

Why does Donald Trump perform better in online versus live telephone polling?

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Why does Donald Trump perform worse in live telephone versus online polling? In mid-December 2015, Morning Consult conducted a study where about 2,500 Republican respondents began an interview online and then were assigned to complete a series of political questions online, by live telephone or via interactive voice response (IVR). The study finds that Trump performs about six percentage points better online than via live telephone interviewing and that his advantage online is driven by adults with higher levels of education. Importantly, the differences between online and live telephone persist even when examining only highly engaged, likely voters.

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Why does Donald Trump perform better in live telephone versus online polling?

Many hypotheses abound, but some leading explanations are that survey respondents are less willing to say they support Trump to a live interviewer than via a self-administered online interview, that online samples include different audiences than phone samples, and that likely voter definitions are consistently different across live telephone and online polling.

This study attempts to address these explanations head-on with an experiment conducted within the context of the technology company [Morning Consult's](#) regular national online surveys. In mid-December 2015, nearly 2,500 Republican and Republican-leaning Independents entered an online survey, answered a few background questions, and then were randomized to answer vote choice items via a live telephone interview, online or via interactive voice response (IVR).³ About one-third (n=801) were randomly assigned to answer the primary and general election questions by dialing a toll free number linked to an inbound calling center, about one-third (n = 922) answered identical primary and general election questions online, and the remainder (n = 674) were assigned to complete a survey by calling in using interactive voice response (IVR).⁴

The study yielded four principal, albeit preliminary, findings. First, Donald Trump receives about five percentage points more support among registered Republicans and Republican-leaning Independents online compared with live telephone interviews. Differences in online versus phone were more limited for the other Republican candidates. Second, the difference in support for Donald Trump between online and live telephone is at least as large when we examine likely voters – those adults who have voted in previous elections and who are keenly interested in the current campaign. In fact, Trump's advantage in online polls compared with live telephone polling is

³Interactive voice response is an automated telephony system where users are asked questions and enter a number on their phone

⁴For IVR, voters respond to a recorded message by dialing buttons on their phone.

eight or nine percentage points among likely voters. Third, education is an important variable helping to explain these differences across types of surveys, whereas gender and age play a more minor role. Adults with higher levels of formal education appear to exhibit the largest mode effects in Trump’s favor online, whereas adults with high school degrees or less tend to favor Trump on the phone compared with online. Fourth, the results among online are very similar to results obtained using self-administered IVR polling. In both methods, Trump outperforms live telephone polling.

This study represents a first step toward understanding Donald Trump’s overall level of support, a topic that has important implications for the 2016 race and the public opinion research sector more broadly. It also builds on an authoritative report by the [Pew Research Center](#) demonstrating that there can be striking differences between self-administered and internet-administered surveys. Much work remains to better understand which types of polls are actually right in predicting Trump’s support levels, but a key implication of the study is that many national polls may be underestimating Trump’s support levels. Finally, the study suggests that divergent findings in online and phone polling are at least partly explained by adults answering identical questions differently online versus on the phone, that is, a social desirability bias in which respondents answer questions in a manner they believe will be viewed favorably by others.

The study proceeds in the following manner: first, we describe the study design. Then, we detail results overall, by subgroups and by likely voter filters. We conclude with a discussion of balance across treatment groups and some implications of this study for the current presidential campaign.

STUDY DESIGN

In total, 2,397 Republican or Republican leaning registered voters completed interviews for this study, with about the same number of interviews occurring before and

after the Republican Presidential Primary debate hosted by CNN and Facebook in Las Vegas on Tuesday, December 15, 2015. Respondents were recruited from a series of large, national online survey vendors and interviews for this study were conducted from Saturday, December 12, 2015, through Friday, December 18, 2015.

Upon entering the survey, respondents were asked standard demographic items such as age, gender, educational attainment, race, zip code, and party affiliation.⁵ Respondents who were under 18 years of age, who were not registered to vote, who were not living in the United States or who were not U.S. citizens were excluded from the study at this point. Additionally, respondents who were not Republican or Republican leaning Independents, or who said they were not planning on voting in the Republican primary caucus or primary in their state, were excluded from the study.⁶

Next, we randomly assigned respondents to answer a set of political questions online, by live telephone, or by interactive voice response (IVR) using block randomization.⁷ Respondents assigned to answer the next section via live telephone or interactive voice response viewed a page asking them to click on a button to make a free call from their computer. They were also given the option of dialing a toll free number. Respondents assigned to answer the next section via online simply viewed the next set of questions on the subsequent page.

⁵Respondent also provided personally identifiable information to obtain their registration status and previous voting history from a voter file. Specifically, they provided their first name, last name, street address, city, zip code and age.

⁶Many pollsters and researchers include either all Republican and Republican leaning Independents or respondents who say they plan on voting in the Republican primary or caucus in their state in their polling. Our definition is more inclusive and enables us to evaluate both populations in subsequent analyses.

⁷We utilized block randomization to increase the likelihood that there was a high level of balance across the treatment groups and so that we could do a better job of analyzing whether respondents who dropped out of the study affected the balance across treatment groups. A total of 200 blocks were created using respondents' educational attainment (five options), political ideology (8 options) and political interest (5 options) – three variables that may be correlated with views of the Republican presidential candidates. Respondents were less likely to be assigned to an online treatment because we anticipated that there would be lower levels of non-response for the online interviews. Namely, more respondents assigned to make a live phone call drop out relative to respondents who are assigned to complete the survey online, so an equal randomization would lead to considerably more completed cases on the online mode.

We were concerned that many respondents would not complete the phone call in the middle of an online interview, so we aimed to maximize the proportion of respondents who dialed the call center by offering respondents a Voice over Internet Protocol (VoIP) option in addition to a standard toll-free option, by mentioning that the phone call would last only 90 seconds, by telling the respondents the phone call was their final task prior to receiving compensation, and by telling respondents we will not record or share their phone number.⁸

The one-click phone call option for individuals assigned to take a live telephone interview linked to an inbound call center with live interviewers on staff 24 hours a day, 7 days a week. The phone number for individuals assigned to take an interview via interactive voice response (IVR) linked to a survey programmed via Precision Polling, an automated IVR platform. Respondents received a unique five digit code to tell the live interviewer or type into the IVR program so that their previous responses online could be linked with their responses on the phone, and all but a handful of respondents properly typed the code or mentioned it to a live interviewer.

We included the randomization option for IVR for a few important reasons. First, hundreds of national and state-based election polls are conducted using IVR. Second, self-administered IVR polling may reduce social desirability biases associated with live telephone interviewing in a method similar to online polling. Third, we believed asking respondents to dial a live phone number was very similar to asking respondents to dial an IVR number. To the extent that results from IVR and live telephone interviewing differ, we are confident that some of the differences can be attributed to social desirability bias – individuals’ tendency to state answers that will be viewed favorably by others.

Following the mode randomization, respondents answered questions about cell phone ownership, the Republican primary presidential race containing all of the current

⁸Pre-testing indicated that many respondents were unlikely to dial a phone number because they thought the call would last longer than 1-minute, they did not have a phone nearby, a family member was using a phone at the time, or they simply did not want to talk to someone on the phone. The Voice over Internet Protocol option attempted to address many of these considerations.

candidates,⁹ the hypothetical general election match up between Donald Trump and Hillary Clinton and satisfaction with family life. We included the cell phone question so that the phone call would feel more like a normal conversation and we included the family life satisfaction question because it has known and large mode differences of between 15 and 20 percentage points.¹⁰

RESULTS

The next section presents the study’s results with an overview of Trump support by survey mode, a likely voter analysis and a subgroup analysis. Overall, Trump holds a sizable advantage among online interviews compared with live interviews, his advantage online is fueled by voters with higher levels of education and Trump maintains his edge online when we examine only highly engaged likely voters.

Overall Support for Trump. Table 1 below provides some estimates of Donald Trump’s support online, by live telephone and by IVR using a few statistical models. Column 1 in Table 1 below displays the percent of adults who support Donald Trump in the Republican Presidential primary broken down by the mode of interview (i.e., online, live, IVR). Overall, 30 percent of respondents who completed the survey on live telephone supported Trump, 34 percent who completed the survey online supported

⁹The online and live telephone interviews included all 13 Republican candidates. All three modes randomized the order of the candidates names. The online surveys completely randomized the order of the 13 candidates, the live telephone interviews included 10 separate forms of randomization, and the interactive voice response interview included four separate randomized forms. The interactive voice response (IVR) software we used only allowed 10 response options for each question, so we included the top eight candidates based on the pollster.com average on December 12, 2015, and added options for “someone else” and “Don’t Know”

¹⁰A previous study by the Pew Research Center indicated that adults are 18 percentage points more likely to say they are “very satisfied” with their family life when taking a live telephone interview compared with an online interview. <http://www.pewresearch.org/2015/05/13/from-telephone-to-the-web-the-challenge-of-mode-of-interview-effects-in-public-opinion-polls/>. The current study reproduces these large mode differences. Overall, 71 percent of respondents on live telephone said they were very satisfied with their family life, 57 percent of online respondents said they were very satisfied, and only 53 percent of respondents said they were very satisfied.

Trump and 35 percent who completed the survey by IVR supported Trump. These are the raw results with no survey weights applied.¹¹

TABLE 1. Proportion of voters who say they will voter for Donald Trump in the 2016 Republican primary by online, live telephone and IVR. Support for Trump is coded 1 if the respondent supports Trump and 0 if the respondent does not support Trump

	<i>Dependent variable:</i>			
	Trump support			
	(1)	(2)	(3)	(4)
N - Constant	.344*** (.015)	.343*** (.058)	.381*** (.016)	.384*** (.059)
Live Telephone	-.039* (.023)	-.048** (.022)	-.059*** (.023)	-.060*** (.023)
IVR	.002 (.024)	-.005 (.024)	-.020 (.025)	-.025 (.024)
Survey Weights			x	x
Control Variables		x		x
Observations	2,397	2,397	2,397	2,397
R ²	.002	.039	.003	.051

Note: *p<0.1; **p<0.05; ***p<0.01

Column 2 in Table 1, which uses a model that controls for age, gender, education, race, and region, indicates that Trump performs five percentage points better online than via live telephone (34 percent versus 29 percent) and four points better via IVR than via live telephone interviewing.

Column 3 in Table 1 displays the proportion of adults who support Donald Trump by survey mode once survey weights for age, gender, education, race and region are

¹¹In each of the tables, online is the set aside category. This working paper utilizes linear regression models for ease of interpretation. Subsequent analyses will utilize predicted probabilities from logistic regressions. These results are highly similar to those obtained from the linear models.

included in the model.¹² We believe this is the most appropriate model to use for making generalizations about the survey. Overall, Donald Trump receives 38 percent support among adults who completed the survey online, 32 percent support among adults who completed the study by live telephone interviews, and 36 percent support among adults who completed the study via IVR. If one controls for basic demographic variables such as age, gender, education, race and region in the model (Column 4 in Table 1), Donald Trump receives six percentage points more support online than in live telephone interviewing. The differences between online and live telephone are significant at the 5% level in columns 2, 3 and 4 and they are significant at the 10% level in column 1.

Likely Voter Modeling. The preceding subsection suggests that when we hold the sample constant we observe some important differences across types of interviews. A second leading explanation for the differences between online and live telephone interviewing is that the two modes of interviewing tend to systematically use different criteria in their models for identifying likely voters. Since we are holding the sample constant, we are able to investigate whether restricting the definition of a likely voter has any influence on the magnitude of the mode effects.¹³

The online portion near the beginning of the survey included about one dozen questions about vote history, vote choice, interest in elections and knowledge about elections. Table 2 estimates the size of the mode effect among a series of different registered voter and likely voter populations and indicates that these differences between live and online interviews persist across a series of different populations.¹⁴

¹²Survey weights were obtained from the November 2012 Current Population Survey. Demographic variables were obtained for the full sample of registered voters who entered the survey, weights were applied to the entire sample, and then the sample was restricted to include only registered Republicans and Republican-leaning Independents. Separate weights were constructed for adults assigned to live telephone interviewing, adults assigned to online interviewing and adults assigned to IVR. Results are highly similar when one constructs weights overall rather than for the three separate samples.

¹³A key limitation of this study is that our sample comes entirely from large, national online survey vendors rather than a random sample of the entire population.

¹⁴We are in the process of matching adults to their actual voting history. We will provide additional analyses once that is completed.

Many surveys either report results among 1) registered Republicans and Republican-leaning Independents or 2) registered voters who say they are planning on voting in the Republican primary or caucus in their state. Our survey included both sub-populations. Column 1 of Table 2 indicates that Trump performs about six points better online than via phone among registered Republican and Republican leaning Independents. Column 2 of Table 2 shows that registered voters who say they are planning on voting in the Republican primary or caucus in their state prefer Trump by about seven percentage points online versus in live interviewing.¹⁵

TABLE 2. Proportion of voters who say they will voter for Donald Trump in the 2016 Republican primary by online, live telephone and IVR across different voter populations. Support for Trump is coded 1 if the respondent supports Trump and 0 if the respondent does not support Trump

	<i>Dependent variable:</i>			
	DV			
	(1)	(2)	(3)	(4)
Online - Constant	.357*** (.064)	.452*** (.064)	.369*** (.072)	.339*** (.084)
Live Telephone	-.060** (.024)	-.065*** (.025)	-.064** (.026)	-.092*** (.031)
IVR	-.046* (.025)	-.013 (.027)	-.009 (.028)	.012 (.033)
Population	GOP GOP leaners	GOP primary voters	Gallup 6+ out of 7	Gallup 7 out of 7
N	2,127	2,035	1,752	1,278
R ²	.056	.055	.052	.068

Note: *p<0.1; **p<0.05; ***p<0.01
All models include demographic controls and weights.

Column 3 in Table 2 continues to restrict the size of the voting population. In particular, we used the Gallup 7-point likely voter model containing questions such

¹⁵All models in this table include demographic controls and survey weights.

as how much thought you have given to the upcoming election, how likely is it that you will vote in the upcoming primary or caucus in your state, and how often you vote in general.¹⁶ Column 3 examines the sample receiving a score of 6 or 7 (out of 7) – very likely voters – and indicates that Trump receives six percentage points more support online than via phone.

When we examined only individuals receiving the highest likely voter score (7 out of 7) in Column 4 of Table 2, Trump’s advantage is slightly larger. Namely, Column 4 indicates that Trump does nine percentage points better in the model with weights and demographic controls. The difference between IVR and live telephone is an even larger 10 percentage points.

Subgroup Analysis. We have shown thus far that Trump performs better online than via live telephone, but are these differences between online and telephone larger for certain subgroups such as age, gender, education, region or race/ethnicity? This section provides results from some models that estimate the mode effects based on key subgroups.

Table 3 displays the overall type of interviewer effect along with a series of models that examine whether the mode effect is larger based on educational attainment or gender. Column 1 in Table 3 presents the main findings not including any interactions. Overall, across all three modes, Trump has the highest levels of support among men, adults with a high school degree or less and older adults. Column 2 includes an interaction by education and indicates that Trump performs considerably worse on live telephone polling among adults with some college degree or a bachelors degree, but considerably better on live telephone polling among adults with a high school degree or less. Among adults with a bachelors degree or postgraduate degree, Trump performs about 10 percentage points better online than via live telephone. Among adults with some college education, Trump performs more than 10 percentage points

¹⁶For the exact specification of the 7-point model, please see here <http://www.gallup.com/poll/111268/how-gallups-likely-voter-models-work.aspx>

TABLE 3. Proportion of voters who say they will voter for Donald Trump in the 2016 Republican primary by online, live telephone and IVR. Support for Trump is coded 1 if the respondent supports Trump and 0 if the respondent does not support Trump

	<i>Dependent variable:</i>		
	Trump Support		
	(1)	(2)	(3)
Live	-.054** (.023)	.228*** (.051)	-.086** (.034)
IVR	-.021 (.024)	-.013 (.053)	-.046 (.034)
Female	-.080*** (.020)	-.078*** (.019)	-.115*** (.032)
Non-white	-.088** (.038)	-.089** (.037)	-.089** (.038)
Some College	-.105*** (.026)	.019 (.041)	-.105*** (.026)
Bachelors +	-.265*** (.027)	-.160*** (.042)	-.265*** (.027)
Age 30-44	.030 (.033)	.031 (.033)	.030 (.033)
Age 45-64	.071*** (.027)	.074*** (.027)	.071*** (.027)
Age 65+	.060** (.029)	.066** (.029)	.057* (.030)
Midwest	-.019 (.031)	-.022 (.030)	-.017 (.031)
South	-.003 (.028)	-.007 (.028)	-.001 (.028)
West	-.031 (.033)	-.030 (.033)	-.029 (.033)
Live:Some College		-.376*** (.061)	
IVR:Some College		-.007 (.064)	
Live:Bachelors +		-.313*** (.063)	
IVR:Bachelors +		-.027 (.066)	
Live:Female			.060 (.045)
IVR:Female			.050 (.048)
Constant	.533*** (.039)	.443*** (.045)	.550*** (.041)
Observations	2,397	2,397	2,397
R ²	.057	.076	.058

Note: *p<0.1; **p<0.05; ***p<0.01

better online than via live telephone. There are no mode differences for education on interactive voice response (IVR).¹⁷ Column 3 in Table 3 shows that there are limited mode differences for gender. Additional models not included in the table suggest that there are limited mode differences for age, there are potentially some mode differences based on adults who live in the west, and there are not mode differences based on race / ethnicity.

Balance and potential limitations. Respondents were assigned to complete the election questions online, via live telephone or IVR, but not all respondents completed the study and there are different completion rates based on the treatment assignment. This section contains some balance checks to examine whether the individuals who did not complete the study may introduce biases in the overall findings. All things considered, there do appear to be some slight differences between the adults who completed the online, live and IVR surveys. However, we believe that these differences are generally small, it's not clear whether they consistently push respondents in a particular direction, and we believe that applying standard survey weights for age, gender, race, education and region will make the three treatment groups even more similar.

More than 99 percent of respondents assigned to the online primary questions completed them; on the other hand, 43 percent of respondents assigned to complete the primary question via IVR completed them and only 35 percent of respondents assigned to the live interview questions completed them. We observed this difference because many respondents did not want to make a phone call, did not want to speak with a live interviewer, or did not correctly enter in the appropriate 5-digit survey code.

¹⁷On the survey, adults were asked to provide the last grade they completed. Adults with technical or vocational school, some college with no degree, or an associate's degree are coded as "some college," adults with a four year college degree, a graduate or professional degree or graduate or professional school without a degree are coded as "Bachelors+."

The table below provides summary statistics for key demographic and substantive variables broken down the mode of survey completion. Forty-six percent of respondents who completed the online survey were women, compared with 41 percent who completed the study online and 45 percent who completed the study by IVR. The live telephone study is a bit older as well 21 percent of respondents who completed the live interviews were under 30 years of age, compared to 29 percent of the online interviewees and 27 percent of those who completed the interview via IVR. Forty-two percent of respondents who completed the online portion had a bachelors degree or postgraduate degree, compared to 40 percent of people who completed the live phone interview and 39 percent who completed the IVR portion. About nine in 10 respondents across the three modes were white.

Group	Online	Live	IVR
% Female	46	41	45
% 18-29	29	21	27
% White	89	91	87
% College Degree	42	40	39
% Trump Favorable	56	53	56
% Trump Very Favorable	31	31	30
% Extremely Int. in Politics	25	25	25
% Romney Vote	72	75	72

We also asked some attitudinal questions such as favorability toward Republican candidates and vote history prior to the mode effects randomization. Donald Trumps favorability rating is 56 percent among respondents who completed the online survey, 53 percent among respondents who completed the live interview and 56 percent among respondents who completed the IVR survey. 31 percent, 31 percent and 30 percent of respondents held a very favorable view toward Donald Trump across online, live and IVR, respectively. Twenty five percent of respondents in each sample said they were extremely interested in politics. Seventy two percent of respondents who completed the online poll said they voted for Romney in the 2012 presidential election, compared with 75 percent in the live sample and 72 percent in the IVR sample. Finally, on a seven point political ideology scale, more adults via IVR and

live telephone describe themselves as conservative. Sixty-three percent of adults who completed the live survey described themselves as conservative, compared with 61 percent who completed the IVR survey and 53 percent who completed the online survey.

We believe these differences are relatively small and are unlikely to influence the key takeaways from this mode study. It is worth noting that there some other potential limitations that we are actively evaluating. First, while our sample has a high level of diversity by education and region, the overall sample leans a bit young and female. Second, our likely voter modeling currently relies on self-reported voting history and interest. We are currently working to match this sample to a voter file. Third, while we believe the differential non-response between online and telephone respondents had a limited impact on the overall findings, it is possible that respondents who were willing to call a live telephone interviewer could be substantially different from respondents who are only willing to take a survey on the phone. Fourth, our sample is the sample of individuals who have been recruited by large, national online survey vendors rather than the larger sample of all registered voters. Fifth, our maximum survey weights for some of the mode are between 6 and 7.

Nonetheless, key components from this study bolster our confidence that the mode differences are real and significant. We observe large mode effects in the live versus IVR survey comparison, the coefficients on the mode effects models are similar in size when we use models with or without weights and with or without demographic controls, and the overall online support for Trump (38%) is consistent with previous national polling conducted by Morning Consult.

CONCLUSION AND IMPLICATIONS

Why does Donald Trump perform worse in live telephone versus online polling? In mid-December 2015, Morning Consult conducted a study where 2,500 Republican respondents began an interview online and then were assigned to complete a series of

political questions online, by live telephone or via interactive voice response (IVR). The study finds that Trump performs about six percentage points better online than via live telephone interviewing and that his advantage online is driven by adults with higher levels of education. Importantly, the differences between online and live telephone persist even when examining only highly engaged voters.