Leveraging Peer-to-Peer Connections to Increase Voter Participation in Low Salience Elections

1.1 Introduction

Political campaigns are costly, time intensive, and subject to influences outside of the control of campaign operatives. For office-seekers or ballot initiative activists in local elections an additional hurdle is the low-salience environment in which many races occur. Electorates are often small in number, issues are oftentimes singular and not of universal interest, and voting does not occur on a high interest day such as a General Election Day. Given these constraints enterprising political actors continue to develop and seek out low-cost, easy to implement high-return strategies to win elections. Local level campaign workers, as well as scholars know that personal peer-to-peer canvassing is one of the most effective ways to encourage voter participation, but it is also an extraordinarily costly method. This study assesses the combination of time-tested peer-to-peer connections and a new email technology platform, VoterCircle in an all-mail ballot tax election as a way to increase voter participation, and in turn the likelihood of a successful campaign outcome. Despite some limitations, the results offer a glimpse into a new style of campaigning and mobilizing that may influence smaller election outcomes in the future.

Bridging the gap between on the ground politics and academic political science I explore the necessary caveats of observational and quasi-experimental tactics to show the impacts of peer-to-peer outreach on voter participation. The paper proceeds as follows; first I discuss current research on the effectiveness of various voter participation strategies. Second, I introduce a new platform that allows voters to reach other voters rather than campaigns to reach voters, and I describe the specific election under study. Third, I perform an analysis of the efficacy of this

voter outreach platform by applying a new and more rigorous estimation method appropriate for the nature of the original deployment of the intervention. I conclude with a discussion of the results and their implications for future voter outreach.

2.1 Strategies of Voter Outreach and Mobilization

The mobilization of voters has been studied in a variety of contexts such as initial registration efforts (Cain & McCue, 1985), partisan priming (Caldeira, Clausen, & Patterson, 1990) (Huckfeldt & Sprague, 1992), in congressional elections (Caldeira, Patterson, & Markko, 1985), within different racial groups of voters (Green, 2004) (Michelson, Meeting the Challenge of Latino Voter Mobilization, 2005), in rural versus urban geographies (Michelson, 2003), over time variations (Goldstein & Ridout, 2002), with different types of workers conducting voter outreach (Ha & Karlan, 2009), using praise or shame to motivate voters (Mann, 2010) (Gross, Schmidt, Keating, & Saks, 1974) (Abrajano & Panagopoulos, 2011) (Gerber, Green, & Larimer, 2008) (Panagopoulos, 2010), the relative effectiveness of person-to-person canvassing, direct mail, and phone calls (Gerber & Green, 2000), meta analyses over multiple contexts and strategy styles (Green, McGrath, & Aronow, 2013) and more.

Some techniques are more effective than others in getting citizens to participate in the electoral process, and the size and scope of an election matter in terms of strategy efficacy. Yet across all contexts there appear to be two places of general agreement. First, mobilization is hard. There are oftentimes very small differences in overall participation rates for those who received some sort of mobilization intervention compared to those who do not. After the application of

appropriate methods to well-designed field experiments, many researchers find that treatment effects are modest for a variety of techniques (Kalla & Broockman, 2017). Second, personal methods of contact are more effective than other methods; people do better at convincing people to participate than any sort mass mailing strategy.

In the past 10 years, there has been an explosion of interest in measuring the effects of various *non person-to-person* voter turnout efforts at all levels of politics with an understanding that person-to-person contact is the most effective, but with the acknowledgment that many campaigns cannot rely on large canvassing efforts. The discipline appears to be clearly and fervently moving towards relying on administrative data coupled with field experiments to study questions of voter mobilization (Green, McGrath, & Aronow, 2013). As a result of these efforts, methods for making more tenable causal statements about things that likely influence turnout are more robust than ever. Many well conducted field experiments are done in a similar manner that an actual campaign would be run, but instead of allowing as many voters as possible to be reached by a certain sort of stimuli (a treatment or intervention) the deployment of a stimulus is carefully distributed in a way that approximates randomization.[1]

Non-academic practitioners of emerging voter outreach strategies would be well suited to run studies that uphold the standards of field experiments, but limitations on time, money, know-how, and willingness often prevail. There are alternate, non-random styles of intervention deployment that can increase our understanding of mobilization mechanisms but require special caution in

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[1] This is done so that more sound inferences may be made in circumstances that provide internal validity to the estimation procedures and samples while retaining the externally valid setting of a campaign.

estimation techniques.   In this study I analyze a novel peer-to-peer email technology that leverages peer-to-peer connections to encourage people to vote for certain candidates or ballot initiatives.   The deployment of this technology was not done as an experiment, yet there is information to be gleaned that follows from discipline specific theoretical expectations.[2]

In the realm of online electronic peer-to-peer outreach there are a variety of media and findings, yet there no clearly established best practices based on academic research in political strategy. Text, social media, and email are each relative newcomers to voter mobilization strategies and are each different in the ways voters access them and the resultant impacts of interest. The focus of this paper is a new email platform, but given the ubiquity of accessing email, texts, and social media through applications on "smart phone" of some sort, the boundaries that used to characterize these different media may be receding. Owing to the shifting delineation, I review elements of each of the current media that may influence the expectations of how the mobilization platform studied here might influence voters.

Text messages, while different than email in some important ways, have been the focus of more academic work. Texts sent from both local officials and larger opt-in networks have been found to boost voter participation (Malhotra N. , Michelson, Rogers, & Valenzuela, 2011) (Dale & Strauss, 2009). In the 2004 Spanish general election, there is some evidence that the diffusion of

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[2] The deployment of the voter outreach strategy in question originated in California as the idea of a school-board candidate seeking to win an election when he knew he would be outspent by his opposition.

anti-government text messages increased the numbers of young voters at the polls than otherwise would have been expected prior to a near ubiquitous proliferation of cell phones (Suárez, 2006).

Social media ushered in an era of citizen-initiated campaigning, where interested citizens are free to attempt to recruit and persuade other voters via online media without the specific direction of a political actor. The turning point for this sort of citizen engagement is widely understood to have begun in the 2008 U.S. Presidential election (Gibson, 2015). This reality muddies the ability for scholars to isolate the impact of any given campaign effort, but it is a reality not likely to change and thus must be adopted into the background understanding of how voters interact within an election environment. This is not to say there is not work that investigates different facets of social media influence, but to recognize the difficultly in drawings cleanly isolated impacts. Despite these reservations, scholars find that close friends are influential. Over the online medium of Facebook individuals hold great potential to influence activities like information seeking and voting for other individuals who are close to them (Bond, et al., 2012) (Jones, Bond, Bakshy, Eckles, & Fowler, 2017). There are also loops between mobilization and social network activity, those who participate in more political activities post more about political activities and those who post more are prone to do more (Vissers & Stoller, 2014); this is a further complication in backing out casual directions of voter mobilization and the tools with which voters may be initially mobilized. A meta-data analysis of the state of social media influences in elections confirms the tricky nature by which any individual event happens a part of a greater social media ecosystem (Boulianne, 2015).

There is not much in the way of research directly supporting email as a reliable strategy to increase voter participation, but size and context matter. In one of the first studies detailing politicians' new use of email, registration and turnout were unaffected by email attempts (Nickerson, 2007). Some have found that emails from local government officials encouraging turnout has modest positive effects (Malhotra, Michelson, & Valenzuela, 2012), but other research on voter registration and turnout may even suggest a negative relationship between attempts and the eventual outcome of voting (Bennion & Nickerson, 2011). While not on elections specifically, scholars find that emails reliant on social pressure between closely linked individuals are effective at increasing the likelihood that someone joins a professional group (Druckman & Green, 2013) so the combination of social pressure and email communication may have the ability to boost participation.

There is also a great deal of literature relating the habits of voters to those who are in their familial and social circles (Campbell, Converse, Miller, & Stokes, 1960) (Beck, Dalton, Green, & Huckfeldt, 2002) (Andolina, Jenkins, Zukin, & Keeter, 2003) (Fieldhouse & Cutts, 2012) as well as a general corpus describing a myriad of social network efforts that individuals in similar social circles exert on each other (Christakis & Fowler, 2009). The general findings in this line of research indicate that voting can be "contagious", that is the more people in your network who vote, the more likely you are to vote. The platform under study here uses the existing contacts of a potential voter to then link people up for an eligible email exchange. In that way, research on the influences of social networks that exist sans online social network platforms are relevant to consider.

Taken together, both academic research and political operative folk knowledge indicate that more direct and personal attempts tend to do better than anonymous or distant attempts to increase political participation. While election specific work is lighter on the efficacy of personal email, related research does support the notion that sender-receiver connectedness can enhance the signal of a message. Thus I hypothesize that peer-to-peer email results in greater voter participation for those who receive such a communication than similarly situated individuals who do not receive such a communication.

3.1 Peer-to-Peer Connections via VoterCircle: How it Works

VoterCircle relies on peer-to-peer information sharing about ballot initiatives and candidates from one eligible voter to another eligible voter. For smaller, local, and generally low-salience elections hiring or recruiting volunteer door-to-door canvassers is prohibitively costly – yet seasoned campaign staff know the more personal the appeal, the more effective it is. While messages sent through VoterCircle could theoretically match the reach of a mass campaign, the delivery is personal because it is individualized from each peer sender to each peer recipient. In regards to research of varying motivation (shame, pride, etc.) the message framework provided by VoterCircle does not make use of any sort of systematic normative appeal to incentivize voting for the sake of voting. Instead, eligible voters receive a message indicating the day and subject of the election and an appeal from their peer to vote in a certain way - for or against an initiative or candidate.

To use VoterCircle a campaign first obtains the voter file of all eligible voters for a given election.[3] Second, from the list of eligible voters, a campaign identifies contacts of known supporters and recruits them to be "seeds" for further network outreach.[4] Once seeds agree to use VoterCircle the platform combs through seed's email contact list, which is populated by friends, neighbors, coworkers, and anyone whose information has been maintained. Some contacts may be eligible to vote in the election of interest, and some may not, in order to assess eligibility the platform cross-references the voter file to identify eligible voters – based on a matching algorithm of first and last names, as well as email, phone numbers, and addresses.[5] There is no element of selectivity or microtargetting in this stage, any voter identified as eligible is flagged as match and provided to the seed as someone who may vote in the election of interest. After the platform matches, seeds are given an easy to navigate list of eligible contacts and on their own schedule and convenience seeds then send emails to their eligible contacts urging support for a candidate or initiative.   The VoterCircle platform supplies contact seeds with a basic template that they may use to craft outreach emails. Contact seeds are free to modify and personalize

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[3] The amount and quality of data available in a voter file vary from state to state – in this instance the voter files contains information on a voter's name, the precinct they are registered to vote in, gender, age, year first registered, and the voting history on whether they participated or not in the past two elections.

[4] It is important to note that the author has no access to the identity of the seeds in the deployment under study here. Seeds are typically those who are personally or professionally close to a candidate or initiative organizers.

[5] A video summarizing the process and platform compatibility is available at: https://votercircle.com/.

messages in any way they prefer.[6] The basic template for this initiative is provided in the Appendix.

3.2 2016 Test Case Specifics

The Board of Education for the Menlo Park City Elementary School District in the county of San Mateo, California put a resolution calling for a parcel tax referred to as the "Excellence in Education Tax" to a vote in 2016. In terms of election salience, I characterize this election as low because the electorate is quite small (under 20,000 voters) the subject matter is 1 specific ballot initiative rather than a larger candidate driven race more typical of studies on voter mobilization, and the election is conducted via mail balloting versus Election Day in-person balloting. The specific ballot initiative of the VoterCircle outreach effort was known as "Measure A: Menlo Park City Elementary School District: Parcel Tax Measure" (Measure A). Full text of the ballot initiative is in the Appendix. California voters are asked to vote in parcel tax election with some frequency – at least 1 county has had such a tax intitiative put to voters each year since 1983. In San Mateo County, voters previously approved a 7-year tax increase in 2010. The ballot initiative received coverage typical for elections of these sorts appearing in local news

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[6] Like information on seed names, the author does not have access to the individual modifications some seeds may choose to use. The vendor, VoterCircle knows the senders and recipients of each email sent using the platform – but the individual modifications to the text of the message are not accessible to the platform or the individual campaign. As is the case with other directed outreach, the expectation is that senders will add in personalizing information to make a more effective appeal. Examples would be using first names in the address, adding a life update or inquiry to the recipient, signing off in a personalized way, etc. This information can be communicated to contact seeds when they are originally recruited.

outlets, with no notable differences in campaigning or turnout compared to other counties and years.

For Measure A, the universe of eligible, registered voters consisted of 16,372 people. The 2010 Census indicates that the total population of the city of Menlo Park is 32,026, of which 70% of the population is white, 10% is Asian, 9% is Pacific Islander 5% is African American, and the remaining population is made of people who identify as other races; 18% of the population identifies as Hispanic or Latino. Of the 12,347 households in the city, 33% have children under 18. The top employer is Facebook, 70% of the population has at least a bachelor's degree compared to a national average of roughly 30%, and the median family yearly income is $121,000 whereas the national average is $54,000. This community is particularly attuned to email and electronic communication, this is a point I return to in the conclusion.

4.1 Data and Analyses

The data used for analysis consist of (1) the voter file of all registered California voters eligible to cast a vote on Measure A[7], (2) a database of every voter who received a VoterCircle email from a peer urging them to vote for the measure[8], and (3) administrative data recording whether or not an eligible voter voted on Measure A.[9] The voter file has some information that is not used during VoterCircle implementation such as voter gender, age, party affiliation, past voting

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[7] This data was graciously provided to the author by Political Data http://politicaldata.com/.

[8] This data was graciously provided to the author by VoterCircle http://votercircle.com/.

[9] There is not individual level data on whether or not a person voted for or against Measure A, as administrative records only report if a ballot was cast or not.

participation in 2014, and duration of registration. Four hundred, twenty three eligible voters received VoterCircle facilitated emails sent from seeds during the initiative campaign.[10]

4.2 Explanatory and Control Variables

In each of the following analyses, the explanatory variable of interest is whether or not someone received a VoterCircle email to test the hypothesis that peer-to-peer email results in greater voter participation for those who receive such a communication than similarly situated individuals who do not receive such a communication. In addition to this indicator, I use other information to first model the likelihood that someone receives an VoterCircle email in the first place, and then to create an appropriate "control" group when matching those to received an email to the most feasible set of counterfactual individuals who did not.

Despite not being used in the VoterCircle campaign in any formal way, this additional information is included in the following analyses. Research indicates women tend to turnout to vote more than men (Levine & Lopez, 2002) and women tend to be more active in supportive social networks than men (Antonucci & Akiyama, 1987) (Cornwell, 2011) therefore voter gender is important to include in the analyses of who is more likely to vote and who is more likely to receive a VoterCircle email in the first place. Age also influences the likelihood that someone votes as well as the size and types of their social circle (Morgan, 1988) (Strate, Parrish, Elder, & Ford, 1989) so controls of voter age are employed.

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[10] The author does not have access to the names of or numbers of seed contacts. For the following analyses, the total population is not always listed at 16,372 as there is some data missingness in some fields that reduces the overall number of individual data points used.

There are many recognized parties that voters may register with in California. In this election there are 10 parties represented in the voter file, but for the analysis and presentation of data I use only members of the top 5 most subscribed to parties.[11] As parties serve as organizing forces for both interests and campaigns, I control for the party identification of voters despite the fact that this ballot contest was not defined with great partisan intensity. The voter file has a field indicating the date a person registered to vote as well as if an individual voted in the previous election. Based on research that indicates voting is habitual (Gerber, Green, & Shachar, 2003) (Aldrich, Montgomery, & Wood, 2011) (Denny & Doyle, 2009) and the research supporting that people already in the process are more likely to be in contact with a campaign and more likely to use technologies such as VoterCircle than new or less seasoned voters, I use a continuous measure of years registered and an indicator of whether or not someone cast a ballot in the 2014 election in each of the subsequent analyses.

4.3Analysis strategy

The roll out of VoterCircle in this campaign is obviously not a true field experiment in that the intervention of a potential voter getting a VoterCircle email was not assigned at random. Despite this limitation there are methods to analyze the efficacy of the platform using approaches typically employed in field experimental research. Like a field experiment, the intervention took

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[11] The parties eliminated either have too few registered voters to make any inferences from, or they perfectly predict turnout and the reception of a VoterCircle email and are therefore dropped in the regression analysis. The eliminated parties are Libertarian (101 registered voters) Natural Law (1 registered voter), Peace and Freedom (13 registered voters), Reform (10 registered voters) and YY (6 registered voters).

place unobtrusively in the context of an actual campaign; the participants were actual voters, and the results are individualized, publically recorded, verifiable, and of real world importance.

The largest concern from an inferential standpoint is that the "treatment" of getting a VoterCircle email is systematically related to citizen attributes that are also related to the likelihood that someone votes in the first place. In this election just 3% of the total electorate were exposed to the VoterCircle intervention. Comparing this slice of the electorate to other potential voter reveals that those who receive a VoterCircle email are particular in some ways and unremarkable in others.

I first present the basic differences between voters who received a VoterCircle email and those who did not. Then, I employ the following strategies to best estimate the effects of a VoterCircle email. As a starter, but causally inappropriate way I perform a simple comparison of turnout rates between people who received a VoterCircle email and those who did not across different subgroups. Second, with the recognition of the limitations and insufficiency of simple comparisons in order to make causal claims, I attempt to approximate a randomized field experiment by matching to the treatment sample to find the most reasonable counterfactual individuals who did not receive a VoterCircle email using the latest strategy in matching developed and described in (King, Lucas, & Nielson, 2016). While the VoterCircle deployment lacks randomization, this estimation strategy provides the soundest basis for making inferences as to the effectiveness of VoterCircle in a way that best approximates experimental standards given the limitations of the reality of previous deployment.

5.1 Results

5.1.1 VoterCircle Recipient Status

Table 1 provides summary statistics comparing eligible voters who received a VoterCircle email and those who did not.

[TABLE 1 HERE]

As Table 1 makes clear, they deployment of VoterCircle was non-random, there are obvious differences between people who are more or less likely to get a VoterCircle email. Women, slightly older voters, and voters who had participated in an election recently were more likely to receive a VoterCircle email. The gender split in the population of non-VoterCircle exposed voters is 52% Female, 48% Male. Of those who received a VoterCircle email, the split is 60% Female, 40% Male. Younger voters are statistically more likely to receive a VoterCircle email than older voters. The average age of a VoterCircle recipient is 48, while the non-VoterCircle population is 50 on average. The distribution of age is more telling than the average age, as figure 1 shows, there is an age based clustering of those who received a VoterCircle email versus the broader distribution of ages within the general voting population.

[FIGURE 1 HERE]

Those who received VoterCircle emails are significantly more likely to have voted in the 2014 general election than those who did not; 74% of VoterCircle recipients voted in 2014, while just 55% of non-VoterCircle recipients did. The difference in voter habit is the largest of all differences. This is expected because people who vote tend to be more informed about and connected to politics and upcoming elections and they also tend to have circles of friends who share similar interests and habits. The mechanism of VoterCircle that relies on politically

supportive and active seed peers to seek out other peers at least partially explains why we observe more politically active people in the list of those who get a VoterCircle email.

Of the similarities across recipient status, there is not a strong relationship between the party an eligible voter is registered with and the likelihood that he or she sees a VoterCircle email despite the tax nature for Measure A. Overall, the distributions of partisanship within those who did and did not receive the treatment are very similar and a Fisher's exact test of association retains (p = 0.60) the null hypothesis that they are drawn from similar populations. Additionally, there is not a significant relationship between the time a citizen has been registered to vote and the likelihood he or she was exposed to a VoterCircle email.

5.1.2 VoterCircle Turnout Effects: Raw Comparisons

Out of an electorate of 16,372 registered voters, 36% cast ballots for or against for Measure A. I calculate the voting rates for the entire eligible population as well as across different subgroups of interest. Table 2 reports the results of these calculations and figure two displays the results.

[TABLE 2 HERE]

[FIGURE 2 HERE]

Performing in-group two-tailed t-tests reveals that for nearly every grouping over gender, age, voting history, registration duration, and party shows that those who received VoterCircle emails had higher rates of voter participation with differences that are quite large and often statistically significant. In no group is the treatment of getting a VoterCircle email significantly related to lower participation. The only groupings that do not show a statistically significant difference in turnout based on VoterCircle treatment status are voters who are under 30 years of age, voters

who are over 60, and Green Party members. Based on the description of the recipient population

from the previous section – the age and party findings are expected given that the ends of the age

spectrum showed the lowest permeation of VoterCircle contacts.

The simple comparison of means above gives a promising and optimistic baseline for showing

some effective on turnout of VoterCircle contact. But these comparisons do not offer clear

causal support for a claim that VoterCircle increases turn out as we know that people who

received VoterCircle emails are systematically different in some ways than the rest of the eligible

electorate and those differences on age, gender, voting history are related to higher propensities

to vote (Leighley & Nagler, 1984). In order to better make inferences on the potential effects of

VoterCircle contact I now move to more stringent assessment methods.

5.1.3 VoterCircle Turnout Effects: Matching

A simple probit regression that considers the relative impacts of receiving a VoterCircle email as

well as a host of other controls on the outcome of voting, unsurprisingly results in a large and

positive coefficient relating the fact that someone received a VoterCircle email and cast a

ballot.[12] But as the previous sections made clear getting a VoterCircle email in the first place is

highly correlated with other explanatory variables related to voting so the common and necessary

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[12] Specifically voting is a 1 if a person cast a ballot and a 0 otherwise; independent variables

include an indicator on whether or not someone got a VoterCircle email, an indicator denoting if

someone voted in 2014, a sex indicator, voter age, the number of years registered, party

indicators, and precinct indicators.

assumptions underlying unbiased regressions estimation and inference are not met and do not provide adequate assessments of causal effects.

To obtain effectiveness estimates with less bias I use a technique that relies on a matching *frontier* metric to optimizes balance between the groups of eligible voters who received an email and those who did not as well as the sample size from which inferences are to be made (King, Lucas, & Nielson, 2016). Every treated voter (got a VoterCircle email) is matched with the closest non-treated voter (did not get a VoterCircle email) by minimizing the Malahnobis distance between a treated and non-treated voter on the following variables: gender, age, political party, voted in 2014, and registration duration.[13] This strategy means the set of eligible voters on which inferences are to be made is smaller than the universe of all eligible voters, but that the impact of a VoterCircle email is estimated in the cleanest, least biased way by comparing only voters who are similar to each other on all other observable, measurable metrics save for VoterCircle email recipient status.

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[13] Of course, matching on the observable variables here does not ensure that groups will be matched on all potential variables related to voting. In this analyses there are no data on voter education or income, two variables many others include as controls. However, in this instance, because of the small geographical unit under study, there is less of a worry that things are widely mismatched on unobservable features of voters. In regards to education, Menlo Park is one of the cities with the highest and most homogenously educated citizenry with roughly 70% of residents earning at least a college degree. Income provides a similar homogenous story with the mean and the median family incomes sitting close to each other at $119,000 and $95,0000 respectively.

Recall that the original dataset consists of 441 voters who received an email and 15796 who did not. A potentially straightforward way to find counterfactual individuals for the 441 recipients might be to find 441 other potential voters (1:1 matching) among the non-recipients or to match the original 441 to some weighted other number (1:N matching) of potential voters with weight accounting for the differences in raw numbers of observations of which to make inferences from. Yet, each of these strategies assume and force a match from the non-treated population, which may sometimes assign a non-well matched counterfactual to a treated observation for the sake of keeping the number of observations "high" and may in turn lead to biased estimation. A more thorough review of these sorts of problems is provided in (King, Lucas, & Nielson, 2016) as well as new technique that allows both treated and non-treated observations to be discarded and weighted that instead seeks to optimize a balance between both the sample size used to make inferences and likeness among the matches used for inferential analyses. I employ this technique for my subsequent analyses and end up with an optimal comparison group of 272 treated VoterCircle recipients and 574 non-treated potential voters, but the figures show how the estimate of interest changes if different levels of observations are pruned from the sample.

Because these inferences are based observational data the estimator of interest is the feasible sample average treatment effect on the treated (FSATT). The data here are suited to speak to the effect that getting a VoterCircle email had on the likelihood of casting a ballot for those voters who did received a VoterCircle email.

Using the optimally matched and weighted version of the dataset results in estimated effect of getting a VoterCircle email corresponding to about a 38% increase in the likelihood that

someone casts a ballot on Measure A. As the matching further reduces the distances between

treated and non-treated voters by pruning the sample of non-treated voters to be more similar to

treated voters this effect is reduced. Figure 3 presents the estimates of FSATT over various levels

of treated voters to successively smaller numbers, but more closely matched non-treated voters.

[FIGURE 3 HERE]

 Recall that only 3 percent of eligible voters received VoterCircle emails during this campaign,

as the number of matched controls grows closer to the number of voters who received a

VoterCircle email through successive pruning, the causal estimates of the effect of getting a

VoterCircle email are reduced but still robust. Figure 4 shows how the sample changes as

controls are pruned to better approximate the treated population. As is expected based on the

breakdowns in table 1, partisanship does not appreciably change, but whether someone voted in

2014 and is a woman or not changes such that those with greater past electoral participation and

more women are in the smaller, but more evenly balanced samples.

[FIGURE 4 HERE]

Given that the estimates of the treatment effect are most conservative as the matching sample is

pruned, I use a pruned result of an optimally matched sample of 846 eligible voters discussed

above. Table 3 presents the results of OLS regression and a probit regression on this matched

population. The comparison is provided upfront given the indicator nature of the outcome

variable - but readers will note the conclusions are largely the same irrespective of modeling

strategy.

[TABLE 3 HERE]

As table 3 shows, the intervention of receiving a VoterCircle email is significantly and positively

related to voting on Measure A, the only other variable consistently related to a higher likelihood

of voting is if someone voted in 2014 or not. In order to further parse out the effects of a VoterCircle email in light of the strong influence on past voting I split the matched sample into voters who voted in 2014 and those who did not. For each of these subsets I then perform simulations holding all other variables at their respective means and varying only the reception of a VoterCircle email using CLARIFY (Tomz, Wittenberg, & King, 2003).[14] I then estimate the first differences in the likelihood of voting on Measure A based on reception of a VoterCircle email for voters who did and did not vote in 2014.

While those who did not vote in 2014 have a lower baseline probability of voting in 2016 than those who did – both populations are more likely to vote upon reception of a VoterCircle email. For those who did not vote in 2014 the reception of a VoterCircle email is associated with a 25% (s.e. 7%) increased likelihood in voting in the Measure A race, and for those who did vote in 2014, the associated increased likelihood in voting is 30% (s.e. 3%). For all sorts of voters, the recipient of an email from a social connection is related to an increase in the likelihood that someone casts a ballot, even under successively conservative estimation techniques.

6.1 Conclusion and Discussion

The results here offer both a somewhat novel finding and a confirmation of a variety of other findings in different assessments of voter mobilization.

As with earlier studies, it is the personal, human connection we have to someone that is more important than how we reach that person. But as results of studies over different types of

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[14] The simulation specification assumes a woman, democrat, of age 46, and registered for 8 years.

mediums have either found to be lacking in power, or with little to no impact, or to be so prohibitively expensive the results from this VoterCircle deployment offers something new. These results show that is it likely not the medium, but the messenger that matters most. In an increasingly technologically powered and impersonal world, the power of human connection still prevails.

In this case study, a real deployment of a new email voter mobilization tool was used in a low-salience all-mail election in a well-educated, high earning, tech savvy population. To be sure, there are limitations and cautions to be taken when considering the strictly non-experimental deployment of this tool, but given the assessment mechanisms possible the results here point to a very positive increase in voter mobilization in a field that typically finds minimal effects. The peculiarity about the population should actually bias against finding any sort of impact as these are the sorts of people and communities who are more keenly aware about spam email prone to dismiss electronic communications deemed unimportant. The fact that I find that receiving an email from a contact urging someone to vote actually does seem to translate into higher likelihoods of voting while attempting to be as sensitive and cautious of many other factors at play should provide some sense of interest for scholars and campaign operatives looking to better understand how elections may be influenced.

Campaigns are not in a position to ensure that voters have cultivated a habit of voting, but campaigns do have the ability to leverage social connections of supporters in order to encourage citizens to vote. Given the results presented above, there is a strong statistical argument that shows the efficacy of such contact for potential voters. For potential voters of all sorts, the

intervention of a VoterCircle email is associated with an increased likelihood of participating in the electoral process. For people who have a habit of voting, a VoterCircle email means they are more likely to cast a ballot but, on average, these sorts of people are also already some of the most likely to vote in low salience elections.   For voters who do not have an established voting habit, a VoterCircle email from a friend may make the key difference in taking someone from a non-voter to an active political participant.

By employing a cutting edge, yet straightforward matching procedure, the non-random deployment of VoterCircle in the 2016 Menlo Park election can be assessed in a way that fairly considers other influences on voting, while still offering a robust test of my hypothesis. There are some important limitations of this study that ought be noted. The type of election used for Measure A was conducted as an all-mail ballot election. This is standard for some local races in California and elsewhere. With that in mind the lessons here on the efficacy of VoterCircle emails may not be the same for elections that require voters to go to the polls. Another reservation to keep in mind is the scale of the election and this sort of intervention; the power of this type of outreach strategy is probably most uniquely situated to local, low-information, low-salience elections where the push from a friend to vote in a certain way might be the most useful input any individual voter receives for that sort of contest.

In the specific election analyzed here Measure A failed to meet the 2/3rd threshold for passage, but the individual level impacts of outreach based on social connections were made apparent.[15]

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[15] California state law requires that any sort of special taxes other than *ad valorem* taxes on real property be subject to two-thirds approval by the electorate that will be affected.

For practitioners and campaigns the take away is quite clear – the reception of an email from a peer facilitated by the VoterCircle platform is associated with a significant increase in the likelihood that the recipient casts a ballot. For no demographic did a VoterCircle email lead to fewer voters, and instead it is quite impactful across many subgroups. In a reality where local elections turn on fewer voters, campaigns continue to rise in cost, and levels of voter trusts erode, platforms such as VoterCircle may be a best bet to leverage peer to peer connections to inform voters, reduce costs for those running campaigns, and effectively increases voter participation.

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Appendix:

Subject: Asking for your YES vote on A

Message:

Friend,

By now you should have received a special mail-in election ballot in your mail regarding an important measure for our school district - Measures A. I am sending this email to ask you to join me and the many other community and school leaders listed below in voting YES on this very important. Every vote is important, so please return your ballot today!

For more information, you can visit http://www.supportmenloparkschools.org or feel free to reach out to me directly anytime.

Thanks for doing this!

Fellow Endorsements for YES on Measures A
[List of already pledged community leaders removed here for space]

This type of election is conducted as an all-mailed ballot election.

The text of the ballot initiative proposed to voters is:

To maintain our community commitment to existing small class sizes, high quality teachers and comprehensive academic programs, and renew the expiring education special tax, shall the Menlo Park City Elementary School District continue to levy at the current annual rate of $201.38 per parcel, spent only on teachers and education programs, beginning July 1, 2016, adjusted annually for inflation, with an exemption available to individuals 65 and over?