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2020 Early Voter Vote Tripling Program Evaluation

Executive Summary

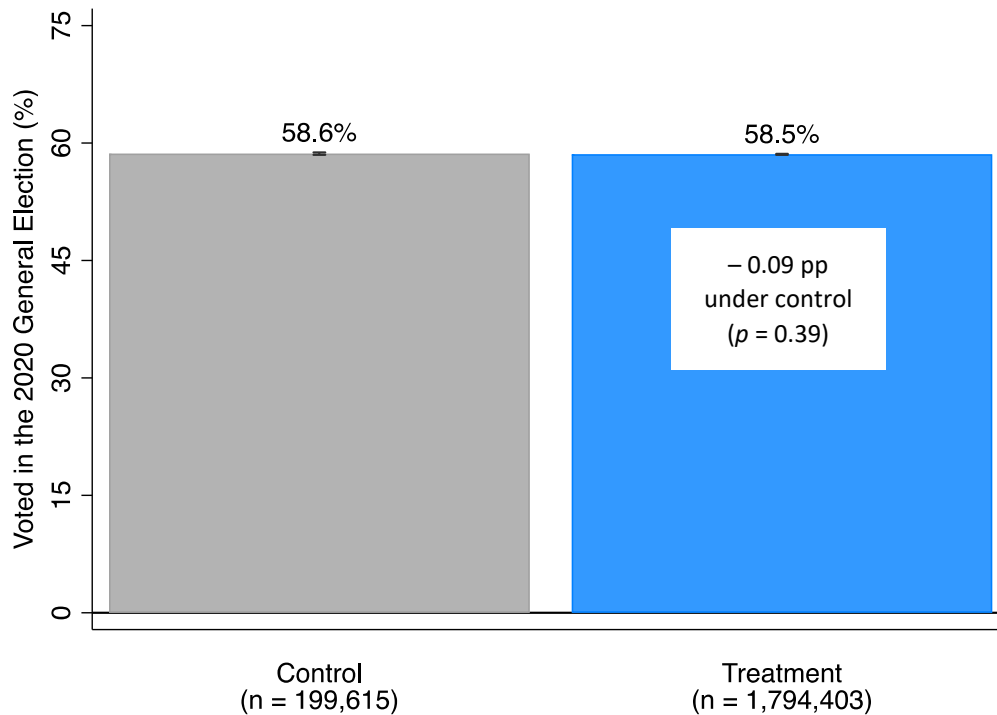
During the 2020 general election, VoteTripling.org ran a large-scale SMS program to mobilize modeled Biden supporters across 21 states. This early voter vote tripling (EV VT) program targeted people who had already voted with two SMS messages that thanked them for voting and that asked them to encourage three other people to vote in the election. VoteTripling.org embedded an experiment into this program to measure its effectiveness at increasing turnout among co-partisan household members, defined as people who shared a household with a targeted early voter and who had a Biden support score 60+. Many early voters were older (50+) with high turnout in previous elections, while many co-partisan household members were younger (18-34) with middling turnout in previous elections.

The implementation of this experiment was nearly perfect: 99% of targeted early voters in the treatment group were attempted at least once, while no targeted early voters in the control group were attempted as part of this program. Unfortunately, the program does not appear to have increased turnout in the 2020 general election among household members (Figure 1). While 58.6% of co-partisan household members in the control group voted in the 2020 general election, 58.5% of co-partisan household members in the treatment group voted in the 2020 general election. The small difference between the control group and the treatment group is not statistically significant and is likely to be attributable to chance.

There are a number of possible explanations for why the effect of this program on household members was muted. Perhaps most importantly, the 2020 general election was an extraordinarily high-salience electoral context with [nearly 160 million ballots cast](#). With such high baseline turnout, we expect that many GOTV programs conducted in 2020 will have smaller effects than GOTV programs conducted in other presidential elections. In addition, an estimated [three billion text messages](#) were sent in the 2020 general election, prompting some to call it "[the texting election](#)." Further, this experiment only measures the effect of the EV VT program on household members, so it remains possible that the EV VT program mobilized people who were *not* household members. We discuss these points further – and provide several other hypotheses – in the Discussion section.

While we regret to report that this program did not increase turnout among household members, we hope that these results are informative as VoteTripling.org begins to make plans for the 2021-2022 election cycle. We thank VoteTripling.org for conducting this project with us, and we look forward to collaborating with you again.

Figure 1: The EV VT program did not increase turnout among co-partisan household members



Notes: *** denotes $p < 0.01$, ** denotes $p < 0.05$, * denotes $p < 0.10$. The black lines represent 90% confidence intervals. The raw differences between conditions may not equal the estimated treatment effect due to rounding.

Background and Previous Research

Vote tripling is a GOTV tactic that asks people to pledge to remind three friends to vote. Vote tripling is considered a [relational voter turnout](#) (RVT) program because it leverages pre-existing relationships to mobilize voters. RVT programs can be very effective, but they are often more expensive and more difficult to scale than other types of GOTV programs. Vote tripling was designed with the goal of preserving the strong efficacy of relational tactics while reducing cost and increasing scale.

More specific to this test, early voter vote tripling (EV VT) is a type of vote tripling program that targets people who have already voted in the election. There are several reasons to suspect that EV VT programs may be more effective than other vote tripling programs. First, EV VT programs target people who probably think that voting is important, as demonstrated by the fact that they voted (and voted early no less). Second, because many campaigns and civic engagement organizations remove people from their target universes after they vote, EV VT programs target people who probably are receiving less GOTV outreach. Both of these factors suggest that early voters may be more likely to follow through with a vote tripling ask and thus may be ripe targets for a vote tripling program.

In addition to these theoretical reasons for targeting early voters, VoteTripling.org also has empirical evidence on the effectiveness of EV VT programs from several experiments conducted prior to the 2020 general election. In the [2018 general](#) election, VoteTripling.org found that their EV VT program increased turnout by 0.9 percentage points among household members ($p = 0.1$), generating an impressive 62 votes per \$1,000 spent. In the [2020 Florida primary](#) election, VoteTripling.org found that their EV VT program increased turnout by 0.4 percentage points among all household members (not statistically significant)

and by 0.9 percentage points among co-partisan household members ($p < 0.05$). Both studies measured the effect of the EV VT programs on household members only, so it is possible – if not likely – that the true effect of the programs was larger. VoteTripling.org embarked on this experiment to build on this body of evidence and to evaluate the effectiveness of an EV VT program in a higher-salience electoral context.

Experiment Design and Implementation

Research Questions

This experiment explores the following research questions:

- How effective was the early voter vote tripling (EV VT) program at increasing turnout among co-partisan household members?
- For which subgroups of co-partisan household members was the EV VT program most effective at increasing turnout?

Experiment Universe

The experiment universe contained 1,330,393 households across 21 states with two or more registered voters, at least one of whom met the criteria for an eligible early voter and at least one of whom met the criteria for a co-partisan household member. The experiment also excluded households where all registered voters had turnout scores 97.5 or greater.

VoteTripling.org defined an eligible early voter as a registered voter who voted early in the 2020 general election, who had a cell phone number that met various quality standards, and who had a Biden support score above a certain threshold. VoteTripling.org varied the threshold for Biden support scores by geography and race, but all eligible early voters had Biden support score of 60 or greater.¹ VoteTripling.org defined a co-partisan household member as a registered voter who shared a household with an eligible early voter, who had not voted in the 2020 general election prior to the randomization, and who had a Biden support score of 60 or greater.

The demographics of eligible early voters, co-partisan household members, and other household members are provided in Table 1. Other household members include registered voters who had not voted in the 2020 general election prior to the randomization and who had Biden support scores that were either less than 60 or missing. Many eligible early voters were older (50+) with high turnout in previous elections, while many co-partisan householders were younger (18-34) with middling turnout in previous elections. While 58% of eligible early voters were 50+ years old, 47% of co-partisan household members were younger than 35 years old. Over 80% of eligible early voters voted in the 2016 and 2018 elections, while only half of co-partisan householders voted in 2016, and only 41% of co-partisan householders voted in 2018. Notably, both universes were majority female, majority people of color, and modeled to be very likely to support Biden.

¹ In all states except KY, the threshold was defined as $75 - 0.15 * \text{the average Biden support score in the ZIP code}$, such that a ZIP code with an average Biden support score of 100 had a threshold of 60 and a ZIP code with an average Biden support score of 0 had a threshold of 75. If a voter was missing ZIP code, then the threshold was 70. In KY, the threshold was defined as $85 - 0.15 * \text{the average Biden support score in the ZIP code}$, and the threshold was 80 in cases where a voter was missing ZIP code.

Table 1: Many eligible early voters were older with high turnout in previous elections, while many co-partisan household members were younger with middling turnout in previous elections

	Eligible early voters (n = 1,418,678)	Co-partisan householders (n = 1,994,018)	Other householders (n = 205,030)
Female	65%	52%	32%
Voter file race: White	44%	40%	69%
Voter file race: Black	37%	39%	9%
Voter file race: Latinx	15%	16%	14%
Voter file race: Asian	3%	3%	3%
Voter file race: Native American, Other, Unknown	2%	3%	5%
Age: 18-34	15%	47%	33%
Age: 35-44	17%	18%	19%
Age: 45-54	22%	13%	18%
Age: 55-64	26%	11%	17%
Age: 65+	20%	11%	13%
Average Biden support score	85	80	43
Average turnout score	86	57	50
Voted in 2018	81%	41%	33%
Voted in 2016	83%	50%	42%
Has a cell phone number on voter file	100%	23%	25%

Notes: The turnout rate in previous elections is calculated among people who were old enough to vote in those elections. Among eligible early voters, 99.8% were old enough to vote in 2018, and 99.0% were old enough to vote in 2016. Among co-partisan householders, 97.3% were old enough to vote in 2018, and 91.7% were old enough to vote in 2016. Among other householders, 97.3% were old enough to vote in 2018, and 94.2% were old enough to vote in 2016. The average Biden support score among other householders is calculated among people who were not missing Biden support scores; only 1% of other householders were missing Biden support scores.

Additionally, 75% of households were located in six states: Texas (21%), Florida (20%), North Carolina (10%), Georgia (9%), Pennsylvania (8%), and Michigan (7%). A table of households by state is provided in the Technical Appendix.

Experiment Conditions

VoteTripling.org conducted the randomization. Each day, VoteTripling.org identified eligible early voters who had recently voted² and randomly assigned their households between the following experiment conditions:

- (1) *Treatment group*: Eligible early voters in this group were assigned to receive at least one SMS message encouraging them to remind three friends to vote. Co-partisan household members in this group were also eligible to receive SMS messages encouraging them to remind three friends to vote if they voted early after the randomization was conducted and if they met the other criteria for an eligible early voter. (n = 1,197,400 households containing 1,794,403 co-partisan household members, representing 90% of the experiment universe)
- (2) *Control group*: Eligible early voters in this group were assigned to not receive SMS messages as part of this program. Co-partisan household members in this group were also not eligible to receive SMS messages as part of this program. (n = 132,993 households containing 199,615 co-partisan household members, representing 10% of the experiment universe)

One Minus Beta conducted balance checks at the household-level and at the individual-level to confirm that the experiment conditions were balanced and did not identify material imbalances, suggesting that the randomization was implemented correctly.

SMS Program

VoteTripling.org collaborated with TextOut and Resistance Labs to run the SMS program. TextOut attempted most eligible early voters with the following message:

Hi {{ContactFirstName}}, it's {{SenderFirstName}}, a volunteer with {{OrgName}}. (Reply STOP to unsubscribe.) Public records show you voted in {{StateName}} - thanks for being a voter! We have a quick favor to ask: can we count on you to remind {{FriendDescription}} to {{Action}}?

The {{OrgName}} field indicated the messenger. VoteTripling.org partnered with three other organizations to serve as additional messengers in this program: Black Voters Matter, Voto Latino, and Asian American Progressive Action. VoteTripling.org varied the messenger based on the modal (or most frequent) race of registered voters in a household, ensuring that everyone in a household received messages from the same messenger.³ Although the messenger was determined by the modal race of registered voters in a household, 90% of eligible early voters were sent a message from the messenger that corresponded with their race on the voter file: 90% of Latinx voters were sent a message from Voto Latino, 88% of Black voters were sent a message from Black Voters Matter, and 80% of AAPI voters were sent a message from Asian American Progressive Action. Most eligible early voters who were not sent a message from the messenger that corresponded with their race on the voter file received a message from Vote-Tripling.org instead.⁴

² VoteTripling.org implemented a three-day waiting period, such that an early voter who voted on 10/15 would not be eligible for randomization until 10/18. This waiting period was designed to mitigate errors in early voting data that could have resulted in people being told that they had voted when they had not.

³ VoteTripling.org was concerned about sending messages from different messengers to people in the same household.

⁴ VoteTripling.org sent messages from Vote-Tripling.org to voters identified on the voter file as Black in the states where Resistance Labs was not texting. VoteTripling.org also sent messages from Vote-Tripling.org to some Black, Latinx, and

The {{FriendDescription}} and {{Action}} fields only varied if the messenger was Vote-Tripling.org. The {{FriendDescription}} field indicated whether an eligible early voter was encouraged to remind “3 friends” or “3 progressive friends” to vote. Eligible early voters were encouraged to remind “3 progressive friends” to vote if they had Biden support scores less than 80 and if they did not live in Alaska. The {{Action}} field indicated whether an eligible early voter was encouraged to remind people to vote or to remind people to vote for a specific candidate. Eligible early voters in Alaska were encouraged to remind their friends to “vote for Al Gross,” while eligible early voters in Georgia were encouraged to remind their friends to “vote for Joe Biden, Raphael Warnock, and Jon Ossoff.”

Resistance Labs attempted eligible early voters who were assigned to receive a message from Black Voters Matter and who resided in one of the following states: FL, GA, LA, MI, NC, OH, PA, TX, and WI. Resistance Labs sent the following message:

Hi {{ContactFirstName}}, it's {{SenderFirstName}}, a volunteer with Black Voters Matter. Public records show you voted in {{StateName}} - thanks for being a voter! WE GOT POWER and it's time to use it to win change in our communities. We have a quick favor to ask: can we count on you to remind 3 friends to vote?

Last, a small number of voters in Florida were assigned to receive a different message. VoteTripling.org conducted a nearly identical EV VT program in the August primary. If a voter had agreed to vote triple in the August primary *and* was assigned to the treatment group in this test, then they were sent the following message instead:

Hi {{ContactFirstName}}, it's {{SenderFirstName}}, a volunteer with {{OrgName}}. (Reply STOP to unsubscribe.) Public records show you voted in Florida - thanks for being a voter! You told us back in August you would remind 3 friends to vote in the primary. Can we count on you to remind 3 friends to vote this time, too?

About 5% of eligible early voters agreed to vote triple after receiving one of the three messages above and were sent the following message shortly afterwards:

Great! [Sentence about voting mechanics that varied by date and state.] Just because it helps to think it through, what are the first names or nicknames of the 3 folks you'll remind?

People who agreed to vote triple were also eligible to receive one of the following messages over the three days immediately prior to Election Day:

For TextOut: Hi {{ContactFirstName}}, it's {{SenderFirstName}}, from {{OrgName}}. (Reply STOP to unsubscribe.) Remember when you told us {{earlier this month / last week}} you'd get {{friend names or “3 friends”}} to vote? It's your last chance! Polls are open {{Hours}} tomorrow in {{State}}. Will you check in with them now and make sure they vote?

AAPV voters on the first two days of the program due to a coding error. This coding error was corrected for the remainder of the program.

For Resistance Labs: Hi {{ContactFirstName}}, it's {{SenderFirstName}} from Black Voters Matter. Remember when you told us recently you'd get {{friend names or "3 friends"}} to vote? The time has come! Polls are open Tuesday from {{Hours}} in {{State}}. Will you check in with your friends and make sure they vote?

Meanwhile, people who did *not* agree to vote triple were eligible to receive one of the following messages over the three days immediately prior to Election Day:

For TextOut: Hi {{ContactFirstName}}, it's {{SenderFirstName}}, from {{OrgName}}. (Reply STOP to unsubscribe.) Thanks again for being a voter! Election Day is Tuesday, 11/3! Polls are open {{Hours}} in {{State}}. Can we count on you to remind {{FriendDescription}} to get out and {{Action}}?

For Resistance Labs: Hi {{ContactFirstName}}, it's {{SenderFirstName}} from Black Voters Matter. Thanks again for being a voter! Election Day is TUESDAY! Polls will be open from {{Hours}} in {{State}}. Can we count on you to remind 3 friends to get out and vote?

Overall, the implementation of this experiment was nearly perfect (Table 2). **99% of eligible early voters in the treatment group were attempted at least once, while no eligible early voters in the control group were attempted.** Additionally, about two-thirds of eligible early voters in the treatment group were attempted twice. We do not have a field indicating delivery status for messages sent by Resistance Labs, but 88% of first messages and over 99% of second messages sent by TextOut were successfully delivered.

Eligible early voters were attempted between Monday 10/5 and Tuesday 11/3. About half of eligible early voters were sent the first message between Sunday 10/18 and Tuesday 10/27, and 42% of eligible early voters were sent the second message on Sunday 11/1. The Technical Appendix contains two tables of eligible early voters attempted by date. Most eligible early voters in the treatment group were attempted with the first message on the same day that their household was randomized (71%), and nearly all eligible early voters in the treatment group were attempted with the first message within three days of randomization (99%).

Table 2: 99% of eligible early voters in the treatment group were attempted at least once

	Eligible early voters in treatment group
Overall	
Attempted at least once	99%
Attempted twice	67%
By platform	
TextOut	65%
Resistance Labs	34%

By messenger	
Vote-Tripling.org	47%
Black Voters Matter	34%
Voto Latino	15%
Asian American Progressive Action	3%
By friend description	
3 friends	78%
3 progressive friends	21%
By action	
Vote	97%
Vote for a candidate	2%
Other	
Modified message in Florida	<1%

Outcome Measurement

The primary outcome for this experiment is whether or not co-partisan household members voted in the 2020 general election. The secondary outcomes for this test are: a) whether or not co-partisan household members voted early in the 2020 general election, b) the voting method that co-partisan household members used to vote in the 2020 general election, and c) whether or not other household members voted in the 2020 general election.

All outcomes were measured using the official voter file provided by TargetSmart in May 2021. We combine voting methods as follows: voted by mail or absentee, voted early in-person, or voted on Election Day.⁵ We combine absentee voting and voting by mail because, in some states, people who request and return a mail ballot are recorded on the voter file as casting an absentee ballot. Additionally, we include provisional ballots as voting on Election Day.

Results

Main Results

Unfortunately, the EV VT program does not appear to have increased turnout in the 2020 general election among co-partisan household members (Figure 1). While 58.6% of co-partisan household members in the control group voted in the 2020 general election, 58.5% of co-partisan household members in the treatment group voted in the 2020 general election. The small difference between the control group and the treatment group is not statistically significant and is likely to be attributable to chance.

⁵ Specifically, voting by mail or absentee includes TargetSmart codes A, B, and M; voting early in-person includes TargetSmart codes E and F; and voting on Election Day includes TargetSmart codes P, Q, R, and S.

Interestingly, there is suggestive evidence that the EV VT program may have shifted voting *later* among co-partisan household members. First, the EV VT program appears to have *decreased* early voting among co-partisan household members by 0.2 percentage points ($p = 0.13$).⁶ When evaluating specific voting methods, the EV VT program appears to have *decreased* voting by mail or absentee and to have *increased* voting on Election Day (Figure 2). Co-partisan household members in the treatment group were 0.2 percentage points *less* likely to vote by mail or absentee than co-partisan household members in the control group. Further, co-partisan household members in the treatment group were 0.2 percentage points *more* likely to vote on Election Day than co-partisan household members in the control group. Both effects are statistically significant. Meanwhile, the EV VT program does not appear to have changed early in-person voting.

We also evaluated whether or not the EV VT program affected turnout among other household members. Other household members had Biden support scores that were either less than 60 or missing, so this program was not intended to increase turnout among these individuals. Further, VoteTripling.org pre-specified that they did not expect to mobilize other household members. Consistent with this expectation, the EV VT program did not increase turnout significantly in the 2020 general election among other household members (Figure 3). While 55.9% of other household members in the control group voted in the 2020 general election, 56.1% of other household members in the treatment group voted in the 2020 general election. The small difference between the control group and the treatment group is not statistically significant and is likely to be attributable to chance.

⁶ We defined early voting as voting by mail, absentee, or early in-person.

Figure 1: The EV VT program did not increase turnout among co-partisan household members

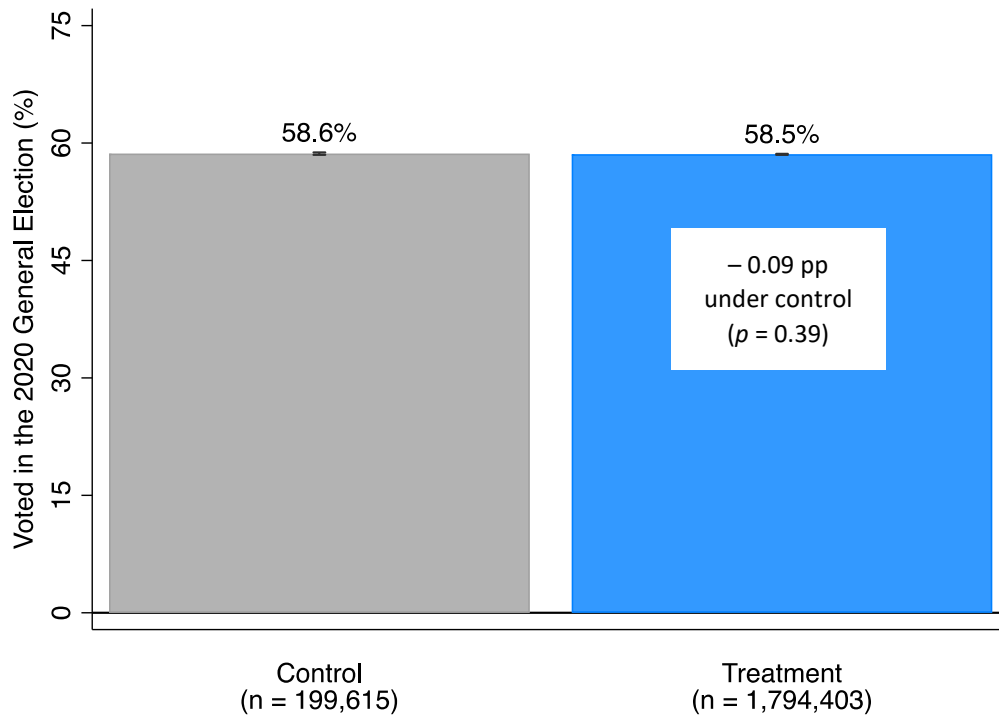
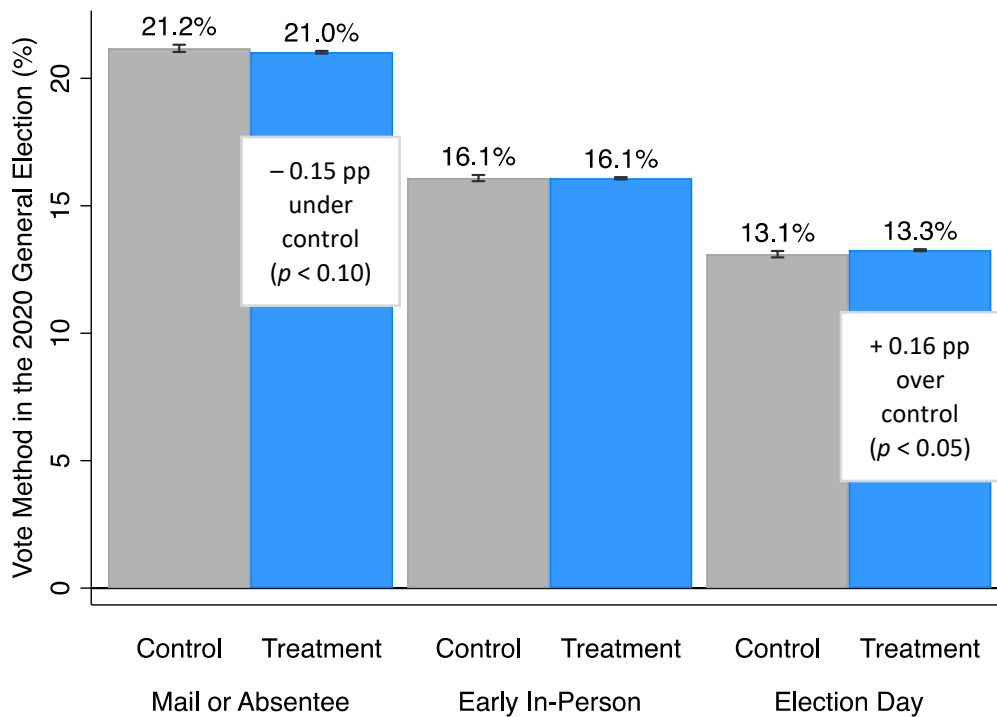
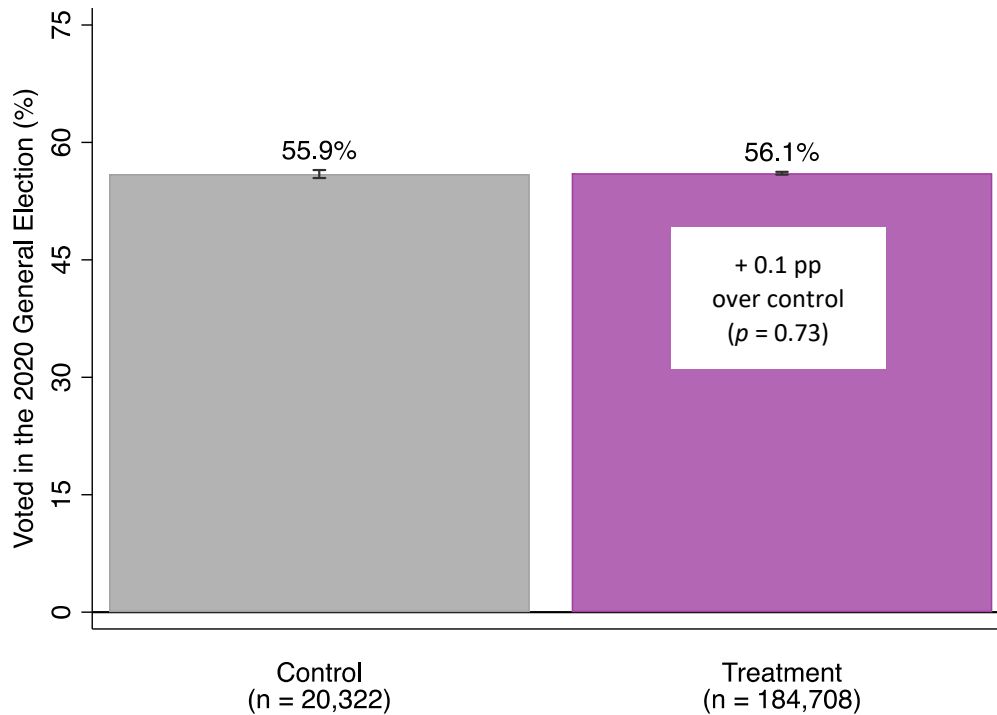


Figure 2: The EV VT program appears to have shifted people away from voting by mail or absentee and towards voting on Election Day



Notes: The black lines represent 90% confidence intervals. The raw differences between conditions may not equal the estimated treatment effect due to rounding. Vote methods do not sum to 100% because 41% of people did not vote and 8% of people are missing vote method.

Figure 3: The EV VT program did not significantly increase turnout among other household members



Notes: The black lines represent 90% confidence intervals. The raw differences between conditions may not equal the estimated treatment effect due to rounding.

Variation in Treatment Effects

We explored whether the effectiveness of the EV VT program on voting in the 2020 general election varied across the following subgroups: household size, early voters' turnout scores, early voters' age, early voters' race, co-partisan household members' turnout scores, co-partisan household members' age, co-partisan household members' race, the number of days between when the early voter was assigned to receive the treatment and Election Day, the relative turnout scores between the early voter and the co-partisan household member, and the relative age between the early voter and the co-partisan household member. We did not identify statistically-significant differences across these subgroups after adjusting for multiple comparisons.

The consistency of treatment effects across subgroups is not surprising given the small main effect. In persuasion programs, it is common to find small main effects accompanied by large subgroup effects when some voters backlash against the program. However, because it is uncommon for voters to backlash against GOTV programs, a small main effect is usually accompanied by small subgroup effects.

Discussion

Unfortunately, the early voter vote tripling program does not appear to have increased turnout in the 2020 general election among household members. Co-partisan household members in households that were assigned to the treatment group appear to have been 0.1-percentage-points *less* likely to vote than co-partisan

household members in households that were assigned to the control group. However, this effect is not statistically significant and is likely to be attributable to chance.

There are a number of possible explanations for why the effect of this program was muted. We provide several hypotheses below:

- **The 2020 general election was an extraordinarily high-salience electoral context.** With [nearly 160 million ballots cast](#), more people voted in the 2020 general election than in any U.S. election in history. As a share of the voting-eligible population, [the turnout rate was the highest since 1900](#). Given this high baseline turnout, we expect that many GOTV programs conducted in 2020 will have smaller effects than GOTV programs conducted in other presidential elections. In an extraordinarily high-salience electoral context, many early voters were *already* going to encourage their co-partisan household members to vote, regardless of being asked to do so.
- **“Many hands make light work.”** The 2020 general election was also historic by shattering previous election spending records. The Center for Responsive Politics projects that [the total cost of the election was nearly \\$14 billion](#), more than *twice* the cost of the 2016 general election. A majority of households in this experiment were in battleground states where voters were likely receiving GOTV outreach from many other programs, diminishing the effect of this program.
- **Specific to this program, a record-setting number of SMS messages were sent in the 2020 general election.** An estimated [three billion text messages](#) were sent in the 2020 general election, prompting some to call it [“the texting election.”](#) This program may not have been effective simply because early voters had already been inundated with SMS messages before voting and were eager to ignore them after voting.
- **Even more specific to this program, the control group may have been asked to vote triple by other campaigns and organizations.** VoteTripling.org identified many campaigns and organizations that ran similar SMS programs to early voters. In nearly all GOTV experiments, the control group receives GOTV outreach from other campaigns and organizations. It is plausible, however, that the marginal effect of additional contacts to *people who have already voted* encouraging them to vote triple is smaller – potentially much smaller – than the marginal effect of additional contacts to GOTV targets. In other words, if many early voters in the control group were asked to vote triple by other campaigns and if early voters were not more likely to encourage their household members to vote after receiving multiple contacts, then we would not expect to see a significant effect in this program.
- **The EV VT program targeted many co-partisan household members who were already planning to vote in the 2020 general election.** Nearly 60% of co-partisan household members in the control group voted in the 2020 general election, indicating that nearly 60% of co-partisan household members in the treatment group would have voted in the 2020 general election even in the absence of this program. Said differently, only 40% of the treatment group could have possibly been mobilized to vote by this program. In future high-salience electoral contexts, VoteTripling.org should consider excluding more households where all registered voters have high turnout scores (e.g., excluding households where all registered voters have turnout scores 90+ instead of 97.5+) and including more early voters with slightly lower candidate support scores (e.g., including all early voters with Biden

support scores 60+ instead of including predominantly early voters with Biden support scores 80+).

- **The EV VT program may have mobilized people who were not household members.** It is important to note that this experiment only measures the effect of the EV VT program on household members, so it remains possible that this program mobilized people who did not live in the same household. In future elections, we encourage VoteTripling.org to conduct an experiment that would measure the effect of the EV VT program on family and friends who do not live in the same household. Exploring this research question would require an innovative approach, but we expect that the effort would be worthwhile; according to VoteTripling.org's internal research, many of the first names that early voters provide when asked "what are the first names or nicknames of the 3 folks you'll remind" do not match the first names of people in their household.

While we regret to report that this program did not increase turnout among household members, we hope that these results are informative as VoteTripling.org begins to make plans for the 2021-2022 election cycle. We thank VoteTripling.org for conducting this project with us, and we look forward to collaborating with you again.

Technical Appendix

Household-level results

The results presented above are individual-level results, consistent with VoteTripling.org’s prior experiments on EV VT programs. However, VoteTripling.org's intervention is a household-level intervention that varies based on the pre-treatment characteristics and actions of the household. For instance, a household with three early voters and one co-partisan household member is very different from a household with one early voter and three co-partisan household members. In these cases, the co-partisan household members likely receive different treatments and, as a result, may respond differently the intervention.

While an individual-level analysis is not incorrect, we believe that a household-level analysis is more rigorous. We conducted household-level analyses for each of the main outcomes and summarized the results in the following table:

Appendix Table 1: The results are similar between an individual-level and a household-level analysis

	Effect size	Standard error	p-value
<i>Individual-level results</i>			
Outcome: voted in 2020	- 0.09 pp	0.10 pp	0.39
Outcome: voted early	- 0.16 pp	0.11 pp	0.13
Outcome: voted by mail or absentee	- 0.15 pp	0.09 pp	0.10
Outcome: voted early in-person	- 0.01 pp	0.08 pp	0.89
Outcome: voted on Election Day	+ 0.16 pp	0.08 pp	0.05
<i>Household-level results</i>			
Outcome: % voted in 2020	- 0.08 pp	0.10 pp	0.42
Outcome: % voted early	- 0.16 pp	0.11 pp	0.14
Outcome: % voted by mail or absentee	- 0.15 pp	0.09 pp	0.10
Outcome: % voted early in-person	- 0.01 pp	0.08 pp	0.93
Outcome: % voted on Election Day	+ 0.16 pp	0.08 pp	0.05

Notes: To ensure comparability with the individual-level results, the household-level results are weighted by the number of co-partisan household members, and the outcomes for household-level results are defined as the percentage of co-partisan household members.

The results under both approaches are very similar in this test, perhaps partly as a result of the null effects. However, we suspect that the results could differ in other tests, and we encourage VoteTripling.org to use household-level analyses in future work on EV VT programs.

Appendix Table 2: Distribution of households across states

**Appendix Table 2: 75% of households were located
in 6 states**

TX	21%
FL	20%
NC	10%
GA	9%
PA	8%
MI	7%
OH	5%
CO	4%
NV	3%
MN	3%
LA	2%
IA	2%
WI	2%
KY	1%
KS	1%
AZ	1%
ME	<1%
MT	<1%
NE	<1%
NH	<1%
AK	<1%

Appendix Table 3: Over half of eligible early voters were attempted with the first message between Sunday 10/18 and Tuesday 10/27

	Eligible early voters	Cumulative eligible early voters
Monday 10/5	3%	3%
Tuesday 10/6	1%	3%
Wednesday 10/7	0%	3%
Thursday 10/8	2%	5%
Friday 10/9	2%	6%
Saturday 10/10	2%	9%
Sunday 10/11	1%	10%
Monday 10/12	1%	11%
Tuesday 10/13	0%	11%
Wednesday 10/14	2%	14%
Thursday 10/15	1%	15%
Friday 10/16	4%	19%
Saturday 10/17	1%	20%
Sunday 10/18	5%	26%
Monday 10/19	11%	36%
Tuesday 10/20	5%	42%
Wednesday 10/21	2%	43%
Thursday 10/22	6%	49%
Friday 10/23	5%	54%
Saturday 10/24	3%	57%
Sunday 10/25	9%	66%
Monday 10/26	3%	69%
Tuesday 10/27	6%	75%
Wednesday 10/28	2%	76%
Thursday 10/29	4%	80%
Friday 10/30	2%	83%
Saturday 10/31	4%	87%
Sunday 11/1	4%	91%
Monday 11/2	5%	96%
Tuesday 11/3	3%	99%

Appendix Table 4: About two-thirds of eligible early voters were attempted with the second message shortly before the election

	Eligible early voters	Cumulative eligible early voters
Saturday 10/31	10%	10%
Sunday 11/1	42%	52%
Monday 11/2	15%	67%