THE EFFECT OF HANDWRITTEN POSTCARDS ON TURNOUT IN THE 2023 OHIO SPECIAL ELECTION

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Summary

Swing Blue Alliance conducted a randomized controlled trial of handwritten GOTV cards for the 2023 Ohio Special Election. The postcards encouraged people to vote against a ballot initiative that would have increased the threshold needed to pass Constitutional Amendments from 50% to 60%. The initiative failed to pass. The postcards increased the likelihood of voting by 1.2% ($p = 0.079$, 90% confidence interval 0.0007508-0.022591). The targets were likely Democrats who had taken a Democratic Primary ballot in one of the last 4 primary elections, and who were unlikely to be reached by phone or canvassing. The treatment group consisted of 38,654 registered voters while 3,684 registered voters were held as controls.

BACKGROUND

Ohio's August 8, 2023 special election contained a ballot initiative to amend the state constitution and make it more difficult to use ballot initiatives. The amendment would have increased the threshold needed to pass Constitutional Amendments from a simple majority of 50% to a super majority of 60% and would have required signature collection in all 88 counties rather than at least 44 counties. In addition, it would have removed the "cure period" after signatures are turned in when a campaign is allowed to go back out and collect more to try to make up for a shortfall. A major aim of Republicans for this amendment was to block an effort by Democrats to place the Ohio Reproductive Freedom Amendment (giving Ohio women the right to abortion) on the November 2023 ballot through citizen petition. An earlier effort by Republicans to this end had failed to pass in the 2022 lame duck legislative session.

Republican legislators called the special election in August 2023 expecting a low turnout and intending to mobilize their voters and catch the opposition unprepared. Of note, the previous year the Ohio legislature had voted to eliminate August special elections due to their cost (approximately $20 million), but Republicans introduced language to bring back the August special election.

The Swing Blue Alliance (SBA) postcard campaign sought to encourage supporters of reproductive freedom to vote against the amendment.

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CAMPAIGN METHODS AND EVALUATION TRIAL DESIGN

Data and Inclusion Criteria

SBA worked with Indivisible to create targeting criteria and select a list of people to whom SBA volunteers would send the cards. The data sources used were (1) publicly available 2023 Ohio state voter file information and (2) information provided by Indivisible on each registered voter's Democratic support score and indicators of each voter's access to political information. (Data on both of these files only contained information prior to the August 8, 2023 date of the special election.)

Specific targeting criteria for inclusion in the campaign were:

-No phone number in the 2023 voter file
-Unlikely to be reached by canvassing
-65% or greater Democratic support score
-Took a Democratic ballot in one of the last 4 primary elections.

The first two criteria were used because there were other efforts underway to reach voters with phone numbers or by canvassing. The Democratic support score and choice of a prior Democratic primary ballot were used as proxies for party affiliation because Ohio does not register voters by party. [2]

Using these criteria, an initial list of 27,500 addresses was obtained. A few weeks later our volunteers had completed all the cards to send to target/intervention subjects, so a second list of 16,700 addresses was obtained. Cards were then sent to all but 30 of these new addresses, for a total of 44,170 addresses of registered voters who met all inclusion criteria. (While they met all inclusion criteria, the 30 excluded addresses were the few remainders from the address packets not requested by the volunteer card-writers.)

Post Card Intervention

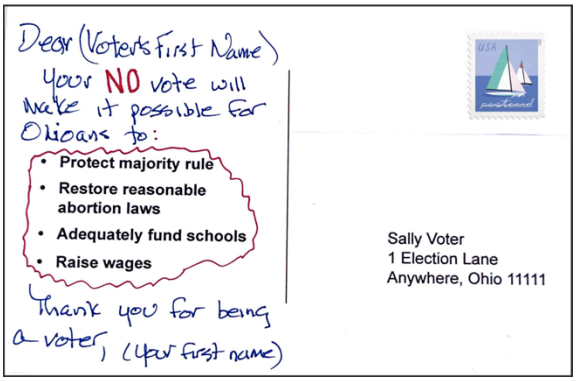
Names and addresses of all treatment group voters were distributed to volunteers who then mailed one campaign postcard to each of 39,999 of these voters. Figure 1 is an image of both sides of the postcard. Volunteers wrote the following message on the back side of the card:

[2] The data on the Democratic support score, and on the characteristics indicating a voter was unlikely to be reached by canvassing, were available to Indivisible for use in selecting campaign subjects but could not be released to us for any use in the analysis of campaign impact.

"Dear Voter-
Your NO vote will make it possible for Ohioans to:
(printed text)
Thank you for being a voter,
(volunteer signature)"

Figure 1. Front and back of the postcard sent to intervention subjects.





Measurement of Outcomes

The outcome measure was 0-1 indicator of whether the person voted in the August special election. Data on this outcome was obtained from the Ohio state voter file in March 2024. To merge outcome data onto the 2023 data file used for names and addresses of all 44,170 study voters, we sought to match the state file ID numbers from the two files. A match was found for all but 441 of the study voters.

Analysis Exclusion Criteria

The 441 voters who met our original inclusion criteria but had no matched data on the March 2024 voter file were excluded from the analysis since we lacked their outcome data. A further examination of their 2023 voter file data showed their indicator of “voter status” was missing, suggesting that these 441 voters had in fact been dropped from the rolls and were not eligible to vote in the 2023 special election.

Of the remaining 43,729 voters who met all the inclusion criteria based on the data in 2023 voter files and on whom we had outcome data from the March 2024 file, only 38,654 were classified as “ACTIVE”; the other 5,077 voters were classified as “CONFIRMED”. Since the “CONFIRMED” designation was an ambiguous indicator of whether a “CONFIRMED” voter was in fact eligible for participating in the August 2023 special election, our outcome indicator of having voted in the 2023 election was checked; the result was that none of these 5,077 voters had in fact voted in the special

election. We infer from this that "CONFIRMED" voters were not eligible to vote in the special election and therefore were excluded from our analysis of campaign impact.[3]

Randomization and Resulting Study Groups

The remaining 38,654 "ACTIVE" voters were each assigned a random number in the (0,1) interval using the random numerator generator in the Stata statistical software (version 17). This resulted in 3,684 voters being assigned a random number less than 0.1. These voters were designated as control group members and were not sent a campaign postcard. The 34,970 voters remaining, who were assigned a random number of 0.1 or greater, were designated as the treatment group, and were sent the campaign postcard.

ANALYSIS OF CAMAIGN IMPACTS

Overview of Approach to the Analysis

The purpose of this impact analysis is to estimate the impact of the intervention, defined as the difference in turnout percentage between the treatment and control group voters that occurred as a result of the campaign. A simple comparison of the observed turnout percentages for the two groups is an easy way to estimate the campaign impact. This method, however, assumes that no other difference between the characteristics of voters in the two groups could account for any part of the observed difference in these percentages.

We **first** test this assumption by comparing the control and treatment groups on other characteristics for which we have available data **and** that may be good predictors of the probability that voters (in either group) would indeed have voted in the special election. **Second**, if we find some non-negligible differences between the two groups, we use multiple regression adjustments to account for these differences between the two groups. This regression-adjusted estimated difference in turnout rates is then compared to the original estimated group difference.

The voter characteristics used to examine treatment vs. control group differences related to demographic attributes (age and gender), voting history in elections prior to the 2023 special election, and political party affiliation. All data items were obtained from the 2023 Ohio state voter files. Data on the other voter attributes used by Indivisible to select individual voters for the intervention (Democratic support score and indicators of each voter's access to political information) could not be released to us for the analysis due to confidentiality concerns.

[3] We present comparative data on the "Active" voters in our study versus the other 5,518 voters who met the original inclusion criteria but were not classified as "Active" in the appendix.

Comparison of Treatment and Control Groups on Voter Characteristics

Age Distribution

Many previous studies have found a consistent pattern for the relationship of turnout rates of registered voters and their ages. As age increases from 18 years to around 50 years or 60 years, turnout rates increase and then plateau. At older ages, turnout rates decline. This means that even if treatment and control groups have the same average age, the distribution of ages within each group can differ. For that reason, we compared the age distributions in the 2 study groups (shown in Table 1).

Table 1: Age Distributions			
	Treatment	Control	Test of Difference
	n=34,970	n=3,684	
Mean Age	60.4	60.7	t=-1.00., p=0.318
25th % ile of Age	48	48	
50th % ile of Age	64	64	
75th % ile of Age	73	74	
90th % ile of Age	80	81	
95th % ile of Age	85	86	
Maximum	116	108	

The table indicates that the age distributions in the two groups are very similar, with treatment voters being slightly younger. Note also that relative to the population of eligible voters, those in younger age groups are far smaller in number for both treatment and controls.

Gender Distribution

Prior research has found that among registered voters, women usually have higher turnout rates than men. Here is the comparison of gender distributions for our study:

Table 2: Gender Distributions			
	Treatment	Control	Test of Difference
% Female	58.95	59.34	χ^2 =1.579, p=0.456
% Male	38.26	38.22	
% Not Reported	2.76	2.44	

Prior Voting History and Reported Party Affiliation

Having voted in prior elections is strongly predictive of voting in later elections. The available data on each voter's history was voluminous, going back to 1999 and including 99 different indicators of voting in general, special, primary, and even

municipal elections. In our analysis, we only considered whether the voter in fact voted in the 3 most recent general state-wide elections (2020, 2021 and 2022). We excluded earlier and non-general election voting history on the assumption that voting in the 2023 statewide special election would be most related to these recent elections. We presumed that (1) earlier elections would be less reflective of the current political environment, (2) prior special elections would pertain to different concerns than the 2023 special election, and (3) vote histories from earlier elections would add little explanatory power to our analysis because of stable characteristics (over time) that pre-dispose any particular voter to participate (i.e., the so-called "habitual" aspects of voting behavior). The close comparability of our treatment and control groups in history of recent voter turnout rates is clearly shown in Table 3.[4]

Table 3: Percent Voting in Recent Elections			
	Treatment	Control	Test of Difference
2022 General Election	87.94	87.27	χ^2 =1.400, p=0.237
2021 General Election	48.86	48.40	χ^2 =0.290, p=0.590
2020 General Election	94.37	94.76	χ^2 =0.982, p=0.322

The possible relevance of party affiliation relates to several factors. The most salient issue in the 2023 election was arguably the concern that the proposed November referendum item on reproductive health care rights should (or should not) be subject to a higher than 50% threshold for passage. Given possible differences in age, gender, and religious convictions between typical Democratic vs. Republican vs. independent voters, the importance of turning out to vote in that election also may have varied by party affiliation. On the other hand, the inclusion criteria of a minimum Democratic support score and having voted in at least one of the past 4 Democratic primaries suggests that party affiliation could not have had a strong effect on the special election turnout since Republicans and independents may have comprised only a small number of voters in our study groups.

The Ohio voter file data provided data on the following categories of party affiliation: Democrat, Republican, Unaffiliated, Other, and Not Reported (i.e., no data on the file).[5] Table 4 presents treatment vs. control comparisons in the distributions of the groups across these party categories. Group differences are small in magnitude but, because our group sizes are large these differences are statistically significant.

[4] Note also that some voters in the study were not eligible to vote in one or more of the earlier Ohio general elections but are recorded in our data as not voting. Given the very high turnout rates, in particular in 2020, the numbers of these voters are probably quite small relative to the size of our 2 study groups.

[5] As noted earlier, Ohio does not register voters by party. The variable "Party" may have been determined by prior selection of a ballot in a partisan primary. We found this to apply to most people in our sample.

Table 4: Distributions of Voters Among Party Categories			
	Treatment	Control	
% Democrat	40.78	39.09	Overall Test of Group Differences
% Republican	2.02	1.87	
% Other	0.01	0	
% Unaffiliated	17.03	16.07	χ^2 =11.4418
% Not Reported	40.16	42.97	p=0.022

In addition, data for several recent previous years were also available showing which of the party primaries each voter chose to vote in. While turnout for these primaries was very low except for the 2020 Presidential primary, the voting patterns for these primaries did show differences between the study voters in the various Party categories in our data. This is somewhat surprising in view of the inclusion criteria for the study (which were strongly oriented to Democratic voters).[6]

Simple Regression Test of Treatment vs. Control Group Differences

While no significant group differences were found for each voter characteristic looked at individually in our data, excepting the party designations, there could also be important group differences in the patterns of correlations among these variables. As a simple test for this possibility, we used treatment assignment as an outcome in a simple multiple regression including all the voter characteristics mentioned above. The results of the regression, reported in the appendix, confirmed the earlier significant differences for the party categories. In addition, there was evidence that the 2022 voting turnout indicator (controlling for all other characteristics) was positively related to treatment assignment (p=0.064).

Turnout Impact Analysis Results

Observed Difference in Turnout Rates

In a simple comparison of treatment vs. control groups, we obtained a fairly precise impact estimate for the intervention of +1.37% (74.61% vs. 73.24%), with a p-value of 0.073 and a 90% confidence interval of (+0.001118, +0.0263059). It is also interesting to note these overall turnout rates were considerably below the rates for the 2020 and 2022 elections as reported in Table 3 above. Overall turnout for this election, at 39%, was far lower than for our sample.

Regression-Adjusted Turnout Rate Impact

Since we reported some evidence of differences between the treatment and control groups with respect to party designation and 2022 voter turnout rate, we also used a simple linear regression to obtain an estimate of the treatment turnout rate

[6] Descriptive data on primary voting patterns across “Party” categories are discussed further in the appendix.

impact controlling for these and other relevant voter characteristics. The definitions of the variables in this analysis are shown in Table 5.

Table 5: Definitions of Variables in the Regression Analysis	
Variable Label	**Definition**
Voted 8_08_2023	=1 if the voter did vote in the special election; =0 otherwise*
Trx	=1 if the voter was sent a campaign card; =0 otherwise**
agelt20	= 1 for voters with age <20 years; =0 otherwise
age20	=1 for voters with age=20; =0 otherwise
age21	=1 for voters with age =21; =0 otherwise
age22_23	= 1for voters with age =22 or 23; =0 otherwise
age24_35	= 1for voters with age>23 and <36; =0 otherwise
age36_49	= 1for voters with age>35 and <50; =0 otherwise
age66_80	= 1for voters with age>65 and <81; =0 otherwise
agegt80	= 1for voters with age>80; =0 otherwise
	(omitted category is voters with age>49 and age<66)
Male	= 1 if voter is Male; =0 otherwise
gender	= 1 if voters' sex/gender is not reported; =0 otherwise
	(reference gender category is female voters)
polpartD	= 1 if voter's Party designation is Democratic; =0 otherwise
polpartR	= 1 if voter's Party designation is Republican; =0 otherwise
polpartU	= 1 if voter's Party designation is Unaffiliated; =0 otherwise
polpart0	= 1 if voter's Party designation is Other=0 otherwise
	(reference category is voter with affiliation data blank)
votedgen22	=1 if the voter did vote in the 2022 general election: =0 otherwise
votedgen21	=1 if the voter did vote in the 2021 general election: =0 otherwise
votedgen20	=1 if the voter did vote in the 2020 general election: =0 otherwise

*This is the dependent (i.e., outcome) variable.

**This is the indicator for being in the treatment group.

Results of this regression are shown in Table 6. The estimated coefficient for the variable Trx indicates an impact on turnout in the special election of +1.16%. The estimate is fairly precise, with p=0.079 and a 90% confidence interval of (0.0007508, 0.022591). Note that this impact estimate is 15% lower than that obtained from the

simple comparison of treatment vs. control groups. The apparent reason for this decline with the regression adjustment is the slight over-representation in the treatment group of persons who voted in the 2022 general election and the slight but significant under-representation in the treatment group of those with missing data for party affiliation. Estimated regression coefficients for the voter characteristics variables are generally consistent with findings from previous studies and are discussed in the appendix. Also included in the appendix to the report are results of some further sensitivity tests of our method for estimating the campaign, all of which supported the findings here.

Table 6: Results of Regression Analysis

anyvote_8~23	Coefficient	Std. err.	P>|t|	[90% conf.	interval]
Trx	0.0116709	0.0066388	0.079	0.0007508	0.022591
1.agelt20	0.1328593	0.0380221	<0.0005	0.070317	0.1954017
1.age20	0.1497224	0.0338209	<0.0005	0.0940907	0.2053542
1.age21	0.0711554	0.0252638	0.005	0.029599	0.1127117
1.age22_23	-0.0252895	0.0167198	0.13	-0.0527918	0.0022128
1.age24_35	0.0019522	0.0079768	0.807	-0.0111687	0.0150731
1.age36_49	0.001595	0.0062409	0.798	-0.0086705	0.0118606
1.age66_80	-0.0072603	0.0049615	0.143	-0.0154214	0.0009008
1.agegt80	-0.1358746	0.007324	<0.0005	-0.1479217	-0.1238274
1.Male	0.0009629	0.004057	0.812	-0.0057105	0.0076363
1.gendernr	-0.0399759	0.0127284	0.002	-0.0609127	-0.0190391
1.votedgen22	0.3694186	0.0067274	<0.0005	0.3583528	0.3804844
1.votedgen20	0.1497022	0.0097321	<0.0005	0.1336939	0.1657104
1.votedgen21	0.1477306	0.0041895	<0.0005	0.1408392	0.1546219
1.polpartO	-0.2476373	0.1916226	0.196	-0.562836	0.0675614
1.polpartD	-0.0003039	0.0043318	0.944	-0.0074292	0.0068214
1.polpartR	-0.0024692	0.0141279	0.861	-0.025708	0.0207696
1.polpartU	-0.1689041	0.0062682	<0.0005	-0.1792146	-0.1585936
_cons	0.2400515	0.012663	<0.0005	0.2192222	0.2608807

DISCUSSION

Contrary to the expectations of the (mainly Republican) proponents of the ballot question, the special election received national attention. Many grassroots groups engaged in a variety of activities to encourage voting, including post carding campaigns. The overall turnout rate was higher (39%) than earlier mid-year elections (e.g., primaries) while turnout for the combined group of voters in our sample was 74.48%. The high turnout in our sample was likely due to selection of people who had previously voted in at least one primary over the previous 4 years. Targeting of voters who were not likely to be reached by phone or canvass, and who had high Democratic support scores could be a reason for an effect on even these voters. Using a message with useful information about the election may well have been effective as the contest was not anticipated well in advance and was at an unusual time.

Prior studies and meta-analyses show that postcard effect sizes vary considerably depending on the type of election, messaging, targeting, turnout, timing and other variables. Effect sizes vary from small negative results to about plus 1.5%, rarely higher. The analysis of our campaign showed an effect of about +1.2% and the precision/significance of our estimate was only modest. Our effect size was thus close to that for successful GOTV campaigns. The fact that we did not achieve a larger result may be attributed to a ceiling effect, as the people in the sample had a high turnout rate. It is also of interest that even with a fairly large sample size, we did find a small degree of non-comparability between treatment and control groups and consequently a modest change in our impact estimate when we adjusted statistically for this non-comparability.

ACKNOWLEDGEMENTS

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