Vote.org 2018 SMS Voter Mobilization Program:
Extending Mobilization to High Propensity Voters in Hurricane Impacted Areas

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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 an element of Vote.org's SMS voter mobilization program intended to ensure participation by voters impacted by the two major hurricanes to make landfall in the US during the 2018 election season: Hurricane Florence in North Carolina and Hurricane Michael in Florida and Georgia. Vote.org was already conducting SMS voter mobilization programs to low and mid-propensity voters and to people who had requested mail ballots in these areas. Following the hurricanes, Vote.org extended the program to encourage high propensity voters in these areas to vote. This program delivered an adapted version of Vote.org's Standard Practices SMS messages, identified in tests in 2016 and 2017, to these high propensity voters. This test covered 93,558 high propensity voters in the counties declared federal disaster areas because of the two hurricanes.

This "cold" SMS program to high propensity voters following a hurricane had a small (and not statistically significant) effect on turnout (0.14 percentage points, cost per net vote = $126.29, 7.9 votes/$1000). However, more judicious targeting of only voters with 70-79 vote propensity (just above Vote.org normal voter mobilization targeting) produced nearly all of the effect (0.51 percentage points, cost per net vote = $34.67, 28.8 votes/$1000).

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.

The 2018 programs build on Vote.org's successful SMS voter mobilization programs in 2016 and 2017. This memo evaluates an element of Vote.org's SMS voter mobilization program to ensure participation by voters impacted by the two major hurricanes to make landfall in the US during the 2018 election season: Hurricane Florence in North Carolina and Hurricane Michael in Florida and Georgia. Vote.org was already conducting SMS voter mobilization programs to low and mid-

propensity voters and to people who had requested mail ballots in these areas. Following the hurricanes, Vote.org extended the program to encourage high propensity voters in these areas to vote. This program delivered Vote.org's Standard Practices SMS messages, identified in tests in 2016 and 2017, to these high propensity voters. This test covered 93,558 high propensity voters in the counties declared federal disaster areas because of the two hurricanes.

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 93,558 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 counties in Florida, Georgia, and North Carolina declared disaster areas following Hurricane Florence and Hurricane Michael
3) High propensity voter 70-100 Vote propensity
4) 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 criterion 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.
5) Exclusions:
    - Request mail ballot for Gen 2018
    - Age under 18 years old or over 100 years old

Treatments:

The experiment compares an uncontacted control group to treatment using Vote.org's Standard Practice modified to address the recent hurricane with an added social pressure element. The first two SMS messages promote early voting because early voting allows individuals to cast their ballot at any early voting site in the county where they are registered. This choice of location was expected to be important with many areas damaged by the hurricanes. The final SMS message encourages Election Day voting. The treatment uses descriptive norms ("you know that voting is important") and social pressure from monitoring of voting behavior ("public records show you have not voted yet").

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

Intended Effects[i]

- The treatment was intended to increase turnout in the November 2018 election.
- 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[ii]
  - 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	62,406	66.67%
Control	31,152	33.33%

Results

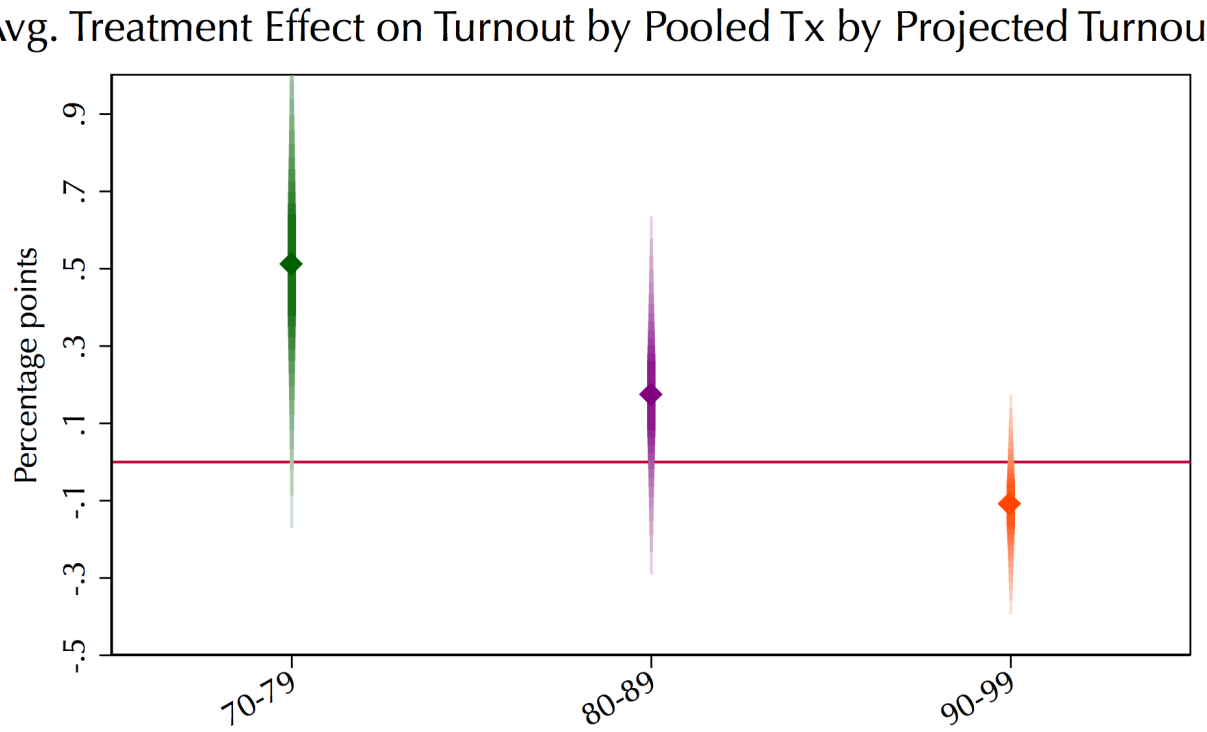
Despite concerns that the hurricanes would reduce participation, the control group turned out at 93.19%. Generating an increase above the turnout in the control group is a considerable challenge since an array of research has found that mobilization works best among voters with a 50% probability of turning out.

Overall, the Standard Practice treatment appears to have generated a small increase in turnout of 0.14 percentage points, although this effect is not statistically significant.[iii]

However, looking at types of voters by vote propensity reveals that the treatment appeared to increase turnout more for voters with lower vote propensities (see graph below). For voters with a 70-79 vote propensity, the treatment generated a marginally statistically significant increase of +0.51 percentage points above the control group's 87.43% turnout.[iv] This increase for the 70-79 vote propensity range is a contrast to Vote.org's expansions into this range in the in-person voting program, evaluated in the memo "Vote.org 2018 SMS Voter Mobilization Program: Extending

Mobilization to High Propensity Voters in States with In-Person Voting", where there is no evidence of a significant increase in turnout. For voters with an 80-89 vote propensity, the treatment is statistically indistinguishable from zero but positive (+0.17 percentage point increase above the control group's 93.55% turnout).[v] For voters with a 90-99 vote propensity, the effect is statistically indistinguishable from zero but slightly negative (-0.11 percentage point decrease from the control group's 97.95% turnout).[vi] Although the differences across the subgroups are not statistically significant,[vii] this pattern suggests that more careful decisions about targeting people who were likely to be treatment responsive would have been more cost effective.

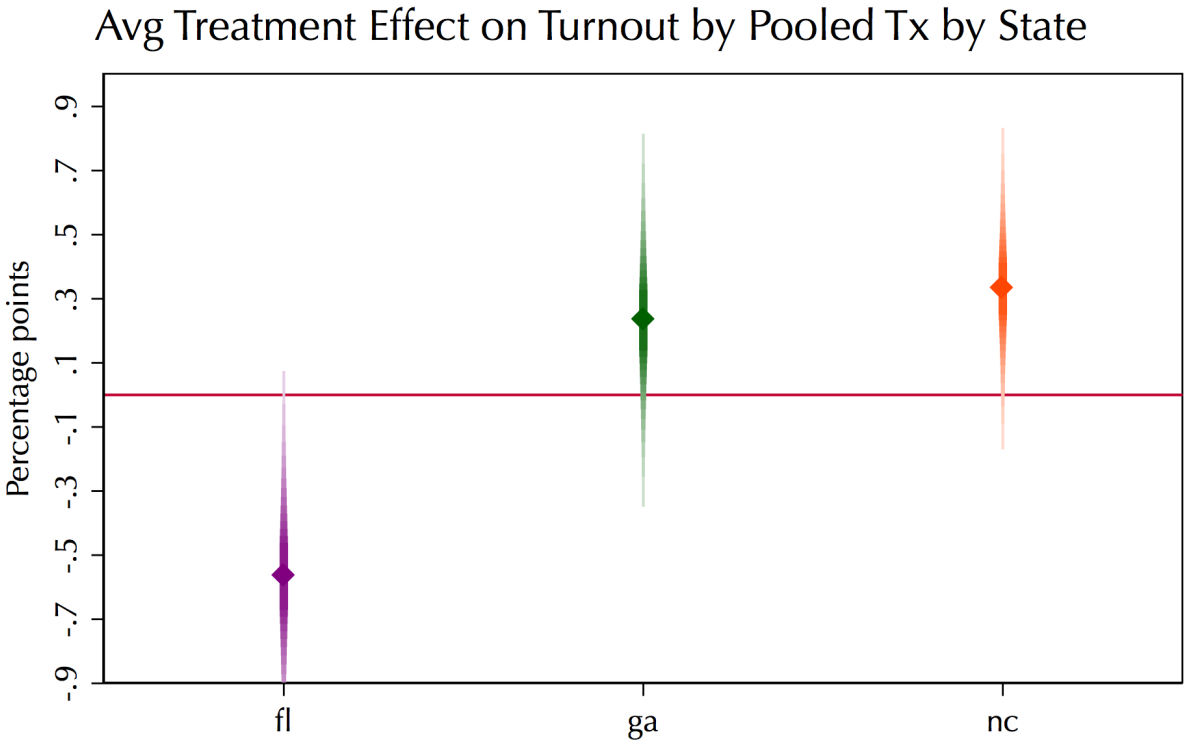
Note on reading the graphs in this memo: The estimated treatment effect is represented by the diamond shape in the middle of each bar. The gradient error bars display the statistical uncertainty of this estimate. Like traditional error bars, the ends of the gradient error bars indicate the 95% confidence 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.[viii]



Notes: Projected turnout from TargetSmart Midterm model. Turnout in control group: 70-79= 87.43%; 80-89= 93.55%; 90-99= 97.95%. Difference in effects between age groups is *not* statistically significant (p=0.323). 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 treatment appears to have had different effects across the three states impacted by the hurricanes (see graph below). In North Carolina, the treatment generated a marginally significant increase in turnout (+0.33 percentage points).[ix] In Georgia, the treatment appears to have generated an increase in turnout (+0.24 percentage points), although it is not statistically significant.[x] In Florida, the

treatment appears to have caused a negative effect on turnout of -0.56 percentage points.[xi] The difference between these treatment effects is marginally statistically significant.[xii] It is difficult to understand why or how the treatment could reduce turnout in Florida while the other states appear to have increased turnout.



Notes: Turnout in control group: FL= 95.80%; GA= 95.52%; NC= 91.39%.
Difference in effects between states is *marginally* statistically significant (p=0.077).
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
Overall	0.14 pp	87	7.9	$126.29	[$0.1768/individual]
70-79 vote propensity	0.51 pp	79	28.8	$34.67	[$0.1768/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 may be effective for some additional higher propensity voters (70-79 vote propensity) in the wake of the 2018 hurricanes but there was no effect among truly high propensity voters (80-99 vote propensity).

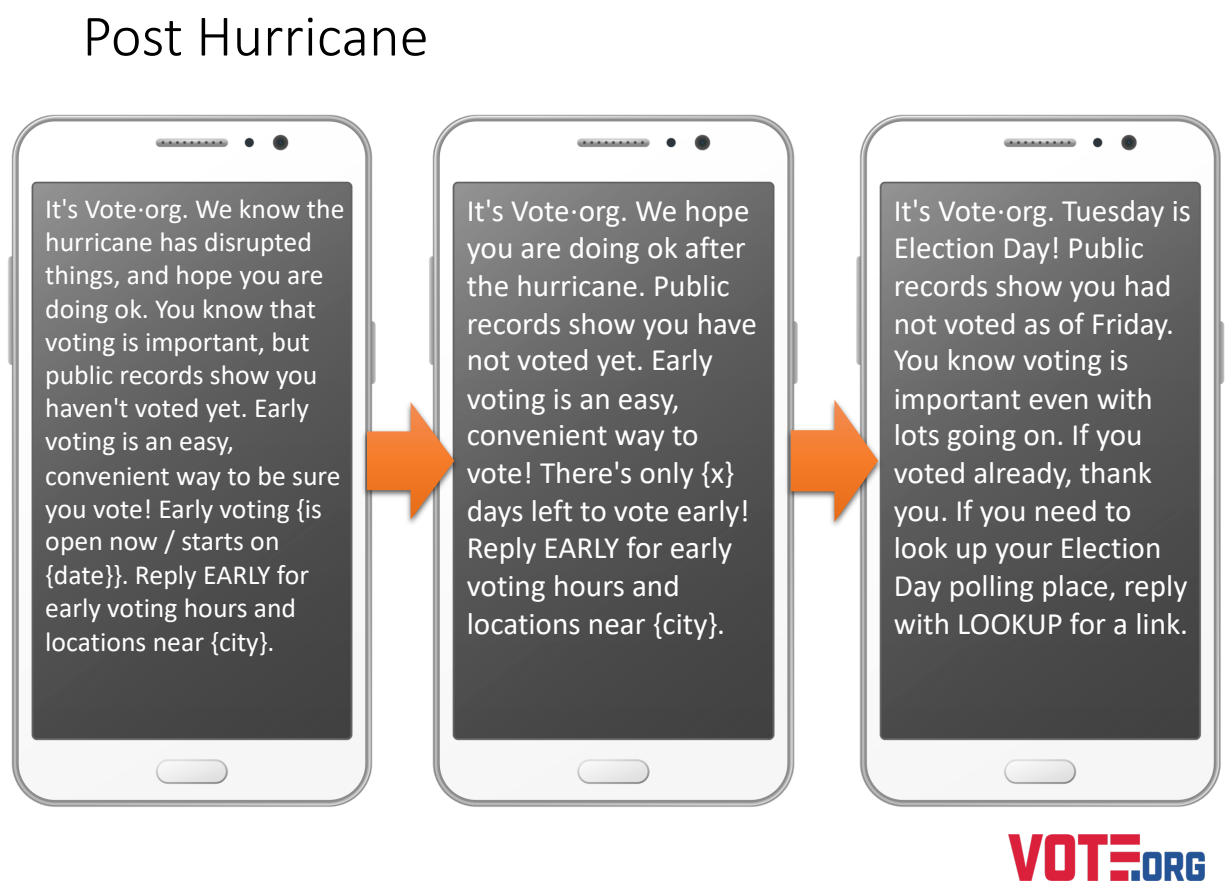
Future Steps

Using the results of this test to guide selection of targets, Vote.org should consider investing in "cold" SMS voter mobilization programs to increase voter turnout among voters impacted by hurricanes (and other disasters).

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



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.[xiii]

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 Malahanobis 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] Following Standard 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).
[ii] Competitive areas defined by RealClearPolitics.com as Toss-up, Leans Dem or Leans GOP.
[iii] Avg. treatment effect is not statistically significant at p=0.213 one-tailed, SE = 0.17.
[iv] Avg. treatment effect for 70-79 vote propensity is *marginally* statistically significant at *p*=0.109 one-tailed, SE = 0.41.
[v] Avg. treatment effect for 80-89 vote propensity is not statistically significant at *p*=0.271 one-tailed, SE = 0.28.
[vi] Avg. treatment effect for 90-99 vote propensity is not statistically significant at *p*=0.523 two-tailed, SE = 0.17.
[vii] Difference in treatment effects across vote propensity categories is not statistically significant at *p*=0.323.
[viii] 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.
[ix] Avg. treatment effect for NC is *marginally* statistically significant at *p*=0.098 one-tailed, SE = 0.26.
[x] Avg. treatment effect for GA is not statistically significant at *p*=0.217 one-tailed, SE = 0.23.
[xi] Avg. treatment effect for FL is *marginally* statistically significant at *p*=0.083 two-tailed, SE = 0.33.
[xii] Difference in treatment effects across vote propensity categories is *marginally* statistically significant at *p*=0.323.
[xiii] 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).