

Identifying State Competitiveness with Pre-Existing State Conditions for the U.S. Presidential Elections

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Identifying pre-existing components that influence the level of competitiveness in an individual state is a critical step in designing a campaign strategy. While most states are locked up by one party over time, recent presidential elections show inconsistency of state competitiveness. This study focused on non-campaign elements to determine a predisposition of being the competitive states in a presidential election. Using data from the prior seven presidential elections from 1992 to 2016, the regression results suggest that a state legislature's partisan composition, a primary election schedule, state economy, and the previous election outcomes significantly influence the changes in the vote margin between two major candidates from one election to the next. As an extension to the findings, this study proposes the difference between actual and predicted values to be used as an alternative measure of campaign effects.

Key Words: Presidential Elections, State Competitiveness, Non-Campaign Factors, Polarization, Frontloading, State Economy, Forecasting

Introduction

Red and blue coloring on the U.S. map on Election Day reflects the emphasis on individual states to project the winner of the long-term battle. From the campaign perspective, a state-by-state calculation of the chance of winning is critical in order to rationally allocate limited resources in the hunt to achieve more than 270 electoral votes (Shaw 2006; Edward 2004; Shaw 1996; Bartels 1985; Brams and Davis 1974). Thus, limited resources leave long-term Democratic and Republican stronghold states ignored by candidates, while competitive states receive significant attention as a stepping-stone for winning (Gimpel, Kaufmann, and Pearson-Merkowitz. 2007). Voters in states that are classified as quite secure may rarely see a presidential campaign advertisement on local television networks and may never hear about presidential candidates visiting nearby (McClurg and Holbrook 2009).

While identifying states to target is the very first step in designing game rules, it doesn't mean that campaigns always target the same states election-by-election. For example, in 1976, Jimmy Carter had a twenty-six-state strategy to run intensive mobilization campaigns. In 2008, Barack Obama aggressively targeted all 50 states, calling "a 50-state strategy" by expanding the electoral map to traditionally Republican safe states based on strong grassroots organizations and fundraising. Even though recent presidential election campaigns tend to be nationalized (Hopkins 2018; Wekkin and Howard 2016), advance knowledge of state-level electoral factors is still predominant in campaigning. We have observed how Georgia turned blue in the 2020 presidential election and how Democrats have gradually expanded in Texas. Thus, traditionally being carried by one of the parties doesn't mean states always vote the same. Some states may keep their safe or battleground status over time, while some may move across classifications rapidly or gradually.

However, there is a lack examination of states' electoral behavior as "laboratories of democracies" in this era of nationalization. National party organizations have become much stronger with regard to financial security and adaption of candidate-centered campaign politics. As a result, institutionalized national committees have strengthened, modernized, and professionalized weakened state and local party organizations. Even these local entities vocalize over national issues with state-specific issues in elections (Herrnson 2010; Wekkin and Howard 2016). However, this top-down nationalization in the American election system is not the only flaw in projecting the national election results. The Electoral College system is considered a bridge between federal and national democracies. The president in the United States is elected by a system that mixes the popular vote with an indirect vote via individual states (Diamond 1992). The Electoral system requires modern campaigns to include individual states with different outlooks on the natural environment, the economy, and policies in designing the winning map. Fifty states in the United States individually behave as having their own electorate.

Typically, candidates assume that there are solidified base states that have historically voted for one party over time even before general election campaigns begin. However, the status of being a base state is not permanent. In 2016, the Republican presidential candidate, Donald Trump, won in Michigan, a state that had traditionally voted for Democrats, with a very

narrow vote margin of .22 percent. How did the Republican candidate, Trump, classify Michigan as a target state to allocate campaign resources even though it is traditionally locked-up by Democrats? More broadly, how do campaigns determine which states will become competitive so that campaigns focus on them throughout the election?

State electoral behaviors can be explained by pre-existing measures of competitiveness, but not many studies have empirically examined how states' characteristics project the electoral competitiveness in presidential elections (Brace and Jewett 1995; Jewell 1982). Instead, studies have focused on how campaigns affect the competitiveness in states or effects of competitiveness in electoral behavior. In recent years, presidential elections have been getting more competitive than before, and states behave somewhat differently from one election to the next. Non-competitive states may be competitive for other races at the presidential level, while competitive states may end up as non-competitive states. Indiana and North Carolina, for example, switched sides between the 2008 and 2012 presidential elections. No presidential candidate has won the White House without carrying Ohio since 1964, as described as "as Ohio goes, so goes the nation." In 2020, Ohio voted for the Republican candidate, Donald Trump, but the Democratic presidential candidate, Joe Biden, won the White House. Despite the different patterns of the state's competitiveness in the electoral field, there has been little discussion explaining why some states are more competitive than others and what elements campaign strategists consider to determine in which states they should maximize their resources. State-level pre-existing components, therefore, should be reemphasized to project the electoral margin in the presidential election.

For that purpose, this study focuses on non-campaign elements to explore the level of competitiveness in individual states. I expect that the state-level components are decisive for the level of competitiveness in a pre-election period. To analyze these factors, I employed data from the prior seven presidential elections from 1992 to 2016, and findings suggest that a state legislature's partisan composition, a primary election schedule, state economy, and the previous election result are significant deterministic factors to predict the state's level of competitiveness between two major candidates in the presidential elections.

State Competitiveness and Campaigns

Concentrating candidate resources on particular geographic areas creates different electoral environments between battleground and non-battleground states. This disproportionate attention in states affects voters' political behavior (Lipsitz 2009; Gimpel et al. 2007; Wolak 2006; Hill and McKee 2005). For example, residents of battleground states are exposed to campaign contents such as campaign advertisements, yard signs, billboards, and bumper stickers and are contacted by party organizations more often (Garber and Green 2000). Moreover, candidates are more likely to visit battleground states than non-battleground states. In 2016, Trump made the most visits to crucial battleground states such as Florida, Pennsylvania, Ohio, North Carolina, Michigan, and Wisconsin. However, the consequences of presidential campaigns for turnout remain debatable. Wolak (2006) argued that the partisan environment of a state is more influential on the intention to vote in battleground states. She concluded that a state's competitiveness does not significantly influence campaign activity. In contrast, a handful of studies claim that the distinct campaign environment of a battleground state yields a surge in participation and political knowledge (Gimpel, Kaufmann, and Pearson-Merkowitz. 2007; Wattenberg and Brians 1999; Wichowsky 2012).

It is unclear how a state is identified as a battleground state or a non-battleground state prior to the general election. Shaw (1999) interviewed campaign strategists to analyze how the candidates saw the electoral battlefield before the general election. But the mechanism to define targeting states tends to be inconsistent and blurred. For example, state polls or CNN rankings before the start of the general election have been used to measure state competitiveness (Holbrook and McClurg 2005; Huber and Arceneaux 2007), but these measures are not available for all 50 states or earlier elections. Moreover, they fluctuate quite easily, especially when a party nominee lacks a national reputation.

The terms battleground states and competitive states are used interchangeably. State competitiveness can be explicitly assessed by state polls or vote margins. This state competitiveness can be used as a significant indicator of campaign activities and the likelihood of political engagements. Shaw (2006) developed a weighted algorithm to identify a state's status for the Bush campaign in 2000 by using six factors: past statewide voting

history, polling number, organizational development and endorsements, a state race campaign, issues, and native-son effects. These quantified factors are used to label each state as either a battleground or base state. Shaw (2006) also ranked states by the expected level of competitiveness. In 2000, 24 states were identified as battleground states. However, his insightful observations of the process of building campaign strategies concluded that many campaigns lack an identifiable, systematic process to determine which states ought to be targeted. Even though his algorithm worked well in the 2000 election, the reliability of this algorithm has not been empirically tested for other presidential elections.

Election studies prefer to use the term competitiveness, but little empirical analysis has been provided as to why states are competitive or not if we consider each individual state as an independent unit. Mayer (2008) suggested that demographics, such as a population of the millennial generation or Catholics, are the key to understanding whether a state may become a swing state. Wekkin and Howard (2016) addressed the intra-state electorate cluster between urban and rural areas, such as the difference between downtown Houston being “blue” and outlying communities being “red.” There may be a correlation between demographics and voting, which needs to be understood to define swing states. However, Erikson, Weight, and McIver (1993) point out that state socioeconomic variables do not drive the ideology to explain why some states are liberal while others are conservative. Furthermore, the distinctiveness of battlegrounds is a product of the partisan divisions between Democrats and Republicans (Wolak 2006). These studies suggest that more systematic and empirical research is needed to understand the elements that affect the conditional level of competitiveness prior to the general election.

Measurements

This study includes measures of state components to explain why some states are more competitive than others. The OLS regression estimates of the level of competitiveness incorporate the prior presidential elections from 1992 to 2016 in 50 states by treating each state in a particular election year as an independent measurement unit. The measures of competitiveness in presidential elections are various. For example, Shaw (1999) measured it as the margin of victory in the state in previous elections, while Bergan et al. (2005) used CNN rankings, and Benoit et al. (2004) employed the number of

ads aired in the state. However, none of them has a clear advantage over others. The previous margin of victory fails to capture dynamics in the current election year. CNN rankings and campaign advertisements include campaign effects and are measured during or after the election and with a limitation of data accessibility for earlier elections. In this study, the level of competitiveness is measured as the absolute value of margin in the two-party vote share. Although this measure includes campaign effects since the margin of victory is calculated after the election, the state vote margins allow the model to measure the differences between the predicted values and actual outcomes, or the so-called campaign effects. In other words, this study will extend assessing the model by comparing the actual and predicted two-party vote margins of each state.

To make the pre-existing measures independent from campaign effects, lagged state characteristics are employed to explore effects on the level of competitiveness. In the model, these lagged measures reflect the candidates' attention to a state that has made it competitive. At first, the state's partisan divisions reflect the ideological polarization of the state that is not accurately captured through the national vote results. For example, in at least four elections, Georgia voted for all four Republican candidates, but the level of competitiveness increased over time. The margin of the two-party vote in the state was 12 percent, 17 percent, 5 percent, 8 percent, and 5 percent in 2000, 2004, 2008, 2012, and 2016, respectively. The fluctuation within Georgia may be explained by the partisan shift as a form of realignment in electorates. In 2000, the lower chamber of the Georgia legislature was controlled by Democrats holding 102 seats while Republicans held 78 seats. However, the majority party of the lower chamber has shifted to the Republicans, capturing 113 seats in 2012 and 120 in 2016. The two-party competition in the state legislative house has changed, especially in southern states. In 1960 the Democrats won 94 percent of all races in the South, but by 2002 their success had fallen to 53 percent. In 2002 the Republicans claimed majority control in 10 southern states (Gray and Hanson 2004). Furthermore, the percentage of seats won by the two parties in non-southern states has also fluctuated. In other words, in states where parties are competitive, the election outcomes are affected by the partisan makeup of the district (Wekkin and Howard 2016; Holbrook and La Raja 2017). In this analysis, this ideological or partisan tendency in the state legislature was measured as the proportion of partisan division in the lower

chamber.¹ For example, Hawaii, Idaho, and Utah are one-party dominant states, while Indiana and Iowa have experienced a chamber much polarized by two parties. These party compositions are correlated to the percentages of vote margins.

Second, to find the linkage between the general election competitiveness and nomination elections, I have focused on “frontloading” to describe states moving their primary to the front end of the calendar. Since 2008, four states – Iowa, New Hampshire, South Carolina, and Nevada – have been allowed to hold their primaries and caucuses earlier than the first Tuesday of February. Fifteen states chose to move their events to the front end of the nominating calendar on Super Tuesday in 2008, and 22 states lined up on Super Duper Tuesday, allocating more than half of the delegates. By scheduling primaries and caucuses early, states expect to receive a high volume of media attention and to increase voter turnout (Mayer and Busch 2004) and political engagements. Besides these advantages of states hosting early primaries, candidates also concentrate their campaigns in those states to mobilize voters in the nomination elections. Candidates who won in either Iowa or New Hampshire immediately jumped into the Super Tuesday contest, which featured many delegates needed to secure the nomination (Mutz 1997; Norrander 2000). More than one-third of the total delegates are allocated to the Super Tuesday states. To carry more delegates in the early states, candidates allocate much of their campaign resources to persuade voters. Media Markets in Iowa, New Hampshire, and South Carolina, for example, were flooded with advertising, but other states such as Alaska, Idaho, and Nebraska saw no advertising. For example, about 6,600 advertisements were broadcast in Iowa by Democratic candidates in 2004, while only one ad aired in Pennsylvania (Ridout and Rottinghaus 2008). Exposure to the higher intensity of campaigning increases political engagement and interest (Gimpel, Kaufmann, and Pearson-Merkowitz. 2007) and consequently influences the nature of the political competition. Therefore, I hypothesize that an earlier primary or caucus schedule increases

¹ All states except Nebraska have a bicameral legislature. To measure partisan composition, I only calculated the percentage differences between Democrats and Republicans in the lower chamber as a reflection of the voter partisan composition at the state level. However, as the Nebraska state legislature is unicameral, the one-house body has been used to measure the partisan composition.

competitiveness in states. Operationally, I coded the frontloading states as 1 if they have their primaries or caucuses before or on Super Tuesday, and 0 otherwise.

Third, the Electoral College makes the presidential selection process a state-by-state adventure (Powell 2004). Presidential campaign visits or events are confined to only a handful of states to maximize the limited resources, and campaign resource allocations tend to be assigned to larger states. Presidential campaigns are practically interested in choosing battlegrounds in states with a large number of electoral votes (McLean 2015), such as Florida, with 29 electoral votes or Ohio with 18 votes. However, this does not mean that the more Electoral College votes a state has, the more competitive the campaign is. For example, California, which has the greatest number of Electoral College votes, is a lock-up base for the Democrats. The reason candidates visited California often, even though this state historically voted for Democrats, is mainly fundraising. Larger-state versus small-state status does not drive campaign strategies, but it cannot be ignored in determining target states. Even some smaller and medium-sized states could play a decisive role (Wright 2008). Florida and Iowa tend to be competitive, but rational candidates will visit Florida more often than Iowa because of a different size of electoral votes or the impact of outcomes. Therefore, I include the size of electoral votes to control the bias of the Electoral College. I expect that states with more Electoral College votes will have more competitive elections.

How a state will vote in the next election is related to how it voted in the past. In other words, voting preference and turnout are strongly related to partisan attachments as a consistent cue of voting behavior (Campbell et al. 1966). For example, Florida was competitive from 1992 through 2012, while Oklahoma has always been a one-party dominant state because of consistent partisan alignments with the Republican Party. If a state has consistently been competitive, I expect that the state will behave in a relatively similar way in the next election because the short-term voting behavior at the state level is less likely to change the results dramatically election by election. For example, to design the Electoral College strategy of the Bush campaign in 2000, Shaw (2006) began by assuming that states carried by Robert Dole in the 1996 presidential election were base states. These base states tend to behave similarly from election to election because strong partisans are more likely to vote in the general election on a straight

party line. Thus, deviations in past state voting records may be informative of the partisan electoral dispositions of the state. For this reason, the margin of the two-party vote in the previous presidential election was included in the model.

Last, competitive elections generally lead to higher voter turnout. In 2012, the four states with vote margins of less than 5 percent averaged a voter turnout of 64.6 percent, while the four least competitive states averaged 54.8 percent. A state's competitiveness affects political motivation by increasing the value of one vote, which reduces the chance of wasted votes. Campaigns in competitive states actively reach out to voters and mobilize them to turn out (Lipsitz 2009). Campaigns and parties in battlegrounds are generally more effective in targeting likely voters to get-out-the-vote (GOTV) on Election Day (Panagopoulos and Wielhouwer 2008). Therefore, including the turnout rate from the previous election year in the model predicts the underlying cumulated campaign GOTV efforts that have been stimulated at the state level before the immediate general election.

In addition, demographic characteristics – the percentage of the nonwhite population and the state unemployment rate – were added to the model. States with a large population of nonwhites increase a chance of holding competitive pre-election status because of the heterogeneity of states. Mobilization and turnout among nonwhite electorates are noticeable features when the elections are decided by a small margin like most recent elections. Thus, demographic diversity measured as the percentage of the nonwhite population will contribute to creating the perceived competitive race in states. In recent years, both Republican and Democratic parties have been aware of not only the African American but also the Latino influence in the general election and continue to highlight these demographic voting blocs (Barreto, Collingwood, and Manzano 2010, Wekkin and Howard 2016).

A state's economic condition is one of the typical variables for forecasting presidential elections. Klarnert (2012) measured it by the percent change in real disposable income from the third quarter of the year prior to the election to the first quarter. Berry and Bickers (2012) added both change in real per capita income and unemployment figures to predict election results. State economic status influences retrospective evaluations of the incumbent party's governance of the economy (Fiorina 1981). State economic indicators affect U.S. elections; in particular, there is a Democratic advantage

when an unemployment rate is high (Wright 2012). However, the relationship between state unemployment and competitiveness has not been fully explored for U.S. elections. For that purpose, I measured a state's economic status as an average unemployment rate of the election year. A higher rate of unemployment will increase competitiveness in the state.

The state vote may be influenced by a short-term force such as "favorite son" advantages of presidential and vice-presidential candidates. Indeed, candidates receive significant extra points of the vote in their home states (Lewis-Beck and Rice 1983; Rosenstone 1983; Garand 1988; Powell 2004), while the advantage of vice-presidential candidates is slightly smaller. Therefore, this home state effect was measure by a binary variable and added to the model. However, this advantage differs according to the size, diversity, and population of the state, and candidates' performances in native states. Al Gore, a Democratic candidate in 2000, could have won the election if he had successfully locked up his home state, Tennessee.

Determinants of State Electoral Competitiveness

If a state's condition as swing or solid state did not vary election by election, identifying target states would be straightforward. However, the recent changes in competitive conditions show visible dynamics occurring within the state. Mayhew (1974) recognized the declining competitiveness of many races across the country, at least when it comes to congressional races. In the presidential campaigns, the polarization of American politics and the changes in the political composition of the two major parties has led to the recognition of changes in the status of competitiveness. For example, the solid Democratic South has transformed into the Republican South (Lublin 2004). Most recent elections are highly competitive² and experience a decline in the real number of competitive states. In 2008, the Obama campaign identified Virginia – traditionally a Republican state – as a swing state and heavily campaigned in the state. Their efforts turned out to be worthwhile.

Although the concept of battleground or swing states is widely used, there is no clear sense of how to define this concept. Gimple et al. (2007) defined battleground states as the states where considerable campaigning

² The average margin for two-party candidates in the 21st century is 3.24, while the average margin in the 1980s and 90s was 9.94.

takes place. Primary battleground states do vary somewhat from year to year, depending on what the parties decide. They identified only seven states that fell into the battleground category for both parties in 2004 and 13 in 2000. Generally, competitive states are those where the Democratic and Republican popular vote totals fall within five percentage points (James and Lawson 1999). On average, Florida, Nevada, New Hampshire, and Ohio have been categorized as highly competitive states since 1992. In 2016, 11 states were defined as highly competitive. In 2012, Florida, North Carolina, Ohio, and Virginia were classified as competitive. In 2008, it was seven states.

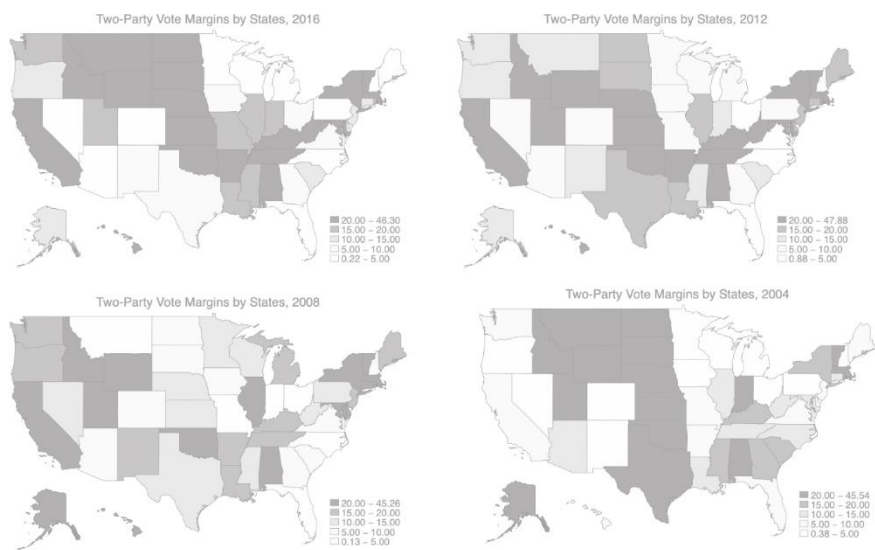
As presented in Table 1, several competitive states – with a margin within 5 percent – have changed. Moreover, some states posit consistently in a competitive category but some shift election to election. For example, the two-party vote margin for Georgia in 2016 was 5 percent, but it was 17 percent in 2004. Figure 1 shows changes in competitiveness using categorical identifications in the four most recent election years. As the maps display, the vote margin of states changes. For example, the competitiveness maps in 2004 and 2008 are recognizably different from each other. Despite controlling a condition of an open-seat race, the 2008 and 2016 state-level competitiveness is significantly distinguishable.

Table 1- Categorical State Competitiveness in Presidential Elections, 1992-2016

Year	Highly Competitive (Margin ≤5%)	Somewhat Competitive (5% <Margin ≤10%)	Less Competitive (10%<Margin≤15%)	Not Competitive ((Margin <15%)
1992	AZ, CO, FL, GA, KY, LA, MT, NE, NV, NH, NJ, NC, OH, SD, TN, TX, VA, WI	AL, AK, CT, DE, IN, IA, KS, ME, MI, MS, OK, OR, PA, SC, WY	CA, HI, ID, IL, MD, MN, MO, ND, WA, WV	AR, MA, NE, NY, RI, UT, VT
1996	AZ, CO, GA, KY, MT, NV, NC, SD, TN, TX, VA	AL, FL, IN, MS, MO, NH, NM, ND, OH, OK, OR, PA, SC	CA, IA, LA, MI, WA, WV, WI, WY	AK, AR, CT, DE, HI, ID, IL, KS, ME, MD, MA, MN, NE, NJ, NY, RI, UT, VT
2000	FL, IA, MN, MO, NV, NH, NM, OH, OR, PA, TN, WI	AZ, AR, CO, LA, ME, MI, VT, VA, WA, WV	AL, CA, DE, GA, IL, NC	AK, CT, HI, ID, IN, KS, KY, MD, MA, MS, MT, NE, NY, NJ, ND, OK, RI, SC, SD, TX, UT, WY

2004	CO, IA, MI, MN, NV, NH, NM, OH, OR, PA, WI	AR, CA, DE, FL, HI, ME, MO, NJ, VA, WA	AZ, CT, IL, LA, MD, NC, TN, WV	AL, AK, GA, ID, IN, KS, KY, MA, MS, MT, NE, NY, ND, OK, RI, SC, SD, TX, UT, VT, WY
2008	FL, IN, MO, MT, NC, OH	AZ, CO, GA, IA, NH, ND, SC, SD, VA	KS, MN, MS, NE, NV, PA, TX, WV, WI	AL, AK, AR, CA, CT, DE, HI, ID, IL, KY, LA, ME, MD, MA, MI, NJ, NM, NY, OK, OR, RI, TN, UT, VT, WA, WY
2012	FL, NC, OH, VA	AZ, CO, GA, IA, MI, MN, MO, NV, NH, PA, WI	AK, IN, MS, MT, NM, OR, SC, WA	AL, AR, CA, CT, DE, HI, ID, IL, KS, KY, LA, ME, MD, MA, NE, NJ, NY, ND, OK, RI, SD, TN, TX, UT, VT, WV, WY
2016	AZ, CO, FL, ME, MI, MN, NV, NH, NC, PA, WI	GA, IA, NM, OH, TX, VA,	AK, CT, DE, NJ, OR, SC	AL, AR, HI, ID, IL, KS, KY, LA, MD, MA, MS, MO, MT, NE, NY, ND, OK, RI, SD, TN, UT, VT, WA, WV, WY
Avrg.	FL, NV, NH, OH	AZ, CO, GA, IA, MI, MN, MO, NM, NC, OR, PA, VA, WI	DE, IN, LA, ME, MS, MT, NJ, SC, TN, TX, WA	AL, AK, AR, CA, CT, HI, ID, IL, KS, KY, MD, MA, NE, NY, ND, OK, RI, SD, UT, VT, WV, WY

Figure 1- Map of Two-Party Vote Margin, 2004-2016



The classification using the 5 percent or 10 percent cut-off point could blur the dynamics of changes in competitiveness. Rather than being treated as an ordinal variable, it is measured as a continuous variable in the competitiveness model. Table 2 presents the OLS regression estimates of state competitiveness in presidential elections from 1992 and 2016 as a full model³. The results show that the state-level factors significantly determine the status of competitiveness in the immediate election. In particular, the state legislature party composition positively associates with the increased probability of intensifying competitiveness in states. Increasing one percent of the partisan gap increases .13 percent of the vote margin, and this value is statistically significant. Substantially, if the party composition in the state legislature leans toward one party, the state will be less competitive. The more divided the state legislature, the more competitive in the presidential elections.

³ This model was also estimated using a random-effects panel regression, and results in terms of the sign and significance of the coefficients were identical. Accordingly, I present the OLS regression model results.

The result also shows that frontloading affects the level of competitiveness significantly. As expected, frontloading states in the nomination election were more competitive than other states with their primaries or caucuses after Super Tuesday. The coefficient on this variable indicates that the frontloading status reduces a vote margin of 1.68 percent, and this estimate is significant. This finding contributes to explaining the linkage between the primary election and the general election. In electoral studies, the divisive primary hypothesis posits that when a party's primary is competitive, the party struggles and likely loses in the general election (Gurian et al 2016). However, the effects of the divisive primary on election outcomes are conditional and debatable. In practice, the connection between primaries and general election outcomes can be assumed rationally, but the empirical evidence is mixed due to the real-time variables during general election campaigns. Despite barriers controlling factors that affect the linkage between the two steps of the presidential election, this study found that primary elections, especially scheduling, conditionally determine the status of competitiveness in states.

The previous vote margin in each state is highly determinative when controlling others. The coefficient on this variable indicates that for each point of vote margin in a state in the prior presidential election, the vote margin in the immediate election will garner .60 points of the two-party vote. This result suggests that previous election outcomes are associated with the next election results. Using the previous election as a basis for identifying competitive states is a rational assumption to make campaign strategies.

The other variable, the state unemployment rate, also influences competitiveness, as I expected. State unemployment significantly affects the status of states being competitive. A one percent increase in state unemployment decreases a vote margin by .49 percent, holding others constant, and the impact of state-level unemployment on the vote is statistically significant. A handful of studies have focused on the effects of the national economy or sociotropic concerns and personal financial situations or pocketbook in voting decisions. Most studies found that sociotropic concerns are more direct and consequential for incumbent support (e.g., Kinder and Kiewiet 1981; Kramer 1983; Markus 1988).

Table 2- OLS Regression Model on State Competitiveness, 1992-2016

State-Level Variables	Pooled Model
State Legislature Party Division	.13*** (.02)
Front Loading	-1.68** (.81)
Prior State Vote Margin	.60*** (.04)
Prior Voter Turnout	.13* (.06)
% of Non-White	.05 (.03)
State Unemployment Rate	-.49** (.25)
# of Electoral College Votes	.004 (.05)
Home State	.96 (2.15)
Constant	-2.19 (4.44)
Observations	350
Number of States	50
R ²	.49
Adj R ²	.48

Note: Standard errors reported in parentheses.

*p<.10, **p<.05, ***p<.01

However, there has been a lack of focus on how state-level unemployment affects electoral competitiveness. The result in the model suggests that state economic condition, as a retrospective perspective, is positively related to the aggregated level of competitiveness in states. If a state unemployment rate is high in the election year, the state is more likely to have a close election than the state with a lower unemployment rate.

The coefficients for other controls are not significant. The regression suggests that the number of Electoral College votes, the percent of nonwhite population, and the home state effect are not statistically significant in this model. These variables do not affect the level of competitiveness in states by disproving the association.

The voter turnout rate in the previous election statistically affects the level of competitiveness, but the direction of the coefficient contradicts the expectation. I assume that increased voter turnout in the previous election year, as a benchmark rate of voter turnout in the immediate election, would make a state more competitive. But the result indicates that lagged higher voter turnout decreases competitiveness. Studies suggest that closeness is associated with increased voter turnout (Blais 2000; Frankli6n 2004), but this does not mean that the previous level of closeness between two candidates carries on to the next election. For example, voters will have different preferences than those during the former election, and this may alter the election in question if they vote (Martinez and Gill 2005). Besides, higher voter turnout might advantage of one party over another, and consequently, it widens a voting gap between two-party candidates. Existing studies suggest that Democratic candidates typically do better when voter turnout is high (DeNardo 1986; Nagel and McNulty 2000; Hansford and Gomez 2010). Therefore, higher voter turnout does not guarantee increasing competitiveness in the states because higher voter turnout can be either narrowing or widening two-party vote shares depending on which groups are more mobilized.

Predicted State Competitiveness

The regression model produces a close fit to the data. One indicator of this is the model's R-squared presented in Table 3. The R-squared of the full model equals 49 percent. The estimator accounts for nearly 50 percent of the variance in the state competitive level over seven elections. Compared with other forecasting models, in terms of "goodness of fit," the equation performs less strong⁴. However, most studies predict election outcomes by

⁴ For example, Berry and Bickers' state-level economic model in 2012 shows the R-squared value of .89, and Campbell's state-level model in 1992 has a value of .85. However, they predicted the election outcome, not the state-level closeness.

accounting for the state-level compositions rather than the level of competitiveness. Therefore, it may be inconclusive to claim that the R-squared value of .49 is weaker in justifying the competitiveness model than other prediction models for state-level election outcomes. Moreover, the competitiveness model is strong to predict more recent election years. Table 3 displays the year-by-year model's R-squared. It illustrates, for example, the R-squared of the 2012 presidential election is .91 and .98 for the 2016 election. This model explains that over 90 percent of variances can be predicted for the closeness of election outcomes at the presidential level (See Appendix A).

The average error for election years between actual election vote margins and predicted margins are presented in Table 3. In terms of the errors, the elections that deviated much from the average are 2000 and 2008. The difference in those elections from the rest is the incumbency that might affect the nature of campaign fields⁵. The conditional retrospective voting theory explains that voters apply partial credits or blame for national conditions more strictly to incumbents seeking reelection than to successor candidates (e.g., Key 1966; Fiorina 1981; Campbell et al. 2010). Open-seat races may produce more intense campaigns than incumbent running elections. The open-seat race for the presidency means that a wide array of candidates in both parties seek the nomination, and consequently, this heavy campaigning widens errors between the expected margins and actual margins. For example, the 2008 presidential election was the election that a sitting or former president or vice president was not on the ballot of one or both parties. This consequently led to huge campaign involvement. Barack Obama raised more than \$750 million for his presidential campaigns, and the amount spent in this race alone was \$2.4 billion, recorded as the most expensive election ever. These campaign activities, such as advertising or GOTV efforts, contribute to generate a significant size of errors in the predicted model of competitiveness. However, at the state level, having much deviation from the average indicates the uncertainty involved in the nature of much larger campaigns in the open-seat presidential elections; thus, pre-existing conditions have less power to predict the status of competitiveness since the vote margin in the immediate election was used to measure electoral closeness.

⁵ The results from both time-series-cross-sectional and pooled regressions show that the dummy variable of incumbent running elections is not statistically significant.

Table 3- Model Justifications and Average Differences Between Actual Margins and Predicted Margins, 1992-2012

Election Year	Model Justification (R ²)	Average Differences (Absolute Value of Average Errors)
1992	.17	3.85 (2.66)
1996	.63	3.92 (3.08)
2000	.32	7.37 (5.31)
2004	.86	3.22 (2.61)
2008	.40	6.25 (4.26)
2012	.91	2.64 (2.03)
2016	.98	.78 (1.42)
Total	.49	5.84 (4.54)

Table 4 lists the average predicted error for individual states ranked according to the error size. The competitiveness model including data from 1992 and 2016 election years predicts the average error for Maryland, Washington, Colorado, Missouri, Pennsylvania, and Iowa, which are ranked on the top. The average errors of those states are less than 4 percent. This demonstrates the general accuracy of the equation using state-level variables in predicting the level of competitiveness, which is measured as the absolute value of the vote margin. However, the largest error between actual margins and predicted values from the regressed model occurs in one-party dominant states such as Utah, Vermont, Hawaii, Wyoming, or Oklahoma. Those states are heavily skewed and locked-up by one party. The effects of state-level variables in those states might be exaggerated or underrated by electoral competitiveness since absolute values of margin were used in the model blurring the directionality.

Figure 2 displays plots of individual state vote margin on a predicted regression line in the most recent two election years. The year-by-year model presented the highly accurate predictions in 2012 and 2016, with R-squared of .91 and .98, respectively. As shown in the figure, most states are aligned near the predicted regression line, as expected. In particular, a group of states located under the line on the left side are definite battleground states – e.g., Florida, Nebraska, Nevada, North Carolina, Ohio, and Virginia. For example, Florida’s predicted vote margin in 2012 was 7.63 percent of two-party votes, and the actual margin was .88 percent. The difference between the two values is 6.75 percent. This difference can be explained as

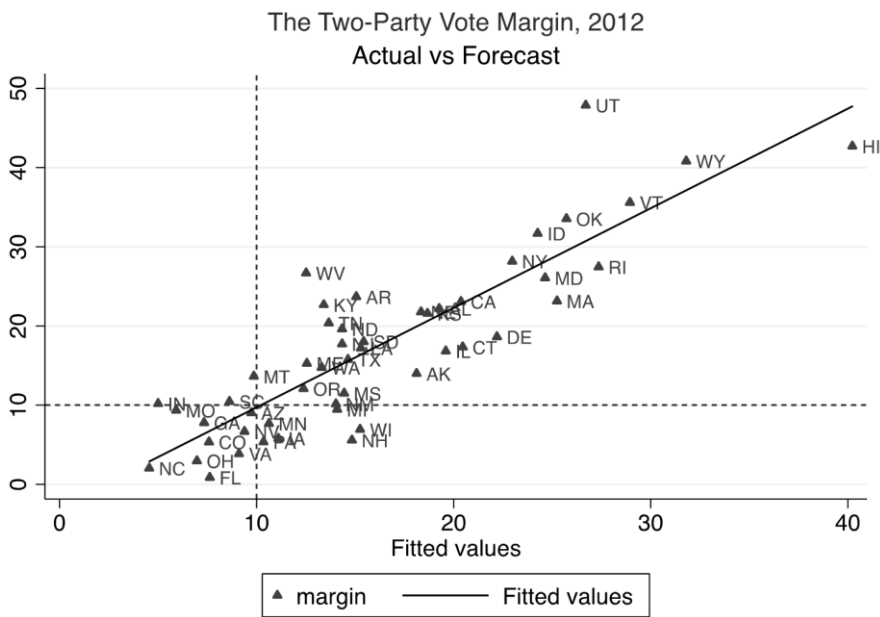
Table 4- Forecast Error by State, 1992-2016

Rank	State	Absolute Mean Errors	Rank	State	Absolute Mean Errors
1	Maryland	2.74	23	Nebraska	5.82
2	Washington	3.10	24	Virginia	5.87
3	Colorado	3.52	25	Maine	6.01
4	Missouri	3.78	26	New Jersey	6.04
	Pennsylvania	3.78		New York	6.04
5	Iowa	3.98	27	Alabama	6.07
6	Oregon	4.00	28	South Dakota	6.20
7	Connecticut	4.11	29	North Carolina	6.37
8	Nevada	4.13	30	Idaho	6.49
9	Arizona	4.18	31	Wisconsin	6.63
10	Ohio	4.34	32	Arkansas	6.75
11	Massachusetts	4.39	33	Kentucky	6.80
12	Minnesota	4.48	34	Indiana	6.98
13	Illinois	4.76	35	West Virginia	7.03
14	California	4.78	36	Montana	7.15
	Kansas	4.78	37	Georgia	7.19
	South Carolina	4.78	38	Florida	7.28
15	Louisiana	4.80	39	Alaska	7.04
16	Rhode Island	4.86	40	New Hampshire	8.03
17	Michigan	4.92	41	North Dakota	8.22
18	New Mexico	4.98	42	Oklahoma	8.48
19	Mississippi	5.19	43	Wyoming	8.62
20	Texas	5.36	44	Hawaii	9.00
21	Tennessee	5.56	45	Vermont	9.39
22	Delaware	5.79	46	Utah	10.97

campaign effects by making the state competitive. Campaign studies have tried to measure campaign effects using various measures such as campaign spending, television advertising, or candidate appearances in the race. Alternatively, this study suggests the gap between the forecasting vote margin and the actual margin as a measure of campaign effects at the state-level. In 2012, both candidates, Barack Obama and Mitt Romney, spent nearly six times as much money on advertising in Florida as in the 40 non-swing states, and 99 percent of the campaign visits were in top battleground states, including Florida (Traugott 2014). The correlation between states receiving intensive campaign attention and states identified as battleground

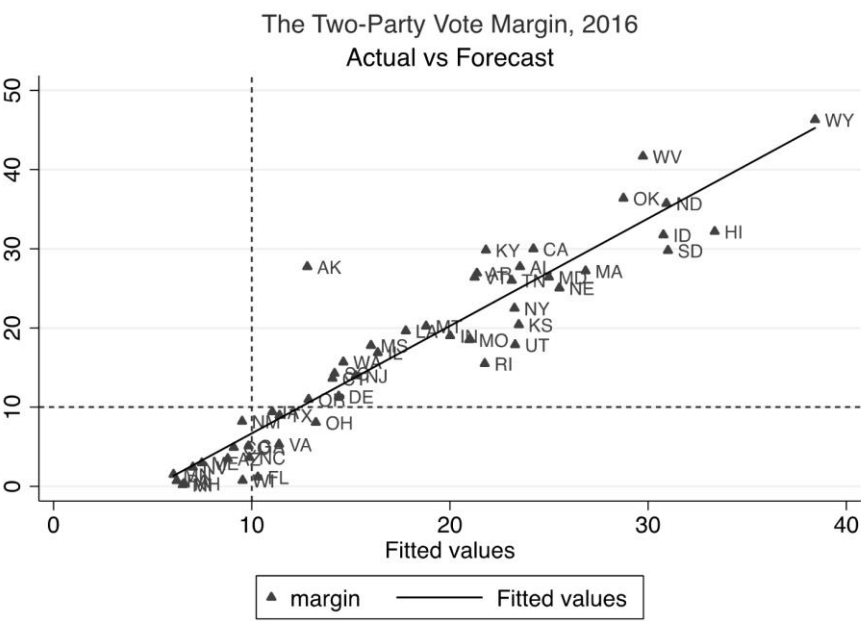
states in the competitiveness model suggests a new direction of measuring campaign effects state by state.

Figure 2



Discussion

The results of this study have implications for explaining the variability of state competitiveness by using pre-existing state variables. Since the states’ voting patterns are consistent, the state-by-state election results are predictable. In the 2020 presidential election, predictions of Utah for the Republican candidate and California for the Democrat would be reasonably accurate. However, the competitiveness of states has shifted and has become less consistent (Johnson 2005). The list of competitive states varies from election to election and candidate to candidate. However, most studies focus on the effects of campaigns on electoral behavior or election outcomes rather than the variation of the status of being competitive. By employing lagged state variables, regression results for the seven elections spanning 1992 to 2016 reveal significant effects of those state variables in determining the electoral competition state-by-state.



The initial finding from the competitiveness model is the linkage between the partisan composition of the state legislature and the national level of election results. As a reflection of electoral polarization, the lower chamber’s polarization projects the state closeness. The more divided the state legislature, the more competitive the presidential election. Shor and McCarty (2010) measured polarization of the state legislature using the roll call voting data similar to DW-NOMINATE scores. As an alternative measure of state polarization, I used their state scores by replacing the measure of partisan division, but the variable was not significant in the competitiveness model. The elite and electoral polarization mismatch at the state level. Instead of the roll call-based measure, the proportion of partisan divisions captures electoral polarization more effectively in this analysis.

The finding also captures the association between the nomination and general elections by using the frontloading primary schedule. The empirical evidence of the linkage in the two-stage elections was limited to the divisive primary hypothesis. This study, however, adds to the literature

by considering the implication of frontloading in the nomination election in the explanation of being competitive in the general election.

The state unemployment rate is important in determining state voting patterns in a presidential election, consistent with the sociotropic economic voting hypothesis. When state unemployment increases, the level of competitiveness increases as a reflection of strong requests for economic improvement that may affect voters' motivation to turnout.

This study emphasizes the identification of state variables that affect the state competitiveness in the presidential elections. In addition to the association, the predictability of the model was examined in this study. While the model explains the variability of state competitiveness election by election, the prediction errors involve the uncertainty of this model. However, the model prediction was improved in the most recent elections, particularly the 2012 and 2016 presidential elections. Alternatively, the errors between actual and predicted values can be used as a measure of campaign effects. How can campaigns contribute in changing the level of competitiveness? Can presidential campaign effects empirically be measured by the errors? Can those errors be used as the assessment of good or bad campaigns? There are still outstanding questions about campaign effects on state competitiveness. Although the findings of campaign effects are preliminary, this study provides a foundation for future research.

Appendix

Table A- Year-by-Year Regression Analysis on State Level Competitiveness

State-Level Variables	1992	1996	2000	2004	2008	2012	2016
State Legislature	.07	.08*	.25**	-.039	.25***	.09**	.01
Party Division	(.045)	(.05)	(.10)	(.05)	(.08)	(.04)	(.02)
Front Loading	.04	.76	-2.57	.20	1.34	-2.52**	.95*
	(1.64)	(1.78)	(3.08)	(1.44)	(2.56)	(1.12)	(.54)
Lagged State Vote	-.08	1.01***	.33	.90***	.27**	.76***	99***
Margin	(.11)	(.17)	(.22)	(.07)	(.13)	(.07)	(.03)
Lagged Voter	.25	.37**	.20	-.36***	.37	-.64***	.04
Turnout	(.17)	(.16)	(.33)	(.13)	(.27)	(.12)	(.06)
% of Non-White	-.02	.08	.03	-.20***	.27**	-.24***	.01
	(.08)	(.08)	(.14)	(.06)	(.12)	(.049)	(.02)
State	.21	.66	-.73	.52	.16	-1.04***	.80**
Unemployment	(.56)	(.80)	(1.73)	(.74)	(1.13)	(.38)	(.32)
Rate							
# of Electoral	.05	.10	-.02	-.07	-.07	.01	-.05
College Votes	(.11)	(.10)	(.18)	(.83)	(.15)	(.07)	(.03)
Home State	1.74	1.84	5.11	1.86	1.87	-1.92	.99
	(3.96)	(4.38)	(7.77)	(3.59)	(6.27)	(2.87)	(1.91)
Constant	-7.56	-27.01**	-2.71	25.03***	-24.20	55.72***	-5.68
	(11.97)	(11.42)	(19.42)	(8.71)	(20.89)	(8.97)	(4.91)
Observations	50	50	50	50	50	50	50
R ²	.17	.63	.32	.86	.40	.91	.98
Adj R ²	.01	.56	.20	.83	.30	.89	.98

Table B- Averages Differences between Predicted Values of the Full and Yearly Models

Election Year	Average Differences (Absolute Value of Average Errors)
1992	7.20 (6.44)
1996	4.08 (3.03)
2000	2.50 (1.81)
2004	4.04 (3.12)
2008	3.87 (2.93)
2012	6.60 (4.53)
2016	3.50 (2.61)

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