

**Vote.org 2018 SMS Voter Mobilization Program:
Encouraging Ballot Return in Postal Voting States
Including Message Test of Adopt-a-Voter vs. Calendar Reminder vs. Standard Practice**

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Executive Summary

For the 2018 general election, Vote.org conducted SMS voter mobilization programs covering 12,681,951 people of color and unmarried women in 33 states. These programs used “cold” text messaging to registered voters who have no prior relationship to Vote.org.

This memo evaluates Vote.org’s program to increase turnout in states that mail a ballot to every registered voter. The memo also assesses message test comparing Adopt-a-voter vs. Calendar vs. Standard Practice messages used in these states. The same messages were tested in a program encouraging in person voting (see memo on “Vote.org 2018 SMS Voter Mobilization Program: Message Test of Adopt-a-Voter vs. Calendar Reminder vs. Standard Practice”). The test of encouraging the return of mail ballots covered 448,992 low propensity and/or newly registered voters in three states: Colorado, Oregon, and Washington.

A 2017 test in Portland (OR) found the Adopt-a-voter and Calendar treatments each increased turnout, with the Adopt-a-voter generating a slightly but not significantly larger increase.¹ This 2018 test sought to replicate these results on a larger scale and in a higher salience election. The Adopt-a-voter treatment seeks to motivate turnout by reminding recipients of the social rewards of voting. The Calendar treatment seeks to increase turnout by using smartphone technology to set a personal reminder to vote. The 2018 test also combined these two paths to behavioral change (Adopt+Calendar). Vote.org’s Standard Practice SMS treatment, identified in tests in 2016 and 2017, serves as the performance benchmark.

The average effect for any treatment appears to be a 0.2 percentage point increase in turnout (\$144.43/net vote; 6.9/\$1000), although this effect does not reach statistical significance. However, there are wide differences in the effectiveness of the treatments: The Adopt-a-voter treatment was the most effective message for increasing turnout in this experiment, generating an increase in turnout of 0.5 percentage points at a cost per net vote of \$55.84 (17.9 net votes/\$1000). The Adopt+Calendar treatment appeared to generate an increase in turnout of 0.2 percentage points at a cost per net vote of \$139.60 (7.2 net votes/\$1000). The Standard Practice treatment appeared to generate an increase in turnout of 0.1 percentage points at a cost per net vote of \$279.20 (3.6 net votes/\$1000). The Calendar treatment did not significantly increase turnout overall, although it was effective in particular subgroups of the targeted population. Testing the same messages for increasing in-person voting produced a similar pattern.

In future “cold” SMS voter mobilization programs in states where all voters receive a ballot by mail, Vote.org should consider the Adopt-a-voter message to be a best practice. Future programs should consider testing reduction in the number of SMS messages from four to three (and possibly two) to determine if this improves cost-efficiency.

Objectives and Context

For the 2018 general election, Vote.org conducted SMS voter mobilization programs covering 12,681,951 people of color and unmarried women in 33 states. Despite widespread use, SMS messages have received little attention from researchers as a medium for campaign communication. In 2016, Vote.org established that “cold” SMS messages could increase turnout with a randomized experiment design covering 1.2 million young people of color and unmarried women in 7 states. [Vote.org’s 2016 “cold” SMS voter mobilization program](#) increased turnout by 0.2 percentage points. In 2017, Vote.org replicated and expanded testing of “cold” SMS voter mobilization with a randomized experiment covering 714k young people of color and unmarried women for the Virginia gubernatorial and legislative elections. [Vote.org’s 2017 test of “cold” SMS voter mobilization](#) increased turnout by 0.6 percentage points and identified Standard Practices regarding timing and message framing.

This memo evaluates an adaptation of SMS voter mobilization to encourage the return of mail ballots in states where all registered voters are sent a ballot in the mail. The test of encouraging the return of mail ballots covered 448,992 low propensity and/or newly registered voters in three states: Colorado, Oregon, and Washington.

The memo also evaluates a comparison of Adopt-a-voter vs. Calendar vs. Standard Practice messages. The Adopt-a-voter and Calendar treatments are based on an SMS experiment conducted in a local election in Portland, OR in 2017.ⁱⁱ Both treatments generated statistically significant increases in turnout in this experiment, with the Adopt-a-voter treatment effect slightly but not statistically significantly larger. The behavioral theory behind each treatment is discussed in the “Treatments” section below. The 2018 test adds an Adopt+Calendar treatment to determine if combining the two behavioral mechanisms increases turnout more than either mechanism separately. The same messages were tested in a program encouraging in person voting (see memo on “Vote.org 2018 SMS Voter Mobilization Program: Message Test of Adopt-a-Voter vs. Calendar Reminder vs. Standard Practice”).

Selected Universe

The data for the experiment was selected by Vote.org from the voter file maintained by TargetSmart, a firm providing voter data.

The 448,992 registered voters included in the experiment met the following criteria:

- 1) A cell number available in the TargetSmart database
 - TargetSmart provided the best single record for each available cell phone number (i.e. no duplicate numbers)
- 2) Registered to vote in the following states:
 - Colorado
 - Oregon
 - Washington
- 3) Low propensity voter or new registrant:

- 10-70 Vote propensity OR
 - Voted in Gen 2016 and registered between Dec 2014-Nov 2016 OR
 - Registered December 2016-present)
- 4) People of color or unmarried women:
- People of color: individuals coded as non-white by TargetSmart or individuals residing in areas with a Census population of at least 67% non-white.
 - The latter criteria is intended to capture false negatives for non-white in the individual coding data. The race coding is based on state voter file information about race (where available) and proprietary models of race maintained by TargetSmart.
 - Females under age 30 who were not included using the criteria above
- 5) Exclusions:
- Age under 18 years old or over 100 years old

Treatments:

The experiment compares an uncontacted control group to four treatments: 1) Standard Practice, 2) Adopt-a-voter, 3) Calendar, and 4) Adopt+Calendar. Examples of each treatment are in the Appendix. Each treatment consisted of a series of four SMS messages.

The Standard Practice treatment is based on prior tests and programs by Vote.org. The Standard Practice treatment relies on positive descriptive norms, civic duty and information about voting to increase turnout. These tactics are very common in voter mobilization and have been successful in randomized controlled tests of mail, phone calls and canvassing (see Green and Gerber 2015 for review).ⁱⁱⁱ

The Adopt-a-voter and Calendar treatments are based on an SMS experiment conducted in a local election in Portland, OR in 2017.^{iv} Both treatments generated statistically significant increases in turnout in this experiment, with the Adopt-a-voter treatment effect slightly but not statistically significantly larger.

For the Adopt-a-voter treatment, the first message for each method of voting encouraged recipient to get friends and family members to vote. The Adopt-a-Voter treatment is based on leveraging the social rewards from voting.^v Delivering similar Adopt-a-Voter treatments by phone has successfully increased in-person voter turnout.^{vi} The remaining messages in the treatment were identical to the Standard Practice treatment.

For the Calendar treatment, the second message for each method of voting includes an option to create a reminder to vote in the recipient's smartphone calendar. The Calendar treatment was based on the "plan-making" mechanism originally investigated as a voter mobilization strategy by Nickerson and Rogers (2010) and now used in an array of voter mobilization experiments that have increased turnout (see Green and Gerber 2015).^{vii} The remaining messages in the treatment were identical to the Standard Practice treatment.

The Adopt + Calendar treatment includes both the Adopt-a-voter message (1st) and Calendar messages (2nd), along with the informational messages used in all treatments. The remaining messages in the treatment were identical to the Standard Practice treatment.

Prior to each round of text messages, anyone who "opted out" of receiving text messages was removed from the contact list. Also, anyone who who cast a ballot according to public records acquired by TargetSmart LLC were removed from the contact list upon Vote.org's receipt of this information.

Intended Effects^{viii}

- Each treatment was intended to increase turnout in the November 2018 election.
- Each treatment was expected to have different effects on turnout.
- Different treatment effects were expected across the following groups:
 - States
 - Voters under and over age 30
 - Cell phone match confidence
 - Competitive vs. non-competitive areas^{ix}
 - Gender
 - Age
 - Vote propensity score
 - Drop-off voters (voted in 2016 but not 2014)
 - New registrants (since 2016)
 - Race / ethnicity
 - Households with single vs. multiple targets

Evaluation Design

The evaluation is based on a randomized trial design (or field experiment) that is considered best practice by academic researchers and the Analyst Institute. Each treatment group received SMS messages from Vote.org; the control group was sent none of the SMS messages.

The randomization is conducted at the household level to reduce the risk of contaminating behavior of co-habitants. For this experiment, households were defined as people with the same mailing address. The randomization uses an automated re-randomization procedure to ensure good balance in characteristics available from the voter file prior to delivery of treatment (see Technical Appendix).

Random Assignment to Treatment & Control

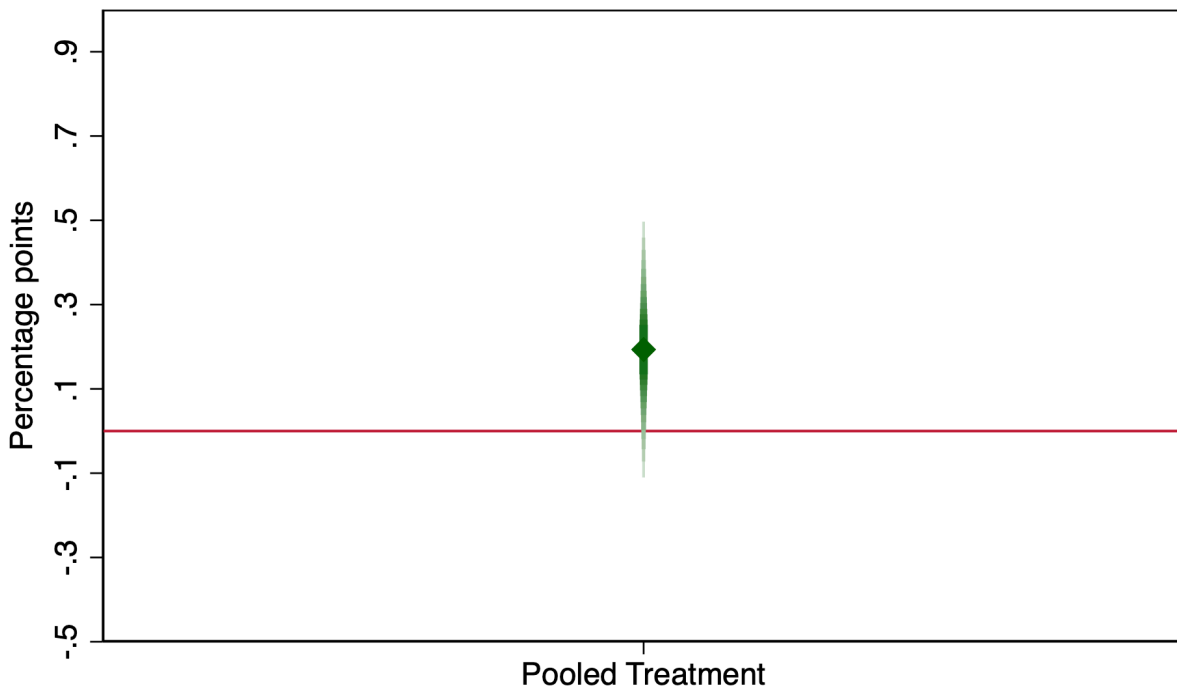
	Individuals	%
Standard Practice	89,790	20%
Adopt-a-voter	89,755	20%
Calendar	89,909	20%
Adopt+Calendar	89,720	20%
Control	89,818	20%

Results

The average effect for any treatment appears to be a 0.2 percentage point increase in turnout, although this effect does not reach statistical significance.^x However, this overall average is impacted by wide differences in the effect of the four treatments, as discussed next.

Note on reading the graphs in this memo: The estimated treatment effect is represented by the diamond shape in the middle of each bar. The gradient error bars display the statistical uncertainty of this estimate. Like traditional error bars, the ends of the gradient error bars indicate the 95% confidence range. If these bars cross the red horizontal line at zero, the difference from the control group is not statistically significant. The width and intensity (darkness) of the bar indicate the statistical likelihood that the treatment effect falls in this range, so the bars are wider and darker close to the diamonds, thinning and fading farther away. When comparing to treatment effects, the likelihood of being different can be seen by the width and intensity of the overlapping gradient bars.^{xi}

Avg Treatment Effect on Turnout by Pooled Treatment



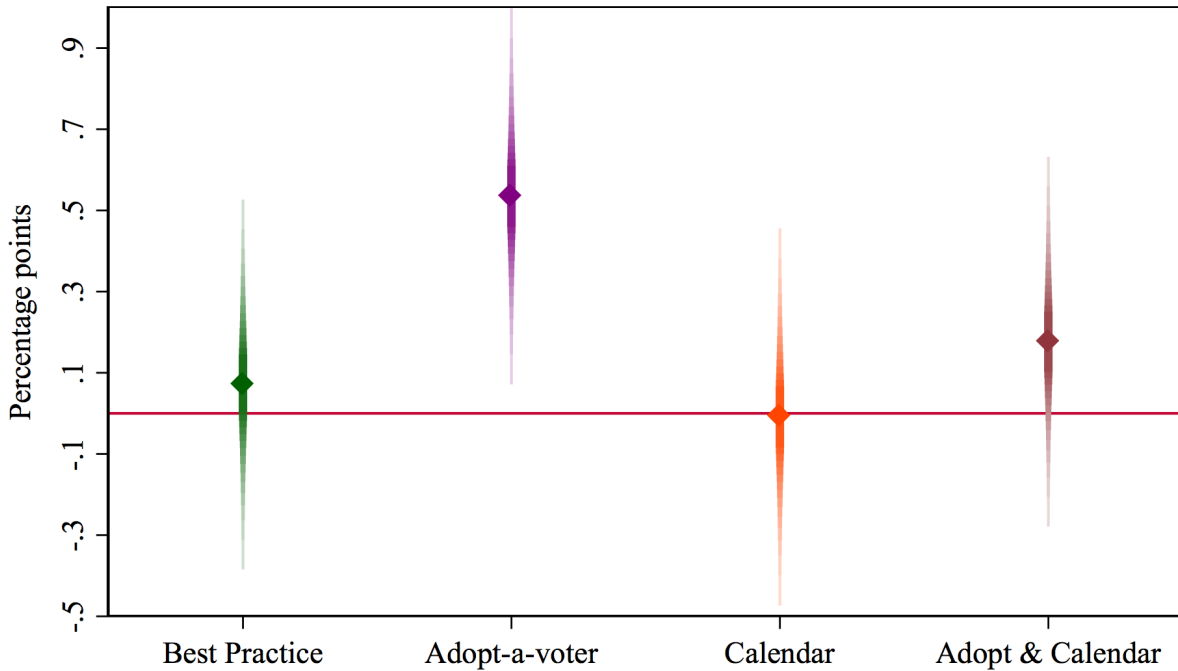
Notes: Turnout in control group = 58.42%. Treatment effects estimated from regression with covariates for precision. Gradient confidence intervals by line width and intensity (max=95% c.i.). If confidence intervals cross line at zero, then effect is not statistically significant.

Message Test

In the Adopt-a-voter vs. Calendar vs. Standard Practice message test, the Adopt-a-voter message appears to be the most effective message (see graph below). The Adopt-a-voter treatment significantly increased turnout in postal voting states by 0.5 percentage points.^{xii} The Adopt+Calendar treatment appears to increase turnout by 0.2 percentage points^{xiii} and the Standard Practice treatment appears increase turnout by 0.1 percentage points^{xiv}, although both are well short of statistical significance. The Calendar treatment did not have a statistically discernable effect on turnout.

The differences across these four treatments is marginally statistically significant (89% confidence),^{xv} although the substantive magnitude of the differences suggests the Adopt-a-voter message should be used in future programs.

Avg Treatment Effect on Turnout by Each Treatment



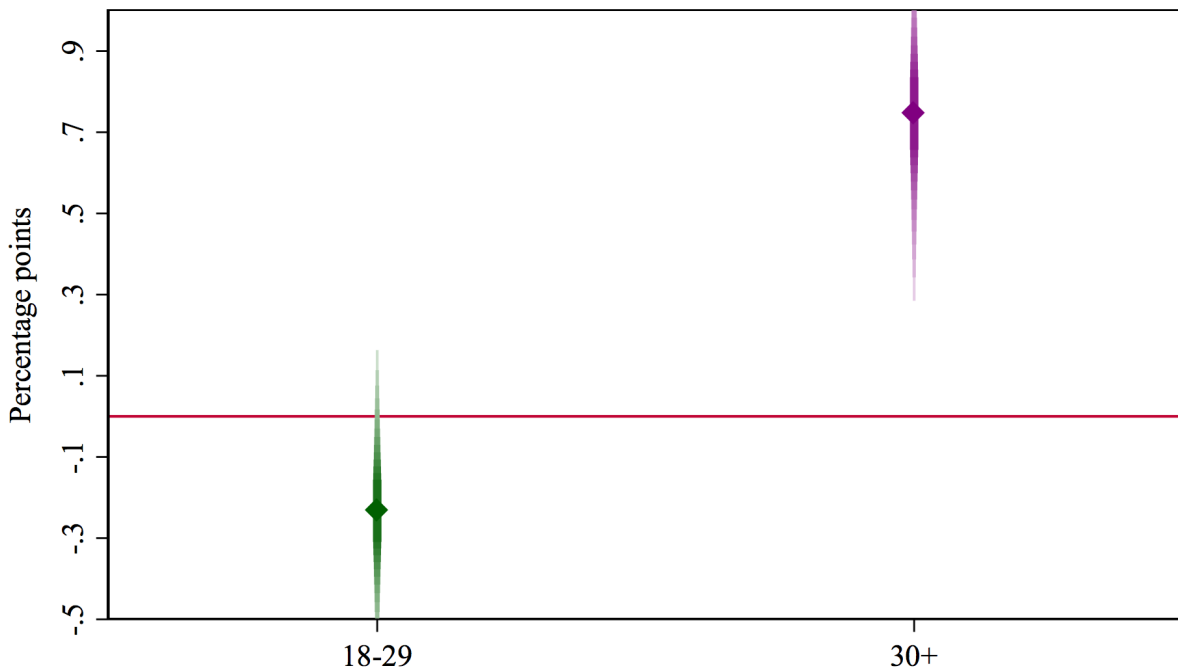
Notes: Turnout in control group = 58.42%. Difference in treatment effects is *not* statistically significant (p=0.111). Treatment effects estimated from regression with covariates for precision. Gradient confidence intervals by line width and intensity (max=95% c.i.). If confidence intervals cross line at zero, then effect is not statistically significant.

Subgroups

Noteworthy differences appear for several subgroups within the postal voting states.

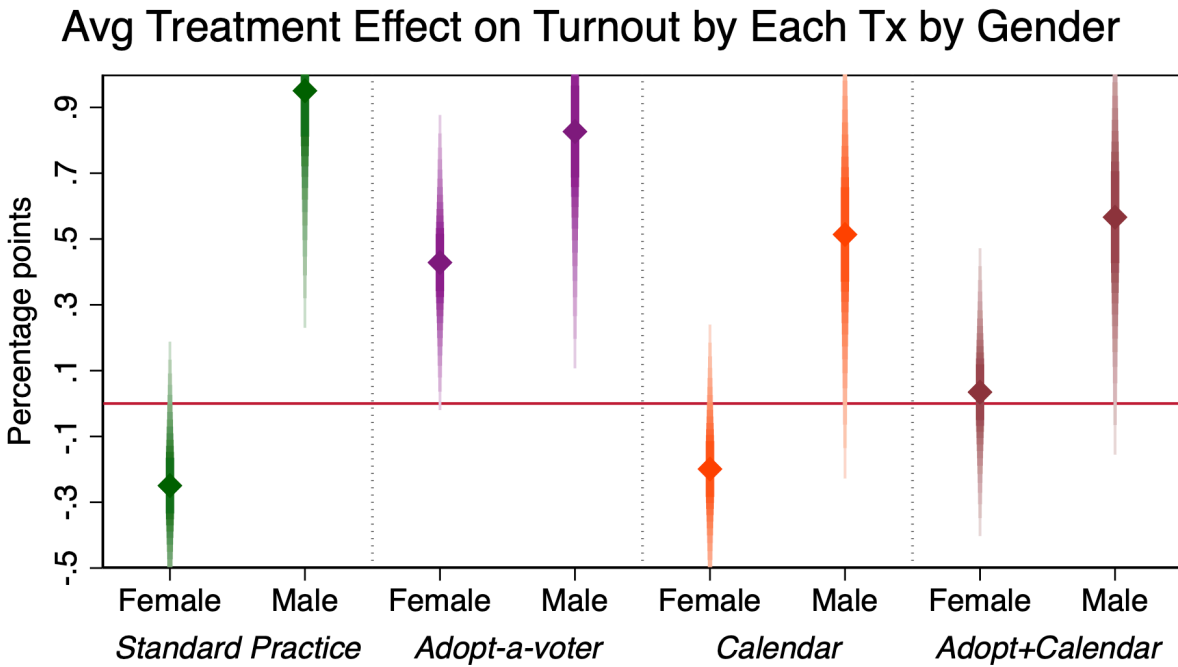
All four treatments were more effective for people over 30. Although text messaging is often associated with younger voters, the entire target population is likely to be regular texters because TargetSmart was able to obtain their cell phone number. Higher treatment responsiveness from older people is typical in many voter mobilization experiments.

Avg Treatment Effect on Turnout by Pooled Tx by Over vs Under 30



Notes: Turnout of 30 & over in control group = 59.80%. Turnout of under 30 in control group = 57.35%.
Difference in effects between 30 & over vs under 30 is statistically significant (p=0.007).
Treatment effects estimated from regression with covariates for precision. Gradient confidence intervals by line width and intensity (max=95% c.i.). If confidence intervals cross line at zero, effect is not statistically significant.

Treatment responsiveness in these three mail ballot states also appears to be influenced by gender (from voter file records). The treatment effect for all four treatments is larger for males than for females. The gender difference is statistically significant only for the Standard Practice treatment, but the difference is clear when all four treatments are pooled together (0.7 percentage points for males, 0.1 percentage points for females).^{xvi} Part of the reason the Adopt-a-voter performs so well overall is it has the only strongly positive impact among females. Behavioral theory does not provide any guidance about this gender disparity in responsiveness to these treatments.

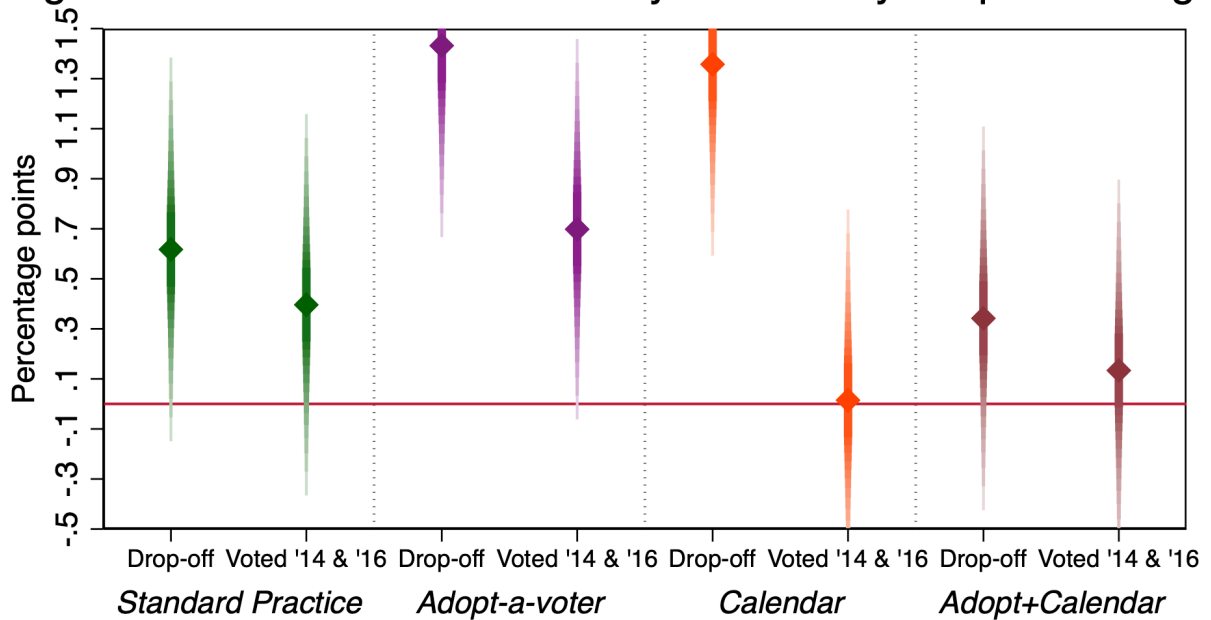


Notes: Turnout of males in control group = 57.06%. Turnout of females in control group = 58.91%.
 Difference in Standard Practice effect between male and female is statistically significant (p=0.017).
 Difference in Adopt effect between male and female is *not* statistically significant (p=0.430).
 Difference in Calendar effect between male and female is *not* statistically significant (p=0.159).
 Difference in Adopt+Calendar effect between male and female is *not* statistically significant (p=0.289).
 Treatment effects estimated from regression with covariates for precision. Gradient confidence intervals by line width and intensity (max=95% c.i.). If confidence intervals cross line at zero, effect is not statistically significant.

Although the Calendar treatment did not perform well overall, the Calendar treatment was very effective at increasing turnout among Drop-off voters [voted in 2016 but not in 2014] (1.4 percentage points^{xvii}) – matching the Adopt-a-voter treatment in this subgroup (1.4 percentage points^{xviii}). The Calendar treatment had no discernible effective among people who voted in 2014 & 2016. (See graph below.)

This pattern suggests the simple reminder mechanism of the Calendar treatment may work for people with a latent propensity to vote but who are not motivated in lower salience mid-term elections (and off-year elections based on the Calendar treatment’s impact in the 2017 test in Portland, OR). However, the Calendar treatment is no better than the Adopt-a-voter treatment in this subgroup.

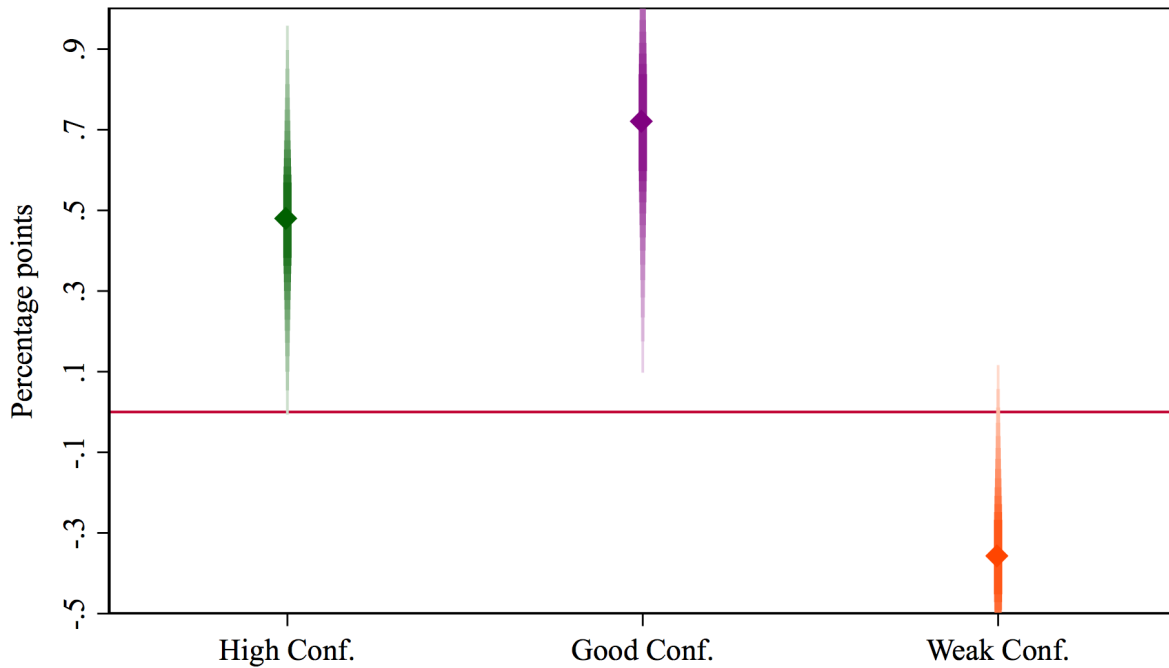
Avg Treatment Effect on Turnout by Each Tx by Drop-off Voting



Notes: Turnout of Voted '14 & '16 in control group = 65.43%. Turnout of Drop-off in control group = 57.94%.
 Difference in Standard Practice effect between Drop-off and Voted '14 & '16 is *not* statistically significant (p=0.735).
 Difference in Adopt effect between Drop-off and Voted '14 & '16 is *not* statistically significant (p=0.261).
 Difference in Calendar effect between Drop-off and Voted '14 & '16 is statistically significant (p=0.040).
 Difference in Adopt+Calendar effect between Drop-off and Voted '14 & '16 is *not* statistically significant (p=0.750).
 Treatment effects estimated from regression with covariates for precision. Gradient confidence intervals by line width and intensity (max=95% c.i.). If confidence intervals cross line at zero, effect is not statistically significant.

The effectiveness of the treatments also varied according to TargetSmart’s cell phone matching confidence score. On average across all four treatments, the treatment effects were statistically significant for the High Confidence (0.5 percentage points)^{xxix} and Good Confidence (0.7 percentage points) ranges^{xxx}, but indistinguishable from zero (and negative) for Weak Confidence range.^{xxxi} The difference across these four subgroups is statistically significant.^{xxxii} The same pattern holds across match confidence for each for the four treatments.

Avg Treatment Effect on Turnout by Pooled Tx by Cell Match



Notes: Turnout in control group: best match = 61.84%; good match = 58.73%; weak match = 55.13%.
 Difference in effects across cell match confidence is statistically significant (p=0.036).
 Treatment effects estimated from regression with covariates for precision. Gradient confidence intervals by line width and intensity (max=95% c.i.). If confidence intervals cross line at zero, effect is not statistically significant.

No statistically significant or substantively notable patterns were found in other subgroups listed in the “Intended Effects” section.

Net Votes

The cost per net vote (and net votes/\$1000) calculation includes all costs of design, delivering, and managing the treatment delivery process.

Treatment	Effect	Net Votes	Votes/\$1000	CPV	Treatment Cost
Any Treatment	0.2 pp	694	6.9	\$144.43	[\$0.2792/individual]
Standard Practice	0.1 pp	90	3.6	\$279.20	[\$0.2792/individual]
Adopt-a-voter	0.5 pp	449	17.9	\$55.84	[\$0.2792/individual]
Calendar	-	-	-	-	[\$0.2792/individual]
Adopt+Calendar	0.2 pp	179	7.2	\$139.60	[\$0.2792/individual]

Notes: Treatment cost reflects average cost for the series of SMS messages in each treatment. Net votes is the number of people who voted in response to the treatment(s), and would not have otherwise voted in the November 2018 election.

Lessons Learned

Vote.org’s strategy of using “cold” SMS messages for voter mobilization continues to generate significant and cost effective increases in voter turnout in states where all voters receive ballots by mail.

The Adopt-a-voter message frame is the most effective message in states where all voters receive ballots in the mail, and therefore should be considered in future programs. The Adopt-a-voter treatment also appeared to be the most effective treatment in a comparison of these messages for in-person voting (see memo “Vote.org 2018 SMS Voter Mobilization Program: Message Test of Adopt-a-Voter vs. Calendar Reminder vs. Standard Practice”).

The Calendar treatment appears to work well to mobilize drop-off voters who vote in high salience (Presidential) elections but not lower salience elections, but it is ineffective among other types of voters. The strong performance by the Calendar treatment in the prior testing may have been largely an artifact of targeting drop-off voters to participate in a low salience off-year (2017) election.

Future Steps

Vote.org should continue to invest in “cold” SMS voter mobilization programs to increase voter turnout in states where all voters receive ballots by mail.

Vote.org should use the Adopt-a-voter message as best practice in future “cold” SMS mobilization programs to encourage the return of mail ballots.

Cautions

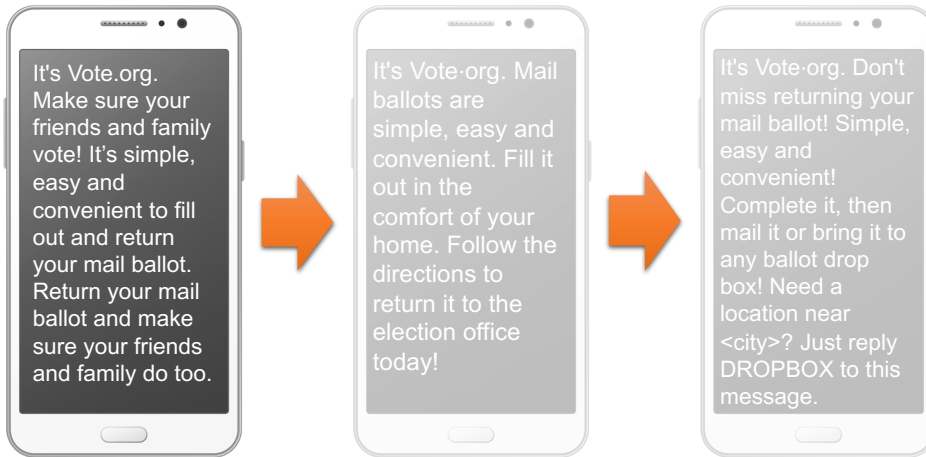
The effect of any voter mobilization communication is conditional on the execution of the program, the jurisdiction, the type of election, the level of interest in the election, and the activities of other organizations. Repeating these treatments in other election contexts or with variations of the treatments could produce different results.

Appendix: Examples of Treatments

Standard Practice [Postal Voting States]

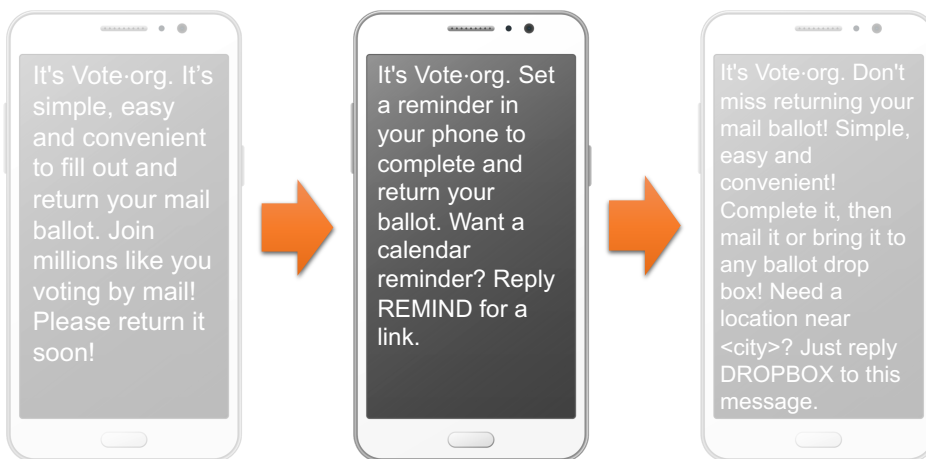


Adopt-a-Voter [Postal Voting States]



- Based on successful SMS mobilization in Portland, OR 2017 (Mann 2018)

Calendar [Postal Voting States]



- Based on successful SMS mobilization in Portland, OR 2017 (Mann 2018)

Technical Appendix

Randomization Procedure:

Randomization was conducted at the household level. The random assignment was conducted in Stata using the “re-randomize” procedure developed by Kennedy and Mann (2015) to ensure balance across observable covariates.^{xxiii}

This procedure rejects any instance of randomization outside of pre-determined parameters: minimum of 10 iterations and maximum of 25 iterations. Iterations stopped between 10 and 25 when iteration had $p > 0.8$ based on Mahalanobis distance test. This procedure produced equal sized groups, and each group was designated as an experimental condition. Blocked randomization used equal probabilities of assignment in all blocks.

Blocked randomization using the following variables: State, Young (under 30 years old), Quality of cell phone match to individual (three strata based on TargetSmart cell phone match confidence code)

Balance checked using age, female, individual-level race codes (Hispanic, African American, white), past voting history (dummies for voting in the 2010, 2012, 2014, and 2016 general elections), and three-digit zip-code (geography).

Statistical Methods for Analysis:

The analysis is based on matching the pre-election experimental population to post-election vote history from TargetSmart. The matching used the unique TargetSmart record identification number. Analysis was conducted using standard regression techniques for evaluating experimental results.

Hypothesis testing uses robust standard errors clustered by unique address to account for potential correlation between the behaviors of co-habitants.

All reported estimates are calculated using models that include the covariates used to check balance in the random assignment procedure. As expected from a well-balanced experiment, the estimates are essentially identical when estimated without these covariates.

Technical Endnotes

ⁱ Mann, Christopher B. 2018. Encouraging Ballot Return via Text Message: Portland Community College Bond Election 2017. Retrieved from https://stonesphones.com/wp-content/uploads/2018/10/Portland_Text_Message_Ballot_Chase_-_Evaluation_Memo.pdf.

ⁱⁱ Ibid.

ⁱⁱⁱ Green, Donald P., and Alan S. Gerber. 2019. *Get Out the Vote: How to Increase Voter Turnout*. 4th ed. Brookings Institution Press.

^{iv} Mann, Christopher B. 2018. Encouraging Ballot Return via Text Message: Portland Community College Bond Election 2017. Retrieved from https://stonesphones.com/wp-content/uploads/2018/10/Portland_Text_Message_Ballot_Chase_-_Evaluation_Memo.pdf.

^v Rolfe, Meredith. 2012. *Voter Turnout: A Social Theory of Political Participation*. Cambridge University Press.; Sinclair, Betsy. 2012. *The social citizen: Peer networks and political behavior*. Chicago: University of Chicago Press.

^{vi} Mann, Christopher B., & Klostad, Casey. 2011. Voter mobilization through friends and family: social priming of political participation. *Paper presented at the 2011 Annual Meeting of the American Political Science Association*.

^{vii} Nickerson, David W., and Todd Rogers. 2010. "Do You Have a Voting Plan?: Implementation Intentions, Voter Turnout, and Organic Plan Making." *Psychological Science* 21(2): 194–99; Green, Donald P., and Alan S. Gerber. 2019. *Get Out the Vote: How to Increase Voter Turnout*. 4th ed. Brookings Institution Press.

^{viii} Following best practice in academic research, the intended treatment effects and plans for analysis were pre-registered with the Evidence in Governance and Politics program at the University of California at Berkeley (egap.org).

^{ix} Competitive areas defined by RealClearPolitics.com as Toss-up, Leans Dem or Leans GOP.

^x The average treatment effect for any treatment is not statistically significant at $p = 0.148$, one-tailed. SE = 0.18

^{xi} Research by Isabelle Fischer (2018) finds that people are much more likely to correctly interpret data displayed with gradient error bars than other more commonly used data visualizations.

^{xii} Avg. treatment effect for Adopt-a-voter compared to the control group is statistically significant at $p=0.012$, one-tailed. SE = 0.24

^{xiii} Avg. treatment effect for Adopt+Calendar compared to the control group is not statistically significant at $p=0.224$, one-tailed. SE = 0.23

^{xiv} Avg. treatment effect for Standard Practice compared to the control group is not statistically significant at $p=0.380$, one-tailed. SE = 0.23

^{xv} Difference in avg. treatment effect across four treatments approaches marginally statistically significant at $p=0.111$.

^{xvi} Avg. treatment effect for males is statistically significant at $p=0.020$ one-tailed, SE = 0.35. Avg. treatment effect for females is not statistically significant at $p=0.493$ one-tailed, SE = 0.21. The difference in treatment effect for males and females is marginally statistically significant $p=0.074$.

^{xvii} Avg. treatment effect for the Calendar treatment among Drop-off voters is statistically significant at $p=0.002$ one-tailed, SE = 0.47.

^{xviii} Avg. treatment effect for the Adopt-a-voter treatment among Drop-off voters is statistically significant at $p=0.001$ one-tailed, SE = 0.47.

^{xix} Avg. treatment effect for High Confidence matches is (nearly) statistically significant at $p=0.053$ one-tailed, SE = 0.29.

^{xx} Avg. treatment effect for Good Confidence matches is statistically significant at $p=0.029$ one-tailed, SE = 0.38.

^{xxi} Avg. treatment effect for Weak Confidence matches is not statistically significant at $p=0.214$ two-tailed, SE = 0.29.

^{xxii} Difference in avg. treatment effect across subgroups of match confidence is statistically significant at $p=0.036$.

^{xxiii} Kennedy, Chris, and Christopher B. Mann. 2015. *RANDOMIZE: Stata Module to Create Random Assignments for Experimental Trials, Including Blocking, Balance Checking, and Automated Rerandomization*. Boston College Department of Economics. <https://ideas.repec.org/c/boc/bocode/s458028.html> (May 16, 2017).