

**Fake News *Did* Have a Significant Impact on the Vote in the 2016 Election:
Original Full-Length Version with Methodological Appendix**

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It is now clear that social media and intensely partisan television and radio broadcasts disseminated a massive number of messages during the 2016 Presidential election campaign designed to demonize candidates and seriously distort the facts upon which many voters might base their electoral choices. One recent study of nearly 25,000 social media messages circulated in the key battleground state of Michigan reported that “when the amount of junk news is added to the number of links to unverified WikiLeaks content and Russian-origin news stories, it appears that fully 46.5% of all the content that is presented as news and information about politics and the election is of an untrustworthy provenance or falls under the definition of propaganda based on its use of language and emotional appeals.”¹

What is not clear, however, is how much of an impact, if any, these false “news” items had on the outcome of the election. To our knowledge, there have been no empirically based studies that have systematically assessed the extent to which believing fake news stories actually influenced voting decisions in 2016. In December and January 2016/17, we undertook a nationwide internet survey (conducted by YouGov) which enables us to estimate that impact. Our analysis leads us to the conclusion that fake news most likely did have a substantial impact on the voting decisions of a strategically important set of voters—those who voted for Barack Obama in 2012. Indeed, given the very narrow margins of victory by Donald Trump in key battleground states, this impact may have been sufficient to deprive Hillary Clinton of a victory in the Electoral College.

We focus our analysis on the 2016 electoral behavior of 585 respondents (of a total sample of 1,600) who had voted for Barack Obama in 2012. This strategic subset of the electorate was selected for two reasons. The first is that, if Hillary Clinton had retained the support of these voters, she would have easily won the 2016 election, just as Obama had done four years earlier. Instead, 77 percent of Obama voters supported Clinton. Our survey data show that 10 percent of the former Obama voters cast ballots for Trump in 2016; 4 percent switched to minor parties; and 8 percent did not vote. Thus, our key research question is, what accounts for these defections?

A second reason why we have chosen this focus is that restricting our analysis to former Obama supporters provides a form of control for other potentially confounding factors. It could not be argued, for example, that those who abandoned the Democratic candidate in 2016 were hostile to Democratic candidates, *per se*, or were implacable conservatives.

¹ Philip N. Howard, Gillian Bolsover, Bence Kollanyi, Samantha Bradshaw and Lisa-Maria Neudert, “Junk News and Bots During the U.S. Election: What Were Michigan Voters Sharing over Twitter?”, *COMPROM Data Memo*, 2017.1, March 26, 2017.

Findings from Our Post-Election Survey

Our post-election survey asked our respondents 281 questions that included, in addition to the standard election-survey items, three fake news statements. Two of these were negative statements about Hillary Clinton and one was a positive statement involving Donald Trump. All three were widely disseminated through social media and were picked up by the broadcast media as well.

The first is the claim that “Hillary Clinton is in very poor health due to a serious illness.” 25 percent of all respondents in our nationally representative sample believed that this was “definitely true” or “probably true,” as did 12 percent of our former Obama supporters. The second is a statement that “Pope Francis endorsed Donald Trump for president prior to the election.” About 10 percent of our national sample and 8 percent of Obama supporters thought this statement was true. Finally, we asked our respondents if they believed that “During her time as U.S. Secretary of State, Hillary Clinton approved weapon sales to Islamic jihadists, including ISIS.” 35 percent of our national sample believed that Clinton had sold weapons to ISIS, as did 20 percent of former Obama voters.

The statistical association between belief in these fake news stories and vote choice in the 2016 election by former Barack Obama supporters is very strong. Among those who believed none of the three fake news stories, 89 percent cast ballots for Hillary Clinton in 2016; among those who believed one fake news item, this level of electoral support fell to 61 percent; but among those who had voted for Obama in 2012 and believed two or all three of these false assertions, only 17 percent voted for Clinton (Tau-b correlation=.50).

To be sure, “causality” cannot be proven on the basis of a single-wave survey like ours. While we shall interpret these numbers as evidence that belief in fake news stories led former Obama voters to abandon the Democratic candidate for president in 2016, it is also possible that the direction of causality is the reverse—that someone who, for whatever reason, chose not to vote for Clinton might endorse these false statements (even if they had not heard them before) in order to rationalize his/her voting decision. We shall therefore explore a number of rival hypotheses to try to assess the possibility that abandonment of the Democratic presidential ticket might have been motivated by other factors, and then include all of these variables in a multivariate equation in which it is possible to control for these alternatives.

Alternative Explanatory Factors

The Clinton campaign heavily emphasized gender-related issues in an attempt to mobilize female voters. Could this have alienated men to the extent that they abandoned their 2012 support for the Democratic presidential candidate? Our data provide no support for such a claim: an identical 23 percent of both male and female respondents defected from the Democratic ticket.

Did the disappearance of this country’s first African-American president from the top of the Democratic ticket lead black voters to waiver in their commitment to the Democratic candidate? No. Indeed, fewer African-American voters (20 percent) defected from Clinton than did white voters (23 percent).

Age is weakly related to defection from the Democratic ticket in 2016: while 20 percent of voters over age 35 abandoned the Democratic ticket in 2016, 30 percent of younger voters did so (Tau-b = .10). Education is also weakly associated with defection: among college-educated former Obama voters, just 16 percent did not vote for Clinton, while 27 percent of those with lower educational attainment defected (Tau-b = .12).

More overtly political variables had a stronger relationship with defection. 14 percent of those who placed themselves in the three most progressive or “left” positions on a 10-point ideological scale did not vote for Clinton, as compared with 50 percent of those at the conservative end of this continuum (Tau-b = .22). Similarly, dissatisfaction with the condition of the economy also contributed to defection from the Democratic camp: just 12 percent of those who thought that the current economic situation was “good” or “very good” abandoned Hillary Clinton, while 39 percent who regarded the economy as “poor” or “very poor” defected from the Democratic ticket (Tau-b = .24).

Party identification had a more significant impact. Among those 2012 Obama voters who identified themselves as Democrats, 7 percent did not vote for Clinton; this rose to 40 percent among independents and to 68 percent among those who identified with the Republican, Libertarian or Green parties (Tau-b = .47), as the more heterogeneous Obama coalition shrank down to a smaller Democratic core of support for Clinton.

The penultimate step in this analysis was to include all of these variables in two multivariate regression equations, one including the aforementioned seven “alternative explanatory” variables, and then a second to which the fake news index is added. The first equation—including gender, race, age, education, ideological orientation, dissatisfaction with the condition of the economy, and party identification—“explains” 38 percent (as measured by the Nagelkerke R Square statistic) of the defection of former Obama voters from the Democratic ticket in 2016. When the index of fake news items is added to the equation, the percentage of variance explained is increased by **an additional 14 percent**—after the influence of all of the other variables has been taken into consideration.

An even more compelling test of the independent impact of belief in fake news is to add to this multivariate analysis measures of the extent to which the respondent liked or disliked Hillary Clinton and Donald Trump. Not surprisingly, these variables are strongly associated with defection from the Democratic ticket in 2016 (Tau-b .50 and .49, respectively). If the association between defecting from Clinton and belief in fake news exposure were purely epiphenomenal—i.e., that dislike for Clinton and/or positive affect toward Trump “caused” both belief in fake news and electoral defection—then the introduction of these thermometer evaluations into the equation would eliminate the association between fake news and defection. Instead, while the independent impact of fake news is reduced in its explanatory power by the inclusion of the Clinton and Trump favorability scores, the fake news scale retains a significant impact, **“explaining” 4 percent** of the defections from Hillary Clinton. Using a different statistical measure (the odds ratio), former Obama voters who believed one or more of these fake news stories were 3.3 times more likely to defect from the Democratic ticket in 2016 than those who did not believe any of these false claims.

We must reiterate that, given the inability to determine temporal order in a single-wave cross-sectional survey, we cannot prove that belief in fake news “caused” these former Obama voters to defect from the Democratic candidate in 2016. But if these estimates are even remotely

accurate as measures of the impact of belief in fake news on defections from the Democratic candidate, it is highly likely that this pernicious pollution of our political discourse was sufficient to influence the outcome of what was a very close election. Clinton lost the Presidency by 77,744 votes (0.6 percent) cast in the key battleground states of Pennsylvania, Michigan and Wisconsin. The impact of fake news appears from our data to be enough to account for that total.

Methodological Appendix

The data for this article came from an Internet survey conducted for the authors by YouGov, a prominent Internet survey organization, from December 5, 2016 through January 6, 2017. Initial contacts were matched down to a final sample of 1600 respondents on the basis of gender, age, race, education, ideology, and political interest. The sampling frame was constructed by stratified sampling from the full 2010 American Community Survey (ACS) sample with selection within strata by weighted sampling with replacements (using the person weights on the public use file). Data on voter registration status and turnout were matched to this frame using the November 2010 Current Population Survey. Data on interest in politics and party identification were then matched to this frame from the 2007 Pew Religious Life Survey. The matched cases were weighted to the sampling frame using propensity scores. The matched cases and the frame were combined and a logistic regression was estimated for inclusion in the frame. The propensity score function included age, gender, race/ethnicity, years of education, political interest, ideology, and census region. The propensity scores were grouped into deciles of the estimated propensity score in the frame and post-stratified according to these deciles.

Most of the data presented in this article are frequencies that are self-explanatory (e.g., the percentage of former Obama voters who voted for Hillary Clinton). The final paragraphs, however, present the results of stepwise multivariate regression analyses of these data in which the dependent variable is defection by former Obama voters to Donald Trump, to another party, or to abstention. The full model of the final step in this analysis is presented below:

Binary Logit Regression Analysis of the Impact of Fake News on Defection from Clinton²

| | B | (s.e.) | Wald | Odds Ratio | Confidence Interval | |
|----------------------------------|-------|----------|------|------------|---------------------|-------|
| | | | | | Lower | Upper |
| Female | -.33 | (.36) | .9 | 1.4 | .56 | 3.5 |
| White | .20 | (.41) | .2 | .8 | .29 | 2.4 |
| Over Age 35 | .01 | (.19) | .0 | 1.0 | .62 | 1.6 |
| College Educated | -.06 | (.40) | .0 | .9 | .34 | 2.6 |
| Economy: Poor/Very | .29 | (.54) | .3 | 1.3 | .33 | 5.4 |
| Economy: Average | .39 | (.51) | .6 | 1.5 | .39 | 5.6 |
| Left-right: Right | .55 | (.72) | .6 | 1.7 | .27 | 11.1 |
| Left-right; Center | -.56 | (.40) | 1.9 | .6 | .20 | 1.6 |
| Party ID: None | 1.33 | (.42)** | 10.2 | 3.8 | 1.29 | 11.0 |
| Party ID: Republican | 1.72 | (.63)** | 7.5 | 5.6 | 1.11 | 28.4 |
| Trump: Neutral | -1.18 | (.71) | 2.7 | .3 | .05 | 1.9 |
| Trump: Unfavorable | -2.24 | (.62)*** | 12.9 | .1 | .02 | .5 |
| Clinton: Neutral | .85 | (.44) | 3.7 | 2.3 | .75 | 7.2 |
| Clinton: Unfavorable | 1.99 | (.47)*** | 17.8 | 7.3 | 2.17 | 24.7 |
| Believes Fake News | 1.18 | (.26)*** | 20.0 | 3.3 | 1.65 | 6.4 |
| Nagelkerke R ² = .626 | | | | | | |

* Sig. @ .05

** Sig @ 0.01

*** Sig. @ .000

² In order to satisfy the assumptions underlying the Logit analysis, all variables were dichotomized, including of course the key dependent variable of voting for Clinton vs. defecting among the Obama voters. For predictor variables in the model that had more than two categories, “dummy” variables were created for each category of substantive interest vs. all other categories, leaving one category out of the model to serve as the baseline. For example, the dummy variables for Party ID are independents vs. all others and Republicans versus all others, with Democrats as the base category. The “confidence interval” was set at 99%.