

# **Early Campaign Contact and Voter Turnout in the 2018 Texas State Senate**

## **District 6 Special Election**

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Political Science Honors Thesis

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**Abstract:** The creation of early in person (EIP) voting periods has been a popular policy implemented by state legislatures seeking to increase voter turnout through decreasing the costs of going to the polls. The efficacy of EIP voting has been questioned in the literature. EIP voting has, however, changed the way in which campaigns are run (Burden et al 2014; Hamel et al 2018). Using individual-level, paid phone-bank call data from the Ana Hernandez campaign for the Texas State Senate District 6 special election held on December 11, 2018 and district-wide voter history data I examine the efficacy of campaign contact under early voting conditions. I find this contact to be ineffective, once vote history is taken into account. A history of voting in the 2018 primary election and 2018 bond elections is a much stronger predictor of turning out in the election studied. This analysis indicates that contacted voters who turned out were more likely self-motivated to vote rather than mobilized through contact, complicating Arceneaux and Nickerson's (2009) contingency model of campaign contact, which states that high propensity voters are the most cost effective to turn out through campaign contact. These findings have important implications regarding the status quo model of campaign contact currently implemented and how it can be modified to be both more effective in turning out voters in low salience elections.

## Acknowledgements

This has been a long and arduous, but ultimately fulfilling project. There are many people that I would like to thank who have been instrumental in helping make this happen. First Dr. Robert Stein, for encouraging me to write a senior thesis in the first place and providing me with a healthy amount of threats when it was necessary to do so. Next, I would like to thank Dr. Leslie Schwindt-Bayer for first walking me through the process of research itself and kindly allowing me to complete more than one thesis project. To Robert Jara, for generously giving me the data that made this project possible and answering my many many questions. I would like to thank Miaomiao Rimmer, for helping wrangle my data into a manageable and analyzable dataset. Finally, to all my friends and family, who didn't call me crazy and patted me on the back when the end seemed oh so far away. In particular, I would like to thank the members of my thesis accountability group, Grace Wilson, Abigail Panitz, David Ratnoff, and Nik Liebster, for keeping me accountable, reading drafts, and providing much needed words of encouragement.

# Early Campaign Contact and Voter Turnout in the 2018 Texas State Senate District 6 Special Election

## Introduction

Over the past several decades, state legislatures have sought to increase voter turnout through policies that expand access to voter registration and to the polls. These measures have included lowering barriers to voter registration, expanding vote-by-mail, using vote centers instead of precinct-based voting locations, and expanding the period of time in which a ballot can be cast through early voting periods. The notion that these policies actually lead to an increase in voter turnout, however, has been extensively questioned in the literature. This is particularly the case for early in person (EIP) voting periods, one of the most popular of these “convenience” voting policies (adopted in over 36 states) in which voters have anywhere between 4 and 45 days before election day to cast their ballot in person (NCSL 2019).

By providing more options for when voters can cast their ballots, states are effectively lowering the costs of voting. This decrease in cost, however, has not translated to significant or sustainable increases in turnout. In fact, in some states, some popular reforms, specifically in-person early voting, has led to the opposite effect: significant decreases in turnout (Burden et al 2014; Richey 2008; Ashok 2014; Stein and Vonnahme 2010; Larocca and Klemanski 2011). Building upon existing theories on the role of campaign behavior in implementing convenience voting reforms, I theorize that elongated nature of early voting exacerbate finite campaign budgets, forcing campaigns to be more selective about who they contact, resulting in the campaign in question targeting higher propensity voters during early voting (Berinsky et al 2005;

Arceneaux and Nickerson 2009). Using this theoretical framework, I predict that campaign contact during the early voting period will be effective in turning voters out to vote.

To empirically measure the impact of campaign contact and early voter turnout, I combine individual-level campaign paid phone-banking data from the Ana Hernandez campaign for Texas Senate District 6 (SD6) special election with individual level voter turnout data from the 2018 Primary, 2018 Primary Runoff 2018 Municipal Bond Election, 2018 Midterm, and 2018 Special Election for the Texas State Senate 6 seat.

First using logit analysis, I find that early campaign contact has a significant effect upon turnout. However, in my propensity score matching analysis, I find that early contact has no effect upon turning out voters once matched characteristics are considered. Furthermore, in comparing the predictive margins of turning out to vote based off early contact and turning out to vote based off vote propensity, I find that while early campaign contact results in virtually no difference in the probability of an individual turning out, increased vote propensity is a strong predictor of turnout. Further propensity score matching analysis comparing turnout between frequent and infrequent voters finds a much stronger relationship between frequent voters and turning out than that of early campaign contact and turning out. These findings indicate that individuals contacted by the campaign who did turn out to vote were likely more self-motivated by prior voting habits rather than being motivated by campaign contact.

This analysis contributes to the literature by using individual level data to shed light on how campaigns incorporate the early voting period into their campaign contact strategy, as well as how effective this strategy is in turning out the vote. Additionally, the particularities of the data utilized in this study allow me to study the dynamics of early voting behavior under

particular conditions that have not been well studied in the literature: specifically, early voting in a predominantly Hispanic district and during a low turnout special election.

### Literature Review

Voting is a costly, sometimes onerous, choice. In this rational choice framework of voting, Riker and Ordeshook (1968) argue that many Americans do not vote because the cost of voting outweighs the perceived benefit of engaging in this behavior. Costs of voting can include time spent (researching candidates, traveling to and from the poll, waiting to vote, casting the ballot, etc.), money (lost income, transportation costs, costs of obtaining proper identification, etc.), and resources (for researching candidates and policies). Most “convenience” voting policies seek to decrease the cost of voting by making voting a more easily accessible and potentially quicker process. As a result, states across the US have sought to increase voter turnout through policies that lower the costs required to cast a ballot. These reforms assume that by making voting less costly, would-be voters who were dissuaded by high costs, will now be brought into the electorate (Leighley and Nagler 2013).

Voter registration reform has attempted to tackle this problem by lowering the barriers to register to vote, ranging from automatic voter registration of all eligible citizens (now available in sixteen states), to “voter motor” laws, where driver’s license applicants are encouraged to also register to vote. Highton (2004) asserts, however, that while registration reform has lowered the barrier to registering to vote, its ability to raise voter turnout has been exhausted. Despite low registration costs, the burden of casting a ballot remains high enough to prevent many voters

from turning out. He argues that activists that wish to increase voter turnout must instead focus on policies that lessen the costs of actually casting a ballot (Highton 2004: 512).

In an effort to lower the costs of voting, states have passed a host of voting laws that aim to make it more convenient to vote (hereafter, “convenience voting laws”). By lowering the costs of casting a ballot, these policies seek to make the act of voting more accessible and to in turn increase voter turnout. These reforms have included “no excuse” absentee balloting, universal vote by mail (VBM), early in person voting, and election day vote centers (Berinsky 2005: 471).

Universal VBM, in which ballots are mailed out well before Election Day and voters have through Election Day to mail in or drop off their ballot (thus allowing those who enjoy the process of in person voting to continue to do so), is available in Oregon, Washington, and Colorado (NCSL). Berinsky et al (2001) uses panel data and finds that VBM does increase voter turnout. These marginal increases, however, reflect retention of habitual voters and not mobilization of new voters to turn out (2001: 190). As a result, those mobilized by VBM tend to be older, more educated, and politically engaged - further exacerbating resource stratification within the system and thereby disputing the theory that reforms like VBM will bring new voters into the electorate (2001: 191). Richey (2008) uses a cross-sectional time series to confirm the increase in turnout under VBM conditions. However, as Richey’s model utilizes aggregate, rather than individual level data, it is unable address whether increased turnout is due to retention of habitual voters or mobilization of new voters.

Early in person voting (EIP) is another commonly practiced convenience voter law, currently available in 36 states. Early in person voting makes voting more convenient by expanding the time and places where balloting occurs. In Texas, the early voting period lasts 12 days, includes one weekend, and locates polls at centralized and high traffic locations. However,

by contrast to VBM, EIP voting still requires voters to exert the cost of showing up and casting their ballot within a limited time frame, higher costs than casting a ballot via VBM.

The success of EIP voting's ability to increase voter turnout has had more mixed reviews. In its most positive light, studies have found that early in person voting is able to have a modest positive increase in voter turnout (Berinsky et al 2001; Neeley and Richardson 2001; Stein 1998; Stein and Garcia-Monet 1997).

Other findings have ranged from no significant effect (Gronke, Galanes-Rosenbaum, and Miller 2007; Fitzgerald 2005) to significant negative effects of early in person voting (Richey 2008; Burden et al 2014; Ashok 2014; Stein and Vonnahme 2010; Larocca and Klemanski 2011).

Any increase in turnout that has been identified, however, has been explained primarily through retention of habitual voters, by increasing the convenience for those already in the habit of voting (Berinsky 2005: 473). As a result, those who utilize early voting tend to be wealthier, better educated, older, and stronger partisans, resulting in an exacerbation of the existing socioeconomic stratification that already exists within the electorate (Neeley and Richardson 2001: 387; Gronke and Toffey 2008: 518; Stein 1998; Berinsky 2005: 478; Ashok 2014: 29; Gronke et al 2007: 643). Who votes during early voting also changes depending upon how many members of the electorate are engaged with or even aware of an on-going election – termed the “salience” of a given election (Arceneaux and Nickerson 2009: 3). This aggravation of electoral socioeconomic stratification is clearer in midterm elections than presidential elections, evidencing that the salience of a given election also impacts the dynamics of who votes early (Gronke and Toffey 2008: 519).

Overwhelmingly, the literature demonstrates that early in person voting laws are not achieving their original purpose of bringing new voters into the electorate. Instead, it is providing a more convenient way for high propensity voters to cast their ballot, “smoothing over the idiosyncrasies that cause engaged citizens to sometimes miss casting their votes in particular elections” (Berinsky 2005: 477).

Early voting reform has fundamentally changed the nature of elections. Burden et al (2014) theorizes that the prolonged nature of early voting, “turns a large-scale social activity that once took place on a single election day into a weeks-long process that diffuses public visibility” (2014: 97). Hamel et al (2018: 17) confirms that the drawn-out effect of early voting translates to campaign behavior, straining the already limited budgetary resources of campaign get out the vote (GOTV) efforts over the course of early voting and limiting the types of voters that a given campaign can afford to contact. Additionally, high campaign spending during the early voting period correlates with higher levels of in person early voting turnout (2018: 17).

The efficacy of personal canvassing by campaigns to get out the vote has been thoroughly demonstrated in the literature (Gerber and Green 2015; Nickerson, Friedrichs, and King 2006; Nickerson 2006; 2007; Michelson 2005). In addition to candidate specific information, this contact also contains important information on when and where a voter can cast their ballot - including early voting information. Campaign to voter contact thus becomes one of the primary means by which voters may learn about opportunities to vote early. Stein, Owens, and Leighley (2003: 17) find evidence that early voting electoral reform is only effective when paired with partisan mobilization efforts. Furthermore, campaigns are more likely to contact voters who have stronger voting histories (Rosenstone and Hansen 1993: 56). This indicates that the types of



voters that turn out to vote early may be influenced by the types of voters that campaigns choose to contact during the early voting period.

Taken together, this literature has found that campaign behavior influences the effectiveness of early voting laws and that the elongation of the early voting period strains campaign budgets and limits the amount and type of voter that campaigns can afford to contact during early voting.

### Theory

There is modest evidence that the effectiveness of election reforms, like early voting, increasing voter turnout is partially dependent upon the extent to which it is implemented by campaigns (Stein, Owens, and Leighley 2003: 17). An important qualification of this finding is that the implementation of these reforms by political elites work in tandem with an individual's base probability of turnout, regardless of whether or not they are mobilized by a campaign (2003: 17). In other words, campaigns that wish to utilize EIP voting in their GOTV strategy must be strategic about what types of voters they seek to contact during the early voting period. As a result, analysis of campaign mobilization of early voters requires examination from a number of angles: the decisions driving campaign GOTV contact strategy, how this strategy mediates the implementation of EIP voting, and its interaction with voter's individual qualities.

In Leighley's (1995) model of voter turnout, she identifies four factors that influence an individual's decision to turn out to vote: institutional rules, social and demographic traits, psychological resources, and partisan mobilization efforts (1995). As demonstrated earlier, candidate or party mobilization influences the effectiveness of the implementation of

institutional rules - in this case, EIP voting. Through campaign targeting of individual voters that meet certain traits, mobilization interacts with individual voters' social and demographic traits. This targeting can either diminish or intensify the effects of an individual's given demographic traits upon their voting behavior, by determining whether or not they will be contacted to be mobilized by a campaign. For example, younger voters have a lower propensity to turn out to vote compared to their older counterparts who have developed a habit of voting (Leighley and Nagler 2013). A campaign's decision to contact or not contact a young voter will either diminish the impact of an individual's demographic trait of being young and thereby unengaged by engaging them with a push to vote or intensify this disengagement by excluding the young voter from its mobilization efforts. Finally, campaign mobilization provides information to the voter about the state of relevant races and when to cast their ballot, thereby enhancing their psychological resources – potentially to degree that can enable them to overcome the costs of participation. (Shaw et al 2000: 339).

Burden et al (2014) speculates that one possible cause for decreased turnout under EIP voting is the newly diluted nature of Election Day - with media coverage and personal political conversation dragged out over several weeks, rather than a steady build up to one big social event (2014: 98). This dilution translates to campaign behavior as well. All campaigns are constrained by the limits of their budget, a certain amount of which is allotted to GOTV activities - a costly enterprise to begin with. Campaigns must be strategic in who they contact in their GOTV operations. As theorized in Hamel et al (2018), this budget is further constrained by additional days of voting. While in the past GOTV was limited to the weekend prior to Election Day, it is now stretched out over the course of 12 days (for Texas) in addition to standard Election Day GOTV (2018: 7). This budget constraint dilutes Election Day oriented GOTV

efforts, thus further restraining who a campaign can afford to contact. The dynamics the GOTV budget constraint are heightened within the context of low budget and low salience elections. It is for this reason, that for my case study I selected Ana Hernandez's special election campaign for TX State Senate District 6 - a low budget state level special election with extremely low voter turnout.

In analyzing campaign contact during a low salience election, it is important to consider the method by which campaigns select which voters they are going to contact. One key trait considered in who to contact is whether a voter has a demonstrated habit of voting. It has been well demonstrated that voting is a habit; voters who vote in an election are more likely to have voted before (Nickerson 2004; Denny and Doyle 2009; Brody and Sniderman 1977, Gerber, Green, and Shachar 2003, Green and Shachar 2000; Plutzer 2002, Finkel 1985; Dinas 2012). Thus, voters with strong voting histories are deemed "high propensity" voters and are cheaper to mobilize than "low propensity" voters. As a result, high propensity voters will be more likely to be contacted by a campaign. Within the context of elections with EIP voting, this dynamic is intensified. Campaigns will first seek to ensure that these high propensity voters cast their ballots first, thereby aiding the process of "smoothing over the idiosyncrasies that cause engaged citizens to sometimes miss casting their votes" that EIP voting provides (Berinsky 2005: 477).

Furthermore, in low salience elections like a state Senate special election, campaigns cannot expect the broader electorate to be mobilized solely because an election is occurring. In fact, lower propensity voters must be persuaded as to why it is worth them to expend the costs of voting, prior to even being mobilized. High propensity voters, on the other hand, do not need to be persuaded on the merits of voting – they simply need to be mobilized. High propensity voters are more receptive to GOTV efforts during low-salience elections (such as a state Senate special

election), making them more cost effective to mobilize than low propensity voters (Arceneaux and Nickerson 2009: 12).

### Research Setting and Data

To test the effectiveness of early campaign contact upon voter turnout in low-salience elections I conducted a case study with individual level campaign and turnout data. Specifically, I analyzed campaign and turnout data from a special election conducted on December 11, 2018 (with early voting running from November 26 through December 7) for Texas State Senate District 6 (SD6). The data utilized for this project contains the voting histories and demographic information of 332,298 registered voters residing in Texas's 6th State Senate District. Voter histories include whether individuals cast a ballot in the 2018 primary election, 2018 primary runoff election, 2018 municipal bond election, 2018 midterm election, and 2018 Senate District 6 special election, and their method of voting (at the poll, early, mail-in, or absentee). Based on this voter history, each voter was given a vote propensity score of 0-4 which was determined by the sum of elections prior to the SD6 election that they had voted in during the year of 2018. An individual with a score of 0 voted in no elections in 2018 prior to the SD6 special election, while an individual with a score of 4 voted in all four elections held prior to the SD6 special election. Additionally, created two dummy variables: one for frequent voters, which were defined by having voted in at least two or more elections in 2018, and another called "superdem", defined by voters who voted both in the 2018 Democratic Primary and 2018 Democratic Primary Runoff.

Of the observed voters, 15,299 voted in the election in question. Other demographic factors included in analysis consisted of gender, birth year, and whether voters resided in House

District 143 (Ana Hernandez’s district) or House District 145 (Carol Alvarado’s district).

Additionally, voters were given a voting propensity score based on whether or not they had voted in the midterm elections and/or the municipal bond election

The election in question was an extremely low salience election in a predominantly democratic, majority minority district. The race consisted of four female candidates of color, with three Democrats (State Rep. Ana Hernandez of House District 143, Former State Rep. and current State Sen. Carol Alvarado, and Mia Mundy), and one Republican (Martha Elena Fierro). See Table 1 for a full break down of the election outcomes.

**Table 1: Results of 2018 Texas SD 6 Special Election**

<b>Candidate</b>	<b>Party</b>	<b>Vote Percent</b>	<b>Votes</b>
Carol Alvarado	Democrat	50.40%	7,629
Ana Hernandez	Democrat	24.30%	3,690
Martha Elena Fierro	Republican	23.20%	3,505
Mia Mundy	Democrat	2.10%	322
<b>15,339 Total Votes Cast with 4.69% Turnout Rate</b>			

In addition to voter histories, the data contains information on whether they were contacted by the Ana Hernandez campaign’s paid phone-bankers. This data does not include contact made other ways, including through mailers or the texting service Hustle. Data contains date of contact, whether the call was completed, and the voter’s response to the question. Callers also provided voters with information about when and where to cast their ballots.

The Hernandez campaign made approximately 20,919 calls between November 26, 2018 through December 10, 2018, and attempted to reach 14,763 individual voters, successfully

contacting a total of 9,067 voters. Contacted voters received anywhere between one to three calls from the campaign. Calls conducted during early voting consisted only of an identification of support for the candidate, whereas calls for election day consisted of both support identification and GOTV message. During early voting, 8,332 voters were successfully contacted.

Several key characteristics of this race and district must be accounted for in the analysis of this data. The district in question is majority minority; 70% of the voting age population is Hispanic. Only 9.7% of the over 25 population has a Bachelor's degree or higher and 26.5% of the population is in poverty (Social Explorer). The election had four contenders, three Democrats and a Republican, all women, three of whom are Hispanic. As a low salience special election, turnout in this election was extremely low, at 4.69% with 15,339 ballots cast. 3,851 of the ballots cast (around 25%) were cast at early in person polling locations, 6,649 (almost 44%) were mail-in ballots, and 4,646 (31%) were cast on election day (Harris Votes 2018).

### Data Limitations

There are a number of significant limitations to the data utilized that are important to note prior to analysis. First, the contact data utilized in this analysis only accounts for one of four campaigns that were being conducted in this election. While we can account for which individuals were contacted by the Hernandez campaign's paid phone-bankers, it is impossible to know who among the eligible voting population was contacted by another campaign. Additionally, the efforts of the Hernandez campaign pale in comparison to her opponent (and the election's winner), Carol Alvarado. Over the course of the campaign, Alvarado raised \$647,916.69, whereas Hernandez raised a mere \$258,661.55 (VoteSmart).

Furthermore, the data in this analysis only consists of calls made by paid phone-bankers, which only represent one component of the Hernandez campaign's GOTV strategy. Voters were also contacted by the Hernandez campaign through blockwalking, mailers, and text message. As it is illegal to call cell phones on a predictive dialer, only landlines were called by the paid phone-bank.

Finally, 12,245 (3.67% of observed voters) voters do not have their sex listed in the dataset, 204 of whom received completed early contact from the campaign (1.38% of the campaign's universe). As this race had all female candidates, there is reason to believe that gender may have contributed to an individual's decision to turnout. Since those with a missing gender made up a relatively small percentage of my analyzed dataset, I chose to not use a gender identifier and instead excluded any observations that were missing gender from my analysis.

### Hypothesis

*Voters contacted by the campaign during early voting will be more likely to turn out to vote than those who were not contacted*

My primary hypothesis is that voters contacted by the campaign during early voting will be more likely to turn out to vote than those who were not contacted. As campaigns are a key provider of information about early voting, I this hypothesis will be testing to see if this campaign effectively conveyed to voters information about when and where to vote early, thereby informing voters not only about the election, but also EIP voting opportunities. In testing this hypothesis it will be important to consider the selection process of campaigns in determining

who they are going to contact, as it will be crucial for determining an appropriate means of testing the effectiveness of early campaign contact upon early voting.

## Methods

To conduct this analysis, I first utilize a variety of descriptive statistics to paint a fuller picture of the types of voters who were engaged (or unengaged) with this election. This descriptive analysis enables a clearer understanding of who voted in the SD6 election, what elections these voters previously voted in, and differences across the three elections in the dataset.

To test the effectiveness of early campaign contact on turning out to vote, I then employed logit analysis. While this analysis gives preliminary results indicating that early contact is effective, there is a crucial methodological flaw in only employing logit analysis on the data that I am using. The “treatment” (which is receiving a call from the campaign during early voting) being tested in my sample is *not* randomly assigned, as campaigns are selective about who they contact. Campaigns first identify likely supporters, as well as likely voters. After the selective universe is established, the campaign will *only* contact voters that they have determined to be likely supporters and likely voters. As a result, logit analysis is likely to be a biased analysis in that it does not account for selection bias among those who were targeted by the campaign.

In order to perform a more robust analysis that accounts for such selection bias, I utilized propensity score matching analysis using the psmatch2 suite in STATA. This analysis approximates random assignment of the treatment (being called during early voting by the



campaign) by pairing individuals who received contact with individuals who did not receive contact based on observable traits that may have influenced the propensity for one to be contacted in the first place. My analysis matched voters based on gender, birth year, whether they voted in each of the 2018 elections, and if they were in Ana Hernandez or Carol Alvarado's house district (HD 143 and HD145, respectively). By matching voters on traits that may have determined whether they were targeted by the campaign, I can then compare those received contact with those who did not and measure the effect of contact upon turnout.

As was described in the theory section, it is in the interest of campaigns to target voters who are already likely to turn out. As a result, a simple logit analysis would overvalue the effectiveness of contact, because campaigns target individuals who are predisposed to turn out. By using propensity score matching, I am able to isolate the impact of the campaign contact and measure the effectiveness of the treatment. The model outputs variable coefficients, the average treatment effect for those treated (ATT), and the difference in mean outcomes between the treated and untreated (ATE).

### Descriptive analysis

To begin my analysis, I first used a number of descriptive measures in order to paint a fuller picture of the voters observed in this dataset. Table 31 outlines the voter turnout within the observed dataset for each election included in the dataset, allowing me to examine the turnout rates within this district for various types of elections. With the exception of the 2018 midterm, all elections conducted in 2018 had very low turnout in this district. This indicates that voters who voted in two or more elections in 2018 are more engaged than the average voter (in my

dataset, such voters are coded as a 1 under the variable “Frequent Voter”; under this metric, 22,134 or around 6.64% of the dataset is a frequent voter). Additionally, Table 2 tabulates voters according to if the campaign attempted to contact them and/or if they actually voted in the SD6 election. This table shows that only 1,846 of the voters with whom the campaign attempted to contact turned out to vote. Preliminarily, this indicates that contact may have been poorly targeted, as very few of those who were selected to be contacted turned out to vote.

**Table 1: 2018 Elections Observed in Dataset**

Election	Number of Observed Voters	% of Observed Voters
2018 Primary	29,641	8.89%
2018 Primary Runoff	8,106	2.43%
2018 Municipal Bond	11,650	3.50%
2018 Midterm	166,962	50.09%
SD6 Special Election	15,299	4.59%

**Table 2: Tabulation of Voters by Contact and Turnout in SD6 Election**

Contact Attempted	Voted in SD6 Election		Total
	0	1	
0	305,082	13,453	318,535
1	12,917	1,846	14,763
Total	317,999	15,299	333,298

I then ran a regression analysis to determine what types of voters were turning out specifically in each of the observed elections. The full results of this regression analysis can be found in Table 3. This analysis finds that gender, birth year, vote propensity, and being a super

democrat to be strongly correlated with turnout across elections. Notably, gender is not significant in predicting turnout in the SD6 election.

**Table 3: Regression Analysis on Turnout in All 2018 Elections**

	(1)	(2)	(3)	(4)	(5)
VARIABLES	SD6	Midterm	Bond	Runoff	Primary
Gender	0.000175 (0.000653)	-0.00298*** (0.00108)	0.00120** (0.000528)	0.000438** (0.000170)	0.00778*** (0.000708)
Birth Year	-0.00176*** (1.79e-05)	0.00281*** (2.97e-05)	-0.000926*** (1.45e-05)	-8.18e-05*** (4.67e-06)	-0.000638*** (1.94e-05)
HD143	0.00762*** (0.000929)	4.53e-05 (0.00154)	-0.00308*** (0.000751)	-0.000107 (0.000242)	0.00934*** (0.00101)
HD145	0.0188***	-0.0166***	0.00234***	0.000309	0.0149***

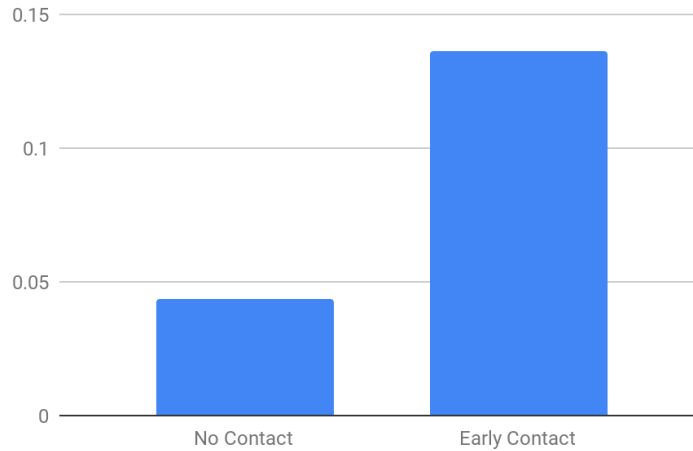
	(0.000879)	(0.00146)	(0.000711)	(0.000229)	(0.000954)
Vote Propensity	0.0774***	0.628***	0.113***	0.00709***	0.126***
	(0.000517)	(0.000856)	(0.000418)	(0.000135)	(0.000561)
Superdem	0.421***	-1.547***	0.338***	0.978***	0.611***
	(0.00294)	(0.00486)	(0.00238)	(0.000766)	(0.00319)
Constant	3.465***	-5.431***	1.783***	0.159***	1.224***
	(0.0354)	(0.0586)	(0.0286)	(0.00922)	(0.0384)
Observations	321,053	321,053	321,053	321,053	321,053
R-squared	0.239	0.627	0.356	0.870	0.342

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Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Finally, I performed a two sample t-test to test the difference in means of turning out to vote in the SD6 election between those who were contacted by the campaign and those who were not contacted by the campaign. The difference in means are visually represented in Graph 1. The two sample t-test found that the difference in means of turnout between those who were contacted and uncontacted is statistically significant.

**Graph 1: Difference in Means of Voting in SD6 between Uncontacted and Contacted Voters**



### Findings

To test the effectiveness of early campaign contact upon turning out to vote, I first use a logit analysis, controlling for gender, birth year, voting in each of the elections included in the dataset, if they are a super democrat (defined by having voted *both* in the 2018 Democratic Primary and the 2018 Democratic Primary Runoff), if they are in HD143 or HD145. As can be seen in Table 4, logit analysis finds that completed early contact significantly impacts the probability of an individual turning out in the SD6 election. Other significant variables include birth year, having voted in the 2018 Bond election, 2018 Democratic Primary, or 2018 Primary Runoff, and being a superdem. The negative direction of the birth year variable is to be expected as the higher the birth year, the younger the variable, and younger voters have a lower propensity to vote (Nagler and Leighley 2013). The positive impact on turnout of having voted in the 2018 Bond election, 2018 Democratic Primary, or 2018 Primary Runoff as voters in such elections tend to be strong partisans and/or voters who turnout in low turnout elections. Notably, being a superdem negatively impacts a voter's likelihood of turning out to vote in the SD6 election. One possible explanation for this is election fatigue (Rallings et al 2003).

**Table 4: Results from Logit Analysis on Early Contact and Turnout in SD6 Election**

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	(1)
VARIABLES	sd6voted
Early Contact Completed	0.215*** (0.0446)
Gender	-0.0208 (0.0211)
Birth year	-0.0413*** (0.000575)
Voted in Bond Election	1.858*** (0.0287)
Voted in 2018 Midterm	-0.000978 (0.0211)
Voted in 2018 Democratic Primary	2.041*** (0.0238)
Voted in 2018 Democratic Primary Runoff	1.351*** (0.0500)

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Superdem	-0.113*
	(0.0599)
HD145	0.591***
	(0.0260)
HD143	0.288***
	(0.0293)
Constant	76.90***
	(1.125)
Observations	321,053

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Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

As was discussed in the methods section, both the difference of means testing and logit analysis are subject to the selection bias of campaign targeting. In order to perform a more robust analysis on the effectiveness of early campaign contact, I used propensity score matching analysis. Using propensity score matching, I tested for the effectiveness of the “treatment” (a completed early contact from the campaign), upon turning out in the SD6 election, matching on the variables of gender, birth year, HD143, HD145, super democrat, and voting in each of the previous 2018 elections, which are all characteristics that may have influenced whether a voter was targeted by the campaign.

**Table 5: Results of Propensity Score Matching on Early Campaign Contact**

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
sd6voted	Unmatched	.137426181	.044509068	.092917113	.002368783	39.23
	ATT	.137426181	.134719488	.002706693	.015987449	0.17
	ATU	.044509068	.066233123	.021724055	.	.
	ATE			.021242599	.	.

The results of this analysis are listed in Table 5. This analysis found that early campaign contact was wholly ineffectual in turning out voters in the SD6 election. The propensity score matching analysis finds the difference in average treatment effect upon turnout between those who were treated and untreated to be merely .021242599 (highlighted in yellow), meaning that the effect of being contacted by the campaign upon turning out to vote was negligible. This indicates that while voters who were contacted may have turned out to vote, the campaign contact on its own was not enough to be a tipping point mechanism to push an individual to turn out early.

### Discussion

Contrary to my hypothesis, I find that early campaign contact was ineffective in turning out voters. Considering the limited nature of the Hernandez campaign's budget capabilities (noted in the Data Limitations section), these results are not surprising. Additionally, conversations with Robert Jara, the primary consultant on the campaign provided a clearer picture of what the limitations of only analyzing paid phone-banking data are. Being that the



phone-bank utilized a predictive dialer (and it is illegal to call cell phones using one), only landlines were contacted via this method. Cell phones were targeted in other ways, such as through the text messaging system Hustle. As a result, a significant portion of the campaign's GOTV contact universe - young, Democratic, Latinos, (who primarily only have cell phones) were left out of the paid phone-bank contacts.

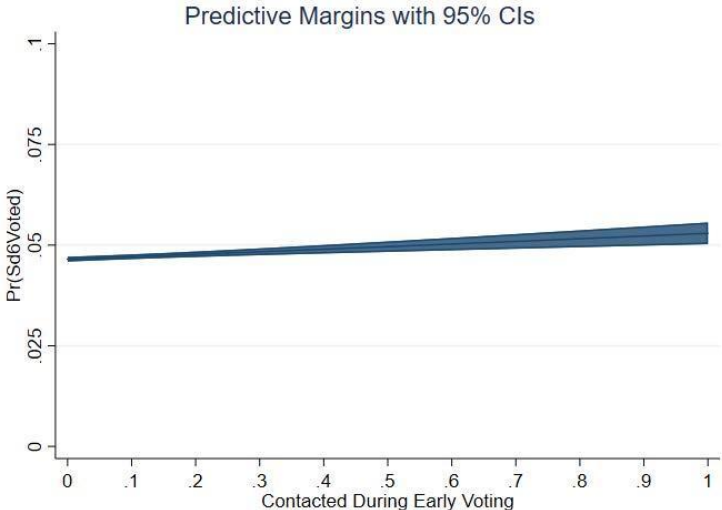
Furthermore, Jara noted that paid phone-banks are generally not utilized for the purposes of persuading voters to turnout. Rather, they provide a useful way of imparting information: reminding voters (who are already predisposed to turn out) when the election is occurring (which is of particular importance in the context of a special election) and where to vote (which often is also at a different polling location during a special election than general elections). As a result, it is unsurprising that contact was not the primary turnout mechanism at work among those who were contacted by the campaign.

However, even if considering that paid phone-banking was primarily utilized as a means of providing information to likely voters, returning to Table 2 shows us that among the 14,763 voters who the campaign considered to be likely voters, only 1,846 actually turned out to vote. This raises serious questions about the efficacy of the targeting that was employed by the campaign. Furthermore, knowing that voting is a habit, if early contact is not the primary motivator in turning voters out to vote, are those who do actually turn out to vote already self motivated from their own vote habit?

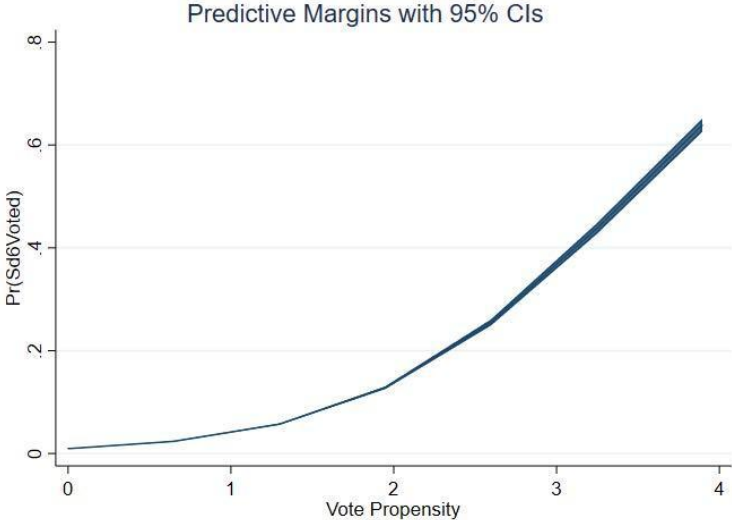
In order to answer this question, I did further analysis on the effect of vote habit upon turnout in the SD6 election. Graph 2 and 3 show the predictive measures of turning out to vote in the SD6 election based on having been contacted by the campaign and based on vote propensity score (a score between 0-4 which is determined by the sum of 2018 elections that the individual

voted in prior to the SD6 election). Comparison between these two graphs show that while being contacted early by the campaign makes almost no difference in the probability of an individual turning out to vote, vote propensity is an extremely strong predictor of the likelihood of an individual turning out to vote.

**Graph 2: Predictive Margin of Voting in SD6 Election Based on Early Completed Contact**



**Graph 3: Predictive Margin of Voting in SD6 Election Based on Vote Propensity Score**



In order to fully test the effect of vote habit upon turning out to vote in the SD6 election, I created a dummy variable called Frequent Voter, defined by voters who had voted in two or more 2018 elections prior to the SD6 election. Using this dichotomous variable, I was able to once more use propensity score matching, however this time, with “Frequent Voter” as the treatment. Voters were matched on characteristics of completed early campaign contact, gender, birth year, HD143, HD 145, and voting in each of the previous 2018 elections.

As is outlined in Table 6, this analysis that there is a difference in the average treated effect of being a frequent voter on turnout, with a difference of .227594821. This finding demonstrates that even when controlling for being contacted by the campaign, those who were frequent voters were the most likely to turn out in this election. Furthermore, the elections with the greatest z score are that of the municipal bond election and Democratic primary voters. This further confirms that those who voted in the SD6 election were strong partisans and high propensity voters, and were self motivated rather than being pushed to vote by early campaign contact.

**Table 6: Results of Propensity Score Matching on Frequent Voters**

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
sd6voted	Unmatched	.40974961	.020417916	.389331695	.001313563	296.39
	ATT	.40974961	.781482161	-.371732551	.262561395	-1.42
	ATU	.020417916	.291685464	.271267548	.	.
	ATE			.227594821	.	.

Conclusion

The findings of my research have important implications for campaign contact strategy and its impact upon voter turnout at large. It is by no means the responsibility of campaigns to increase voter turnout. Campaigns are run to win elections, not increase civic engagement. However, this analysis shows that while contacting high propensity voters may be a cheap and time-proven strategy of guaranteeing that a certain amount of votes are cast, the actual effect of the contact is so small that high propensity voters may not be the most cost effective voters to contact. If high propensity voters are already self motivated to vote, campaigns that focus their time and resources on contacting such voters are in fact wasting money contacting voters who likely did not even need a reminder to go vote.

According to this analysis, that money would be more effectively spent if targeted at middle propensity voters who may not have been aware an election was happening (especially in a state level special election), but would have turned out had they been reminded that an election was occurring. While again, it is not the responsibility of campaigns to increase voter turnout, this analysis provides campaigns with reason to consider creating new targeting models of voter contact that focus more on middle propensity voters, rather than solely on high propensity voters. Future research on this topic has the potential to provide more robust analysis of these dynamics through a more comprehensive dataset. Such data would include all campaign contact activities of all campaigns that are operating in a given race being analyzed.

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