What Persuades Voters? A Field Experiment on Political Campaigning

Jared Barton

Marco Castillo

Ragan Petrie

Interdisciplinary Center for Economic Science
George Mason University

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Abstract: Political campaigns spend millions of dollars each voting cycle on persuading voters, and it is well established that these campaigns do affect voting decisions. What is less understood is what element of campaigning—the content of the message or the delivery method itself—sways voters, a question that relates back to how advertising works generally. We use a field experiment in a 2010 general election for local office to identify the persuasive mechanism behind a particular form of campaigning: candidate door-to-door canvassing. In the experiment, the candidate either canvassed a household or left literature without meeting the voters. In addition, the literature either contained information on the candidate or on how to vote. Our main result is that voters are most persuaded by personal contact (the delivery method), rather than the content of the message. Given our setting, we conclude that personal contact seems to work, not through social pressure, but by providing a costly or verifiable signal of quality.

JEL codes: D72, C93

1. Introduction

According to the Center for Responsive Politics, the amount of money spent on persuading and mobilizing voters in the 2010 U.S. federal election was nearly $4 billion.[1] In addition to races for every U.S. House seat and more than a third of U.S. Senate seats, thousands of candidates competed over state legislative and local races. While not as high profile, these latter races represent the overwhelming majority of elections in the United States (U.S. Department of Commerce 1995). Candidates use a variety of methods to reach the electorate, including direct mail, automated calls and radio ads. While all are less expensive ways to expose voters to a candidate's political position (even in smaller races), personalized face-to-face interaction is still considered the most effective way to campaign (Faucheaux 2002).

The reason for its presumed effectiveness, however, is not well documented or understood. That candidates find it important to engage voters in more personal interactions suggests either that the presence of a candidate is persuasive in a way that well-crafted messages alone are not (e.g., actions speak louder than words), or that the candidate's presence on the voter's doorstep draws attention to the campaign's message, and it is the message that persuades voters.[2] To better understand which element drives persuasion in these environments, the method or the message, we use a field experiment to examine how face-to-face campaigning and political messages affect voter turnout and candidate support in a general election.

The literature relating campaign activity, usually measured as aggregate spending, and vote outcomes is large. Despite difficulty identifying causal relationships, it generally finds that

[1] See http://www.opensecrets.org/news/2010/10/election-2010-to-shatter-spending-r.html.

[2] There are several reasons why the candidate's presence might persuade voters. Candidate appearances may serve as a costly signal of quality (indirect information revelation), may directly reveal other attributes that matter to voters, may lessen social distance or apply social pressure, or may simply make the candidate more memorable to voters using a recognition heuristic to choose among candidates. We discuss these possibilities (and among which we can distinguish) below.

campaigning increases a candidate's vote share.[3] More recently, there have been several natural and field experiments examining the effect of various types of campaigning on voter turnout and support. The methods studied include television and radio ads (Huber and Arceneaux 2007, Gerber et al. 2011), direct mail (Gerber 2004; Gerber, Kessler, and Meredith 2011), and even candidate and volunteer campaigning in a primary election (Arceneaux 2007). While these studies demonstrate that campaigning works, they cannot speak to the mechanism behind its effectiveness. In these studies, either the message was varied or the method of delivery, but not both. The evidence from mass media campaigning would suggest that the message itself is not the key to persuasion,[4] however, these results cannot rule out that the content of the messages was ignored or insufficiently different. Varying both message and method within the same election allows us to identify the mechanism behind the effectiveness of campaigning, an activity which relates to the more general question of whether any advertising is primarily informative or signaling.

The results from this research are important for several reasons. First, studying the effect of face-to-face interactions in political campaigning provides the opportunity to test whether such interactions have an effect in the future and on actions that are secret, such as voting.[5] Second, persuasion is present in many economic activities, including political campaigning,

[3] See Jacobson (1978) for early work on campaign activity and Stratmann (2005) for a general review.

[4] Huber and Arceneaux (2007) use the mismatch between media markets and state boundaries as a natural experiment to examine television advertising's effect in the 2000 U.S. presidential contest. They find that voters learn little about the candidate's policy positions from advertising, suggesting it is not content that drives persuasion. Gerber et al. (2011), by using regular tracking polls to measure the effect of television and radio advertising in a primary election, also find evidence that the campaign did not give voters information with which to update prior beliefs, as the effect of advertising fades soon after the initial exposure.

[5] In general, face-to-face interactions have economic value. Eckel and Petrie (2011) find that people are even willing to pay money to be in a face-to-face interaction that involves trust. DellaVigna et al. (2011) show the importance of social pressure on charitable giving decisions. Social pressure and social preferences, however, are less likely to play a role in circumstances such as voting. First, for many charities, there is broad agreement on what the socially desirable activity is (i.e., give to the charity). Among voters, there is disagreement over which candidate or party is the socially desirable choice. Second, even if there were broad agreement on the desirable candidate choice, the voter has an "out" unavailable to the donor: to pledge support now (at the door), and renege later (in the ballot box).

charitable fundraising, and selling products, so our results have broad implications. Identifying the mechanism of persuasion, method or message, contributes to our understanding of how persuasion works in diverse settings. The final reason is practical. Campaigning by candidates is costly, and there is both academic and practitioner interest in measuring the magnitude of the effect of canvassing on voter support. We can only learn this magnitude (and differences in it across settings) through the accumulation of results such as ours.

To have some idea of which aspect of campaigning might be more salient, we turn to several theories for guidance. For instance, theories of spatial competition suggest that direct information transmission of policy positions (alone) is what matters (Dewan and Shepsle 2011, for a review). Accordingly, a candidate visit is as effective as a well-designed piece of political literature, provided the content transmitted is the same. Other theories, such as indirect information transmission through costly signaling (Coate 2004b, Potters et al. 1997), improving voter recall (Goldstein and Gigerenzer 2002), or reducing social distance between voter and candidate (Hoffman et al. 1996), would suggest that personalized interaction with a candidate or his campaign is what matters.[6] In this case, how the campaign interacts with a voter is more important than what it says.

Our field experiment is designed to distinguish between these two broad explanations. We conducted the experiment in a 2010 general election for local office in a Midwestern state with a Democratic candidate who campaigned among both likely partisan supporters and voters unaffiliated with any political party. The candidate varied both his message—a pamphlet with a political message indicating the candidate's ideology or with a short how-to-vote guide—and his

[6] Exposure to a candidate would increase name recognition, and even a brief introduction reduces social distance between the candidate and voters. For there to be a separating equilibrium in campaigning method, however, it must be the case that they are cheaper for a "better" candidate than they are for a worse, such that they are only worth pursuing (or pursuing in sufficient quantity) for the higher quality candidate (Potters et al. 1997).

campaign method—leaving the pamphlet at the door or delivering it personally. Key to the experimental manipulation was the candidate's behavior when the message was delivered personally: at each house, he introduced himself, requested the voter's support, asked if the voter had any questions, gave the voter a pamphlet, and left. By avoiding additional conversation with (all but a handful of) voters, we ensure that the primary distinction between the two delivery methods is the voter meeting the candidate. Also, importantly, because the experiment was conducted during a general election, we can test the effect of persuasion, since a general election (in contrast to a primary election) provides natural variation in the political spectrum, from partisan supporters to unaffiliated voters.

Our experimental treatments allow us to test several hypotheses. If voters require political or policy information to choose amongst candidates, the how to vote pamphlet would have little effect on voter support. Therefore, there should also be no effect of candidate presence on voter support except inasmuch as it draws attention to the political message. If, on the other hand, campaigns persuade voters through personal contact, then we would expect to see differences in voter support across methods of campaigning, but not across messages.

Our results are intriguing. We find that the candidate's presence, more than the message he uses, influences voters. Voters canvassed by the candidate are roughly 20 percentage points more likely to vote for the candidate relative to the control group, conditional on voting. There is no significant difference in voter support between the two messages. It appears that candidates can sway voters by merely showing up at their door.

This result is genuine persuasion, and not due to motivating more of the candidate's partisans to go vote. We know this for two reasons. First, we find that the effect of canvassing on voter support is largest among voters lacking a partisan affiliation. These voters were *ex ante* less

likely to support the candidate than partisans. Canvassing these unaffiliated voters increased the likelihood that they voted for the candidate by a significant, and large, 29 percentage points, while canvassing partisans produced a statistically insignificant 9 percentage point increase in support. While the treatments motivated some partisans, more significantly, the candidate successfully persuaded a large percent of unaffiliated voters to support him.

Second, we measure voter turnout as well as voter support, and find that the campaign lacked any meaningful mobilization effect. Indeed, the candidate's campaign decreased voting in the treatment groups. Voters who receive the how-to-vote pamphlet, whether lit-dropped or from the candidate's hand, are significantly less likely to vote. However, the effect is larger when the candidate hand delivers the pamphlet. Looking more deeply, we find the negative impact of the how-to-vote pamphlet exists only among voters that are *ex ante* less likely to vote, suggesting the information in the pamphlet made voting seem more costly to them. These results, taken together, suggest that while messages may matter in voter turnout, their effect on voter support is zero.

Our results in this environment are inconsistent with models of campaigns as deliberative (or informative) affairs in which voters learn and react to candidates' policy positions.[7] The voter turnout results indicate that voters pay attention to the information on the pamphlet. Indeed, that the demobilizing effect of the how-to-vote pamphlet is larger when the candidate personally delivers it suggests voters pay *more* attention to the messages when personally delivered. This strengthens our conclusion that the message itself did not meaningfully impact voter support, and not because voters did not read it. This may mean that such messages are generally unimportant,

[7] In models such as Coate (2004a) and Ashworth (2006), where voters are not aware of candidate ideology without campaigning, campaigning is how voters learn candidates' ideology and also the inducement for parties to select moderate candidates with greater probability. Unlike simpler models of spatial competition, the candidates are only moderate probabilistically, and so campaigning transmits genuinely new information to voters.

or it may indicate that in less visible (but no less important) local offices, voters focus on candidate attributes that are only revealed through more personal campaigning.

There are several explanations consistent with our result that personal contact has the strongest persuasive effect. The interaction between candidate and voter could serve to lessen social distance. Although, the impact is quite large for a five-sentence introduction. Alternatively, voters may use information from the candidate's appearance and demeanor to update prior beliefs regarding the candidate, although this implies voters' preferences *ex ante* that favored his characteristics. Finally, the candidate appearing on the voter's doorstep may signal candidate quality, implying low quality candidates find it difficult to campaign in person.[8]

Our paper makes several important contributions. First, we show that political persuasion is more than having a persuasive message. Personal characteristics and personal contact seem to be very important in the decision of which candidate a voter chooses. Second, as both theory and intuition would suggest, persuasion occurs amongst those who are identifiably persuadable. Support for the candidate is over 50 percent higher among canvassed unaffiliated voters compared to unaffiliated voters in the control group. Among partisan voters, the effect of personal characteristics is much smaller.

Finally, our paper contributes to several literatures. The first is the growing empirical economic literature on persuasion through media and media bias (DellaVigna and Kaplan 2007, Gentkow and Shapiro 2010), in charitable fundraising (DellaVigna, List and Malmendier, 2009; Landry et al, 2006; among others), and in markets (Bertrand et al. 2010). The second is the experimental literature on voter turnout (Green and Gerber 2008, for a quadrennial review). Our paper presents the first randomized field experiment to measure the effect of candidate

[8] These models incorporate quality characteristics into preferences. Quality is important to voters because they must decide to which elected official to delegate authority in an environment where monitoring is limited.

campaigning on voter turnout in a general election. Unlike the previous experiments, however, which used volunteer and paid canvassers, we find a demobilizing effect from candidate canvassing. Our results also add to the literature on the effect of partisan campaigning on both turnout and persuasion (e.g., Arceneaux 2007, Arceneaux and Kolodny 2009, Arceneaux and Nickerson 2009, Gerber 2004, Gerber et al. 2011, Gerber et al. 2009, Nickerson 2007).

The paper is organized as follows. Section 2 presents a general theoretical framework. Section 3 lists our hypotheses. Section 4 presents the experimental design. Section 5 describes the results. Section 6 discusses the results and Section 7 concludes.

2. Theoretical Framework

To clarify our experimental design, we present a simple model of voting. The act of voting involves two decisions: whether to vote at all, and whom to support with one's vote. Features of a candidate's campaign may affect one, both, or neither decision. Consider Riker and Ordeshook's (1968) rational choice model of voting, used regularly as a framework for field experiments on voter turnout. In this model, p is the probability a voter's vote is decisive, B is the differential benefit the voter receives from his preferred candidate prevailing, D is the psychic benefit the voter receives from voting, and C represents the cost of voting. Voters vote when the benefit of voting exceeds the cost:[9]

[1] $pB + D > C$

Because a voter is rarely decisive,[10] making a particular candidate relatively more appealing to a voter (changing B) should not have a large impact on voters' turnout decision. The

[9] Note that for most elections, including the one in this experiment, there is not one decision but a slate of candidates and issues on the ballot. As such, it is likely more reasonable to say that, for an election containing K issues or contests, the voter participates in the election if:

$\sum_{i=1}^{K} p_i B_i + D > C$

[10] Gelman et al. (2009) estimated that the likelihood of being the decisive voter in the 2008 U.S. presidential election is about one in 10 million at best. The likelihood of decisiveness in a small election, while larger, is still negligible.

voter votes when *D* exceeds *C* and abstains otherwise. Get-out-the-vote interventions are thought either to reduce the cost of voting by reminding voters about the election or to increase the benefit of voting by priming voters' civic duty.

If a voter takes a ballot, he then must decide whom to support.[11] This decision is driven by *B* explicitly, which we define as:

[2] $$B = \max_{j \in J} E[Q_j - abs(\theta_i - \theta_j) \mid I, m_1, ..., m_J]$$

where Q_j is the utility voters derive from the "quality" of candidate *j*, θ_i and θ_j are the ideal point for voter *i* and the position of candidate *j*, respectively, *I* is all publicly available information about the candidates, and m_j is the message candidate *j* sends to a voter.[12] We interpret "quality" and "position" loosely. Quality is any attribute that all voters prefer, and position is the combination of candidate characteristics over which voter preferences differ (although this is usually thought of as ideology or policy). Voters are not perfectly informed either of the quality or the position of a candidate, so they base their vote on their estimate of each characteristic given their (publicly and candidate-supplied) information.

Candidates can use their campaign messages to change estimates of quality and of position in voters' minds.[13] Many attributes contribute to a candidate's quality, such as experience, integrity, and competence. Candidates can state qualifications and experience, but can only reveal key personal attributes indirectly through costly signaling (Coate 2004b,

[11] Many models of elections assume away abstention and focus on the question of whom voters support. See Bendor et al. (2011) for a recent example of integrating voter turnout and vote choice into a single model.
[12] Wittman (2008) demonstrates that voters are rational to vote against candidates who do not contact them when candidates can target messages to specific voters. This idea also applies to different levels of contact from a candidate, suggesting that less contacted groups should vote less for a candidate relative to those receiving more (or costlier) contact. Feddersen and Pesendorfer (1996) show that uninformed swing voters in a two-party election abstain when the two sides' partisans are balanced, and (probabilistically) vote against the more numerous partisans when the sides are unbalanced.
[13] As our candidate engaged in no "negative" campaigning (references to his opponents' quality or position), we focus on messages regarding the candidate's own quality and position.

Ashworth 2006, Potters et al. 1997). A separating equilibrium exists in which high quality candidates campaign (or campaign more) and low quality ones do not (or campaign less), provided that candidates with higher quality have lower marginal costs of campaigning and the cost the lower quality candidate would incur to campaign (or campaign more) is not compensated by the greater likelihood of victory (Potters et al. 1997). Such an equilibrium is reasonably likely to exist in an environment such as ours. Going door-to-door to talk to voters requires both perseverance and extroversion, attributes that people generally favor in others and that lower the cost of campaigning.[14] In equilibrium, voters who receive (costlier) campaign messages revise upward their estimate of candidate quality based on the observed campaign effort and are more likely to support the candidate.[15]

Candidates can also give information on their position to voters. In spatial models of voting (Dewan and Shepsle 2011, for a review), candidates improve their likelihood of winning by positioning themselves closer to the median voter. For a message's content to gain a candidate votes generally through positioning, it must move voters' estimate of the candidate's position toward that of the median voter. It must lead voters to think of the candidate as being less extreme after receiving a message from him.

If, however, campaigning works primarily through quality revelation (e.g., costly signaling), then the method a candidate uses to campaign will trump his message. Costlier methods—such as candidate door-to-door canvassing, irrespective of the information

[14] Meirowitz (2008) models voters as valuing the effort candidates put into running for office, but not as a signal. Candidates in his model have different marginal costs of effort, which is akin to having different levels of quality.

[15] How a candidate chooses to campaign is also a signaling device. Highly personal campaigning—such as door-to-door campaigning by the candidate—may serve to reveal indirectly attributes of the candidate's character that voters value (hard work, valuing constituent contact, or so on). Lipsitz et al. (2005) report on a survey and focus groups of voters during the 2002 California gubernatorial election in which voters express a desire for more direct observation of the gubernatorial candidates themselves—such as in debates or forums—so voters can easily "get a sense of the candidates" (pp. 346). While the authors note that in-person campaigning is infeasible for a large state's gubernatorial campaign, a local election environment such as ours is ideal for fulfilling such a desire by the candidate himself. At a minimum, a candidate who does so reveals that he has nothing to hide from the voters.

transmitted—will garner more support relative to less costly methods (information transmitted through pamphlets) or not campaigning at all. Which message a voter receives will not matter. But if campaigning works primarily through candidates revealing their position, then the method of contact is important only inasmuch as it draws attention to the message.[16] The candidate gains support by revealing himself to be a moderate (the median of the voting electorate). Messages that fail to indicate a candidate's position (i.e., the how-to-vote pamphlet) are at best uninformative, and at worst lead some voters to conclude that the candidate is extreme, as voters could assume that candidates with moderate positions would reveal them rather than send a platform-free message.

Quality signaling is not the only explanation for why the method of delivery alone would persuade voters. For many down-ballot races, voters who go to the polls have little information on any candidate. Campaigning lets voters know that the candidate exists; voters may use a recognition heuristic (Goldstein and Gigerenzer 2002) to infer that candidates they haven't heard of would probably make a poor choice. Campaigning also gives voters a little more information with which to update their previous beliefs. But Bayesian updating only predicts the voter will have *more precise* views given more information, not that these views necessarily favor the candidate. For updating on the new information to be the mechanism behind persuasion, the information revealed must lead voters on net to *improve* their opinion of the candidate.

Finally, persuasion may occur through lessening social distance. Just as individuals in dictator games give more to those with whom they have a perceived bond or relationship (Hoffman et al. 1996), voters may be more inclined to give their vote to those with whom they form a relationship, such as through a brief introduction. Pamphlets (and no contact) cannot form

[16] Campaign method could still matter if it is easier to ignore some campaign techniques than others, due to voters' limited attention or interest.

a bond in the same way. Persuasion through reducing social distance makes no prediction across messages, but predicts greater support in the canvass treatments than with the pamphlet alone.

3. Hypotheses

Given the above theoretical discussion, we pose several hypotheses regarding the effect of our experimental manipulation of the candidate's campaign on voter behavior.

When the voter receives a message from a campaign asking for her support, either indirectly (lit-drop) or from a candidate personally, it inevitably reminds the voter of the election. This serves to lower the cost of voting, and we expect it to raise voter turnout relative to voters not contacted. And as a visit from a candidate is both more memorable and means the voter definitely received the message (i.e., literature left in the front door of a home may not be received by the voter), candidate canvassing should increase voter turnout relative to lit-drops.[17] Thus, our first hypothesis is that voters in treated households have higher turnout rates than voters in the control group, and that voters in candidate-canvassed households have higher turnout rates than those that receive literature alone.

To test the effect of political messages on voter turnout, we modify the content of the candidate's message from one in which platform is explicitly mentioned to one in which information on how to vote is included. While the candidate says the same thing to all canvassed voters, each pamphlet may have a different effect. We have no a priori hypotheses on the effect of the pamphlets. Providing informational content on how to vote seems to lower the cost of voting, but the information may lead voters to frame voting as complicated or inconvenient. And as prior empirical research (Green and Gerber 2001) finds no stronger turnout effect using

[17] There is also the issue of civic duty. Meeting a candidate may create a stronger feeling of civic duty to go vote, as the voter now has more direct interaction with the political system, increasing voter participation. The candidate, however, is not reminding people to go vote, but asking them to vote for him. The self-serving nature of the candidate's visit may fail to prime voters' sense of civic duty or may even reduce it. On balance, we expect to have negligible effect on civic duty.

messages with more content about how to vote (relative to civic duty messages), experience also provides no strong hypothesis.

The effect of the political pamphlet on turnout is also ambiguous. It reminds voters that an election is coming, which should lower the cost of voting and increase turnout. But asking voters for their vote, rather than asking them to go vote, may diminish voters' sense of civic duty, reducing voter turnout. It is important to emphasize that, as voters are very unlikely to be pivotal, how the messages affect support for the candidate should not have a meaningful impact on whether they vote, but only on whom they support (conditional on voting). Therefore, our second hypothesis is that the effect of the messages will be ambiguous on voter turnout.

We now consider the campaign's effect on voter choice. Candidate canvassing is a costly form of campaigning which may serve to signal quality. Lit drops are less costly to a campaign and so are less likely to serve as a signal of quality to voters.[18] The difference in cost leads us to our third hypothesis: we expect a higher percentage of voters in canvassed households to vote for the candidate relative to lit-dropped and control households, and lit-dropped households to vote at higher rates for the candidate than control households.

If voters are also (or only) influenced by the position of candidates, the campaign only gains votes through revealing his stance (e.g., ideologically, or on particular local issues). The political pamphlets are designed to make the candidate appear ideologically moderate (for his left-leaning district), while the how-to-vote pamphlets have little information that would help voters determine the candidate's position relative to their own.[19] Thus, our fourth hypothesis is that if political position drives voter support, vote share should be higher in the political

[18] Voters cannot observe who leaves literature at their household without knocking but do know when they've spoken with a candidate.

[19] Voters who receive the how-to-vote pamphlet may infer that were the candidate more moderate, he would have indicated as such in his campaign, leading them to conclude that the candidate is not moderate.

pamphlet treatments than in the how-to-vote treatments and the control. The how-to vote treatments should have little effect on vote share if position drives voter support.

We turn now to a more detailed discussion of our design.

4. Experimental Design

The experiment took place in a 2010 election for county legislature in a Midwestern state. The legislature is comprised of nine three-member districts in which one or two seats are up for election every two years. The candidate was one of two Democrats running for two open seats in one district. One Democrat was the incumbent, and the non-incumbent Democratic candidate embedded this experiment in his campaign. Two Republicans also contested these seats. Table 1 presents some summary information on the registered voters in the district and past election results for the office in that district. Democrats have held all three seats in this district since 2002, when the county legislative districts were last redrawn.

We conducted the field experiment among the candidate's general election target population. The candidate, in consultation with local party officials, decided to concentrate his campaign among Democrats and voters not affiliated with any party, all of whom were reasonably likely to vote. We assisted the campaign in developing this target population. Using voter file data, we first classified voters by party affiliation on the basis of the frequency with which they participated in Democratic and Republican primary elections using an algorithm developed by the county party.[20] We then constructed a probabilistic model of voting in the 2006 midterm election using voters' demographics and voting behavior leading up to the election (age and age squared in 2006, sex, whether the individual voted in the three previous elections, and whether they voted in a party primary in 2006). We applied the coefficients of this model to the

[20] Specific details available upon request. Essentially, Democrats (Republicans) are those who always or frequently participate in Democratic (Republican) primary elections, while unaffiliated voters participate in neither or switch frequently between the major party's primary elections.

voters' 2010 demographic characteristics and voting histories to estimate each voter's likelihood to vote in the 2010 midterm election.[21]

After developing an estimate of individual likelihood to vote, we averaged the predictions within households and included only those households where the average likelihood to vote of the (registered-to-vote) occupants exceeded 30 percent. We then applied the following additional cutoffs. To avoid mobilizing the opposition's supporters, we excluded all households where a Republican voter, as defined above, resided. We also used a private address verification service on the voter file and removed all voters who moved out of the district. Finally, we concentrated on households with three or fewer voters, as many households with four or more voters were considered unlikely to be occupied by all voters listed in the voter file.[22] These restrictions gave the candidate the largest possible target population that he felt able to reach in the time allotted to campaign. Tables 2a and 2b present information regarding the target population (overall and by treatment) aggregated at the household and individual level, respectively. The tables offer a first check that our random assignment to treatment was effective.[23]

We have a 2x2 design that varied method of delivery (face-to-face canvassing or literature-drop) and pamphlet message content (political or how-to-vote information). The candidate either attempted to talk to the targeted voters personally (canvass) or left literature at the household without contacting the voter (lit-drop) in the weeks leading up to Election Day.

[21] We performed the same estimation techniques on the 2002 data to predict voter turnout in 2006, and found that our predicted likelihood to vote was highly correlated with voters' actual decision to turn out (ρ=0.68). The empirical results of these steps are available from the authors upon request. See Brox and Hoppe (2005) for a discussion of such models and their accuracy in predicting voter turnout.

[22] This step eliminated 303 households out of about 7,100 in the district. Many of these addresses likely have fewer voters living there than indicated in the voter file, such as parents with adult children who have yet to update their registration record, or student apartments with high turnover.

[23] While we randomly assigned households to treatments and the control group, there are small differences in average characteristics. Voters in households in the control group have a slightly higher predicted likelihood to vote than the canvass treatment groups. We show in the appendix that households with high average vote likelihood are slightly less likely to be assigned to the *Canvass Political* treatment than the control group. As such, we control for covariates when estimating treatment effects.

The content of the pamphlet left with the canvassed voter or at the lit-dropped household was one of two types. Some households receive literature that provided them with information on how, when, and where to vote (vote info), while others received literature on the candidate's platform (political). Neither pamphlet mentions the candidate's political party[24], but the latter has general information on the candidate's political views. The pamphlets share an identical front, with the content difference on the back. Figure 1 presents the full color version of the front of the pamphlets, and the respective back of each pamphlet. The candidate ordered the pamphlets printed in black and white on green cardstock, the signature color of his campaign.

The treated households receive one of four treatments: canvass with political pamphlet (*Canvass Political*), canvass with the how-to-vote pamphlet (*Canvass Vote Info*), lit-dropped political pamphlet (*Litdrop Political*), or lit-dropped how-to-vote pamphlet (*Litdrop Vote Info*). Households were randomly assigned into either the control group or one of four treatment groups. In addition to the treatments, all households, including the control group, received a single mailing from the candidate in the last week of the campaign.[25]

Administration of the *Canvass* treatments was straightforward. The candidate knocked on a household's door and asked to speak to any registered voters present. He then delivered the following short introduction to available voters: "Hello, my name is George Mason.[26] How are you? I'm running for County Board, and I'm here today to ask if you have any questions about my campaign or ideas for our community, and to ask for your vote this Election Day." The candidate dressed professionally, delivered the same script to all canvassed households, and

[24] This was intentional for both the campaign and the experiment. Even though the district is very Democratic, the candidate did not want to dissuade Republican-leaning independent voters from talking to the candidate by immediately learning the candidate's party affiliation. And for the experiment, we wanted to avoid partisan (as opposed to ideological) cues outside of the party affiliation listed on the ballot.
[25] As such, we are measuring the effect of additional costly campaign activity relative to a single piece of mail.
[26] Name changed to preserve candidate anonymity.

avoided additional conversation with essentially all canvassed voters. In sum, aside from differences in pamphlet content, the only additional (direct) information voters received was a 15-second introduction to the candidate.

For the *Litdrop* households, treatments were even easier to administer. The candidate or a volunteer left the literature in a conspicuous place (e.g., folded through the handle of the front door, stuck in the edge of the mailbox). The candidate had a few volunteers who helped him by leaving literature at households while he canvassed. The volunteers understood not to talk to voters, but to maximize the speed with which they delivered literature, and neither the candidate nor volunteers reported any interactions with voters when lit-dropping.

The candidate conducted his campaign from late August through late October 2010. After developing the targeted population list and the treatments, the authors generated walk lists for each precinct and a randomized list of the precincts in the district. The district contains eleven precincts. Each day the candidate campaigned, he consulted the randomized list and walked some streets of the precinct on the list. We randomized the order in which the candidate approached neighborhoods to ensure that no neighborhood or precinct systematically received their assigned treatment closer to the election. This was important because Nickerson (2006) finds that the timing of GOTV canvassing impacts its effectiveness. The candidate could not cover an entire precinct in a single attempt, so he started a second pass in a new part of the precinct when coming through the list the second and subsequent times. In the final two weeks of the campaign, the candidate continued to rotate randomly through only those precincts and streets with many not-yet-contacted households remaining.

The candidate campaigned between two and four hours per day, and four to six days each week of the campaign. The candidate made multiple trips to each precinct and several passes

down each street throughout the experiment. For each household, he logged his first attempt to contact voters, the date of successful contact at *Canvass*-assigned households, and the date when he or a volunteer delivered literature to a *Litdrop*-assigned households. The candidate adhered to the experimental script, and reported that three voters out of several hundred households canvassed desired to continue the conversation beyond his short speech.[27]

To obtain information on voter choice, we conducted a post-election phone survey in the week immediately following the 2010 election (see the Appendix for the survey script). We discuss this survey in more detail in the Results section on Voter Choice. To obtain information on voter turnout, we acquired the voter file from the County Board of Elections. We turn next to the results.

5. Results

We begin with some data on experimental execution and the election. Table 3a shows the contact rates by treatment. The candidate managed to reach a voter at 59 percent of *Canvass*-assigned households, and left literature at roughly 90 percent of *Litdrop*-assigned households. The candidate's district includes many multi-family dwellings and apartment complexes, and so the candidate could not access voters in all such housing due to locked doors or no solicitation policies. In these cases, we *ex post* removed all households in the experiment at that address from the control and treatment groups. The inability to gain access costs us 256 households (309 individuals), or roughly 9 (7) percent of the sample of households (voters).[28] Table 3a shows the contact rates with and without these locked households removed.

[27] Unfortunately neither we nor the candidate recorded which voters these were.

[28] Retaining these voters for the voter turnout analysis does not change our conclusions. We excluded locked households from the list of households to contact for the survey. Additionally, during a single day of canvassing late in the campaign, the candidate decided to lit-drop households assigned the canvass treatment that he could not reach. The candidate lit-dropped 12 such households (6 in each of the canvass treatment groups) but discontinued the practice after speaking with the authors. Either controlling for or removing these households from the sample has no effect on the results.

Table 3a also shows the average number of days prior to the election that each treatment was successfully completed by the candidate. Because reaching households for a face-to-face meeting often took multiple attempts, while a lit-drop was always completed on the first attempt, the average *Canvassed* household received its assigned treatment approximately 10 days closer to the election than the average *Litdropped* household. Controlling for the timing of delivery does not qualitatively change the results we present below.

Table 3b presents the election outcome. Both Democratic candidates prevailed; the cooperating candidate won overwhelmingly. He received about 33 percent of the ballots cast, and was the only candidate to receive more votes than there were abstentions in the race. He was also the only candidate to receive the support of a majority of participating voters. With these outcomes in mind, we turn to an examination of voter turnout and voter choice in our experimental sample.

5.1 Voter Turnout

Table 4 presents the differences in voter turnout across treatments. The first three columns present the unconditional effects. Of the four treatments, only *Canvass Vote Info* yields a statistically significant difference with the control group: turnout is statistically significantly lower in this treatment group than in the control by 5.8 percentage points. Driven by the strong negative effect of the *Canvass Vote Info* treatment, *Vote Info* (*Canvass*) statistically significantly lowers rates of voter turnout when pooling across delivery method (or content). Though not all treatments are statistically different from the control, all treatments have lower levels of turnout than the control group, and the two *Vote Info* treatments have the lowest

Columns 3 through 6 of Table 4 include several covariates that may affect turnout, including neighborhood level characteristics and campaigning by the other candidates in the

district.[29] The negative effect of *Canvass Vote Info* is somewhat smaller but remains significant in column 4. *Litdrop Vote Info* also has a weakly statistically significant effect on turnout in column 4, reducing it by 3.6 percentage points. *Canvass* as a method continues to reduce voter turnout relative to the control, but the effect is smaller (3.2 percentage points) and weakly statistically significant (p-value=0.097). And pooling over messages (column 6), we find that *Vote Info* still significantly reduces voter turnout by 4.1 percentage points (p-value=0.028). The covariates also have the signs we would expect.[30]

The results in columns 3 through 6 are intent-to-treat (ITT) effects; in columns 7 through 9, we employ assigned treatment as an instrument to recover average treatment-on-treated (ATT) effects.[31] The effect of *Canvass Vote Info* is quite large, reducing turnout by 7.4 percentage points, and *Litdrop Vote Info* reduces voter turnout by 3.6 percentage points, though the latter effect is weakly significant (p-value=0.093). As in column 5, column 8 shows that pooling by delivery methods yields weakly statistically significant effects of canvassing. The largest and most consistently significant demobilizing effect comes from the pooled *Vote Info* treatments which yield an ATT effect of -5.1 percentage points.

[29] We include party affiliation, predicted likelihood to vote, sex, age, and the number of other voters in the household (available from manipulation of the voter file). The other Democratic candidate in the race provided us with a list of households he targeted, which we include as a control as well. Finally, using the 2010 U.S. Census redistricting data at the block level, we add the percentage of nonwhite residents in a voters' neighborhood, defined as his or her Census block, as a proxy for differences across neighborhoods. Per a conversation between the cooperating candidate and one of the Republicans, we learned that the Republicans targeted their campaign activities at the precinct level. The results presented below are unaffected with additional precinct-level binary variables to attempt to account for the Republicans' campaigning.

[30] The strong positive coefficient on the other Democratic candidate's mail is likely due to the more restrictive selection criteria he used to make the mailing list, and his use of a voter file that was "cleaned" closer to the election by both state and party officials.

[31] Because voters may be unreachable due to unobservable characteristics that also impact whether and for whom they vote, estimating the ATT effect of treatments using only the observation of whether a household received the treatment can bias the coefficients. As we can never know with certainty that a household receives our literature when lit-dropped, the ATT effect for *Litdrop* treatments means only the treatment given the candidate left the literature, not that the voter necessarily received it.

In sum, we find no support for the hypothesis that giving voters additional information on how to vote increases voter turnout. In fact, doing so reduces voter turnout relative to the control. While the result seems counter intuitive, it is consistent with the *Vote Info* pamphlet raising the cost of voting, perhaps by making the process of going to vote seem difficult or confusing. We examine this explanation in more detail in the Discussion section. We also find that *Canvass Vote Info* has a negative effect on voter turnout. Given the strong effect of the how-to-vote pamphlet, we surmise that the negative effect of canvassing is likely due to the voter paying more attention to the pamphlet when hand delivered. Finally, that voter turnout is influenced by one of the messages (but not the other) is evidence that at least some voters read the messages. This is important for the voter results that follow. It implies that finding no difference in support between messages is not due to inattention, but to the messages' lack of influence over voter choice.

5.2 Voter Support

We conducted a post-election survey in the week immediately following the 2010 election. Using a private phone verification service, we obtained phone numbers for 1,709 households (2,576 individuals), or about 59 (57) percent of the target population. Removing those households where the candidate could not reach any addresses due to locked buildings left us 1,586 households (2,437 individuals), or about 55 (54) percent of the target population. We hired a private survey research company to survey individual voters at all households with verified phone numbers. For households with multiple voters listed, we randomized the order in which the survey company was to attempt to speak with the voters. The company managed to reach individual voters at 918 households, 611 of which (66 percent) consented to the survey. When asked whether they voted, 488 responded to the question, and 413 of these individuals

indicated they voted. Of the 413 who indicated that they voted, 212 indicated for whom they voted, for an ultimate overall response rate of 13 percent.

Table 2c contains the demographics for the survey respondents, the responses of which we restrict to the 191 voters who actually voted as indicated in Count Board of Elections voter file.[32] Unsurprisingly, they are older, more likely to be Democrats, and are *ex ante* more likely to vote than the voter sample generally. We code a voter as having voted for the candidate if they replied that they voted for the candidate, even if they could not recall whether they voted for another candidate as well. We code a voter as not having voted for the candidate if the voter recalled voting for at least one other candidate and not our candidate, even if the voter could not recall whether he voted for more than one candidate. Restricting the analysis below to those voters who recall completely who they voted for serves to strengthen the results.[33]

Before we proceed to the experimental results on voter choice, we need to validate that our survey results are a good representation of actual voter behavior in the district. To do so, we used the actual precinct-level voter turnout by partisan affiliation and election results to calculate bounds on all four candidates' performance among Democrats and unaffiliated voters. These estimates give us a measure of how reasonable the survey results are, and are shown in Table 3c.

For each precinct, we calculate the minimum and maximum fraction of the vote the candidate would have received from each type of voter based on the following assumptions. When calculating lower bounds for a candidate's own party support and unaffiliated support, we assume a rate of partisan cross-over voting from the opposition of 10 percent.[34] When calculating

[32] Of the 212 respondents who said they voted, only 191 actually voted according to the county voter file.
[33] We have also expanded the data to include those who voted but do not recall for whom at all as not voting for the candidate. These results are qualitatively similar though not as statistically significant as those presented below. They also imply lower (higher) levels of support for the candidate among Democratic (unaffiliated) voters than are consistent with the results of the election, as indicated in the bounds analysis in Table 3c.
[34] Such levels are not uncommon in exit polling for congressional races. There is not, to our knowledge, any data on the rate of crossover for local races.

lower bounds on own party or other-party support, we assume that the Democrats receive 58 percent of the unaffiliated support (based on estimates using previous election results). Finally, to form the district-wide lower (upper) bound for each candidate and type of voter, we take the maximum (minimum) of the precinct lower (upper) bounds.[35] Table 3c compares our calculated bounds to the survey results. Our survey results fall within the bounds of what voters actually did (given our assumptions) in all but one case. These results give us confidence that our survey responses are indeed an accurate description of voters' behavior in the election. We now proceed to examine the results from the survey data.

Table 5 presents the analysis of the survey results. The first three columns present the unconditional ITT effects. As shown, candidate canvassing increases support for the candidate relative to the control group by roughly 15 percentage points, and lit-drops yield about 9 percentage points more support, though the latter is not statistically significant at conventional levels. There are no significant differences across message treatments.

In columns 4 through 6 of Table 5, we add several covariates to improve the estimate of the treatment effects. The *Canvass Vote Info* treatment and canvassing overall maintain both their direction and statistical significance: voters in the *Canvass Vote Info* treatment are 16 percentage points more likely to vote for the candidate than those in the control group, and voters in the pooled *Canvass* treatments are still 14 percent more likely to vote for the candidate than the control. This is equivalent to half the effect of being a Democrat, which raises the probability of supporting the candidate by 30 percentage points.

[35] This last step makes the assumption that the expectation of voter support is orthogonal to the precinct. This is a strong assumption, but as the bounds do not cross in any case, it is not rejected in our data. We have calculated bounds using weaker assumptions, and our survey results are consistent with these as well.

In columns 7 through 9, we estimate the ATT effects of the campaign.[36] Being canvassed by the candidate, irrespective of message, increases the likelihood of supporting the candidate by roughly 21 percentage points. As with the estimates in columns 5 and 6, the strength of the canvassing result is driven primarily by the *Canvass Vote Info* treatment. And though we cannot reject equality between the coefficients on the two canvassing treatments even in column 7 ($\chi^2(1)=0.79$, p-value=0.37) the ATT effect for *Canvass* is different from that of *Litdrop* ($\chi^2(1)=3.82$, p-value=0.05).

In sum, while we find no robust evidence that lit-drops of either type increased voter support, we do find support for our hypothesis that canvassing, irrespective of message, has a strong persuasive effect on voters. We turn now to a discussion of these results.

6. Discussion

Our results present a mixed picture of candidate campaigning. On one hand, the candidate's campaign lowered voter turnout among the targeted voters. This result runs contrary to the findings of previous studies of nonpartisan and partisan door-to-door canvassing by volunteers and paid staff, which find a strong positive effect of canvassing on turnout. On the other hand, door-to-door candidate campaigning was a powerful mechanism of persuasion in the campaign, increasing the likelihood a voter supports the candidate by 20 percentage points, which is consistent with our hypotheses and also previous findings in a primary election (Arceneaux 2007). We discuss these main findings below.

6.1 Voter Turnout

The candidate's campaign did not increase voter turnout among the targeted population, and in fact significantly decreased it in both *Vote Info* treatments. Had our treatments reduced

[36] The candidate managed to deliver literature to all of our survey respondents in the *Litdrop* treatment groups, and as such there is no difference between ITT and ATT for those treatments.

voters' sense of civic duty to vote, we would not only expect all treatments to reduce voter turnout, but that the *Political* treatments to have reduced it the most. That voter turnout is lowest in the *Vote Info* treatments, and is not significantly affected by the *Political* message, is consistent with raising the cost of voting, though contrary to the aim of our candidate's goals.

We examine more closely whether providing this information made voting more costly by looking for heterogeneity in its effect within the target population. The information we provide on how to vote is probably well known by anyone who votes regularly and should not greatly influence their turnout. While we targeted households with a high propensity to turn out, there are many individual voters in these households who vote infrequently. Registered individuals with little or no experience at the polls may not always remember when and where to vote, nor whether they require identification. Despite our intentions, our *Vote Info* message could have made voting seem more costly to these voters, while not noticeably affecting the turnout of highly likely voters.[37]

To test this hypothesis, we created a binary variable for being a likely voter based on our estimated likelihood to vote. Voters with a predicted likelihood that exceeded 50 percent we coded as likely, while those with predicted likelihoods below 50 percent we coded as unlikely voters.[38] We interacted this variable with our treatment variables. If the message served to raise

[37] The reader might ask what elements of the *Vote Info* content served to reduce turnout. We speculate that it may have been the explanation of the identification requirement, which reads (in part) as follows: "You always need government-issued photo ID for early voting, but only need ID to vote on Election Day if your voter registration card says so." We consulted with the local Board of Elections (BOE) to provide short but complete answers to the questions of when, where, and what identification is required to vote. The answer to the last question is complex. Some voters need some type of identification at the polls on Election Day, all voters need government-issued photo identification to vote early, and the list of what counts as identification is substantial. BOE staff felt that answering "Do I need ID to vote" with "generally, no" was too simple and might mislead voters who do need some form of ID into thinking that they did not. But the answer we used may have made others think that they did, or confused them generally.

[38] This is a common division when using probabilistic models to predict voter turnout (Brox and Hoppe 2005). The results below are not sensitive to using the mean (66%) or median (58%) expected likelihood to vote as the cut-point between likely and unlikely voters.

costs for unlikely voters, we would find negative and significant coefficients on both *Vote Info* treatments, but positive offsetting coefficients on the interaction terms (i.e., little to no effect on likely voters). Table 6 shows our results for both ITT (column 1) and ATT (column 2) effects.

All treatment variables continue to have negative coefficients, but the demobilizing effect is only significant for unlikely voters, those who are probably less aware of the rules and procedures of voting. The *Vote Info* pamphlet—whether *Canvassed* or *Litdropped*—reduced voter turnout by about 8 percentage points (column 1). The effects are mitigated for experienced voters. Tests for the total effect of the treatment on likely voters indicate that it is not significantly different than zero (Canvass: $F(1, 2643)=0.74$, p-value=0.39. Litdrop: $F(1, 2643)=0.03$, p-value=0.87). Looking at the ATT effects, there is an even larger difference between canvassing and lit-dropping the *Vote Info* pamphlet: canvassing (lit-dropping) with the informational pamphlet reduced voter turnout among unlikely voters by 12 (8) percentage points, but the effect is again small and insignificant for likely voters.

This evidence strongly suggests that our *Vote Info* treatments raised the cost of voting for unlikely voters, but neither raised costs nor provided useful information to likely voters.

6.2 Voter Support

We find a large persuasive effect of the candidate himself on voter support. As it is the method of contact and not the message that influences voters, this result is consistent both with costly signaling models of campaigning in the literature, but also with a recognition heuristic driven by interaction as well as reducing social distance between the candidate and voters. What we examine here is not how we persuaded (which we have identified), but whom. Even the signaling models of campaigning cited above assume that there are partisan voters whose vote choice isn't influenced by quality as well as independent voters who are persuadable. These

models suggest that campaigns gain votes not through persuading the remaining unsupportive partisans but through increasing the fraction of unaffiliated voters supporting the candidate.

We test this possibility in Table 7 by interacting treatments with whether the voter is a Democrat, the omitted category being unaffiliated voters. As shown in column 2, canvassing increases voter support for the candidate by 29 percentage points among unaffiliated voters. This effect is twice as large as the treatment effect reported in Table 5. The interaction term with Democratic affiliation is large and negative, indicating the effect on the candidate's own partisans is much smaller (though still positive) and insignificant ($F(1, 179)=0.84$, p-value=0.36). Column 4 shows the treatment-on-treated effect of canvassing. Being canvassed by the candidate increased the likelihood that an unaffiliated voter voted for him by 49 percentage points. To put this effect in perspective, being a Democrat is associated with a voter being 35 percentage points more likely to support the candidate. When the candidate successfully canvassed an unaffiliated voter, he made the voter about as supportive of his campaign as a partisan.

Our findings in this regard are similar to candidate canvassing in primary elections: Arceneaux (2007) finds an ATT effect of 42 percentage points in a 2004 Democratic primary for a county office. His result is similar to what we find for persuading unaffiliated voters, perhaps suggesting that a large portion of primary voters are "independents" with respect to their primary vote.[39]

Finally, we consider the effect of the treatments not only on the candidate's vote share, but also on the vote share of the other three candidates. Whether the candidate earns votes by

[39] Our results contrast, however, with those of recent field experiments with independent political groups. Nickerson (2007) finds that a progressive political group causes independent voters who regularly vote for the group's partisan opponents to vote *even less* for the group's preferred party. Arceneaux and Kolodny (2009) perform an experiment where a Democrat-aligned interest group canvasses right-wing partisans who agree with the interest group on a single issue (abortion rights). They find that the voters vote even more strongly Republican after being canvassed. Both of these suggest that voters can use an interest group's identity alone as an indicator of the ideology of the group's preferred candidate. Candidates, thus, may have a leeway unavailable to political interest groups in campaigning, in that candidates may be less strongly identified with a particular ideological position.

moving unaffiliated voters from one party to another, or merely switching which Democrat split-ticket (or single-vote) voters support, helps us to understand whether the campaign genuinely persuades voters to switch support across parties or merely changes which person of a particular party the voter favors. As there are two seats over which the four candidates compete, it is possible for the cooperating candidate to take votes either from the two Republican candidates or the other Democratic candidate (if, for example, voters were splitting their ticket across parties but not voting for our candidate).

Table 8 shows that the effect is more likely persuasion. The candidate not only significantly increased the likelihood an unaffiliated voter would support him, but significantly reduced the probability that the voter would support either of the Republican candidates. The cooperating candidate's campaign also increased the likelihood that an unaffiliated voter would support the other Democratic candidate, though the effect is not statistically significant. Our results suggest that campaigning, independent of message, has a strong persuasive effect, especially among those who are non-partisan.

7. Conclusion

This paper set out to investigate what persuades voters to support candidates: political messages or the actions of candidates. To do this we implemented a field experiment with a candidate in which we altered the content of a political message and whether the message was delivered via a literature drop with no personal contact or by the candidate himself with limited personal interaction with the voter. Altering the message and holding constant the way it is delivered allows us to directly test if political advertisement is important because it reveals relevant information to the voter. Altering the way the message is delivered allows us to test if the actions of candidates themselves affect voters' choice.

We find that political messages do not persuade voters to support candidates. Neither the content of the message nor having received a message at all affects whether a voter supports the candidate. However, we find that a brief visit by the candidate dramatically increases the support for the candidate regardless of the nature of the message delivered during the visit. The actions of candidates seem to speak louder than words. This may explain the importance of candidate appearances in contests from the one presented here to the U.S. Presidency.[40] Campaigns should only allocate their scarcest resource (candidate time) in this manner if candidate appearances were particularly effective at getting votes.

There are several explanations for the unpersuasiveness of our political messages but the effectiveness of candidate visits. Political messages could be ineffective because, in equilibrium, only information contradicting held beliefs about the positions of candidates is relevant. Voters might care only about the political affiliation of the candidate when deciding for whom to vote, and this information is already registered on the ballot. In a world where households face a myriad of blanket advertisements, messages might be ineffective just because people do not pay much attention to them. While our experiment cannot speak to the first reason, it can to the second. Our study shows that message content did have an impact on voter turnout, but not on voter choice. That is, independent of the method of delivery, literature drop or by the candidate, the content of the message was not ignored. We therefore conclude that the absence of an effect of political messages on voter support cannot be completely attributed to a lack of attention.

The fact that door-to-door campaigning is an effective way to secure voter support is reminiscent of field evidence on charitable fundraising which shows that not only personal characteristics of the soliciting person (Landry et al. 2006, Price 2008) is influential, but also that

[40] Stromberg (2008), for example, shows that state visits by the major parties' Presidential nominees are well-described by a model of presidential candidate resource allocation designed to maximize the probability of electoral victory.

social pressure partially accounts for giving (DellaVigna, List, and Malmendier forthcoming). Two crucial differences between charitable fundraising and political campaigning are that voters' decision "to give" (their vote) is made days or weeks later and is also made in secret. Voters do not have to give their vote at that moment, nor need they worry about anyone learning that they did not vote for someone they promised to support. The mechanism through which political campaigning works is more likely through information revelation, either through a candidate's personal characteristics or commitment.[41] Our results are consistent with costly signaling theories of political campaigning. These theories suggest that in situations where voters have to delegate power to elected officials information other than political positions is most relevant.

Our study also reveals that the effects of campaigning are heterogeneous. Those voters that can be classified *a priori* either as highly likely to vote or partisans are virtually immune to political campaigning. We find that the effect of information on voter turnout is mainly due to the large effect on voters that are less likely to vote. Similarly, we find that the effect of door-to-door visits is statistically significant and large among unaffiliated voters, but not so among partisan voters.

That unaffiliated voters were persuaded but not partisans recalls Gerber's (2004) experiment using candidates' direct mail. He notes that one candidate's mail campaign "worked on those who would normally be excluded from the mailings [independents and opposing partisans] and failed to work on those who were targeted [the candidate's partisans]" (pp. 555). Our cooperating candidate received similar targeting advice from local party officials (i.e., focus on "the base"). Given our results and Gerber's, this strikes us as folly. To persuade voters, candidates must talk to those not already predisposed to support them.

[41] Clearly, visits by the candidate could also reveal negative aspects of the candidate. Evidence of negative reactions to door-to-door campaigning would contradict social preferences and memory-based explanation of our results.

While there have been several field experiments addressing the effectiveness of different campaign methods on political outcomes, our study is the first to show direct evidence that messages can be consequential for elections but not persuasive. Our experiments also provide direct evidence that motives other than political position are important in voters' decisions of whom to support and that this effect is larger among non-partisans. These results are important for both practitioners and academics, as they identify how persuasion influences voters. In an environment of confidential actions (voting), the largest impact comes from personal contact.

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Table 1. Summary Statistics of District Voters and Election History

Registered Voter Characteristics

Variable	N	Mean	StdDev	Min	Max
Age[1]	10188	45.95	17.39	19	105
Male	10261	0.46	0.50	0	1
Voters in Household	10261	2.17	1.11	1	9
Likely Democrat	10261	0.24	0.43	0	1
Likely Republican	10261	0.13	0.34	0	1

Past Aggregated Election Results

		Year			
	Average	2008	2006	2004	2002
Democratic Vote Share[2]	70.4%	100.0%	60.7%	61.3%	59.6%

Source: County voter file at start of campaign and election result reports. We exclude from the registered voter data those voters who moved out of the district according to a private address verification check.

Notes: (1) Some voters have birthdays listed as "01/01/1900". County officials indicated that this means the record is missing birthday information.

(2) Calculated as the number of votes for all Democratic candidates for county legislature in the district divided by the number of votes cast for all candidates for county legislature in the district.

Table 2a. Summary information on campaign target population by treatment: households

Variable	Obs	Mean	Std. Dev.	Min	Max
All Households					
Male	2900	0.43	0.39	0	1
Age	2900	48.99	15.67	22	96
Percent Voters are Dems	2900	0.42	0.46	0	1
Voters in Household	2900	1.56	0.66	1	3
Predicted Likelihood to Vote	2900	0.59	0.21	0.20	0.97
Control					
Male	580	0.45	0.39	0	1
Age	580	48.60	15.61	22	96
Percent Voters are Dems	580	0.41	0.46	0	1
Voters in Household	580	1.55	0.65	1	3
Predicted Likelihood to Vote	580	0.60	0.21	0.30	0.97
Canvass Political					
Male	580	0.45	0.38	0	1
Age	580	48.15	15.39	24	95
Percent Voters are Dems	580	0.40	0.45	0	1
Voters in Household	580	1.58	0.65	1	3
Predicted Likelihood to Vote	580	0.57	0.21	0.20	0.97
Canvass Vote Info					
Male	580	0.41	0.38	0	1
Age	580	49.94	16.47	22	96
Percent Voters are Dems	580	0.45	0.47	0	1
Voters in Household	580	1.59	0.68	1	3
Predicted Likelihood to Vote	580	0.59	0.21	0.28	0.97
Litdrop Political					
Male	579	0.47	0.40	0	1
Age	579	49.12	15.61	22	89
Percent Voters are Dems	579	0.44	0.47	0	1
Voters in Household	579	1.54	0.65	1	3
Predicted Likelihood to Vote	579	0.60	0.22	0.24	0.97
Litdrop Vote Info					
Male	581	0.40	0.39	0	1
Age	581	49.12	15.23	24	94
Percent Voters are Dems	581	0.42	0.46	0	1
Voters in Household	581	1.54	0.66	1	3
Predicted Likelihood to Vote	581	0.58	0.21	0.30	0.97

Source: County voter file, excluding voters who moved out of the district according to an address verification check.

Notes: (1) Some voters have birthdays listed as "01/01/1900". County officials indicated that these records are missing birthday information.

(2) Democrats are voters who vote frequently in (at least one of the last three) Democratic Party primary elections.

(3) Individual data collapsed at household level. Mean for household is average of nonmissing household observations.

Table 2b. Summary information on campaign target population by treatment: individuals

Variable	Obs	Mean	Std. Dev.	Min	Max
All Households					
Male	4528	0.45	0.50	0	1
Age	4516	48.26	16.49	19	103
Democrats	4528	0.43	0.49	0	1
Voters in Household	4528	1.84	0.70	1	3
Predicted Likelihood to Vote	4480	0.58	0.25	0.06	0.97
Control					
Male	900	0.46	0.50	0.00	1
Age	898	48.04	16.29	19	96
Democrats	900	0.42	0.49	0	1
Voters in Household	900	1.82	0.69	1	3
Predicted Likelihood to Vote	892	0.60	0.24	0.06	0.97
Canvass Political					
Male	919	0.46	0.50	0	1
Age	912	47.44	16.22	20	103
Democrats	919	0.41	0.49	0	1
Voters in Household	919	1.85	0.68	1.00	3
Predicted Likelihood to Vote	907	0.57	0.25	0.06	0.97
Canvass Vote Info					
Male	922	0.42	0.49	0	1
Age	921	49.01	17.34	19	96
Democrats	922	0.44	0.50	0	1
Voters in Household	922	1.88	0.73	1	3
Predicted Likelihood to Vote	914	0.58	0.26	0.06	0.97
Litdrop Political					
Male	890	0.48	0.50	0	1
Age	888	48.24	16.07	20	101
Democrats	890	0.43	0.50	0	1
Voters in Household	890	1.82	0.71	1	3
Predicted Likelihood to Vote	879	0.59	0.26	0.06	0.97
Litdrop Vote Info					
Male	897	0.42	0.49	0	1
Age	897	48.56	16.44	19	100
Democrats	897	0.42	0.49	0	1
Voters in Household	897	1.82	0.71	1	3
Predicted Likelihood to Vote	888	0.58	0.26	0.06	0.97

Source: County voter file, excluding voters who moved out of the district according to an address verification check.
Notes: (1) Some voters have birthdays listed as "01/01/1900". County officials indicated that these records are missing birthday information.
(2) Democrats are voters who vote frequently in (at least one of the last three) Democratic Party primary elections.

Table 2c. Summary information on survey population by treatment: respondents

Variable	Obs	Mean	Std. Dev.	Min	Max
All Households					
Male	191	0.424	0.496	0	1
Age	191	59.937	14.507	19	95
Democrats	191	0.702	0.459	0	1
Voters in Household	191	1.749	0.624	1	3
Predicted Likelihood to Vote	191	0.784	0.190	0.065	0.972
Control					
Male	43	0.395	0.495	0	1
Age	43	58.140	12.227	33	88
Democrats	43	0.651	0.482	0	1
Voters in Household	43	1.767	0.527	1	3
Predicted Likelihood to Vote	43	0.773	0.192	0.336	0.972
Canvass Political					
Male	40	0.400	0.496	0	1
Age	40	59.400	15.028	33	95
Democrats	40	0.650	0.483	0	1
Voters in Household	40	1.750	0.543	1	3
Predicted Likelihood to Vote	40	0.715	0.210	0.313	0.972
Canvass Vote Info					
Male	34	0.382	0.493	0	1
Age	34	56.853	17.047	19	90
Democrats	34	0.735	0.448	0	1
Voters in Household	34	1.824	0.673	1	3
Predicted Likelihood to Vote	34	0.774	0.212	0.065	0.972
Litdrop Political					
Male	41	0.463	0.505	0	1
Age	41	62.512	15.524	33	88
Democrats	41	0.780	0.419	0	1
Voters in Household	41	1.659	0.693	1	3
Predicted Likelihood to Vote	41	0.835	0.160	0.322	0.972
Litdrop Vote Info					
Male	33	0.485	0.508	0	1
Age	33	62.909	12.032	42	87
Democrats	33	0.697	0.467	0	1
Voters in Household	33	1.758	0.708	1	3
Predicted Likelihood to Vote	33	0.829	0.152	0.445	0.972

Source: County voter file matched to respondents.

Notes: (1) Some voters have birthdays listed as "01/01/1900". County officials indicated that these records are missing birthday information.

(2) Democrats are voters who vote frequently in (at least one of the last three) Democratic Party primary elections.

Table 3a. Contact Rates and Average Contact Day by Treatment

	Contact Rates				Average
	All Households		Unlocked Only		Contact Day
	Mean	N	Mean	N	
Canvass Political	0.61	580	0.67	525	39
Canvass Vote Info	0.56	580	0.61	528	38
Litdrop Political	0.89	579	0.99	520	49
Litdrop Vote Info	0.90	581	0.99	530	50

Contact day is the number of days prior to the election that the candidate administered the treatment to the household.

Table 3b. Election Results

	Votes	Possible Votes	Percentage of Votes Cast	Voters
Cooperating Candidate	2,650	26.1%	32.9%	52.3%
Democrat Candidate 2	1,981	19.5%	24.6%	39.1%
Republican Candidate 1	1,864	18.4%	23.2%	36.8%
Republican Candidate 2	1,555	15.3%	19.3%	30.7%
Undervotes	2,086	20.6%		

Undervotes result either when a voter casts no votes in a race—a complete abstention—or casts one of two possible votes, leaving the other unused.

Table 3c. Bounds Analysis of Survey Data

	Voter Support Among…					
	Democrats			Unaffiliated		
	Precinct Data			Precinct Data		
	Lower	Upper	Survey	Lower	Upper	Survey
Cooperating Candidate	88%	100%	90%	47%	96%	54%
Democrat Candidate 2	54%	81%	77%	14%	66%	48%
Republican Candidate 1	8%	35%	8%	40%	44%	41%
Republican Candidate 2	0%	27%	9%	17%	36%	41%

Table 4. Treatment and Individual Covariate Effects on Voter Turnout

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) TSLS	(8) TSLS	(9) TSLS
Canvass Political	-0.034			-0.016			-0.023		
	(0.026)			(0.022)			(0.031)		
Canvass Vote Info	-0.058**			-0.047**			-0.074**		
	(0.027)			(0.022)			(0.036)		
Litdrop Political	-0.028			-0.019			-0.020		
	(0.027)			(0.022)			(0.022)		
Litdrop Vote Info	-0.042			-0.036*			-0.036*		
	(0.027)			(0.021)			(0.022)		
Canvass		-0.046**			-0.032*			-0.047*	
		(0.023)			(0.019)			(0.029)	
Litdrop		-0.035			-0.028			-0.028	
		(0.023)			(0.019)			(0.019)	
Political			-0.031			-0.018			-0.021
			(0.023)			(0.019)			(0.022)
Vote Info			-0.050**			-0.041**			-0.051**
			(0.023)			(0.019)			(0.023)
Democrat				0.053***	0.053***	0.053***	0.053***	0.053***	0.052***
				(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Predicted Likelihood to Vote				0.837***	0.837***	0.837***	0.837***	0.837***	0.838***
				(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)
Male				0.003	0.004	0.003	0.003	0.004	0.003
				(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Age				0.001**	0.001**	0.001**	0.001**	0.001**	0.001**
				(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Number of Voters in Household				-0.012	-0.012	-0.012	-0.009	-0.010	-0.010
				(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Received Mail From Other Democrat				0.161***	0.161***	0.161***	0.160***	0.160***	0.160***
				(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Percent Nonwhite In Neighborhood				-0.168***	-0.169***	-0.168***	-0.166***	-0.168***	-0.168***
				(0.034)	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
Constant	0.585***	0.585***	0.585***	-0.033	-0.031	-0.032	-0.039	-0.037	-0.037
	(0.018)	(0.018)	(0.018)	(0.037)	(0.037)	(0.037)	(0.036)	(0.036)	(0.036)
Observations	4218	4218	4218	4171	4171	4171	4171	4171	4171
R-squared	0.001	0.001	0.001	0.325	0.325	0.325	0.323	0.322	0.323

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5. Treatment and Individual Covariate Effects on Candidate Support

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) TSLS	(8) TSLS	(9) TSLS
Canvass Political	0.102			0.124			0.176		
	(0.096)			(0.088)			(0.121)		
Canvass Vote Info	0.214**			0.160**			0.246**		
	(0.086)			(0.078)			(0.114)		
Litdrop Political	0.107			0.064			0.065		
	(0.095)			(0.083)			(0.081)		
Litdrop Vote Info	0.060			0.035			0.034		
	(0.104)			(0.096)			(0.093)		
Canvass		0.154*			0.140*			0.207**	
		(0.082)			(0.073)			(0.104)	
Litdrop		0.086			0.050			0.051	
		(0.085)			(0.077)			(0.075)	
Political			0.105			0.094			0.112
			(0.083)			(0.075)			(0.087)
Vote Info			0.138			0.101			0.123
			(0.084)			(0.076)			(0.090)
Democrat				0.296***	0.297***	0.304***	0.284***	0.284***	0.300***
				(0.079)	(0.079)	(0.079)	(0.076)	(0.075)	(0.077)
Predicted Likelihood to Vote				0.322*	0.328*	0.287	0.298*	0.314*	0.262
				(0.186)	(0.184)	(0.186)	(0.180)	(0.176)	(0.180)
Male				-0.054	-0.054	-0.059	-0.055	-0.058	-0.064
				(0.058)	(0.057)	(0.057)	(0.056)	(0.055)	(0.057)
Age				-0.003	-0.003	-0.003*	-0.003*	-0.003*	-0.003*
				(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Number of Voters in Household				0.071*	0.071*	0.074*	0.073*	0.075**	0.077*
				(0.040)	(0.040)	(0.041)	(0.038)	(0.038)	(0.040)
Received Mail From Other Democrat				0.100	0.103	0.090	0.125	0.129	0.100
				(0.146)	(0.145)	(0.146)	(0.137)	(0.136)	(0.139)
Percent Nonwhite In Neighborhood				0.146	0.151	0.164	0.128	0.139	0.162
				(0.117)	(0.116)	(0.118)	(0.114)	(0.112)	(0.115)
Constant	0.698***	0.698***	0.698***	0.206	0.202	0.250	0.220	0.208	0.275
	(0.071)	(0.071)	(0.071)	(0.218)	(0.217)	(0.220)	(0.206)	(0.202)	(0.210)
Observations	191	191	191	191	191	191	191	191	191
R-squared	0.029	0.020	0.016	0.228	0.227	0.218	0.244	0.244	0.224

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 6. Voter Turnout Effects on Likely and Unlikely Voters

	(1) OLS	(2) TSLS
Canvass Political	-0.0461	-0.0657
	(0.0361)	(0.0516)
Canvass Vote Info	-0.0781**	-0.118**
	(0.0355)	(0.0539)
Litdrop Political	-0.0455	-0.0458
	(0.0377)	(0.0377)
Litdrop Vote Info	-0.0832**	-0.0840**
	(0.0355)	(0.0358)
Likely Voter (EV)	0.291***	0.291***
(Vote Likelihood>0.5 = 1)	(0.0366)	(0.0364)
*Canvass Political**Likely	0.0493	0.0701
	(0.0458)	(0.0652)
*Canvass Vote Info** Likely	0.0530	0.0753
	(0.0454)	(0.0711)
*Litdrop Political** Likely	0.0516	0.0521
	(0.0463)	(0.0464)
*Litdrop Vote Info** Likely	0.0877*	0.0883*
	(0.0454)	(0.0457)
Significance of Treatments on Likely Voters		
	F(1,2643)	$\chi^2(1)$
Canvass Political	0.01	0.01
Canvass Vote Info	0.74	0.77
Litdrop Political	0.05	0.05
Litdrop Vote Info	0.03	0.02
Observations	4171	4171
R-squared	0.289	0.287

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Unreported controls include whether voter is a Democrat, whether the voter's household received mail from the other Democratic candidate, the nonwhite percentage of the population in the voter's neighborhood, sex, age, and number of registered voters in the household. Likely voter equals 1 if estimated likelihood to vote exceeds 0.5 (50%), and 0 if below 0.5.

Table 7. Voter Support Effects on Partisan and Unaffiliated Voters

	(1) OLS	(2) OLS	(3) TSLS	(4) TSLS
Canvass Political	0.253		0.442	
	(0.188)		(0.306)	
Canvass Vote Info	0.336*		0.565**	
	(0.188)		(0.276)	
Litdrop Political	-0.118		-0.129	
	(0.190)		(0.176)	
Litdrop Vote Info	0.148		0.132	
	(0.201)		(0.186)	
Canvass		0.285*		0.490*
		(0.159)		(0.253)
Litdrop		0.018		0.003
		(0.166)		(0.155)
Democrat (Dem)	0.374**	0.368**	0.363***	0.354***
	(0.149)	(0.147)	(0.138)	(0.136)
*Canvass Political**Dem	-0.201		-0.372	
	(0.211)		(0.324)	
*Canvass Vote Info**Dem	-0.250		-0.438	
	(0.204)		(0.299)	
*Litdrop Political**Dem	0.219		0.238	
	(0.205)		(0.189)	
*Litdrop Vote Info**Dem	-0.169		-0.146	
	(0.226)		(0.210)	
*Canvass**Democrat		-0.216		-0.393
		(0.177)		(0.272)
*Litdrop**Democrat		0.031		0.053
		(0.183)		(0.170)
Significance of Treatments on Democratic Voters				
	F(1,175)	F(1,179)	$\chi^2(1)$	$\chi^2(1)$
Canvass Political	0.33		0.40	
Canvass Vote Info	1.18		1.28	
Litdrop Political	0.22		1.91	
Litdrop Vote Info	0.04		0.02	
Canvass		0.84		0.94
Litdrop		0.37		0.53
Observations	191	191	191	191
R-squared	0.261	0.243	0.300	0.284

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1 Unreported controls include predicted likelihood to vote, whether the voter's household received mail from the other Democratic candidate, the nonwhite percentage of the population in the voter's neighborhood, sex, age, and number of registered voters in the household.

Table 8. Average Treatment-on-Treated Effects for All Candidates' Vote Share

	Cooperating Candidate	Democrat Candidate 2	Republican Candidate 1	Republican Candidate 2
Canvass	0.490*	0.277	-0.629**	-0.457*
	(0.253)	(0.265)	(0.252)	(0.247)
Litdrop	0.003	0.107	-0.143	-0.107
	(0.155)	(0.166)	(0.158)	(0.166)
*Canvass**Democrat	-0.393	-0.368	0.561**	0.511**
	(0.272)	(0.297)	(0.264)	(0.259)
*Litdrop**Democrat	0.053	-0.123	0.098	0.144
	(0.170)	(0.189)	(0.169)	(0.175)
Democrat	0.354***	0.354**	-0.446***	-0.441***
	(0.136)	(0.152)	(0.134)	(0.137)
Predicted Likelihood to Vote	0.332*	0.287	-0.141	-0.242
	(0.179)	(0.210)	(0.150)	(0.174)
Male	-0.080	0.089	0.074	-0.015
	(0.056)	(0.063)	(0.050)	(0.053)
Age	-0.003*	0.000	0.003*	0.001
	(0.002)	(0.002)	(0.001)	(0.002)
Number of Voters in Household	0.092**	0.060	-0.072**	-0.031
	(0.037)	(0.053)	(0.035)	(0.037)
Received Mail From Other Democrat	0.168	0.133	-0.254**	-0.143
	(0.127)	(0.123)	(0.128)	(0.115)
Percent Nonwhite In Neighborhood	0.151	0.192	-0.045	-0.290***
	(0.105)	(0.164)	(0.102)	(0.107)
Constant	0.100	-0.132	0.867***	0.912***
	(0.209)	(0.254)	(0.196)	(0.204)
Observations	191	189	189	189
R-squared	0.284	0.166	0.300	0.290

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Figure 1. Example Campaign Pamphlets
(for confidentiality, information identifying the candidate has been removed)

FRONT OF FLYER

GEORGE MASON UNIVERSITY

- **Working and volunteering in Fairfax for four decades**
- **Promoting sustainability—economic, environmental, and social—for our future**
- **Representing our concerns because he listens to us**

Election Day is November 2
Don't forget to vote!

BACK OF *POLITICAL*

A Q&A with George Mason

- **Why are you running?**

I'm running to make our county a better place. As a resident of the county for 40 years, I know a lot about our community, and as an urban planner with years of experience, living, working, and volunteering here in Fairfax, I have what it takes to make a difference on the county board.

- **What's sustainability?**

We face many challenges today, and we have to meet today's needs without sacrificing the welfare of future generations. That means taking care of our county budget by preserving necessary services and cutting the luxuries, not across-the-board cuts, and promoting projects that save our resources and our environment.

- **How will you listen to us?**

If you have a question or an idea, just email me (GeorgeMason@gmail.com), call me (993-1000), or visit my website (GeorgeMason.info) and I'll respond ASAP!

Paid for by the George Mason Campaign Fund

BACK OF *VOTE INFO*

George's Quick Voter Guide

- **When do I vote?**

Election Day is **November 2**, from **6:00am to 7:00pm**. You can request an **absentee ballot** from the County Clerk's office starting **September 23**. There will be **early voting** at the County Clerk's office and also on GMU's campus starting **October 11**.

- **Where do I vote?**

The County Clerk lists polling places at: **fairfaxcountyclerk.com/elections/polling_places.html**
and you can find your precinct here: **fairfaxcountyclerk.com/elections/registration_status.html**
Call (703) 993-1000 if you have any questions.

- **Do I need an ID to vote?**

You always need government-issued photo ID for early voting, but only need ID to vote on Election Day if your voter registration card says so.
You can use any current and valid government-issued photo ID, utility bill, bank statement, government check, paycheck, or government document that lists your name and address.

- **Who should I vote for?**

Of course, I'm voting for George Mason. I hope I can count on your vote, too!

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Appendix

Randomization Check

Canvass - Political	**dy/dx**	**Std. Err.**	**Sig.**
Male	0.027	0.020	
Age	-0.000	0.001	
Percent Voters are Dems	0.003	0.019	
Voters in Household	0.008	0.011	
Predicted Likelihood to Vote	-0.081	0.044	*
Canvass Vote Info			
Male	-0.033	0.020	
Age	0.001	0.001	
Percent Voters are Dems	0.031	0.019	
Voters in Household	0.016	0.011	
Predicted Likelihood to Vote	-0.043	0.044	
Litdrop Political			
Male	0.042	0.019	**
Age	-0.000	0.001	
Percent Voters are Dems	-0.001	0.019	
Voters in Household	-0.013	0.011	
Predicted Likelihood to Vote	0.059	0.043	
Litdrop Vote Info			
Male	-0.048	0.020	**
Age	0.000	0.001	
Percent Voters are Dems	0.004	0.019	
Voters in Household	-0.006	0.012	
Predicted Likelihood to Vote	-0.026	0.044	
N	2900		
Log-Likelihood	-4650.73		
Pseudo-R2	0.004		

Multinomial logit of household assignment to treatment group as a function of average household characteristics. Control group is the base outcome. Marginal effect demonstrates effect of a one (1) unit change in independent variable on probability of being in treatment group relative to control group (holding other variables constant at their averages). Statistical significance of marginal effects: *** 1 percent, ** 5 percent, * 10 percent.

Post-Election Survey Script with Response Data

Hi this is _____ with TTO Research. May I speak with _____?

I have two quick questions. Did you vote in the election this past Tuesday?

RESPONSE 01 YES: Go to Q2
RESPONSE 02 NO / DON'T KNOW / NOT SURE: Thank you for your time. Goodbye. [TERMINATE]

Response:	Yes	No, etc.	Refused	Total
N:	413	75	123	611

Q2. In the election for [COUNTY] County board, which candidates did you vote for? [ROTATE] [Democrat A], [Republican B], [Democrat C] or [Republican D]. [Mark first candidate named]

RESPONSE 01: Democrat A
RESPONSE 02: Democrat C
RESPONSE 03: Republican B
RESPONSE 04: Republican D
RESPONSE 05: Don't know / not sure
RESPONSE 06: Voted, but didn't vote in County Board election
RESPONSE 10: Terminated at this question

Response:	Dem A*	Dem C	Rep B	Rep D	DK	No CB	Refused	Total
N:	160	18	26	8	39	10	152	413

Q3. [IF ONLY ONE CANDIDATE IS GIVEN READ, otherwise mark the second candidate named]: Did you vote for a second candidate for [COUNTY] County board?

RESPONSE 01: Democrat A
RESPONSE 02: Democrat C
RESPONSE 03: Republican B
RESPONSE 04: Republican D
RESPONSE 05: Don't know / not sure
RESPONSE 06: Only voted for one candidate
RESPONSE 10: Terminated at this question

Response:	Dem A*	Dem C	Rep B	Rep D	DK	Vote 1	Refused	Total
N:	6	129	11	28	23	13	2	212

Thank you for your time. [TERMINATE]