

# **Mobilizing the Mobiles: How Text Messaging Can Boost Youth Voter Turnout**

**Allison Dale  
University of Michigan**

**Aaron Strauss  
Princeton University**

**September 6, 2007**



## Executive Summary

- A growing number of Americans rely exclusively on mobile technology as their primary means of communication. Political campaigns and voter mobilization groups must reevaluate how they connect with this segment of voters who aren't reachable through conventional landline and U.S. mail outreach. This study demonstrates that text messaging is a powerful new tool that can be used to reach and harness the voting power of young people.
- Working through independent registration efforts, Working Assets, the Student PIRGs, and Mobile Voter registered nearly 150,000 new voters leading up to the 2006 election. Over 12,000 of these new registrants who provided cell phone numbers were selected for an experiment to test the effectiveness of text messaging for mobilizing voters.
- Half of the participants received a text message reminder to vote on the Monday before Election Day; half did not. Members of the treatment group, who received the reminder, voted at a rate of 56.3%; members of the control group, who did not receive the reminder, voted at a rate of 53.2%—a difference of 3.1 percentage points. Statistically, there is over a 99% chance that the text messages had a net benefit on turnout.
- Because some individuals (about 20%) in the treatment group did not receive the text message (for reasons such as an incorrect phone number), the personal effect of text messaging is greater than the aggregated effect of 3.1 percentage points. On a personal level, a text message recipient was 4.2 percentage points more likely to vote than an individual who did not receive a text message. Messages that were short and to the point were most effective.
- For this study, the cost per vote generated was \$1.56, far less than the costs of traditional mobilization techniques.
- A post-treatment survey of text recipients demonstrates that recipients found the text messages helpful. A plurality of respondents (43%) volunteered that they were pleased with the text message. When asked to describe their reaction as finding the text message “helpful” or being “bothered” by receiving the text, a majority (59%) reported that the reminder was helpful. Only 1% reported being less likely to vote as a result of receiving the text message.
- Respondents to the survey indicated that text messaging and email are their preferred methods of receiving political communication (31% and 30% respectively).
- These numbers are subject to change as the final one-sixth of the data is collected from state voter files.

# **Mobilizing the Mobiles: How Text Messaging Can Boost Youth Voter Turnout<sup>1</sup>**

Allison Dale<sup>2</sup> and Aaron Strauss<sup>3</sup>

September 6, 2007

## **Abstract**

Young voters are underrepresented in the American electorate; they are also more likely than older voters to rely exclusively on mobile technology as a primary means of communication. This study uses a field experiment and mobile phone survey in the 2006 election to determine how mobile technology can be used to encourage young people to vote. The research design consists of a nationwide field experiment (n=8,529) that tests the basic effectiveness of text messaging as a mobilization tool. Matching the records to nationwide voter files indicates that a text message reminder produces a strongly positive, and statistically significant, effect on the likelihood of voting. A follow-up mobile phone survey of those in the treatment group indicates that the small backlash to the text messaging treatment is minor relative to the positive reaction from participants.

---

<sup>1</sup> We are extremely grateful for the help of our many partners. We received generous support from the following organizations and individuals: Working Assets; Mobile Voter; Student PIRGs; The UMass Donahue Institute Civic Initiative; Young Voter Strategies; The Mellman Group; Survey Sampling International; Catalist; Kieloch Consulting; Professor David Nickerson; Professor Donald Green; Professor Ray LaRaja; Professor Craig Thomas; Professor Marty Gilens; and Professor Chris Achen.

<sup>2</sup> Ph.D. Student, University of Michigan, Department of Political Science, daleal@umich.edu

<sup>3</sup> Ph.D. Candidate, Princeton University, Politics Department, abstraus@princeton.edu

## **Introduction**

Young people are under-represented in the American electorate, and traditional campaign mobilization techniques are not designed with today's mobile young voters in mind. This study explores one new potential technique for increasing youth turnout: mobile phone text messaging. We designed a large-scale, nationwide field study in two parts. First, we measure the effectiveness of sending a text message reminder to vote through a large-scale field experiment. Second, we use a post-treatment survey to test for backlash from the use of this potentially intrusive technology.

The results from 38 states demonstrate a strongly positive and statistically significant effect of reminding young people to vote through text messaging. The intent-to-treat effect for the experiment is 3.1%, with an estimated treatment-on-treated effect of 4.2%. The survey responses are consistent with the experimental findings, confirming that the backlash generated by text messaging is small. Additionally, they show that young Hispanic voters are more likely to react positively to the mobilization technique than other groups. We also find that young voters prefer passive forms of political communication, such as e-mail and text messaging, to more interactive and traditional avenues of communication (e.g., landline phone calling, door-to-door canvassing).

## **Background on Voter Participation**

The heterogeneity of voter participation in the United States has been well-documented in the field of political science. Some scholars concerned about low levels of voting have looked to demographic variables to understand why some groups of citizens vote at higher rates than others. Wolfinger and Rosenstone (1980) argue that education and age are the best predictors of voter participation. Brady, Verba, and Schlozman

(1995) find that time, money, and civic skills are resources that positively impact a citizen's likelihood to vote, while Rosenstone (1982) argues that economic adversity decreases turnout.

Another branch of research in voter behavior has worked to broaden these resource models by integrating a consideration of life-cycle effects on voter turnout. Plutzer (2002) finds that resources such as political knowledge, parental voting habits, and parental education significantly affect initial turnout. However, he also finds that parental factors have less of an impact on a voter over time. Highton and Wolfinger (2001) demonstrate that young adults vote at varying levels, contrary to the universally low youth turnout predicted by "adult roles theory". Gerber, Green, and Shachar (2003) show that the act of voting or nonvoting can create behavioral patterns that become habit-forming over time, a finding that reinforces the importance of encouraging turnout among young and newly registered voters.

Finally, a third perspective looks at institutional factors that can affect voter turnout. Powell (1986) finds that voter registration laws put Americans at a disadvantage in terms of the costs associated with turnout compared to other countries. Squire, Wolfinger, and Glass (1987) argue that high levels of residential mobility translate into low levels of voting participation. They argue that registration is a low priority for people who have recently moved. Campaign mobilization, which can be viewed from this institutional perspective, can also increase voter turnout. Several studies have found that personal mobilization messages can significantly increase voter turnout (Eldersveld 1956; Gerber and Green 2000; Green and Gerber 2001; Patterson and Caldeira 1983).

Our study on text messaging is situated within these last two areas of research on voter behavior. We build upon previous research by starting with the assumption that political campaigns can make a difference in voter turnout by mobilizing citizens to go to the polls. We believe that young people are particularly constrained by their high mobility and reliance upon mobile technology. Finally, we believe that mobilizing young voters is important if this group is to develop long-term habits of voting participation.

### **Constraints Facing Young Voters**

The 2006 election was a striking success for those interested in seeing young people (those 29 years old and younger) vote at the same rate as their parents' generation. By some estimates, youth vote turnout increased by 3 percentage points between the 2002 and 2006 elections (CIRCLE 2006). However, scholars have long noted, young voters are still underrepresented in the electorate (Wolfinger and Rosestone 1980; Highton and Wolfinger 2001).

Working from an institutional perspective that assumes that campaigns can affect voter turnout, we believe that the approaches used to mobilize voters may explain the disparities among different age cohorts. Previous studies show that the youth population is particularly responsive to voter mobilization efforts (Green and Gerber 2001). This study seeks to extend such findings by showing that the type of mobilization effort used by a campaign matters in encouraging young people to vote. Specifically, this study seeks to determine if new technology can help to bridge the gap between young people and the voting booth.

Political campaigns have traditionally delivered persuasion and mobilization messages to voters via U.S. mail and landline phone canvassing, both of which frequently

overlook young and new voters. As a mobile population, young voters are less likely than older generations to have a stable address and phone number. Furthermore, a growing percentage of this population no longer uses a landline at all, relying exclusively on cell phones. A quarter of Americans under the age of 25 were mobile-only in the second half of 2006 (Blumberg and Luke 2007). A study by In-Stat/MDR (2004) predicts that the mobile-only population will reach nearly 30 percent of the *entire American public* by the 2008 presidential election. An even larger barrier to promoting campaign-to-voter communication is the fact that many young voters register to vote in the months before an election and are therefore not included on campaign mobilization lists of previously-registered voters.<sup>4</sup>

This study uses a national field experiment and mobile-only phone survey to test the hypothesis that text messaging is an effective tool for driving young voters to the ballot box. The experiment examines the differences in turnout rates between participants in the treatment group and those in the control group. Treatment group participants received one text message reminding them to vote in the 2006 general election, the control group participants did not receive a message. Because participants might not appreciate being contacted on their personal cell phone by a political group, a post-treatment survey detects the magnitude of backlash against the treatment. These findings will allow voter mobilization organizations to better assess and implement text messaging campaigns in future elections.

---

<sup>4</sup> To ensure that our list was as up-to-date as possible, the data used in this study includes individuals who registered up until two weeks before the November 2006 election.

## **Experimental Design**

Field experiments have become increasingly popular in recent years among political scientists seeking to measure the actual and direct effects of voter mobilization techniques (e.g. Gerber and Green 2000; Michelson 2004). In general, these studies have tested conventional mail, landline phone and canvassing tactics and have found that personal mobilization methods increased turnout more than impersonal methods. As technology has changed, studies have shifted to examine the efficiency of techniques that use new technology. For instance, recent field experiments have demonstrated that e-mail is not an effective voter mobilization tool, even when the subject population is restricted to young people (Phillips 2001; Gerber and Green 2004).

One pilot study on the use of text messaging in get-out-the-vote efforts found statistically insignificant effects (Freidrichs 2006). Our study improves upon that project in several ways. First, we broadened the subject universe to include a sample of about 8,500 people in our experiment, whereas the Freidrichs study involved fewer than 500 participants. Second, participants in our study were young, mostly first-time voters who are historically not likely to vote in a midterm election. This situation creates a more fertile environment to observe the effects text messaging. Third, when possible, we targeted individuals who were less likely to receive mobilization messages from our partner organizations.

The field experiment component of this study was designed to test the net effectiveness of text messaging on turnout. The experiment began with a potential sample size of 12,567 participants. Although all participant phone numbers were verified as cell

phone numbers,<sup>5</sup> there was some drop-off in the size of the population due to unsuccessful registration and lack of 2006 voting records.<sup>6</sup> Pending marginal data additions, the final experimental sample comprised 8,529 participants.

## **Participant Recruitment**

To identify a sample for this field survey, we partnered with three voter registration organizations that registered hundreds of thousands of individuals for the 2006 election. The vast majority of the individuals' registration information was included in the main experiment that examined the effect of text messaging on voter turnout. Others were set aside for a pilot experiment that tested the technology and effect of including personalized polling location in the reminder text message.<sup>7</sup> These contributing organizations were:

- Working Assets: Working Assets is a company that donates a portion of the charges related to its phone and credit card services to social causes. Since 2005, over 70,000 individuals have registered with govote.org, a website affiliated with Working Assets and Mobile Voter (see below). The majority of visitors to the website were directed there through Google keyword searches; the remaining traffic was directed to the website through blast emails sent by several nonprofit

---

<sup>5</sup> Phone numbers were determined to be valid by examining their numerical properties. With help from Survey Sampling International, a company that specializes in producing random-digit dialing samples, we analyzed each phone number's area code, exchange, and "1000-block" (7th digit of a 10-digit number). This process allowed us to determine if the number was a mobile number, a residential landline, or a business. Only those numbers designated as mobile were kept in our universe. Due to typos, some of these phone numbers might still have been invalid, although the results from our survey indicate that the vast majority of numbers did connect to cell phones.

<sup>6</sup> The phone numbers used in this experiment were collected when an individual registered to vote with one of our partner organizations. Some of the participants in the study may not have been registered successfully due to administrative error or because of duplicate registrations. After checking a near-nationwide voter registration database after the election, the registration rate is 83%.

<sup>7</sup> For the pilot experiment (matched N=1,320), the control group comprised half of the total universe; these participants received a generic text message reminder (see Appendix A). The individuals in the treatment group received a text message reminder that included their specific polling location (e.g., First Presbyterian Church) and that location's address (e.g., 57 State St.). The turnout rate of those who received the name and address of their polling location (52%) was similar to those in the control group that received a generic text message (53%). The sample is too small to make any inferences with reasonable certainty. However, the study does demonstrate the feasibility of this technology: 73% of participant addresses were matched to a specific polling location using 9-digit zip codes and states' "Where Do I Vote" online tools. The accuracy of these matches should be explored in future research.

organizations to their customer or membership lists. Of these new registrants, 5,313 provided a valid cell phone number to the company and gave permission for Working Assets to contact them via text messaging. All records from Working Assets were included in the main experiment.

- The Student PIRGs: The Student Public Interest Research Groups (PIRGs) are independent, non-partisan, state-based student organizations that work to solve public interest problems related to the environment, consumer protection, and government reform. The Student PIRGs registered 75,000 young people to vote on college campuses in 22 states across the country in the 2006 elections. They captured contact information, including cell phone numbers, from new registrants through voter registration forms and PIRG interest cards. The Student PIRGs provided the information of 7,254 newly registered voters with valid cell phone numbers in locations where the Student PIRGs did not have resources to run comprehensive face-to-face mobilization efforts; these records were included in the main experiment.<sup>8</sup>
- Mobile Voter: Mobile Voter is a non-profit, non-partisan organization using internet technology to engage young people in civic life and politics. In 2006, Mobile Voter conducted a nationwide voter registration campaign using text messaging and the web. Over 200 participating organizations used Mobile Voter's text and web software to register their constituencies, generating 7 million impressions. Each impression encouraged an individual to send a text message to a 5-digit shortcode to begin the registration process. Approximately 4,000 people responded and 500 of these completed the registration process. Of these potential participants, 352 had addresses that could be matched to a specific polling location and were included in the pilot experiment. Mobile Voter also sent out a portion of the text messages to the treatment groups and collaborated with Working Assets on the govote.org web initiative. Mobile Voter's 2006 campaign was funded by grants from the Pew Charitable Trusts (coordinated by Young Voter Strategies) and the MacArthur Foundation

### **Treatment Text Messages**

As well as ascertaining the overall effect of text message reminders to vote, the field experiment tested two treatment dimensions: the addition of a polling place information hotline and a variation in the type of appeal to vote. All messages were sent between 11:00 am and 7:00 pm local time on the day before the election (Monday, November 6<sup>th</sup>). Each message began with the text “A friendly reminder that

---

<sup>8</sup> In addition, for the pilot study, the organizations provided information concerning 1,212 newly registered individuals who resided in areas where the Student PIRGs conducted an extensive mobilization campaign.

TOMORROW is Election Day” and ended with the name of the organization that initially registered the individual, as well as the name of the organization responsible for sending the text message.<sup>9</sup>

The organization People for the American Way operated a “National Voter Assistance Hotline” in the days leading up to the election. One of the primary purposes of this call center was to help individuals determine their polling location. Half of the treated participants received a clause in their text message that directed them to this hotline. Those messages read: “Polling place info @ 866-687-8683.”

We tested two different types of appeals to examine whether variations in the content of the message have a different impact on young voters. The first type of message was a civic duty appeal that read, “Democracy depends on citizens like you—so please vote!” The second appeal was a “close elections” message that read: “Elections often come down to few votes—so please vote!”<sup>10</sup> These messages were designed to be short because most mobile carriers limit text messages to 160 characters. The message content, and the number of recipients, can be found in Table 1.

---

<sup>9</sup> Mobile Voter sent the text messages to their participants and PIRG’s participants. Working Assets sent the messages to their own participants.

<sup>10</sup> Gerber and Green (2000) found that, of the mobilization messages they tested, the “close election” appeal had the most effect, followed by a “civic duty” appeal. Our message wordings are shorter versions of their paragraph-length appeals.

**Table 1: Message Content Sent to Each Treatment Group**

<b>Group</b>	<b>No. of original recipients / No. matched to voter file</b>	<b>Message Text (with by group signature)</b>
Civic Duty without hotline	1,573 / 1,065	“A friendly reminder that TOMORROW is Election Day. Democracy depends on citizens like you-so please vote! –PIRG/TxtVoter.org”
Civic Duty with hotline	1,571 / 1,074	“A friendly reminder that TOMORROW is Election Day. Democracy depends on citizens like you-so please vote! Polling place info @ 866-687-8683 –PIRG/TxtVoter.org”
Close election without hotline	1,566 / 1,033	“A friendly reminder that TOMORROW is Election Day. Elections often come down to few votes—so please vote! –GoVote.org”
Close election with hotline	1,582 / 1,064	“A friendly reminder that TOMORROW is Election Day. Elections often come down to few votes—so please vote! Polling place info @ 866-687-8683 –GoVote.org”
Control	6,275 / 4,293	[None]

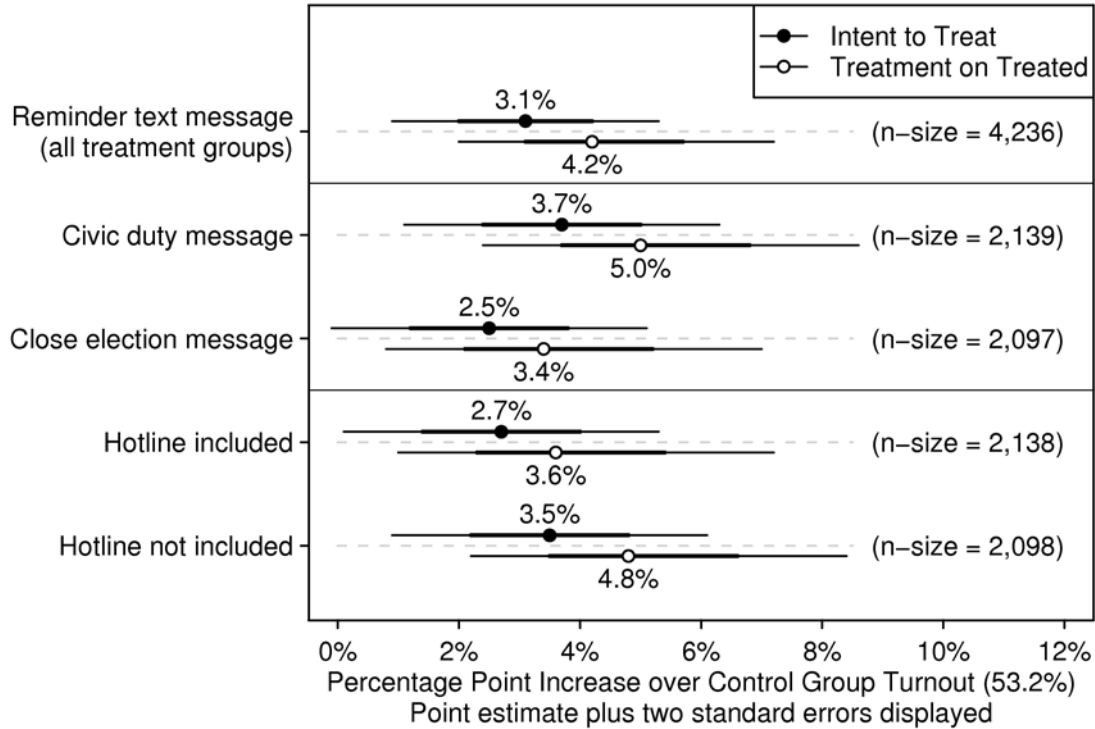
After registrants who provided cell phone numbers were isolated, the participant population was divided into equally sized treatment and control groups based on a stratified-random procedure, stratifying across states. A second set of random numbers was generated to divide the treated population into message groups. (Differences in group sizes are only due to lack of divisibility of the overall population size. The determination of which groups received the extra participant was also random.) Sample text messages can also be found in Appendix A.

### **Results of the Field Experiment**

The field experiment demonstrates that text messaging is a powerful tool for mobilizing voters. The overall intent-to-treat effect was 3.1%: the turnout rate for the control group was 53.2%, while the turnout rate for those in the treatment group was 56.3% (see Figure 1). The post-treatment survey results suggest that the contact rate was

80% and that the percentage of participants who voted before Election Day was 14.5%. Accordingly, we estimate the implied treatment-on-treated effect to have been 4.2%.<sup>11</sup>

**Figure 1: Increase in Turnout for Non-Exclusive Treatment Groups**



Comparing these results to past experiments (Gerber and Green 2000), the overall effects of text messaging are on par with a canvassing mobilization treatment when intent-to-treat is considered. Canvassing is more effective than text messaging on a person-by-person basis, but the contact rate during canvassing is much lower than that for text messaging. When considering the treatment-on-treated effect, text messaging is twice as effective as three physical mailings (Gerber and Green 2000), and about as effective as

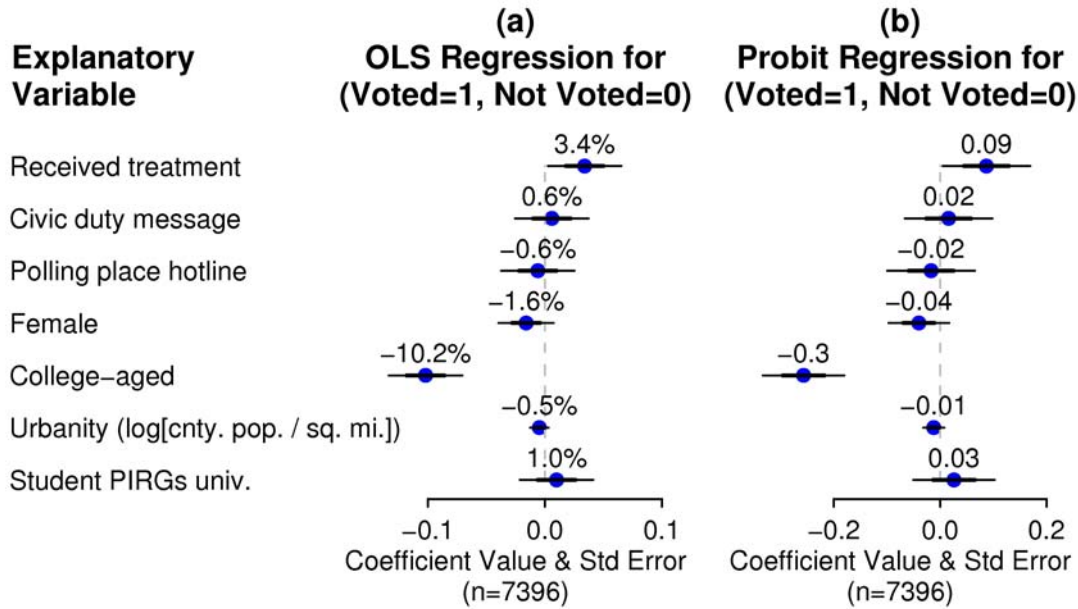
<sup>11</sup> Of the 4,236 matched participants in the treatment group, 2,386 voted. Using the percent of the control group who voted (53.2%), we estimate that 2,255 participants in the treatment group would have voted without the treatment. We can infer from these results that the treatment caused 131 participants to vote. The survey indicates that 14.5% of voters in the universe voted early and 80% of the treatment group received a text message; thus, about 3,127 could have possibly been affected by the treatment. Thus, the treatment-on-treated effect is  $131 / 3,127 = 4.2\%$ .

a professional, quality phone call made in the week before Election Day (Nickerson 2007).

Results indicate no significant difference between the two message appeals, although the point estimate for the effect of the civic duty message is somewhat higher than for the close election message. Gerber and Green (2000) also found no significant effect between these two messages, although the close election appeal worked slightly better in their experiment. Interestingly, adding a polling place hotline number in the text message does not induce individuals to vote—in fact, those who received the hotline information voted at a lower rate than even the control group. This negative finding, while not statistically significant, is corroborated by the survey results (see below).

The regression analyses presented in Figure 2 demonstrate the effect of text messages when controlling for treatment group and demographic variables. Using the OLS coefficients as a guide and combining the overall reminder effect with the effect of the “civic duty” appeal, recipients of the “civic duty” text message were more likely to vote by four percentage points. With respect to demographics, college-aged (22-years-old and younger), women, and urban participants were less likely to vote regardless of treatment. Additionally, those who registered to vote through PIRG were slightly more likely to vote. Of these findings, only the age result is statistically significant. A probit analysis—which is more appropriate for dichotomous dependent variables, though produces coefficients that are more difficult to interpret—is presented in panel (b) of Figure 2.

**Figure 2: Effects of Treatment Group, Demographics, and Participant Universe on Voter Turnout: Point Estimates plus Two Standard Deviations Shown**



Text messaging has approximately constant effects across age, gender, and urbanity. When interaction terms for these three variables (crossed with whether the participant is in the treatment group) are added to the regression, either separately or concurrently, the resulting coefficients do not reach statistical significance. Limited personal information is available from registration data (e.g., the ethnicity of participants is unknown), but this basic analysis indicates that text messages serve as a useful reminder to vote across the entire population of new registrants.

## Post-Treatment Survey

### Background

Field experiments in political science often do not include a post-treatment survey. However, the possibility of a backlash in this study compelled us to ask participants how they reacted to the treatment. Cell phones are personal devices, and many treatment recipients might have felt that a generic voter mobilization message

violated their sense of privacy. A Pew Research study (2005) of a related technology, e-mail, finds that many computer users are uncomfortable receiving campaign communications in their inboxes. In the case of text messaging, a post-treatment survey complements the quantitative analysis of voting outcomes with a more qualitative examination of participants' attitudes toward the treatment.

Cell phone surveys are a relatively new phenomenon. The Pew Research Center (2006b) has been a pioneer in the area of cell phone opinion research. Pew provides a monetary incentive to potential respondents to increase the response rate among mobile phone users who may be disinclined to converse with a caller from an unknown number. They also leave messages in mobile phone voice mail with a response number to call. We follow Pew's lead in adopting several of these procedures.

Gerber and Green (2004) note that post-experiment surveys are subject to considerable non-response bias: those who answer the survey are the same people who were amenable to the treatment. Two exceptional field experiments that *do* include post-treatment surveys (Phillips 2001; Green and Gerber 2001) do not measure backlash and do not correct for non-response bias. We alleviated this bias by recording the initial disposition of every potential respondent who answered their cell phone and then weighted the survey results by the measure of disposition (Fuller 1974).

### **Survey Sample Design**

The survey was conducted on the two weekends immediately following the election (November 11-12, and 18-19) via McGuire Research Services (as the calling house) and The Mellman Group (as the survey firm intermediary). Calls were not made on weekdays to reduce the possibility that respondents had to pay for cell phone minutes.

The length of the interview was kept to between five and six minutes (on average) to minimize any calling costs to the respondent.

The “target population” of the survey comprised all participants who received a text message in the experimental phase of this study. Participants in the control group were not surveyed because a backlash to a text message they did not receive could not plausibly exist.

We considered survey respondents to be those who were both (1) were willing to complete the survey and (2) recalled that they received the treatment text message. To induce “annoyed” participants to take the survey, a \$5 Amazon.com gift certificate was offered to those individuals who initially declined to complete the survey. This offer was also extended to those whose cell phone package did not include unlimited weekend calling.<sup>12</sup> To account for the pernicious non-response bias of participants unwilling to take a survey on their cell phone, the initial disposition (i.e., annoyed or pleasant) of every person who answered their cell phone was recorded. This information was used when weighting the survey. In total, 300 respondents were fully interviewed.<sup>13</sup>

### **Survey Instrument Design**

The primary goal of the survey instrument was to detect a backlash among participants who received the treatment text message. Accordingly, the survey instrument simply asked an individual how they reacted to receiving a text message. If the respondent was confused by the question, they were asked how “did they FEEL” about

---

<sup>12</sup> Of the 477 unweighted participants who answered the question about their cell phone plan, 83% reported that they had a plan with unlimited weekend calling. In general, the Amazon.com offer was not an effective incentive.

<sup>13</sup> 707 participants answered their phone; a subset of this group either did not recall receiving the treatment or declined to take the survey.

receiving the text. These responses are then grouped into categories. (For exact question wording and categorization of responses, see the Appendix B.)

In addition to the open-ended question, we asked respondents to categorize their reaction as either positive or negative. Specifically, we inquired whether the text message was “helpful” or whether the respondent was “bothered” by it. We also asked how the text message affected the respondent’s likelihood to vote. While we did not expect respondents to report their own behavior accurately, this measure was nonetheless informative on the extent of the backlash. We placed the open-ended questions before the close-ended questions in an effort not to bias the open-ended responses (Babbie 2004, pp. 151-167).

In measuring initial disposition, interviewers were given a scale to place the respondent on, from “very pleasant” through “indifferent” to “very annoyed.” The option “immediate hang-up” was available if the period of interviewer contact was too short to discern a disposition.

### **Weighting the Survey**

The survey was weighted on several dimensions to adjust for sampling error, randomness, and non-response bias. The distribution of participant voter registration organization, treatment group, age, and sex was known for the entire population. Weighting on these dimensions was straightforward. In addition, differences in recall-rate compelled us to weight based on the weekend the participant was interviewed (i.e., either November 11-12 or 18-19). To alleviate non-response bias, we weighted the disposition of respondents who completed the survey to the disposition of everyone who answered their mobile phone.

To compare the weighting schemes, we present the results from the close-ended question asking whether the text message reminder was helpful or annoying. Three approaches are compared: unweighted, combining the bottom four disposition categories, and combining the bottom five disposition categories. As displayed in Table 2, weighting makes a considerable difference, but the results of the two weighting schemes are still similar. Slightly more polarization occurs in the more granular weighting scheme that combines four categories. Because the coarse approach yields such similar results (note the similar “helpful – bothered” margins), and is less prone to random variance since it pools more respondents, we employed the five-category scheme to weight the survey.

**Table 2: Effect of Weighting Schemes on Helpful/Bothered Question**

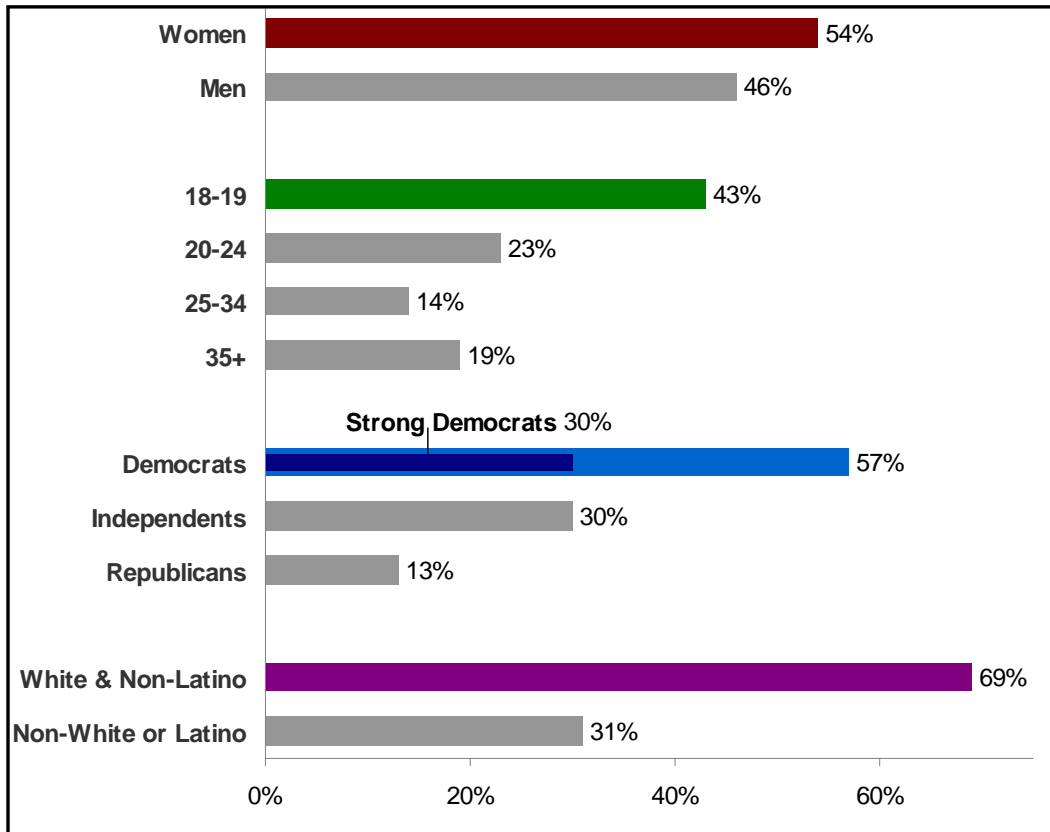
<b>Response to Q6</b>	<b>Weighting Scheme</b>		
	<b>Unweighted</b>	<b>Combine 4 Categories</b>	<b>Combine 5 Categories</b>
Helpful, strongly	29.0	26.7	25.4
Helpful, not so strongly	34.0	32.6	33.3
No effect/Don't Know	17.7	17.8	18.5
Bothered, not so strongly	9.0	9.2	9.8
Bothered, strongly	10.3	13.7	12.9
Total: helpful	63.0	59.3	58.7
Total: bothered	19.3	22.9	22.7
Total: helpful – bothered	43.7	36.4	36.0
Total	100	100	100

## Survey Results

One benefit of the survey is that respondent information provides a view of the demographic profile of the overall population. As can be seen in Figure 3, the weighted survey population has a higher distribution of women than men, is generally very young, and is reasonably diverse. While respondents were not asked their age on the survey, dates of births were available from the registration information associated with each participant’s mobile phone number. A large percentage (43%) of the population is either

18 or 19 years old. Almost a third (31%) of the respondents are non-white or Latino, a percentage that falls only slightly below the nationwide average (33% according to the 2005 Census Bureau estimate). Many more respondents identified with the Democratic Party (57%) than the Republican Party (13%).

**Figure 3: Responses To The Surveys' Demographic Questions**



The survey provides evidence of a small backlash to receiving a text message. This backlash is dwarfed, however, by the size of the positive reaction from participants. When respondents are asked, without any prompting, the open-ended “reaction” question, a sizable plurality (43%) reports a positive feeling. In fact, a quarter (25%) of respondents indicates that the treatment helped remind them to vote. In contrast, only a tenth of the respondents provide a negative reaction (e.g., annoyance). A third cluster of respondents

(21%) report being confused or surprised by the text message, a percentage that would undoubtedly shrink if more campaigns employed this technology.

When asked to think about the treatment in terms of their likelihood to vote, about one quarter (24%) of the respondents report an increased chance of voting. A tiny proportion (1%) believes that the text message suppressed their desire to cast a ballot. Thus, unless those who were dissuaded from voting are reporting *much* more accurately than their positively-influenced counterparts, the positive effects of text reminders quantified above are not significantly dampened by voter backlash. In regards to the treatment being helpful or annoying, there is again a large margin between a positive response (59% total helpful) and a negative response (23% total bothered).

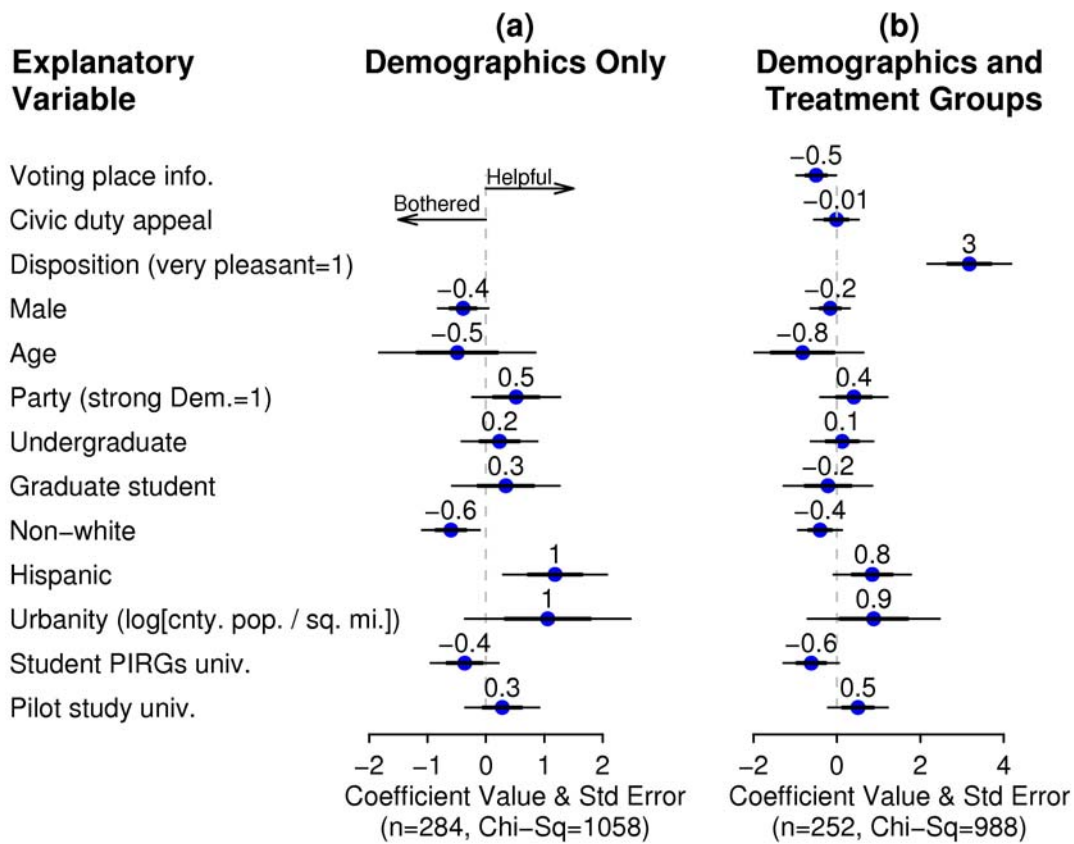
Since the helpful/bothered question is the instrument that best discriminates between positive and negative reactions to the treatment, we use that measurement as the dependent variable for regression analysis. Such an analysis allows us to identify factors that make a participant more or less likely to find a text message helpful. This dependent variable is coded on a 5-point scale from 0 to 1, with higher values corresponding to a more positive reaction (“don’t know” is re-coded as .5). Each independent variable is described in such a way that makes it readily apparent whether it is an indicator variable (e.g., male, attends college, student PIRGs univ.), an artificially-scaled variable (e.g., party), or a naturally-scaled variable (e.g., age). Both artificially- and naturally-scaled variables are coded on a scale from 0 to 1, with equally spaced ordinal categories for artificially scaled variables.<sup>14</sup>

---

<sup>14</sup> Artificially-scaled variables have neutral and “don’t know” responses set at 0.5. Naturally-scaled variables have their minimum set at 0 and their maximum set at 1. Higher values for disposition

An ordinal regression analysis (see Figure 4, column (a)) reveals several demographic factors that influence participant reaction to the text message. Men are more likely than women to be bothered by the text reminder. Hispanics, which in other studies have shown an affinity to text messaging (Pew 2006a), have more positive reactions than average. In contrast, non-white, non-Hispanics demonstrate disproportionate displeasure with the texts. Though not significant at conventional levels, the regression indicates that older participants are also more likely to be annoyed, while students (both undergraduates and graduate students) find the reminder helpful. Also, recipients in more urban areas are more likely to react positively to text messages.

**Figure 4: Effects of Demographic and Treatment Variables on Response to Bothered/Helpful Question, Estimated by Ordinal Regression (Logit Link)**



The influence of the types of text messages on participant reaction (see Figure 4, column (b)) is consistent with the results of the field experiment. We find a negative effect of including polling place information in the text message. One possible explanation for this counterintuitive finding is that recipients prefer shorter text messages. On some mobile phones, longer text messages require scrolling, which is somewhat bothersome. Alternatively, recipients may perceive the addition of the hotline number as a request to call the hotline rather than an opportunity to do so. If participants take this point of view, then the text message is less a friendly reminder than a pretext for further interaction.<sup>15</sup>

No significant differences are found between the use of either the “civic duty” or the “close election” appeals. The key to effective text messaging mobilization appears to be the inclusion of a simple reminder; the content matters little and too much information can distract or annoy the respondent.

Survey responses also shed light on how young voter mobilization techniques could be improved. A near-majority (44%) of the non-voters (n=72) proffer “lack of time” as their excuse for not voting. In contrast, only 5% of the non-voting respondents answered that lack of information kept them from the polls. It appears that reminding young people to make time for voting is more important than providing polling location information. The question of whether the “lack of time” response reflects a low prioritization of voting among young people could be explored in future research.

Young voters also indicate a preference for passive communication, whereby a voting reminder does not require a response from the voter. When asked to choose their

---

<sup>15</sup> Because the inclusion of the hotline number and the length of the text message are highly correlated, no critical test between these two hypotheses is possible.

preferred method of get-out-the-vote contact, respondents ranked all three passive forms of communication—text message (31%), e-mail (30%), and USPS mail (17%)—above all interactive forms. Landline and cell phone calls were rated as a top preference by 3% each. Perhaps surprisingly, only 6% of individuals listed a personal visit as their favorite contact, despite the proven effectiveness of personal methods of mobilization in prior research.

## **Discussion, Future Work and Conclusion**

Our motivation for conducting this study was to identify new methods for political campaigns to communicate with the next generation of voters. Specifically, we wanted to test whether or not mobile technology could be used to mitigate institutional constraints faced by younger voters in receiving political messages. Our results indicate that text messaging is a powerful tool for reaching new voters and driving them to the polls. Backlash is minimal, especially for short, direct messages.

In contrast to e-mail communication, to which prior research (Pew 2006a) finds that a majority of respondents respond unfavorably, our study indicates that only 10% of text message recipients had a negative reaction. This lower level of backlash, combined with the large overall intent-to-treat (3.1%) and treatment-on-treated (4.2%), reveals the potential of mobilization text messaging to change the outcome of close elections. Further, a strong plurality (43%) of survey respondents reacted favorably to the text message treatment and a quarter (25%) of respondents indicated that the treatment helped remind them to vote. Importantly, a miniscule fraction of the treatment group reported a decreased chance of voting. Taken as a whole, these results indicate that the boost in turnout provided by text messaging is not dampened by backlash.

The survey respondents' professed preference for text messaging and e-mail seems to be at odds, however, with research that shows interactive mobilization to be most effective.<sup>16</sup> Nickerson (2007) argues that the "nature and quality" of a mobilization contact determine the effectiveness of that strategy. In spite of the demonstrated advantages of interactive forms of political communication, this study shows that passive forms of communication, when used wisely, can be effective. In the case of young voters, it seems that the "quality" of a message is less important than the use of an outreach strategy that accommodates a mobile lifestyle.

Another important advantage of text messaging over face-to-face communication is the low cost of delivering the treatment. The cost of sending text messages is, at most, 10 cents per recipient, which, based on the results of this study, translates into a cost per vote of only \$3.<sup>17</sup> In contrast, Nickerson (2007) surveyed the mobilization literature and found the cheapest cost per vote of traditional campaign activities (via a professional, personalized phone bank) to be \$19.

Peer-to-peer text communication relies on personal networks to communicate messages through this ordinarily passive technology. This type of mobilization can be politically powerful, as evidenced through several cases outside the United States. In the 2004 general election in Spain, for example, a viral text messaging campaign is thought to have mobilized young and urban voters in a way that may have contributed to an unexpected victory by the Spanish Socialist Labour Party (Suarez 2005). In Korea and

---

<sup>16</sup> Green and Gerber (2001) find the effect of door-to-door canvassing on turnout to be 8.5 percentage points.

<sup>17</sup> The estimated cost of \$0.10 is conservative. The actual costs to send the messages for Working Assets and Mobile Voter were \$0.035 and \$0.06, respectively. For this study, the cost per vote was \$1.56. Since the phone numbers were gathered through prior registration efforts (which themselves generate votes), the numbers are considered free. Validation costs were minimal.

China, peer-to-peer text messaging is used to organize flash mobs and large protest rallies on short notice (Hong 2005). The challenge of studying this potentially powerful mobilization strategy, of course, lies in the inherently decentralized nature of viral campaigns. A creative experimental strategy will be needed to measure that effect.

Another puzzle that this study begins to address, and that can be explored further, relates to how mid-term elections yield lower turnout levels among young voters than presidential elections. Achen (2005) finds that young, educated voters are the demographic group that is, both theoretically and empirically, most likely to vote in a presidential election but not in a midterm election. Many of the participants in this experiment are college students, and thus fit into the young, educated demographic. This study creates a baseline analysis of text messaging in a midterm election. A replication of this study in the 2008 presidential election can provide a contrast to examine whether mobilization tactics account for the disparity in turnout between the two types of elections.

Increased youth turnout in 2006 clearly demonstrates that young people can be motivated to go to the polls. Mobilization research, as well as related work on voting registration, continues to shed light on effective techniques for motivating young people to political action. This research demonstrates that young voters want to use technology to communicate with political organizations, and that these new forms of communication are powerful tools for increasing turnout. In sum, this area of research can help encourage young people to develop habits of voting that can strengthen their engagement with the political process for years to come.

## References

- Achen, Christopher. 2005. "Expressive Bayesian Voters and their Turnout Decisions: Empirical Implications of a Theoretical Model." Presented at the *Center for Democratic Politics*. Thursday, October 6, 2005.
- Babbie, Earl. 2004. *The Practice of Social Research, 10th ed.* Belmont, California: Wadsworth Publishing.
- Blumberg, Stephen J., and Julian V. Luke. 2007. "Wireless Substitution: Preliminary Data from the January-June 2006 National Health Interview Survey." *National Center for Health Statistics; Centers for Disease Control and Prevention*. May 14, 2007.
- Brady, Henry E., Sidney Verba and Kay Lehman Schlozman. 1995. "Beyond SES: A Resource Model of Political Participation." *The American Political Science Review* 89(2): 271-294.
- CIRCLE. 2006. "Youth Voter Turnout Increases in 2006." Available: [http://www.civicyouth.org/PopUps/FactSheets/FS07\\_2006MidtermCPS.pdf](http://www.civicyouth.org/PopUps/FactSheets/FS07_2006MidtermCPS.pdf)
- Eldersveld, Samuel. 1956. "Experimental Propadanda Techniques and Voting Behavior." *The American Political Science Review* 50(1): 154-165.
- Friedrichs, Ryan. "Voter Mobilization in 2004." 2006. *Skyline Public Works*. February 15, 2006. Available: <http://www.skylinepublicworks.com/WhatWeveLearned.html>
- Fuller, Carol. 1974. "Weighting to Adjust for Survey Nonresponse." *Public Opinion Quarterly*: 38(2): 239-246.
- Gerber, Alan S., and Donald P. Green. 2000. "The Effects of Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment." *The American Political Science Review*: 94(3): 653-663.
- Green, Donald P., and Alan S. Gerber. 2001. "Getting Out the Youth Vote: Results from Randomized Field Experiments." Unpublished Manuscript, *Yale University*. December 29, 2001.
- Gerber, Alan S., Donald P. Green, and Ron Shachar. 2003. "Voting May be Habit-Forming: Evidence from a Randomized Field Experiment." *American Journal of Political Science* 47(3): 540-550.
- Gerber, Alan S., and Donald P. Green. 2004. *Get Out The Vote! : How to Increase Voter Turnout*. Washington, D.C.: Brookings Institution Press.

- Highton, Benjamin, and Raymond E. Wolfinger. 2001. "The First Seven Years of the Political Life Cycle." *American Journal of Political Science* 45(1): 202-209.
- Hong, Cathy. 2005. "New Political Tool: text messaging." *Christian Science Monitor*. June 30, 2005. Available: <http://www.csmonitor.com/2005/0630/p13s01-stct.html?s=u2>
- In-Stat/MDR. 2004. "Landline Displacement to Increase as More Wireless Subscribers Cut the Cord." Press release, February 25, 2004. Available: <http://www.instat.com/press.asp?ID=895&sku=IN0401644MCM>
- Michelson, Melissa R. 2004. "Mobilizing the Latino Youth Vote." *The Center for Information & Research on Civic Learning & Engagement*. Working Paper 10. Updated January 2004.
- Nickerson, David W. 2007. "Quality Is Job One: Professional and Volunteer Voter Mobilization Calls." *American Journal of Political Science* 51(2): 269-282.
- Patterson, Samuel C. and Gregory A. Caldeira. 1983. "Getting Out the Vote: Participation in Gubernatorial Elections." *The American Political Science Review* 77(3): 675-689.
- Pew Research Center. 2005. "Post-Election 2004 Tracking Survey." November 29, 2005. Available: [http://www.pewinternet.org/PPF/r/45/dataset\\_display.asp](http://www.pewinternet.org/PPF/r/45/dataset_display.asp)
- Pew Research Center. 2006a. "Pew Internet Project Data Memo." May 15, 2006. Available: <http://people-press.org/reports/display.php3?ReportID=276>
- Pew Research Center. 2006b. "The Cell Phone Challenge to Survey Research." April 3, 2006. Available: <http://people-press.org/reports/display.php3?ReportID=276>
- Phillips, John A. 2001. "Using E-mail to Mobilize Voters: A Field Experiment." Unpublished manuscript, Yale University. March 27, 2001. Available: <http://www.yale.edu/ccr/phillips.doc>
- Plutzer, Eric. 2002. "Becoming a Habitual Voter: Inertia, Resources and Growth in Young Adulthood." *The American Political Science Review* 96(1): 41-56.
- Powell, G. Bingham Jr. 1986. "American Voter Turnout in Comparative Perspective." *The American Political Science Review* 80(1): 17-43.
- Rosenstone, Steven J. 1982. "Economic Adversity and Voter Turnout." *American Journal of Political Science* 26(1): 25-46.
- Squire, Peverill, Raymond E. Wolfinger, and David P. Glass. 1987. "Residential Mobility and Voter Turnout." *The American Political Science Review* 81(1): 45-66

Suarez, Sandra L. 2005. "Mobile Democracy: Text Messages, Voter Turnout, and the 2004 Spanish General Election." Paper presented at the 2005 Annual Meeting of the American Political Science Association.

Wolfinger, Raymond E., and Steven J. Rosenstone. 1980. *Who Votes?* New Haven: Yale University Press.

Wong, Janelle. 2005. "Mobilizing Asian American Voters: A Field Experiment." *The Annals of the American Academy of Political and Social Science*: 601(1): 102-114.

## **Appendix A: Example Text Messages**

### Main Field Experiment

Civic duty appeal with hotline:

A friendly reminder that TOMORROW is Election Day. Democracy depends on citizens like you-so please vote! Polling place info @ 866-687-8683 -PIRG/TxtVoter.org

Close elections appeal without hotline:

A friendly reminder that TOMORROW is Election Day. Elections often come down to few votes-so please vote! -GoVote.org

### Pilot Experiment

Treatment group:

Hi Michael! Just a reminder that TOMORROW is Election Day. Please vote @ Meadowbrook Elementary, 29200 Meadowbrook Road. -TxtVoter.org

Control group:

Hi Anne! Just a reminder that TOMORROW is Election Day. Please vote. -TxtVoter.org

**Appendix B: Post-Treatment Survey (n=300, weighted)  
November 11-12 & 18-19, 2006**

Hello [NAME ON LIST], my name is [FIRST NAME ONLY]. I realize that I am calling you on your cell phone. We at [Calling House] are conducting a five-minute opinion survey of mobile phone users, we're not selling anything and I would like to ask you some questions.

**[IF VOICEMAIL, GO TO SCRIPT AT END OF SURVEY.]**

**[IF UNCOOPERATIVE, SKIP TO Q.B. FOR ANY REFUSAL, SKIP TO Q.13]**

A. Before we begin, most cell phone users have unlimited calling time on the weekend. Is that true for your plan?

- Yes, weekend calling unlimited..... 87
- No, weekends are not free..... 4
- Don't know [VOL] ..... 7
- Refuses survey [VOL] ..... 3

**[ASK Q.B IF Q.A = WEEKENDS ARE NOT FREE, OR REFUSE, Q.A=2 OR 4]**

B. We are offering you a five-dollar amazon.com gift certificate if you complete the five-minute survey. We will send you the coupon code in a text message within a week. Would you like to continue?

- Would like the gift certificate ..... 73
- Will take survey, but declines offer ..... 27
- Refuses to take survey..... 0

**[RESUME ASKING ALL RESPONDENTS]**

1. Earlier this month there was an election for offices such as US Congress. Some non-partisan voter mobilization groups in your state used text messaging to remind people to vote. Did you receive a text message from one of these groups?

- Yes ..... 100
- No..... 0
- Don't remember [VOL] ..... 0

2. Thinking of this recent election for US Congress, while 80 million people voted, many people lead busy lives and could not vote. Did things come up that kept you from voting, or did you happen to vote?

**[IF VOTED:]** Did you vote in person on Election Day, before Election Day by mail, or before Election Day in person?

- Voted in person, Election Day ..... 65
- Voted, before Election Day by mail..... 8
- Voted, before Election Day in person..... 3
- Did not vote..... 24
- Don't remember [VOL] ..... 0
- Refused [VOL] ..... 0

**[ASK Q.3 IF Q.2 = 4 (DID NOT VOTE)]**

3. What would you say is the main reason that you did not vote earlier this month? **[Open-ended]** \_\_\_\_\_

Lack Of Time .....	44
Not Registered .....	15
Not Informed Enough To Make Good Decisions.....	10
Didn't Receive Absentee Ballot.....	9
Didn't Vote At All .....	4
Lost I.D.....	1
Wasn't old enough .....	1
Didn't know where to vote.....	5
No transportation .....	2
Out of town.....	5
Didn't want to.....	3
Forgot to mail ballot .....	1
Refused/Don't Know.....	0

**[RESUME ASKING EVERYONE]**

4. Thinking about the text message you received in the days leading up to the election, what was your reaction to receiving it? **[Open-ended; if confused by question ask:]** How DID YOU FEEL about receiving the text message? \_\_\_\_\_

Reminded Me To Vote / It Helped .....	25
General Positive / Good Idea / Liked It.....	18
Neutral / No Effect .....	15
Disregarded Message.....	6
Received After Voting.....	3
Surprised.....	14
Confusion .....	2
Didn't Know They Did That/Could Be Done .....	1
How Did They Get My Number? .....	3
Annoyance.....	4
General Negative / Didn't Like It .....	4
Unhappy / Upset .....	3
Refused/Don't Know.....	2
<b>Total Positive.....</b>	<b>43</b>
<b>Total Neutral.....</b>	<b>26</b>
<b>Total Surprised/Confused.....</b>	<b>21</b>
<b>Total Negative .....</b>	<b>10</b>

5. Did receiving the text message make you more or less likely to vote in the election, or did it have no effect on your decision whether to vote? **[If MORE/LESS ASK:]** Would you say the text message made you much (more/less) likely or only somewhat (more/less) likely to vote?

Much more likely .....	8	24
Somewhat more likely .....	16	
No effect.....	75	
Somewhat less likely.....	1	
Much less likely .....	0	1
Don't know <b>[VOL]</b> .....	0	

6. With which of the following statements do you agree with more:

**[ROTATE]**

The text message I received was helpful.

OR

It bothered me that someone sent me a text message.

**[If Helpful/Bothered]** Do you feel that way strongly, or not so strongly?

Helpful, strongly .....	25	59
Helpful, not so strongly.....	33	
Bothered, not so strongly .....	10	
Bothered, strongly.....	13	23
Neither <b>[VOL]</b> .....	17	
Both, equally <b>[VOL]</b> .....	1	
Don't know <b>[VOL]</b> .....	1	

7. Imagine that a political organization wanted to remind you to vote just before Election Day. How would you prefer that they contact you? By...

**[READ & ROTATE]**

Mail .....	17
E-mail.....	30
Cell phone call .....	3
Cell phone text message.....	31
Landline phone call.....	3
Talk in-person .....	6

**[DO NOT READ]**

Other <b>[VOL]</b> .....	8
Don't know <b>[VOL]</b> .....	3

**THANK YOU. NOW, JUST A FEW QUESTIONS FOR STATISTICAL PURPOSES ONLY.**

8. In politics TODAY, do you consider yourself a Republican, Democrat, or Independent? **[IF REPUBLICAN OR DEMOCRAT ASK:]** Do you consider yourself a strong (Republican/Democrat) or a not so strong (Republican/Democrat)? **[IF INDEPENDENT ASK:]** As of today do you lean more to the Republican Party or more to the Democratic Party?

strong Republican.....	6	13
not so strong Republican .....	4	
Independent leans Republican.....	3	
Independent .....	18	
Independent leans Democratic .....	12	
not so strong Democrat.....	15	
strong Democrat .....	30	57
Other party <b>[VOL]</b> .....	4	
Don't know/refused <b>[VOL]</b> .....	8	

9. Are you currently enrolled in a college or a university? **[IF YES, ASK:]** Is that as an undergraduate student or as a graduate student?

Attend, undergraduate .....	59	
Attend, graduate student.....	9	
Attend, don't know <b>[VOL]</b> .....	12	80
Does not attend .....	16	
Ref <b>[VOL]</b> .....	5	

10. Are you of Hispanic origin or background?

Yes.....	8
No .....	89
dk/ref <b>[VOL]</b> .....	4

11. Would you describe yourself as black, white, Asian, some other race, or mixed race?

Black.....	8
White .....	71
Asian.....	8
Other/mixed.....	8
ref <b>[VOL]</b> .....	5

12. What is your current zip code? \_\_\_\_\_

**Thank you for your time and for answering these questions. Have a nice day/evening.**

**[INTERVIEWER INFORMATION ONLY – DO NOT READ]**

13. **[RECORD, BUT DO NOT ASK, SEX]**

Male ..... 46  
Female ..... 54

14. **[RECORD, BUT DO NOT ASK: JUDGE RESPONDENTS' INITIAL REACTION]**

Very pleasant ..... 41  
Somewhat pleasant ..... 16  
Indifferent ..... 24  
Somewhat annoyed..... 6  
Very annoyed..... 0  
Immediate hang-up; mood not available ..... 0  
Other ..... 11

**[IF VOICEMAIL – SAY THE FOLLOWING:]**

Hello \_\_\_[NAME ON LIST]\_\_\_, we're conducting a quick, 5-minute survey of cell phone users over the next two weekends. We aren't selling anything or asking for a contribution, so please answer your phone even if you see an unlisted or blocked number. We look forward to hearing your opinions. Thank you and have a nice day.