrants who had voted in the 2012 presidential general election, but who had no record of a vote in any 2012, 2010, or 2008 statewide primary election. We also removed records without a ZIP code as our treatments were sent by mail. Finally, we checked addresses of all those in our target population with a vendor who maintains lists of non-mailable addresses, residential moves, deaths, and incarcerations, and we removed from the target population any registrant who failed these checks. These selection criteria reduced the set of registrants from the full file's 17.65 million to our target population of 3.87 million registrants.<sup>12</sup>

Because we hypothesized that different parts of the population might be more hindered by different factors of non-participation, we assigned treatment via block randomization. We blocked on age, party, individual 2010 and 2008 general election vote history, district competitiveness, and whether or not a district had a plurality or voters from an ethnic or racial minority. These variables, along with our rates of treatment assignment, led to 382 blocks. Within each we assigned registrants to receive one of our three letters or a no-contact control condition.<sup>13</sup>

We assigned 149,596 of the 3.87 million in our target population to receive a single letter, sending twice as many of the top-two information and partisan identity letters as the election information letter. We contracted with a mail firm to send our letters on Common Cause letterhead and with Common Cause as the sender. Letters were mailed on Thursday, May 22 for zip codes in Northern California and on Friday, May 23 for zip codes in Southern California, as the letters were put in the mail from Southern California and sent with non-profit postage. With Memorial Day on Monday, May 26 and mail ballots having to be received on election day Tuesday, June 6, we sent letters early enough so that absentee voters would receive our treatment letter in time.

Our outcome of interest is whether or not the registrant cast a ballot in the primary election. We acquired the August, 2014 version of the statewide voter file and merged the records back to our

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<sup>12</sup> Full details of the number of cases removed at each of these stages is available in the Supplemental Information.

<sup>13</sup> We collapsed blocks that were not of sufficient size for our assignment rates along with leftover cases from blocks of sufficient size into one leftover block where treatment was made by simple random assignment.

target population. We successfully matched 98.8 percent of our target population to a corresponding record in the August file. To be conservative, we record turnout for those we do not match as zero and include those cases in all analysis. Turnout in the control group of this target population was 9.3 percent, compared to overall turnout in this election of 25.2 percent. This suggests we successfully targeted lower-propensity non-primary voters, though note that 9.3 percent turnout in the control shows that not having voted in a past primary before does not mean the registrant does not do so in the future.

### **Letters to primary non-voters mobilize them to vote**

In this section, we present the results of the experiment, estimating the intent-to-treat effect of being assigned to receive each of the three letters, and subsequently explore whether that effect varies across individual characteristics. We find that each letter stimulated turnout by about 0.5 percentage points, moving it from a baseline of 9.3 percent in our control group to 9.8 percent for those in any of our treatment groups. Consistent with an argument that any contact is relevant for non-primary voters who are rarely contacted, we find this effect to be remarkably similar across the three letters and across various characteristics of individuals.

In Table 1, we present the basic results of the experiment. Each cell presents the rate of turnout for that group assigned to that condition in our experiment, along with a standard error and number of observations. For example, the upper left cell shows that the 3.7 million registrants in our target population not sent any letter turned out at a rate of 9.3 percent in this election. The other four columns present results of the experiment for those registered decline-to-state or no-party-preference (which we will notate henceforth NPP), registered Democrat (DEM), registered Republican (REP), or registered with third or other parties (OTH). Registrants with these party preferences not sent letters turned out at rates of 8.6, 9.0, 10.6, and 9.2 percent, respectively. The second row tabulates the turnout among these groups for the 149,596 registrants sent any of our three letters. Overall, those sent a letter turned out at a rate of 9.8 percent, yielding an average treatment effect of 0.5 percentage points. The average effect is relatively constant across parties,

with difference of means estimates of 0.4, 0.4, 0.7, and 0.7.

### **Did one letter mobilize better than other letters?**

The final three rows of Table 1 present the results for the three letters separately. The first column shows the uniformity of treatment effects, with all three letters increasing turnout among our target population to 9.8 percent.<sup>14</sup> Looking across parties suggests modest heterogeneity. No-party-preference and other party registrants appear most responsive to the election info letter, while Republicans appear less responsive to the election info letter. Difference of proportions tests, however, do not yield statistically significant effects in any comparison, as we present in the note to the table.

In summary, our average treatment effects show that one letter sent to registrants who had not previously voted in primary elections increased their turnout in the 2014 June California primary election by 0.5 percentage points, a proportional increase of five percent. This effect size is twice as large as the average effect of one mailer to voters in general elections. We interpret this effect as evidence that non-voters are available for mobilization to a similar degree to more consistent voters. We find this effect for all three of our letters, with no variation in the effect of specific mobilizing messages. The lack of large heterogeneity across our three messages suggests that any contact to those not normally mobilized can stimulate participation. In the next section, we test more thoroughly whether the effects vary by characteristics of the individual.

### **Are certain types of people more responsive to the mobilization?**

In Figures 2 and 3, we present heterogeneous treatment effects by party, age, and turnout history.<sup>15</sup> Each point and confidence interval are derived from an OLS within fixed effects estimator, where the point is the coefficient estimate for that treatment and the confidence interval extends to plus

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<sup>14</sup> In Supplemental Table S1, we present OLS regressions to estimate the average treatment effect, which allow us to include randomization block fixed effects. In the first column we present the treatment effect estimates for the three letters: 0.50, 0.45, and 0.53. In column two, we include block fixed effects, and estimate identical treatment effects. In columns three and four, we test for difference between the three treatment letters, finding no statistically distinguishable difference with or without block fixed effects.

<sup>15</sup> We preregistered this analysis prior to receiving the results at <http://e-gap.org>, and also anticipated this analysis through the block randomization of our experimental design. We analyze heterogeneous treatment effects by two pre-registered district variables in a companion article.

or minus 1.96 standard errors. The first set of four points in Figure 2 plots the average treatment effects of being sent any letter, being sent election info, being sent top-two info, or being sent partisan turnout against being sent no letter. As the results above highlight, for the full sample these effects are around 0.5 percentage points for each letter with little apparent heterogeneity. The next set of four points presents the effects for Republicans, which show the suggestive evidence of a smaller effect on election info. The fourth and fifth set of points shows that no-party-preference and other party registrants appear to be more responsive to the election information letter than the other letters.

In Figure 3, we present heterogeneous treatment effects by groups of registrant age (the same age groupings used in our block randomization) and individual turnout history in recent general elections. We again include the overall effects to the far left for reference. There is some evidence that the letters were more effective for registrants aged 69+ and for those who did not vote in 2010 or 2008 than for registrants who voted in either or both of these elections (final two sets of effects to the right of the figure). Recall that all of our target population voted in the 2012 presidential general election.

In Table 2, we present OLS estimates of these heterogeneous treatment effects with each covariate of interest considered together in a multiple regression setting. We include the direct effect of each of these blocking variables, along with the interaction of each with an indicator for the registrant having been assigned to receive any of our three letters. In the first column we present the basic specification without heterogeneous effects, estimating a direct effect of being sent any letter of 0.5 percentage points. In the second column, we specify age as a linear term, and in columns three and four age as the seven categories we used in the block randomization. We find statistically significant larger treatment effects for registrants aged 59-68 and registrants who did not vote in the 2008 or 2010 general election (relative to the excluded category of 2008 or 2010 voters). For those aged 59-68, we estimate an average effect of 0.75 points, and the point estimate for those aged 69+ is 0.64. This effect for previous non-voters, however, falls in magnitude and below statistical significance when we control for the registrant's date of registration in column



four (which adds variables measuring date of registration that we did not block upon). These interactions suggest this apparent effect of turnout history has more to do with how long the registrant has been registered at the address than their vote history.

Overall, the results in Table 2 suggest little variation in the treatment effect of any letter across types of people but for larger effects for older registrants. In Supplemental Table S3, we estimate heterogeneity across covariates for each letter separately. We again find little evidence of significant heterogeneity, though find large point estimates for (a) other party registrants receiving the election information letter [coefficient of 0.89]; (b) those aged 59-68 receiving the top-two letter or the partisan letter [0.69 and 0.71]; (c) those aged 29-38 receiving the partisan letter [0.69]; and (d) 69+ receiving the partisan letter [1.33], which is our largest observed treatment effect and the only in this set statistically significant at  $p < .05$ . Apparently the oldest set of registrants who haven't previously voted in primaries are particularly responsive to learning about low primary turnout among their partisan group.<sup>16</sup>

In summary, we find limited evidence of variation in treatment effects by characteristics of the individual. The main result is remarkably consistent across types of voters. That said, we find some evidence of a larger effect of our treatments among older registrants. These older registrants appear particularly responsive to the partisan turnout treatment letter, and we find evidence that older NPP registrants are most responsive. We also find some suggestive evidence that NPP and other party registrants were more responsive to the simple election information letter, which would be consistent with our argument that these registrants are rarely contacted by outside actors surrounding primary elections.

### **Treatment effects in 2014 general election**

In Supplemental Information Section E, we present all tables and figures for the treatment effect of our letters and variation by individual characteristics and letter for the 2014 November general election. While all of our treatments were designed to mobilize turnout to the top two primary

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<sup>16</sup> We show in Supplemental Figure S1 that the point estimate for the effect of the partisan letter is greater than 2 percentage points for those aged 71 to 78, and in Supplemental Figure S2 that the effect is especially driven by those registered no party preference, with a point estimate above 4 percentage points.

election in June, registrants who learned more about the election process or engaged with the candidates may have been more likely to vote in the following general election. Although we do not estimate any average treatment effect in the general election, we do continue to find evidence that older registrants were especially responsive to our letters. In Supplemental Figures S3 and S4 and Supplemental Table S6, we find that those aged 59 and older were about 0.5 points more likely to turn out in the 2014 general election when assigned to receive any of the three letters. The analysis of each letter separately suggests this is more driven by the top two and partisan letters than the election information.

The continued responsiveness of these older registrants in our view merits replication. On the one hand, it may be surprising to see that it is possible to teach older voters a new trick. On the other hand, the overall higher propensity of older voters to turn out in any election may make them more likely to be marginal with respect to turnout in this primary, and thus more responsive to mobilization appeals, the rationale laid out in Arceneaux and Nickerson (2009).

## **Discussion and conclusion**

Despite the central place that elections hold in American government and representation, many citizens choose to abstain from participation. Why they do so in general elections has been a central question of political science for decades. Scholars have fielded thousands of surveys, run hundreds of experiments, and developed dozens of theories to understand why people do and do not vote in November. At the same time, much less attention has been devoted to studying turnout in elections of potentially equal import, primary elections. Because they feature lower turnout than general elections, and because the composition of primary electorates does not reflect the eligible electorate as a whole, primaries are the contests in which abstention may have its most profound political and policy effects. They merit the sustained focus of scholars studying mobilization, participation, and representation.

Primary elections have not escaped the attention of reform advocates, who have put propositions creating top-two primaries on the ballot in four states and successfully implemented it in two

of them. Importantly, these institutional changes increase the stakes of primaries, because in many contests they fill the two positions in the general election with candidates from the same party. This makes primary turnout – which reformers expected to increase through the new rules – all the more vital. Our analysis shows that, at least in the first two rounds of the top-two primaries implementation in the nation’s largest state, institutional change alone has not led to increased turnout. Instead, we show that it has been accompanied by a drop in turnout during both 2012 and in 2014 for nearly every demographic group. California built a new primary that gave voters a broader field of candidates, but they did not come to take part in it.

Our field experiment in the June 3, 2014 primary tests whether mobilization combined with this institutional reform can help realize its promise of increasing primary turnout. By focusing on a spring contest, we add to the small set of experiments conducted in primary elections. Despite increasing focus in political science on primary elections in an age of polarized parties (e.g., Hill, 2014; Hirano et al., 2010; Jacobson, 2012; McGhee et al., 2013), most field experiments on turnout have focused on general elections or on general mechanisms in local and primary elections. We implement novel messages for our field experiment specific to primary elections and top-two primary elections.

We also find – in contrast to conventional political wisdom – that mobilization can be as effective for voters who regularly skip primaries as it is for registrants in general elections. Even though (or perhaps because) campaigns typically do not target registrants who have not participated in recent primaries, we find that they are even more responsive to receiving a letter than voters typically are in general elections, increasing their turnout by 0.5 percentage points. This adds to a growing body of work that looks at the marginal impact of mobilization appeals on registrants with varying propensities to vote (e.g., Arceneaux, Mullin, and Kousser, 2012; Arceneaux and Nickerson, 2009; Enos, Fowler, and Vavreck, 2014). It is also analogous to recent work on the participation of ex-felons (Gerber et al., 2014), because our results show that mobilizing a group that is often ignored by campaigns can lead to a significant relative increase in participation by this segment of the electorate – in our case, 5% – relative to the group’s baseline level of turnout. One group

in particular within our study population, those who do not register with a major party, exhibits the lowest baseline levels of turnout. These registrants, whose participation has been the focus of recent reform efforts such as the top-two primary, particularly deserve further study.

That said, campaigns with limited resources must likely evaluate the cost-effectiveness of targeting each group. Even though we find that targeting previous non-voters can be effective in absolute terms for turnout, candidates likely vary in their ability to capture the votes of this group of potential voters when they do vote. It may still be more cost-effective for some candidates to target higher-propensity voters who are their supporters. However, our results highlight that for some candidates, these non-primary voters may be available to add to their coalition.

Regarding theories of political participation, we have shown that among the set of voters who are willing to bear the cost of voting in general elections but have not voted to date in primary contests, there is some subset that is available for mobilization through simple contact. This suggests that part of what leads to lower turnout in primary elections is lower campaign activity. Just as in general elections it appears citizens are more likely to vote when asked to do so. Our treatments are probably a lower bound on these effects. A single letter on plain white paper from a non-partisan interest group is a pretty mild treatment compared to other GOTV appeals that primary campaigns might employ.

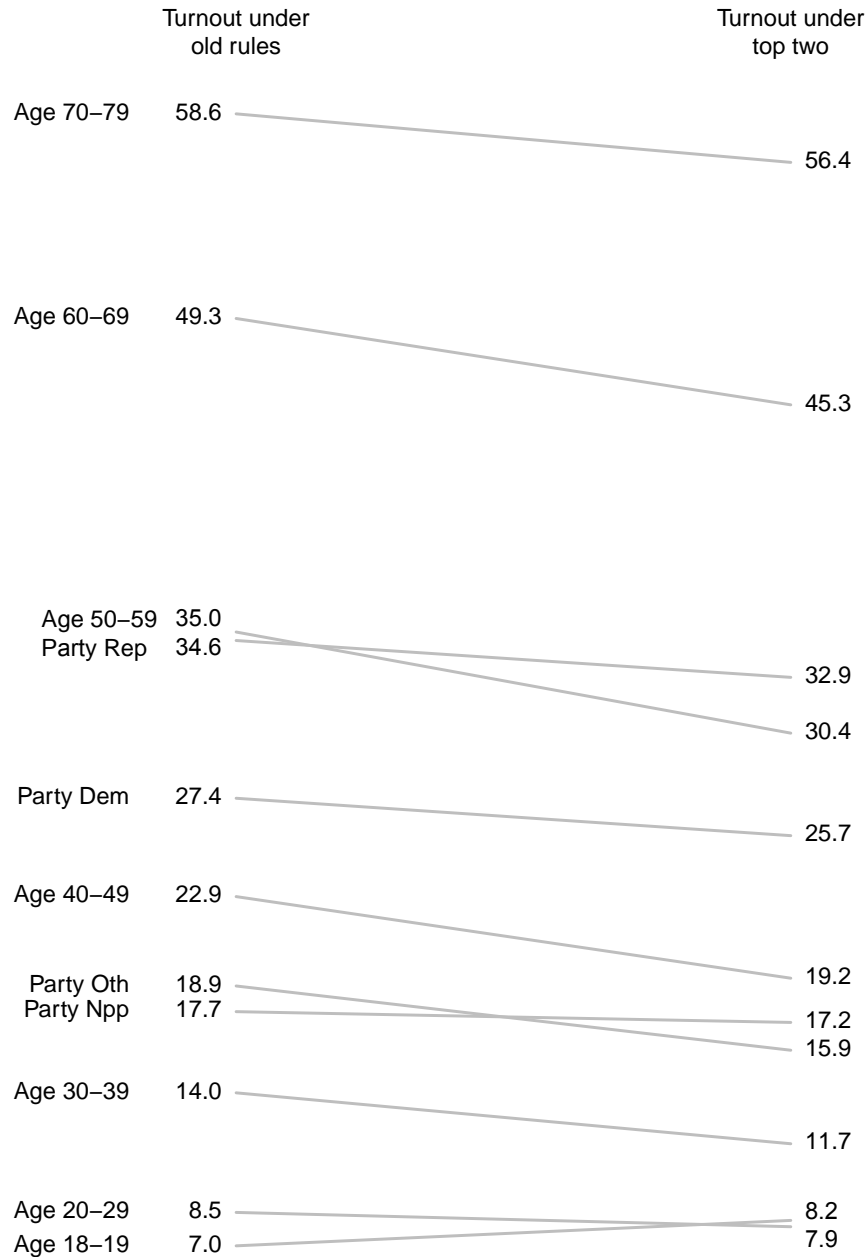
The results of our study suggest that voters who abstain from primaries are too often ignored by primary campaigns. These voters can be mobilized as effectively as voters in general elections, with our treatment effect actually larger than usual for a non-partisan mailer. Although the implementation of a top-two primary alone did not boost turnout, the combination of institutional reform and targeted mobilization can increase participation in America's primaries. Our results suggest that entrepreneurial candidates can create new coalitions of primary voters, a strategy that may be especially effective in places with top-two primaries. It may be a combination of institutional reform, incentives for candidates, and traditional campaign outreach that brings participation in primary elections to a level commensurate with their importance to modern representative American democracy.

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Figure 1: Turnout by group in top two and traditional primaries in California, 2008 to 2014 (non-experimental)



*Note: Data are aggregated from individual observations from the California voter file. Turnout in left column is averaged across congressional primaries in 2008 and 2010, in right column for congressional primaries in 2012 and 2014. Groups are not mutually exclusive (e.g. Party Dem includes Age 50-59 and vice versa).*

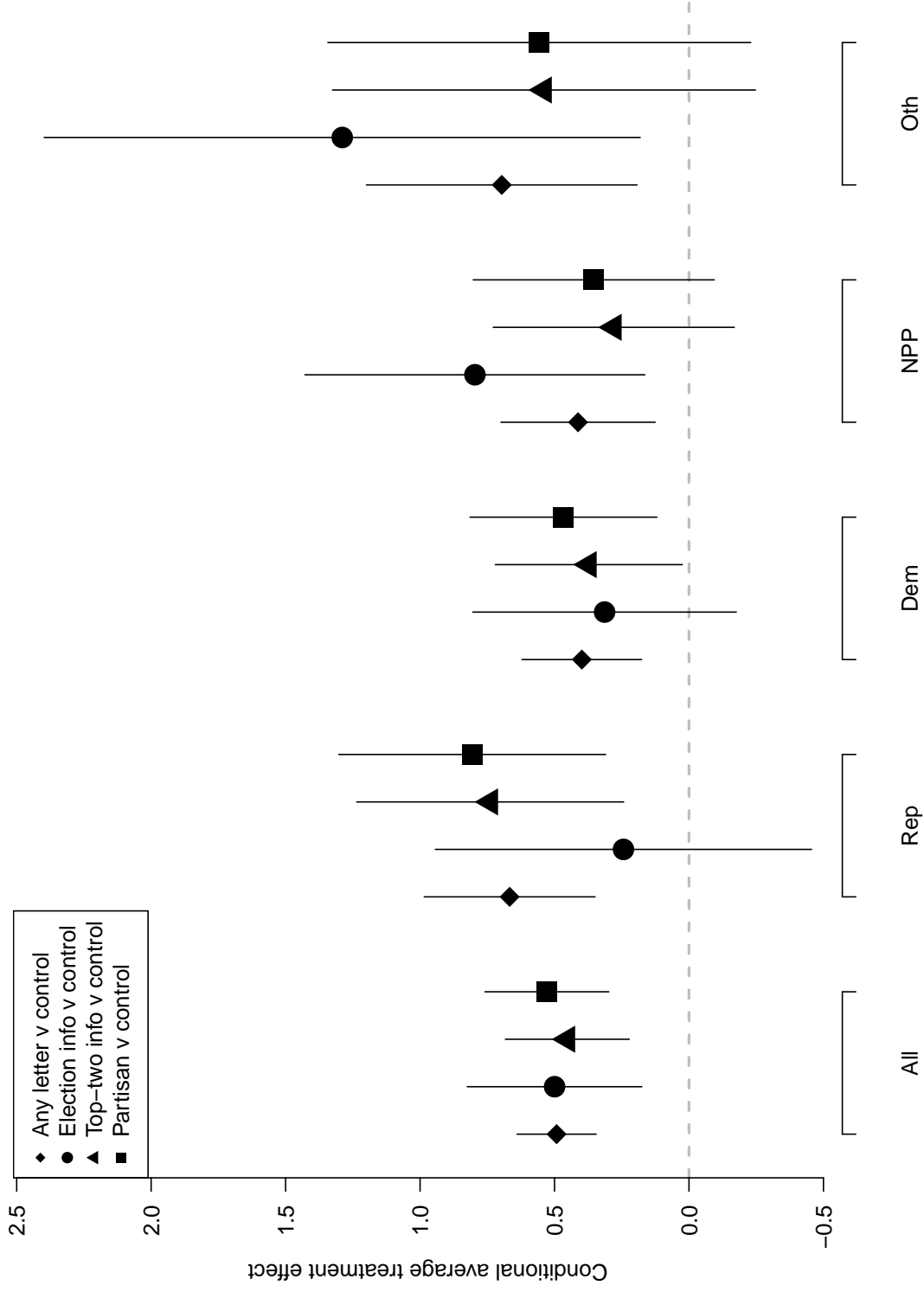
Table 1: Turnout in 2014 primary by treatment assignment and party (experimental results)

	All	NPP	DEM	REP	OTH
Control	9.3 (0.0)	8.6 (0.0)	9.0 (0.0)	10.6 (0.0)	9.2 (0.1)
	3,722,672	919,917	1,584,950	898,297	319,508
Any Letter	9.8 (0.1)	9.0 (0.1)	9.4 (0.1)	11.3 (0.2)	9.9 (0.3)
	149,596	36,959	63,733	36,095	12,809
Election Info	9.8 (0.2)	9.4 (0.3)	9.3 (0.3)	10.9 (0.4)	10.5 (0.6)
	29,885	7,381	12,733	7,211	2,560
Top-two Info	9.8 (0.1)	8.9 (0.2)	9.4 (0.2)	11.3 (0.3)	9.8 (0.4)
	59,854	14,789	25,500	14,441	5,124
Partisan	9.8 (0.1)	8.9 (0.2)	9.5 (0.2)	11.4 (0.3)	9.8 (0.4)
	59,857	14,789	25,500	14,443	5,125

*Note: Cell entries are turnout for that party (column) and treatment assignment (row) for the target population in our field experiment. Standard errors in parentheses and cell counts below. NPP=no party preference or decline to state; DEM=Democrat; REP=Republican; OTH=Other/third-party. Of 12 two-way difference of proportion tests comparing each individual letter to each other for each partisan group, 0 are significant at  $p < .05$ , two-tailed.*

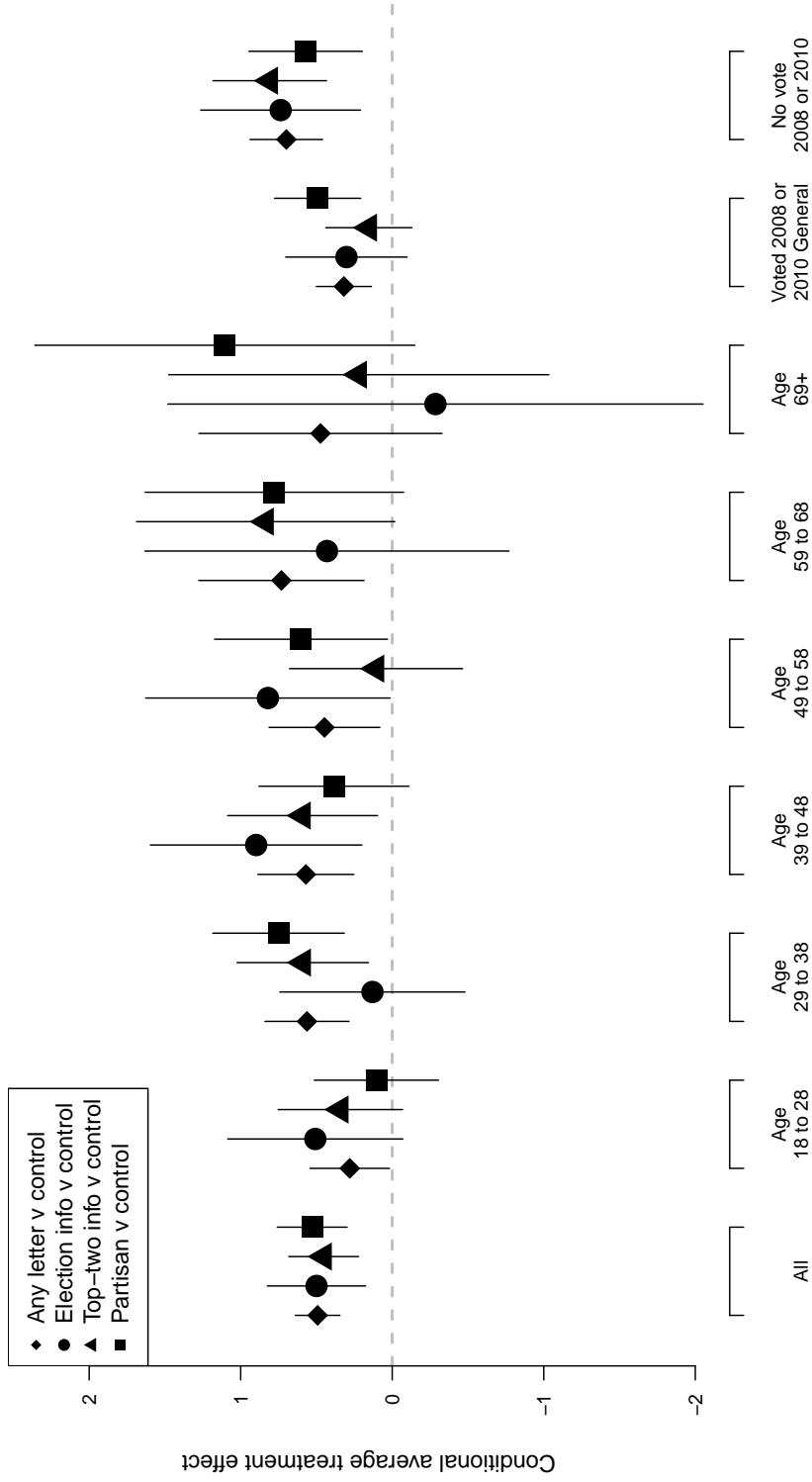


Figure 2: Heterogeneous treatment effects by party



Note: Each point is the coefficient from an OLS regression of turnout on an indicator for that treatment assignment for that subgroup of the target population, with randomization block fixed effects. Confidence intervals extend to  $\pm 1.96$  standard errors.

Figure 3: Heterogeneous treatment effects by age and previous turnout



Note: Each point is the coefficient from an OLS regression of turnout on an indicator for that treatment assignment for that subgroup of the target population, with randomization block fixed effects. Confidence intervals extend to  $\pm 1.96$  standard errors.

Table 2: OLS estimates of heterogeneous treatment effects, any letter

	(Direct effect)	(Age linear)	(Age binned)	(Age binned)
Intercept	6.27* (0.03)	6.29* (0.03)	2.33* (0.04)	6.52* (0.05)
Any letter	0.50* (0.08)	0.20 (0.14)	-0.14 (0.21)	0.12 (0.25)
Age	0.26* (0.00)	0.26* (0.00)		
Abstain 08 and 10	5.84* (0.03)	5.82* (0.03)	5.42* (0.03)	1.72* (0.04)
Party NPP	-0.08* (0.04)	-0.08* (0.04)	-0.06 (0.04)	0.18* (0.04)
Party REP	1.34* (0.04)	1.33* (0.04)	1.42* (0.04)	1.72* (0.04)
Party OTH	0.50* (0.05)	0.49* (0.06)	0.44* (0.06)	-0.26* (0.06)
Any letter*Age		0.01 (0.01)		
Any letter*Abstain 08 and 10		0.43* (0.16)	0.46* (0.16)	0.30 (0.19)
Any letter*Party NPP		0.04 (0.19)	0.04 (0.19)	0.04 (0.19)
Any letter*Party REP		0.29 (0.19)	0.30 (0.19)	0.30 (0.19)
Any letter*Party OTH		0.28 (0.28)	0.28 (0.28)	0.22 (0.28)
Age 29-38			1.79* (0.04)	2.33* (0.04)
Age 39-48			3.56* (0.05)	4.58* (0.05)
Age 49-58			5.53* (0.05)	6.86* (0.05)
Age 59-68			10.24* (0.06)	11.61* (0.06)
Age 69+			15.04* (0.07)	16.43* (0.07)
Any letter*Age 29-38			0.39 (0.23)	0.39 (0.23)
Any letter*Age 39-48			0.43 (0.24)	0.45 (0.24)
Any letter*Age 49-58			0.31 (0.25)	0.34 (0.25)
Any letter*Age 59-68			0.59* (0.28)	0.63* (0.28)
Any letter*Age 69+			0.48 (0.36)	0.52 (0.36)
Registered prior to 08				-4.38* (0.05)
Registered prior to 10				-2.51* (0.05)
Any letter*Registered prior to 08				0.38 (0.26)
Any letter*Registered prior to 10				-0.65* (0.27)
N	3855411	3855411	3855411	3855411
R <sup>2</sup>	0.02	0.02	0.03	0.03
adj. R <sup>2</sup>	0.02	0.02	0.03	0.03
Resid. sd	28.70	28.70	28.69	28.57

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

*Note: Dependent variable is turnout in that election (100=yes, 0=no). OLS regression coefficients with standard errors in parentheses. Heterogeneous effects separated by each treatment letter in Supplemental Table S3.*