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The Dynamics of Voter Preferences in the 2016 Presidential Election

https://doi.org/10.1515/for-2018-0008

Abstract: Using daily polling data collected during the 2016 election, we examine the impact of fundamental conditions, campaign events, media coverage, and other relevant events and announcement on preference dynamics. We observe shifts in voter preferences for president over the course of the campaign and find evidence that these dynamics can be explained by specific circumstances and conditions. Our findings reinforce the potency of fundamental conditions, like presidential approval, but they also demonstrate that political events like national nominating conventions and debates can affect preferences in meaningful and enduring ways. Importantly, our research also suggests that developments commonly perceived to have affected voter preferences in 2016, like FBI Director James Comey’s memo to Congress about Hillary Clinton’s e-mails in October, likely exerted a minimal impact on the election, at least once the impact of other factors are taken into account. In this respect, some of our findings conflict with conventional accounts of campaign dynamics in 2016.

Introduction

During the course of presidential elections, it is not uncommon for voter preferences to shift as Election Day nears. Although fundamental variables like partisanship, the state of the economy, and presidential approval ratings typically “set the stage” during presidential elections, it is certainly possible for voter preferences to move in response to political campaigns and messages, media coverage of the candidates, changes in economic conditions, and other events (Johnston, Hagan, and Hall Jamieson 2004; Panagopoulos 2009a, 2012, 2013; Erikson, Panagopoulos and Wlezien 2010; Erikson and Wlezien 2012; Panagopoulos and Weinschenk 2016). Indeed, Holbrook (1996) finds that while campaign events are less important than the fundamentals, campaigns can still play an important role in presidential elections. This argument is supported by a great deal of research on the impact of specific campaign events during presidential elections. For example, numerous

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scholars have found that presidential nominating conventions have a positive effect on the convening candidate (Campbell, Cherry, and Wink 1992; Holbrook 1994, 1996; Wlezien and Erikson 2002; Erikson and Wlezien 2012; Panagopoulos 2012, 2013). In fact, some research has found that the boosts in candidate support induced by the conventions persist until Election Day and have helped some candidates win the presidency (Stimson 2004). Candidate debates also play a role in shaping voter preferences, although the consensus is that debates have smaller effects than conventions – in large part because they occur so late in the campaign process when many voters have made up their minds (Holbrook 1994, 1996; Hillygus and Jackman 2003; Stimson 2004; Panagopoulos 2012, 2013). Of course, campaign events aren’t the only types of events that occur during elections. There is good evidence that idiosyncratic factors, like the economic crises that preceded the 2008 election (Holbrook, Clouse, and Weinschenk 2012; Panagopoulos 2012) and natural disasters like Hurricane Sandy in 2012 (Panagopoulos 2013; Velez and Martin 2013), can have meaningful effects on preference dynamics, potentially changing electoral outcomes in some battleground states. Thus, previous research suggests that while fundamental conditions are paramount in presidential elections, campaigns and relevant events are not inconsequential. In fact, in close elections, campaigns could play a decisive role (Stimson 2004; Masket 2009).

Although political scientists know a fair amount about voter preferences in recent presidential elections (Erikson, Panagopoulos, and Wlezien 2010; Erikson and Wlezien 2012; Panagopoulos 2012, 2013), we do not yet have a clear sense of what factors shaped (or did not shape) voter preferences during the 2016 election. Were voter preferences in 2016 driven by the fundamentals, traditional campaign events like conventions or debates, idiosyncratic political events, or some combination of these factors? Which factors had the most pronounced effects in 2016? To understand these questions, we use daily polling data collected over the course of the 2016 campaign, which allows us to examine and then explain, using a statistical model, the dynamics of voter preferences. We focus our analysis on fundamental political and economic conditions, campaign events, levels of media coverage, and additional events and announcements (e.g. FBI Director James Comey’s announcement about Clinton’s e-mails in late October) that occurred during the 2016 election and that had the potential to influence vote preferences. When possible, we compare our results to previous elections in order to provide a sense of whether 2016 was truly an “unprecedented” election or whether it was largely similar to previous presidential elections in terms of the factors that shaped preference dynamics.1

1 https://www.npr.org/2016/07/03/484214413/the-most-unprecedented-election-ever-65-ways-it-has-been.
A Look at Voter Preferences in 2016

As was the case in recent presidential elections (Panagopoulos 2009b; Panagopoulos and Farrer 2014), preelection polling was common in 2016, which allowed for regular glimpses into voter preferences during the 2016 presidential race. Figure 1 provides a look at voter preferences in 2016. For the purposes of this study, we analyze data from summer (July 1, 2016) up to the day preceding Election Day 2016 (November 7, 2016). This provides us with 130 consecutive days of polling data. We assess only the relative strengths of the two major-party contenders. Thus, we summarize voter preferences as simply “percent Clinton” among those who indicated they would vote for either Clinton or Trump in 2016. The data were gathered from Pollster’s 2016 General Election poll chart. As a

![Figure 1: Voter Preferences During the 2016 Presidential Election, July 1–November 7, 2016.](http://elections.huffingtonpost.com/pollster/2016-general-election-trump-vs-clinton)

2 In this paper, we focus on aggregate level polling data. Thus, our analyses focus on national popular vote projections and not Electoral College projections as most extant analyses of this sort do (see, e.g. Panagopoulos 2013). We encourage future researchers to build on this study and approach the questions we consider in this paper using other approaches and levels of analysis.

3 We note that alternative measures of the dependent variable are highly correlated with the measure we use in this paper. For instance, we gathered (from Pollster) daily measures of the percent of people who said they would vote for Clinton when Trump, Johnson, Other, and Undecided are given as options (rather than restricting to just Clinton and Trump). Comfortingly, this measure of candidate support correlates with the measure we use throughout the paper (percent supporting Clinton among those who indicated they would vote for either Clinton or Trump in 2016) at \( r = 0.75 \) (\( p < 0.001 \)).

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quick overview, pollster used a poll-tracking model to aggregate individual polls
that was updated each time a new poll (that met pollster’s criteria for inclusion)
was released. these estimates incorporated a number of adjustments to account
for “house effects” and differences in sample sizes. pollster was one of the most
popular and prominent poll aggregators in the 2016 election cycle and also makes
its data easily available for download and analysis. the use of pollster data also
helps make our analysis comparable to recent analyses of voter preferences in
presidential elections (e.g. panagopoulos 2013).

overall, figure 1 indicates that clinton held an advantage over trump in polls
throughout the general election campaign. major-party support for clinton ranged
from a low of about 51 percent to a high of about 55 percent over this period. poll
aggregations also imply the 2016 election was competitive and expected to be
relatively close. the poll data displayed in figure 1 also demonstrate that voter
preferences did shift somewhat during the 2016 campaign, though it is important
to note that there were not massive swings in preferences – at least not in the
final portion of the campaign. to the extent that preferences shifted over this
period, what factors explain the preference dynamics shown in figure 1? below,
we highlight a number of different sets of variables that may have influenced vote
preferences during the 2016 election. the factors we consider capture a range
of well-known explanations from the political science literature on campaigns
and presidential elections and also highlight some of the popular accounts that
emerged to explain the election outcome (e.g. that the announcement of a review
of new evidence in the clinton e-mail probe shaped the election). before turning
to our empirical model, we provide a brief overview of the variables we consider
in this paper.

the fundamentals

previous analyses of preference dynamics have highlighted the importance
of fundamental factors like presidential approval, congressional approval
ratings, and economic conditions (holbrook 1994, 1996; panagopoulos 2013).
in this paper, we focus on the impact of obama approval ratings (measured

5 additional details on pollster’s methodology are available at the following website: http://
www.huffingtonpost.com/entry/huffpost-pollster-poll-averages-methodology_us_57d1a3b2e4b
06a74c9f361ch.

6 indeed, mean level of clinton support in our dataset is 53.12% and the standard deviation is
0.98.
using weekly Gallup data), Congressional approval ratings (measured using monthly Gallup data), and the national unemployment rate (measured using monthly Bureau of Labor Statistics data) on vote preferences. Given President Obama’s shared partisanship with Hillary Clinton, our expectation is that improvements in Obama’s approval rating over the campaign would help Clinton in the polls. On the other hand, increases in Congressional approval ratings during the course of the campaign may have hurt Clinton – given that Congress was held by the Republican Party. Finally, given that the incumbent party is typically rewarded for good economic conditions and punished for poor economic conditions (Fiorina 1981), we expect that improvements in the national unemployment rate as the campaign unfolded would be helpful to the Clinton campaign.

**Campaign Events**

As we noted above, political scientists have long been interested in the effects of campaigns and campaign events on voters. There is solid evidence that political campaigns and associated events and activities can influence vote choices in presidential elections (Holbrook 1994, 1996; Wlezien and Erikson 2002; Hillygus and Jackman 2003; Erikson and Wlezien 2012; Panagopoulos 2012, 2013). We consider the role of the party conventions, the three presidential debates, and the one vice presidential debate in 2016. Previous research on conventions has found that the convening party’s candidate often gets a “bump” in support following their convention (Campbell, Cherry, and Wink 1992; Holbrook 1996; Stimson 2004; Panagopoulos 2007). Conventions are important opportunities for campaigns to generate several days of favorable news coverage for the convening party’s nominee, respectively. Thus, our expectation is that the Democratic National Convention should have helped Hillary Clinton. On the other hand, research suggests that Clinton’s vote share should be negatively impacted by the Republican National Convention. We also consider the potential effects of the three presidential debate and the one vice presidential debate. Some previous research (Holbrook 1994; Panagopoulos 2012, 2013) has found that presidential and vice presidential debates can influence voter preferences by boosting support for the candidate perceived to have “won” the debate (but the effects do not appear to occur in every election cycle or in every campaign context). Interestingly, in separate polls conducted after each debate in 2016, the Gallup organization probed viewers about their perceptions of which candidate’s performance was superior. In all three cases, Clinton bested Trump (by 34, 18 and 29 percentage
Accordingly, and consistent with claims developed in previous studies (Holbrook 1994), we expect each of the presidential debates to have boosted Clinton support in the polls, all else equal. Although there was little polling done on the vice presidential debates, data from a CNN/ORC poll of registered voters found that Mike Pence “won” the vice presidential debate against Tim Kaine. Thus, our expectation is that the vice presidential debate decreased Clinton support in the polls, all else equal. For each of the campaign events, we measure the event by including a variable that takes on a value of 1 for the day of the event and each day that follows (the rest of the days are coded as zero). This is consistent with previous research (Holbrook 1994; Linn, Moody, and Asper 2009; Panagopoulos 2013).

**Media Coverage**

We also consider the role of media coverage during the 2016 election. During the Republican primary, pundits and journalists paid a great deal of attention to the amount of media coverage that Donald Trump received (see Sides and Leetaru 2016). Scholarly analyses have indicated that high levels of media coverage for political candidates can translate into boosts in public support (Reuning and Dietrich 2016). Using data on the web presence of presidential candidates during the 2008 nomination contests, Christenson, Smidt, and Panagopoulos (2014) found that “a candidate’s web presence was a consistent and significant predictor of a candidate’s success in fund-raising and electoral support.” We measure media coverage in two ways. First, using data from the 2016 Campaign Television Tracker, we measure media coverage of Clinton as the number of times Clinton was mentioned in national network coverage (Aljazeera America, Bloomberg, CNBC, CNN, Comedy Central, FOX Business, FOX News, LinkTV, MSNBC) on each day in our dataset. To standardize the measure, we divide the number of Clinton mentions by the number of total candidate mentions (per day). Thus, the variable measures, for each day in our dataset, the percentage of mentions of presidential candidates that were devoted to Clinton. Second, using data from the 2016 Campaign Web Tracker, we measure the number of times Clinton was mentioned

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in online news coverage on each day in our dataset.10 Again, to standardize the measure, we divide it by the total number of candidate mentions. For the Clinton television coverage variable, the mean is 36.58% with a range of 20.83%–47.76%. For the online variable, the mean is 35.10% with a range of 10.59%–56.67%. The television and online media coverage variables correlate at $r = 0.74$ ($p < 0.01$).

Although some analyses (Reuning and Dietrich 2016; Sides and Leetaru 2016) have found that heightened levels of media coverage (e.g. increases in a candidate’s share of news coverage) help candidates, we acknowledge that the tone of coverage, which was not available in the Campaign Tracker data, could impact a candidate’s poll standing.11 Interestingly, analyses of the tone of media coverage during the late campaign (August-November) in 2016 have found that “Both Hillary Clinton and Donald Trump received coverage that was overwhelmingly negative in tone and extremely light on policy.”12 Given the fairly uniform negative media coverage (at least in the last part of the campaign), measures of who was attracting more or less media attention at a given point in time during the election may be just as important as measure of media tone. In addition, we note that recent research has indicated that changes in the amount of media coverage in 2016 were important to changes in candidate support.13 Since our measures simply capture Clinton’s share of television and web coverage, we are agnostic about direction of effects. Thus, we use two-tailed hypothesis tests in the models that follow.

**Relevant Events and Announcements**

Beyond the fundamental conditions and standard political events described above, studies have also shown that unique developments or circumstances

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10 According to the website: “Each day all worldwide English-language online news coverage (non-English material that has been translated and print and broadcast material is excluded) is scanned for all mentions of the major candidates and recorded.”

11 Sides and Leetaru (2016) note, for example, that “The first graph compares each candidate’s average share of cable news coverage to his average share in national polls, beginning when Trump announced his candidacy and ending on April 30. There is a very large correlation (0.92). If you exclude Trump, the correlation is still large (0.79). News coverage was important for more candidates than just Trump. We...also track news coverage and Trump's polling numbers over time. This helps show how Trump's poll numbers increased after the initial surge of media coverage. It also shows that Trump's poll numbers tended to decline or plateau when he received less coverage – as during the fall of 2015.”

12 https://shorensteincenter.org/research-media-coverage-2016-election/.

idiosyncratic to specific campaign cycles have the capacity to shape voter preferences (Panagopoulos 2012, 2013). Accordingly, we consider the role of several, relevant events and announcements that occurred during the 2016 general election campaign. While it is not possible to include every single event or announcement, we focus on a number of the key ones that attracted considerable attention. On October 7, 2016, for example, tapes were leaked from Access Hollywood that revealed Donald Trump bragging about his sexual exploits with women. We expect that the Access Hollywood leak would harm Trump’s standing in the polls and boost Clinton’s polling performance. On October 25, there was an announcement that Obamacare premiums would increase by 25% on average. The healthcare premiums announcement should have had a negative impact on Clinton’s performance in the polls given her shared partisanship with the incumbent president and the fact that the Affordable Care Act was Obama’s central public policy achievement. On October 28, FBI Director James Comey announced a review of new evidence in the Clinton email probe. Numerous journalists, pundits, and even Hillary Clinton herself have argued that the October 28 announcement about Clinton’s e-mails negatively impacted her electoral performance. In fact, an article published by FiveThirtyEight went so far as to argue that, “Hillary Clinton would probably be president if FBI Director James Comey had not sent a letter to Congress on Oct. 28.”

For each of these events and announcements, we include a variable that takes on a value of 1 for the day of the event or announcement and each day that follows (the rest of the days are coded as zero).

Results

In order to examine whether and how the variables described above impacted preference dynamics in 2016, we estimated a series of regression models which are presented in Table 1 below. We use Prais-Winsten regression to account for serial autocorrelation that is typical in time series analyses of this sort. The dependent variable measures Clinton’s level of two-party support over the course of the campaign. Model 1 includes the measures of fundamental conditions, media coverage, and campaign events. Model 2 adds relevant events and announcements to the specification. Turning first to Model 1, the results indicate that a number of the variables we consider are statistically significant predictors of Clinton support.

Approval ratings of President Obama had a positive and significant ($p < 0.05$) effect on Clinton support in 2016. In addition, the 2016 Democratic convention appears to have been a positive event for Clinton, increasing her level of support on average ($p < 0.05$). This finding is consistent with polling and reporting following the conventions, which indicated that, although both candidates experienced small convention bumps, Trump’s increase in support following the RNC faded...
quickly and Clinton’s boost in support after the DNC appeared to endure.\textsuperscript{15} The only other campaign event that appears to have impacted preference dynamics, at least in the long term, in 2016 is the first presidential debate. The coefficient is statistically significant (albeit at $p=0.12$, two-tailed) and positively signed, indicating that Clinton likely experienced a slight boost in support following the event. The fact that only the first debate impacted Clinton’s support may be due to the observation that Clinton experienced a huge “win” in the first debate; she beat Trump by a margin of 34 percentage points according to data from Gallup. Although polls indicated that she Clinton also “won” the other debates, her victories were not as large as in the first debate. Many political commentators noted that Donald Trump had his best performance in the third debate.\textsuperscript{16} Interestingly, we find that the coefficient on the third debate is negatively signed, though it is not statistically significant at conventional levels.

The results from Model 1 can be compared to Panagopoulos’ (2013) analysis of the role of campaign events in the 2012 presidential election. While we find that only two campaign events (the DNC convention and the first debate) had an effect in 2016, campaign effects appear to have been more prevalent in the 2012 election. According to Panagopoulos (2013), both the Republican and Democratic conventions, the first two presidential debates, and the vice presidential debate had statistically effects on voter preferences in 2012. While the 2012 Democratic convention boosted Obama support in 2012 (which is consistent with our finding that the 2016 Democratic convention helped Clinton), Panagopoulos finds that the first presidential debate had a negative effect on support for Obama in 2012 (we found that the first debate helped Clinton in 2016). The negative effect of the first debate in 2012 is likely due to Obama’s poor performance in the first debate against Romney (Panagopoulos 2013). Thus, candidate performance in debates can matter.

Model 2 elaborates on our initial model by including variables capturing FBI Director James Comey’s announcement that there was new evidence in the Clinton e-mail case, the release of a report indicating that ACA premiums would increase by about 25%, and the leak of tapes from Access Hollywood in which Trump bragged about his sexual exploits.\textsuperscript{17} Overall, Model 2 indicates that these


\textsuperscript{17} We ran all models in Table 1 with Trump’s vote percentage as a dependent variable to see if there were any differences in the results. We did not find any important differences when using Trump support as the dependent variable. We also ran all of the models in Table 1 using an
three events did not have statistically significant effects on Clinton’s standing in the polls. Although some journalists, media outlets, and politicians have argued that these events, and especially the Comey memo, played a key role in the election (see, e.g. Palmer 2016; Silver 2017), we do not find statistically-reliable evidence of effects, all else equal and after taking into account the impact of the other factors we consider. In fact, only the factors that were significant predictors of Clinton support in our initial model remain significant after accounting for key (but idiosyncratic) developments that unfolded over the 2016 general election campaign. Indeed, Model 2 confirms that Obama approval ($p < 0.05$), the DNC convention ($p < 0.05$), and the first presidential debate ($p = 0.12$) impacted Clinton’s standing in the polls, all else equal.

### Conclusion

Shifts in voter preferences are routinely observed in political campaigns. Often times, changes in presidential preferences are modest, but they are typically systematically linked to changes in fundamental conditions, the results of standard political events or specific circumstances or developments. Our analyses suggest that the 2016 election is no exception. We observe shifts in voter preferences for president over the course of the 2016 general election campaign and find evidence that these dynamics can be explained by specific circumstances and conditions. Our findings reinforce the potency of fundamental conditions, like presidential approval, but they also demonstrate that political events like national nominat-

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19 A reviewer suggested that we examine the effect of the distribution of partisanship on candidate preferences, an idea that we had not originally considered. To do this, we gathered data (from Gallup) on the percent of people who identify with the Republican and Democratic parties (leaners and strong identifiers are considered partisans). We then re-ran Model 2 in Table 1 with the percentage of people who identify as Republicans as an additional independent variable. We also constructed a measure of the net Republican advantage in partisanship (% GOP minus % Democrat) and used that as an independent variable in a second model. Both of the models are shown in the Online Appendix. In both cases, Clinton’s vote share decreased as Republican identification increased. In both models, the coefficient on the partisanship measure is statistically significant. Importantly, though, the variables that were significant in Model 2 in Table 1 remained significant after including measures of aggregate partisanship. We thank the reviewer for this suggestion.
ing conventions and debates can affect preferences in meaningful and enduring ways. In fact, the effects of the DNC convention and the first presidential debate in 2016 were not ephemeral, but rather exerted effects that were detectable throughout the course of the general election that followed. In these respects, the findings we report reinforce conclusions reached in previous research, but we note that not all conventions or debates were impactful. More research is necessary to examine the conditions in which these events will exert enduring effects.

Our research also suggests that developments commonly perceived to have affected voter preferences in 2016 (like the memo from James Comey in October or the ACA premiums increase report) likely exerted minimal effects, at least once the impact of other factors are taken into account. In this respect, some of our findings conflict with conventional accounts of campaign dynamics in 2016. Indeed, when asked about the impact of the October 26th memo from FBI Director James Comey on the election, Hillary Clinton noted that ‘If the election had been on Oct. 27, I would be your president.’ We do not find evidence that this event had a key impact on preference dynamics. While we still do not contest the notion that developments like the Comey memo may have nudged preferences somewhat, we do not find conclusive evidence that these shifts were either sizable or persistent. Overall, our findings could help analysts and observers to reconsider narratives of the 2016 general election campaign and claims about the factors that influenced voters and, eventually, the outcome on Election Day.

References


Supplemental Material: The online version of this article offers supplementary material (https://doi.org/10.1515/for-2018-0008).