Campaign Effects and the Dynamics of Turnout Intention in Election 2000

D. Sunshine Hillygus
Assistant Professor
Department of Government
hillygus@fas.harvard.edu

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Abstract

Previous survey analyses examining campaign effects on turnout are somewhat unconvincing because they do not control for the fact that individuals may have decided they will vote independent of campaign activities (even before the campaign begins). Using a unique repeated measures dataset of the 2000 presidential campaign, I estimate a Markov chain transition model to test the effects of campaign efforts on turnout intention *conditional on prior turnout intention*. I demonstrate that campaign efforts have a substantial impact on turnout intention, even taking prior turnout intention into account. More notably, I find that different campaign efforts are effective for intended nonvoters than for intended voters.

A low voter turnout is an indication of fewer people going to the polls. –Dan Quayle

Though political science has offered more complicated explanations of voter turnout, they have not always been any more informative than the one offered by Mr. Quayle. Understanding why some individuals go to the polls and others do not remains an enduring puzzle. Research has long debated whether turnout is primarily determined by a variety of relatively immobile social, demographic, and political characteristics or whether turnout is also dependent on the short term activities of the campaign, candidates, or parties (Wolfinger and Rosenstone 1980; Verba and Nie 1972; Jackson 1996). In this article, I attempt to help untangle these short term and long term effects, focusing on the dynamics of turnout intention in the 2000 presidential campaign. More specifically, can individual level changes in turnout intention be attributed to campaign efforts? And which campaign efforts were most effective and for which portions of the electorate?

A windfall of recent research has attempted, with mixed success, to challenge the conventional wisdom that campaigns do not matter (Finkel 1993; Shaw 1999; Gerber and Green 2000; Holbrook 1996). In part, the scarcity of appropriate data has limited our ability to explicitly study the impact of campaign efforts on an individual's decision to vote, so existing research often muddles the relationship between campaign efforts and turnout intentions. Most cross-sectional survey data are inadequate for the task because they cannot account for the fact that some people were already planning to vote independent of the campaign efforts. For instance, some individuals could tell you now whether they plan to vote in the 2004 or even 2012

presidential election. If the individuals who have already decided to vote (perhaps before the campaign even begins) are the same individuals exposed to campaign efforts, then the observed campaign effects may actually be spurious. One way to control for that possibility is to condition the effects of campaign efforts on an individual's precampaign turnout intention, allowing campaign effects to differ for intended nonvoters and voters. Using Knowledge Network's election panel data, I estimate a Markov chain transition model to test the conditional effects of campaign efforts on *changes* in turnout intention during the 2000 presidential contest.

I find that the 2000 presidential campaign efforts substantially increased the probability of voting for both intended voters and nonvoters, but that different activities were influential for each of these groups.[1] Exposure to campaign advertising and personal vote persuasion increases mobilization among those previously not planning to vote, but has no impact on intended voters. In contrast, party/interest group contact increases the probability that an intended voter remains a voter, but has no effect for intended nonvoters. Only campaign news exposure increases the probability of voting among both groups. Overall, the 2000 presidential campaign appeared particulary effective at mobilizing intended nonvoters — the model predicts that the nonnvoters most exposed to campaign efforts have a 69% chance of actually making it to the ballot box (compared to a paltry 9% chance for those least exposed)! These findings not only offer new evidence that campaigns matter, but they paint a much more complex picture of campaign

[1]Because my dependent variable is turnout intention, rather than reported behavior, my analysis offers predictions for the probability of *intending to vote*, but the phrase "probability of voting" will be used throughout for ease of exposition.

mobilization effects in the 2000 presidential election.

1 Campaign Effects and Turnout Research

> *Political scientists create images of voters driven by a sense of effectiveness, by intensely partisan feelings, or by some other psychological involvement; or moved by the skills and resources cultivated in substantial formal education; or pushed toward the polls by a relaxed and easy legal environment. But it is a comparative rarity for students of electoral turnout to credit active efforts by parties and candidates to campaign aggressively and to bring voters to the polls. Yet surely one explanation for variations in electoral participation across individuals or electoral units lies in the amount and intensity of political mobilization.* (Caldiera and Patterson 1983, 677)

Despite the enormous amount of money, attention, and information associated with presidential campaigns, political science research has historically found little empirical evidence that they impact voter behavior. Though there are some notable exceptions, voting behavior literature instead emphasizes fixed social, demographic, and political determinants of voter behavior.[2] After accounting for the effect of these stationary characteristics, campaigns simply have little room to make much of a difference. And despite a boon of recent research challenging this minimal effects hypothesis, many in the discipline remain understandably skeptical (see Shaw 1999, for a review of campaign literature). To some extent, the available campaign data have necessitated vulnerable analyses, and have typically produced only marginal effects. As Shaw (1999, 357) concludes about his analysis of

[2]For a general review of the turnout literature see Jackson (1996).

campaign effects, "Some scholars may consider the effects found here to be minor, while others will deem them significant." At most, survey research has concluded that campaign efforts affect voting behavior at the margins. Coupled with a growing body of survey research that has interpreted small effects as evidence supporting the minimal effects hypothesis, it is hardly surprising that political science is still debating the vague and overly-simplistic question of "do campaigns matter?" Yet, research finding minimal effects at the cumulative or aggregate level (Campbell 2000; Gelman and King 1993) should not rule out the possibility that campaigns have no influence at the individual level. Aggregate analyses may mute campaign effects because some individuals might be deciding to vote while others are simultaneously deciding not to vote. For instance, a negative campaign blitz might mobilize some individuals while demobilizing others, resulting in a small net effect.(Ansolabehere and Iyengar 1995)

Even individual level analyses, however, typically emphasize the relationship between political participation and the demographic characteristics of individual American citizens — the more educated, the more affluent, the more efficacious an individual, the more likely he or she is to participate in politics (Wolfinger and Rosenstone 1980; Verba and Nie 1972). Quite simply, some individuals have the resources to pay the price of participating in politics, while others do not. This research has consistently demonstrated that demographic factors such as age and income are strong predictors of voter turnout (Wolfinger and Rosenstone 1980; Shields and Goidel 1997). We know, for instance, that relatively high socioeconomic status individuals are more likely to vote than low SES individuals (Rosenstone and Hansen

1993). And SES variables are typically the most robust predictors, significant in nearly every study of turnout and participation. The minimal effects conclusion is further bolstered by research finding that the vote choice decision is primarily determined by another set of stable predictors, such as partisan identification, the state of the economy, and assessments of the incumbent party or administration (Campbell et al. 1960; Lazarsfeld, Berelson and Gaudet 1944; Kramer 1971; Hibbs 1982; Lewis-Beck and Rice 1992).

There has long been a disconnect between the conventional wisdom of political scientists and the campaign behavior of political parties, candidates, and interest groups. Anecdotal stories abound about the extraordinary efforts of candidates and parties to get their supporters to the polls. In the 2002 elections, organized labor reportedly made more than 8 million phone calls, distributed more than 14 million leaflets at work sites and registered more than 2 million new union household voters (Strope 2002). In 2000, mobilization activities included such bold efforts as "smokes-for-votes", in which Democratic activists allegedly bribed homeless people to vote for Gore in exchange for cigarettes. For their part, Georgia Republicans tried to increase turnout by raffling a gun to Republicans who made it to the polls (Dunham 2000).

And according to many accounts, such efforts have been effective. In the 2000 election, political analysts attributed Gore's narrow wins in states like New Mexico, Missouri, and Michigan to get-out-the-vote efforts, especially among labor and minorities. As one Democratic campaign official reported, "On November 7, we had people literally pulling folks off their couches on Election Day to get them to the polls. We had people giving folks coffee in

line at 6:45 PM to keep them there until they voted. Those efforts paid off for Gore and the state legislative candidates"(Toulouse 2002, 3).

A growing body of political science research has argued that these campaign efforts do in fact influence an individual's likelihood of voting. Experimental research, in particular, has found consistent and substantial campaign effects on voting behavior. Gerber and Green (2000) find that grass-roots campaign efforts such as party contact and canvassing increase turnout. Similarly, Ansolabehere and Iyengar (1995) show that campaign information and media advertising increase the likelihood of voting. Yet, experimental research is often open to the criticisms about external validity, so there findings have yet to be reconciled with the "minimal effects" survey research that dominates the field.

There is also a growing body of survey research that has also concluded that campaigns influence voter behavior. Verba, Schlozman and Brady (1995) and Rosenstone and Hansen (1993) show that individuals contacted by political elites are more likely to vote and participate in other forms of political participation than groups not exposed to mobilization efforts. Several studies have also found a positive correlation between total campaign expenditures or closeness of race and turnout in lower-level elections (Caldiera, Patterson and Markko 1985; Cox and Munger 1989; Franklin 1991; Jacobson 1983). However, much of this research must contend with the criticism that effects may be spurious (See Gerber and Green (2000) for argument). It is not enough for survey analysis to show a relationship between campaign efforts and turnout — some individuals may have decided they will vote independent of campaign efforts (perhaps long before the campaign begins).

If those already planning to vote are the ones exposed to campaign efforts, then the apparent link between campaigns and turnout could be artificial. For example, people who recall campaign advertising may differ systematically from those who do not — they may be more likely to vote in the first place.[3] Alternatively, it could be the case that previous analyses have either underestimated or overestimated the ability of campaigns to mobilize because their models implicitly assume that campaigns will have the same "mobilization effect" for all individuals – whether they were already planning to vote or not.

In this article, I explore the relationship between campaign efforts and *changes* in turnout intention. I take advantage of a repeated measures dataset that will allow campaign effects on turnout intention to be analyzed while controlling for pre-campaign turnout intention. I am able to identify how individual transitions in turnout intention relate to specific campaign efforts using a Markov chain transition model. This unique data from Election 2000, coupled with a dynamic methodology, will offer insights into which campaign efforts matter and for whom they matter.

[3]Others have argued that campaign research suffers from an endogeneity problem — if a causal relationship also moves from turnout intention to the campaign measures then any results will be biased. Often, however, what is called an endogeneity problem is actually an omitted variable problem (Rosenstone and Hansen 1993, footnote, page 172). For example, those who are more likely to turnout are also more likely to watch campaign news, but it is not turnout intention *per se* that causes respondents to watch campaign news. Rather, political interest (or some other variable) causes both turnout and news-watching. Iyengar and Simon (2000) argue that the endogeneity stems from the use of self-reported measures of exposure. Though I must contend with the measurement error associated with self-reported measures of vote intention and campaign exposure, endogeneity is less of a concern because the exposure and turnout intention variables were measured in different surveys at different points in time. Moreover, I control for a general interest in politics within my multivariate model.

1.1 Turnout Intention in 2000

The analysis in this article utilizes an extensive panel data set collected by Knowledge Networks during the 2000 election. Knowledge Networks (KN) is a private survey research firm co-founded by Norman Nie and Douglas Rivers. Throughout the 2000 election, Knowledge Networks repeatedly asked 29,000 respondents about their vote intentions, yielding a 2-way unbalanced panel of more than 100,000 turnout intention observations over the course of the campaign.[4]

Respondents in the Knowledge Networks panel are randomly selected through Random Digit Dial (RDD) sampling techniques on a quarterly updated sample frame consisting of the entire U.S. telephone population who fall within the Microsoft Web TV netowrk.[5] While KN panelists are recruited by phone, the actual mode of interviewing is self-completion, via the Internet and a WebTV unit. Panelists are provided with a WebTV unit and an Internet connection in exchange for their survey participation. Thus, although surveys are conducted over the Internet, respondents are a

[4]The modal number of interviews per respondent is three, and the average number is about five interviews. The data were collected as part or all of approximately 75 randomly-assigned surveys (with widely varying sample sizes) sampled from the Knowledge Networks panel. The data set is a two-way unbalanced panel in that the number of observations are not the same for every respondent and the intervals between observations are not equal. Given that the intermittent missing values are random (i.e., individuals have missing observations because they were not part of the random sample selected for a given survey) it is reasonable to assume that the analysis should give the relevant inferences. Data were weighted to independent population estimates based on the 2000 Current Population Survey. These weights take into account age, gender, race, region of residence, and MSA.

[5] 87% of the U.S. population falls within this network, so the same is very close to a national RDD sample. Telephone numbers have an equal probability of selection, and sampling is done without replacement. Household cooperation rate during this time averaged 56%. Detailed information on the Knowledge Networks methodology can be found on their website www.knowledgenetworks.com.

random probability sample of the United States population. The viability of this methodology was recently demonstrated in an objective comparison test.[6] Krosnick and Chang (2001) commissioned a set of side-by-side surveys using a single questionnaire to gauge public opinion and voting preferences regarding the 2000 U.S. Presidential Election from national samples of American adults. The researchers find that the Knowledge Networks survey is comparable to the RDD telephone survey and is representative of the U.S. population with respect to respondent demographics, attitudes, and behaviors.

The turnout intention variable is coded as a five point scale: 1 (definitely will not vote), 2 (probably will not vote), 3 (not sure), 4 (probably will vote) or 5 (definitely will vote). In looking at the dynamics of the turnout intention question over the course of the entire campaign, I find that 50.5% consistently report that they "definitely" plan to vote every time they were interviewed, 7.0% always say they never will vote, and nearly 40% of the electorate changed their turnout intentions at some point during the campaign. This volatility opens the possibility that changes in turnout intention might be related to campaign efforts.

The most detailed measures of individual level exposure to campaign efforts came from a single survey fielded in the week of October 27, 2000 (no more than 11 days before Election Day). I therefore restrict my multivariate analysis to the randomly selected respondents in this particular survey, leaving a sample size of 2693 individuals. I am then able to match an indi-

[6]Recognizing this uniqueness of this methodology in making an Internet survey generalizable to the U.S. population, the founders of KN received the American Association of Public Opinion Research Innovation award.

vidual's current turnout intention with their pre-campaign turnout intention measured as part of a political profile survey taken before the start of the fall campaign (as early as mid-April). The profile survey included questions about party identification, a general interest in politics, and other political characteristics, all collected without the heightened context of the fall campaign. As part of this survey, respondents were asked about their likelihood of voting in the presidential election, providing the precampaign measure of turnout intention necessary for my analysis.[7] In comparing these two interviews, I find that 29% of respondents change their turnout intention from their precampaign interview. Of those respondents, 55% became increasingly likely to vote in the subsequent interview. In this article, I look at the extent to which changes in turnout intention are related to various campaign activities.

Though some might prefer voting analysis to be conducted on behavior rather than intention, I model changes in turnout intention to examine the underlying process of voting behavior. Voting behavior on Election Day occurs only once (we hope!), so any dynamics can occur only in intentions, not behavior. Considering the impact of campaign efforts on changes in turnout intention also offers a more comprehensive evaluation of campaign effects because of the possibility that random occurrences on Election Day might interfere with intent.[8] Both measures are of course still susceptible

[7] Research on panel attrition concerns associated with the Knowledge Networks panel has found that panel attrition is evenly distributed across demographic groups (Dennis 2001).

[8] For instance, should we conclude that the campaign had no influence if a vanload of "mobilized" voters breaks down on the way to the poll?

to measurement error, most notably overreporting.[9]

So, who are the individuals who are changing their turnout intention and what accounts for their changes? In the next section, I explain how the Markov chain transition model can help to answer this question.

2 Methods and the Empirical Model

I model the likelihood of voting as a function of demographic and attitudinal variables ($\mathbf{X}_1$) and multiple campaign variables ($\mathbf{X}_2$).

$$\text{turnout intention} = \mathbf{X}\boldsymbol{\beta} + \boldsymbol{\varepsilon} \tag{1}$$

$$= \beta_0 + \mathbf{X}_1\boldsymbol{\beta}_1 + \mathbf{X}_2\boldsymbol{\beta}_2 + \boldsymbol{\varepsilon} \tag{2}$$

The campaign variables include level of exposure to political advertising, level of exposure to campaign news, an indicator if the respondent was contacted by a party or interest group, and an indicator for personal vote persuasion (someone at church, work, home, or in community talked to respondent about voting for a particular candidate).[10] The model controls

[9] Vote validation studies have found between 8-14% of respondents claim to have voted but could not be found in the official voting records (Traugott 1989). Although it is important to recognize such overreporting, research has largely concluded that it is of little consequence. For one, vote validation studies themselves are fraught with errors (Sigelman 1982). Second, the fiasco in Palm Beach county regarding ballot indentations and overvoting, might even suggest that the self-reported vote may be preferrable to validated measures. Most importantly, research has found that replacing self-reported voter turnout with validated voter turnout in multivariate analyses does not change the substantive conclusions (Sigelman 1982; Katosh and Traugott 1981).

[10] Previous research has argued that self-reported exposure can be a poor measure of actual campaign exposure. (**?**) To help confirm the reliability of my measures, I compare self-reported exposure rates in battleground and safe states to see if there are in fact any differences in reported exposure. I find that for all variables except news exposure(which should be less dependent on race competitiveness), those in battleground states were

for the standard demographic and political variables, including age, gender, race, strength of partisanship, and general political interest.[11] Since these controls, including the political controls, were collected before the start of the campaign it helps to reassure that they are not endogenous to the campaign itself. We could undoubtedly think of other long-term factors that might play a role in the decision to vote (political efficacy, for instance), but recall that such factors are essentially already controlled for because the model conditions on pre-campaign turnout intention. Again, the focus of this analysis is to examine the determinants of any *changes* in turnout intention. After controlling for demographic and attitudinal factors, I expect that campaign variables should increase the likelihood of voting — but prior research offers no theoretical expectations about the effect of the campaign variables relative to one another. Will campaign advertising be more effective than party contact? Will different campaign efforts be effective for intended voters than for nonvoters?

To employ a Markov chain transition model to test for campaign effects, I recode the vote turnout intention variable as a binary variable.[12] I code

significantly more likely to report exposure than those in safe states.

[11]The survey questions are worded as follows: General political interest: "How interested are you in politics and public affairs?" Ads exposure: "Have you seen or heard any paid political advertisements for the presidential candidates on television and the radio?" "Campaign news exposure: How much attention do you pay to news stories on television, radio, and in the newspaper about the presidential election?" Party contact: "Has anyone from a political party or interest group contacted you personally about the presidential election?" Personal persuasion (indicator if identified at least one): " How about people at work, school, or church – has anyone tried to convince you about whom to vote for in the presidential election? (home and local community also provided as answers)"The mean of the these variables: Age (44.6), Female indicator (.51), Black indicator (.06), Hispanic indicator (.08), Strength of Partisanship (.49), Political interest (.57), Campaign news (.54), Party contact indicator (.20), Advertising exposure (.68), Personal persuasion indicator (.28).

[12]An ordinal logit transition model would better capture variation in turnout intention,

as voters those who "definitely" or "probably" intend to vote, and label as nonvoters those who are "not sure", "definitely" or "probably" will *not* vote. In collapsing the original voter intention variable from five categories into a dichotomous variable, I limit my ability to predict transitions. For instance, the individual who moved from "unsure" about voting to "definitely" not voting would not be captured as an observed movement with the dichotomous variable. Though 29% of respondents changed their turnout intention between interviews when change is measured on the 5-point scale, only 12.1% changed their turnout intention with this collapsed variable.[13]

Table 1 displays the transitions between interviews. Seventy-eight percent of intended nonvoters remain nonvoters. Similarly, 92% of respondents who said they intended to vote before the campaign also report that they intend to vote just before Election Day. Of interest in this article, however, are the explanations for why some individuals did change.

[Table 1 about here.]

To distinguish campaign effects from a spurious correlation, I condition

but presents a few problems. First, as the number of categories increases, the number of parameters estimated proliferates. Second, there are J^2 probabilities, all which must be greater than zero in order to use the standard ordered probit and logit functions in statistical software to estimate the transition model. This problem is similar to problems of inference for cross-tabs with a large number of cells; if there are only a few observations (or none) in some of the cells, then inference is difficult (or impossible).

[13]When we consider the entire campaign and all of the surveys in which individuals were interviewed, the level of change increases even more. Nearly 40% change their vote intention at some point and in some direction when considering the full 5 point scale. With the collapsed scale, 61% of respondents are consistent voters in all interviews and 20% are consistent nonvoters in all interviews (number of interviews per respondent varies). Focusing on just two data points in the analysis will mask some of the dynamics of turnout intention, but it provides an analytical framework such that the covariates of changes in turnout intention can be identified, in turn providing insights about changes in turnout decision-making over the entire campaign.

the effects of the covariates on pre-campaign turnout intention. An appropriate model for this task is a Markov Chain transition model (Diggle, Liang and Zeger 2000; Jackman 2000). Traditional logit analyses of turnout are open to the criticism that campaign effects are illusionary because they do not account for the possibility that voters have decided whether or not to vote independent of the campaign. The transition model is capable of testing the effects of the campaign while taking into consideration the respondent's pre-campaign intention of voting by looking at the conditional effect of the covariates on changes in turnout intention. The model is also able to distinguish different processes depending on whether the respondent was an intended voter or nonvoter. For instance, there could be a different set of campaign activities that are effective for intended voters than for intended nonvoters.

To understand the transition model, consider a first-order Markov chain for binary data has a *transition matrix*

$$\begin{pmatrix} p_{00} & p_{01} \\ p_{10} & p_{11} \end{pmatrix}$$

where $p_{ab} = Pr(y_{it} = b|y_{i,t-i} = a)$ are transition probabilities. For instance, p_{01} is the probability that the individual reported that they will vote when asked in the current interview, when they reported not planning to vote before the campaign. Given that $\sum_b p_{ab} = 1, \forall a$, there are just two uniquely determined elements of the 2×2 transition matrix for binary data. To look at the relationship between covariates and the two transition probabilities,

simple logit analysis can be applied. For the two transition probabilities I have the following logit link

$$\text{logit}[\Pr(y_{it} = 1|y_{i,t-1} = 0)] \equiv \text{logit}(p_{01}) = y^*_{it}|(y_{i,t-1} = 0) = \mathbf{x}_{it}\boldsymbol{\beta}_0 \quad (3)$$

$$\text{logit}[\Pr(y_{it} = 1|y_{i,t-1} = 1)] \equiv \text{logit}(p_{11}) = y^*_{it}|(y_{i,t-1} = 1) = \mathbf{x}_{it}\boldsymbol{\beta}_1 \quad (4)$$

where the hypothesis $\boldsymbol{\beta}_0 \neq \boldsymbol{\beta}_1$ tests the possibility that the effects of explanatory variables will differ depending on the individual's reported vote intention in the pre-campaign interview. These two transition equations can be combined to form the conditional model

$$\text{logit}[\Pr(y_{it} = 1|y_{i,t-1})] = \mathbf{x}_{it}\boldsymbol{\beta}_0 + y_{i,t-1}\mathbf{x}_{it}\boldsymbol{\alpha} \quad (5)$$

so that $\boldsymbol{\beta}_1 = \boldsymbol{\beta}_0 + \boldsymbol{\alpha}$.

It is quite simple to test hypotheses about the effects of the covariates on the transition probabilities — ordinary binary response models such as logit and probit can be used to consistently estimate $\boldsymbol{\beta}_0$ and $\boldsymbol{\alpha}$ and their standard errors. The $\boldsymbol{\alpha}$ coefficients act as contrasts between the parameter vectors $\boldsymbol{\beta}_0$ and $\boldsymbol{\beta}_1$. Tests of the joint null hypothesis $\boldsymbol{\alpha} = \mathbf{0}$ tap whether the effects of $\mathbf{x}$ are constant irrespective of the previous state of the binary process. In the next section I report the results from the logit transition model of campaign effects on turnout intention in the 2000 presidential election.

3 Empirical Results

Turning to the transition model results, I find that different campaign effects influence intended nonvoters than intended voters. In general, campaign efforts were most effective at mobilizing intended nonvoters — campaign news exposure, advertising exposure, and personal vote persuasion have a positive and significant impact on the likelihood of voting for those who did not plan to vote before the campaign. Intended voters, on the other hand, remain likely to vote largely independent of campaign efforts — only campaign news exposure and party contact have an additional impact on the likelihood of voting among these respondents.

The coefficients and robust standard errors from the estimated transition model are presented in Table 2.[14] The $\boldsymbol{\beta}_0$ coefficients represent the effect of the covariates on the probability of voting for those previously indicating that they did not plan to vote; the $\boldsymbol{\beta}_1$ coefficients show the effects of covariates on the probability of voting for those previously saying that they did plan to vote.[15] And by estimating these effects simultaneously in

[14] Given the interactive nature of the model and the number of political variables in the model, some may be concerned about collinearity. As a quick diagnostic, I estimated VIF and condition index numbers. Only the political interest variable approached the (arbitrary) threshold of 10.0 among the VIF scores (it is most highly correlated with previous vote intention), but even that variable still had a healthy condition index number of just * (numbers in the 30-100 indicate mild collinearity). To assuage any concerns, I nonetheless reestimated the model without political interest, and the only variable to change significance was the constant. Omitting the interest variable may raise concerns about bias. Since estimators remain BLUE even with collinearity, this certainly seems to be an instance in which the solution is worse than the problem (though most would probably be hesitant to interpret the inclusion of interest as a problem, especially since it is inconsequential to the statistical significance of the key campaign variables.

[15] The contrast between $\boldsymbol{\beta}_0$ and $\boldsymbol{\beta}_1$, $\boldsymbol{\alpha}$, is not reported in the table. The coefficients and robust standard errors follow: age .15(.05), age square -.001(.0005), Hispanic -.13(.45), Black -.54(.57), Female -.01(.29), Partisan .60(.42), Interest .37(.59), News -.86(.59), Contact .98(.51), Ads -.55(.45), Persuasion -.34(.37)

a transition model, I am able to produce statistical tests of the relationship between them.

These results illustrate that conditioning on the individual turnout intention history is the appropriate statistical model. Because there are statistically significant differences between $\boldsymbol{\beta}_0$ and $\boldsymbol{\beta}_1$ (the null hypothesis of $\boldsymbol{\alpha} = \mathbf{0}$ can be easily rejected), the transitional model is preferable because it estimates separate effects for $y_{i,t-1} = 0$ and $y_{i,t-1} = 1$. A static logit model would have constrained the effects of the covariates to be the same for intended nonvoters and voters, possibly masking or exaggerating campaign effects.

Considering the demographic controls, only age had a statistically significant impact on the likelihood of voting, once previous intentions were taken into account. Older respondents were more likely than younger respondents to be mobilized or stay mobilized. It was somewhat surprising to find that there was not an independent race effect given the concentrated mobilization efforts by the Democratic party in black communities, though these efforts may simply be captured by the campaign variables. It may also be the case that examining differential mobilization effects among racial groups would require a somewhat more nuanced analysis that is beyond the scope of this analysis. For instance, the current model uses a combined measure of personal persuasion (at home, church, community, or work), but descriptive analysis finds that black respondents were nearly twice as likely as white respondents to have received a personal appeal in church, but were only half as likely to receive a personal appeal from home.

Among the political controls, partisan strength increases the likelihood

of voting ($p < .10$) for intended nonvoters, but has no additional impact for those already planning to go to the ballot box. Political interest, on the other hand, has no statistically significant effect for either intended voters or nonvoters once the other controls are taken into account.[16]

[Table 2 about here.]

Turning to the campaign variables, I find substantial evidence that campaign efforts did indeed mobilize the electorate, though the specific efforts that were effective differed for intended nonvoters and voters. The only variable to have a positive and significant for both groups is campaigns news exposure. The more individuals were exposed to information about the campaign, the more likely they were to report an intention to vote. As reported in Table 3, the predicted probability of voting increases 0.29 (4.73 higher odds) for intended nonvoters and 0.15 (11.15 higher odds) for voters across the range of campaign news exposure.[17] This finding suggests that the more informed an individual is about an election, the more likely they are to participate. And by controlling for pre-campaign turnout intention, the model accounts for the possibility that the individuals already planning to vote are the ones choosing to be exposed. Rather, learning more information over the course of the campaign appears to encourage turnout *even among those who previously had no intention of voting.* Thus, a high-intensity, high-information campaign, as we find with a presidential contest, helps to

[16] Again, turnout intention is highly correlated with a general interest in politics (.43) so it is of little surprise that this variable has no additional explanatory power since the lagged vote is included in the model.

[17] All probability calculations are calculated holding all variables at their medians, except the dummy variables, which are set to zero. Any references to statistical significance are based on the standard errors of the probabilities calculated by the delta method.

stimulate greater turnout — a trend that has historically been recognized in comparing turnout in off-year congressional elections.

[Table 3 about here.]

The other campaign measures included in the analysis have different effects depending on whether an individual previously planned to vote or not. For those individuals who did not plan to vote, campaign advertising exposure and personal political discussion had a significant and positive effect on the probability of voting. The predicted probability of turning out increases by 0.11 (1.85 higher odds) across the range of advertising exposure categories. This suggests that the millions of dollars spent on campaign advertising not only persuades voters to support a particular candidate, but also persuades intended nonvoters to show up on Election Day. Similarly, the probability of voting increases .10 (1.59 higher odds) for those respondents for whom an acquaintance (at church, in community, at work, or at home) attempted to persuade them to vote for a particular candidate. This finding offers evidence that some of the common mobilization strategies employed by the Democrats — for instance, mobilizing union members through work canvassing — do indeed appear to be effective.

In contrast, for those already planning to vote, personal persuasion and campaign advertising has little additional impact. Being contacted by a party or interest group, however, was effective at mobilizing intended voters (and not intended nonvoters). Among intended voters, contact increases the probability of turning out by 0.04 (3.79 higher odds). This suggests that "mobilizing the base" is an effective way to ensure that supporters in fact

make it to the polls (or at least intend to). But, receiving a partisan plea has no impact on those individuals not planning to vote. It may be the case that a intended voter (more likely to be partisan) is pleased, for instance, to receive a call from a party activist or official whereas a disengaged nonvoter would view it as just another telemarketing annoyance. Thus, for nonvoters, an appeal from an unknown activist or party worker seems to have little impact, while an appeal from a professional or social acquaintance does increase their probability of voting.

These findings offer evidence that campaign efforts in the 2000 presidential contest not only mattered at the margins, but had the opportunity to have quite a substantial impact. Figure 1 illustrates the total possible effect of all campaign efforts for intended voters and nonvoters. Comparing the maximum and minimum values on all campaign variables, I am able to estimate the total potential effect of the 2000 presidential campaign on turnout intention. Considering all of the campaign efforts, those previously not planning to vote had the potential to increase their probability of voting by 0.58 if they were exposed to the maximum amount of campaign advertising, campaign news, were contacted by a party, and had an acquaintance talk about voting for a particular candidate. This increase is enough to give the average intended nonvoter a predicted probability of voting of .67 — thus making them more likely to vote than to not vote! These campaign efforts run into a ceiling effect for intended voters, but still increase their probability of remaining intended voters by .30. Clearly, the presidential campaign efforts helped to mobilize voters — but they were most effective among those previously not planning to go to the polls.

[Figure 1 about here.]

In evaluating the fit of the transition model, I compute the improvement in classification over the null model. As can be seen from Table 4, the transition model predicts 88.5% of the voter intentions correctly. The transition model provides a substantial improvement over the null model, which predicts only voters. The transition model predicts intended voters and nonvoters extremely well with 79.3% of nonvoters correctly predicted and 92.2% of voters correctly predicted. Among those who make transitions, the model correctly predicts 12.4% of those being mobilized and 6.0% of those demobilized relying on the .5 threshold — a cutoff that is both arbitrary and perhaps overly-restrictive. That number rises to 29.0% and 16.9%, respectively, when the cutoff for predicting transitions for intended nonvoter transitions declines to .35 or the cutoff for predicting intended voter transitions increases to .65.

[Table 4 about here.]

4 Discussion and Conclusion

Far from finding that campaigns do not matter, my results indicate that campaign activities in the 2000 presidential contest had a substantial impact on turnout decision-making. In order to disentangle the independent effect of a campaign effort from a respondent's pre-campaign turnout intention, I estimated a Markov chain transition model. I find two notable results: 1) various campaign efforts worked differently for intended voters than intended

nonvoters and 2) campaign efforts were particularly effective at mobilizing intended nonvoters.

These findings offer a substantial contribution to the campaign literature, which has potentially muted or misinterpreted campaign effects by previously failing to recognize that activities might have different effects for nonvoters and voters. Exposure to campaign advertising, exposure to campaign news, and personal vote persuasion all have a positive, statistically and substantively significant effect on turnout intention among intended nonvoters. In contrast, only party contact and campaign news exposure had an additional impact for those already planning to vote.

Though the extent of these differences are quite surprising (to my knowledge, they have never been noted in previous campaign research), they actually make intuitive sense. The finding that campaign advertising and personal vote persuasion have little impact on intended voters may be the equivalent of "preaching to the choir." But for nonvoters, these campaign efforts may help with the decision-making process. Advertising, for instance, may serve as a nagging reminder to vote for those initially not planning to turnout. And personal vote persuasion may help in selecting a preferred candidate, which may in turn give the intended nonvoter a motivation to vote. These findings suggest that these campaign effects have the strongest impact among those who have the greatest potential for information gain.

Party contact, in contrast, has an impact on intended voters, but not intended nonvoters. This finding offers empirical support to a long-established strategy of the political parties. Among those intended nonvoters who were contacted by a political party or interest group, it simply did not work to get

them to the ballot box (although appeals from personal acquaintances did have a positive effect). Candidates and parties appear rational in targeting mobilization efforts — if contact increases turnout only among those likely to vote, there is no reason to waste resources on those unlikely to turnout. It is more effective to simply solidify those individuals who have intentions of voting, and make sure that they actually make it to the ballot box. It is also possible, however, that this finding may in part be an artifact of this existing strategy if the type or quality of contact that nonvoters receive differs from the type that voters receive (unfortunately the contact measure cannot distinguish between a mass mailing or a personal phone call from a party official).

The findings with respect to intended nonvoters are particularly exceptional. Although it is interesting to identify the activities that keep the intended voters mobilized, the real advance to this field is the identification of the activities that mobilize nonvoters. This analysis offers substantial evidence that campaign efforts help to change the minds of intended nonvoters. The model predicts that the nonnvoters most exposed to campaign efforts have a 69% chance of actually making it to the ballot box (compared to a paltry 9% chance for those least exposed)! Given this result, it seems difficult to discount the impact of presidential campaigns on voter behavior.

Although these findings suggest that campaigns play a much larger role in voter decision making than concluded by previous survey research, the inferential limitations of this analysis should be acknowledged. Without an experimental design, it is of course not possible to rule out the possibility that an omitted variable is causing both campaign exposure and changes in

turnout intention. The most plausible contender would be "interest in the campaign" (as distinct from general political interest, which is included in the model). The inclusion of a number of different activities (especially those primarily shaped by behavior external to the respondent, such as party contact or advertising) helps to discount this alternative hypothesis.[18] It could also be argued that changes in campaign interest would be so closely related to change in turnout intention that they would essentially be measuring the same phenomenon.

The fact that I find the largest effects are for intended nonvoters, rather than voters, may help to assuage concerns about endogeneity problems. The common criticism of campaign research is that observed campaign effects are an artifact of likely voters also having greater campaign exposure. But controlling for pre-campaign turnout intention finds that campaign efforts are actually more effective for intended nonvoters.

These findings not only offer insights into the decision-making process, but they also have pratical implications for candidate behavior. Knowing which campaign efforts are effective among which groups is important, for instance, in developing strategies for candidate advertising or canvassing. As the common campaign adage goes, "I know half the money I spend is wasted. I just don't know which half." Though there remains much to be learned about the complex role of campaigns in shaping voter behavior, this

[18]The effect perhaps most vulnerable to this concern is the campaign news exposure effect because it is the most dependent on the behavior of the respondent. Treating this variable as a control, however, does little to the interpretations of the results. In computing the total "campaign effect" as in Figure 1 with campaign news exposure set to its mean, still finds that the predicted probability of voting for intended nonvoters increases from .224 to .546 across the range of the remaining campaign measures.

article has refocused analysis away from the outdated debate of whether or not campaigns matter, toward addressing more interesting questions about the mechanisms by which campaign efforts shape electoral behavior.

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Figures

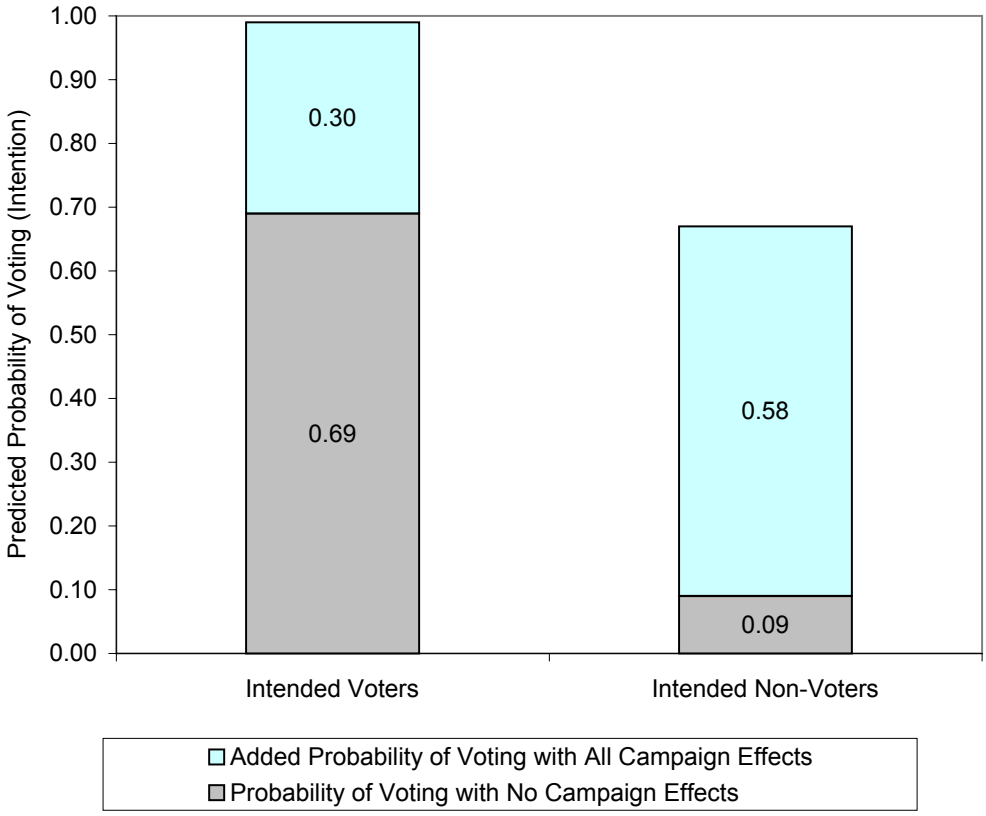

Figure 1: Total Possible Campaign Effects

Tables

		Current Turnout Intention		
		Not Vote	Vote	Total
Pre-Campaign Turnout Intention	Not Vote	609 (78%)	172 (22%)	781 (100%)
	Vote	153 (8%)	1750 (92%)	1903 (100%)
	Total	762 (28%)	1922 (72%)	2683 (100%)

Table 1: Change in Turnout Intention

Prior Intention:	Not Vote $\boldsymbol{\beta}_0$	Vote $\boldsymbol{\beta}_1$
Intercept	-1.13	-2.11
	(1.05)	(0.75)
Age	-0.07^{**}	0.09
	(0.03)	(0.03)
Age^2	0.001	-0.001
	(0.0003)	(0.0003)
Hispanic	-0.27	-0.40
	(0.31)	(0.32)
Black	0.05	-0.50
	(0.37)	(0.43)
Female	-0.24	-0.25
	(0.21)	(0.20)
Strength of Partisanship	0.55	1.15^{***}
	(.33)	(0.25)
Political Interest	-0.08	0.29
	(0.43)	(0.40)
Campaign News Exposure	1.55^{***}	2.41^{***}
	(0.42)	(0.41)
Advertising Exposure	0.62^{*}	0.07
	(0.31)	(0.32)
Personal Persuasion	0.46^{*}	0.12
	(0.24)	(0.25)
Party Contact	0.35	1.33^{***}
	(0.36)	(0.36)
N	2693	
correctly predicted	88.5%	
Pseudo-R^2	0.492	
Wald chi2(23)	600.70	

Table 2: Estimates from transition model: $\text{logit}[\Pr(y_{it} = 1|y_{i,t-1} = 0)]$ and $\text{logit}[\Pr(y_{it} = 1|y_{i,t-1} = 1)]$. Table entries are coefficient values, with robust standard errors in parentheses. Asterisks indicate statistical significance, with $* < 0.05$, $** < 0.01$, and $*** < 0.001$.

Prior Intention:	Not Vote		Vote	
	Difference	Odds Ratio	Difference	Odds ratio
Campaign news exposure	0.29	4.73	0.15	11.15
	(0.05)		(0.10)	
Advertising Exposure	0.11	1.85	NS	NS
	(0.02)			
Personal Persuasion	0.10	1.59	NS	NS
	(0.01)			
Party Contact	NS	NS	0.04	3.79
			(0.02)	

Table 3: Changes in Probabilities Based on Campaign Effects (std errors in parentheses computed using delta method). All variables are set to their medians, except for dichotomous variables, which are all set to zero. The first differences displayed here are based on movement from zero to one (for dichotomous variables) or the minimum to the maximum (for ordered variables)"NS" indicates the coefficient was not significant.

	Null model	Transition model
Overall Model	71.6%	88.5%
Intended Non-Voters	0%	79.3%
Intended Voters	100%	92.2%

Table 4: Percent Correctly Predicted. All percentages for classification of valid observations for the transition model