

## IPSOS / REUTERS POLL DATA

Prepared by Ipsos Public Affairs

### **Ipsos Poll Conducted for Reuters**

Mueller Poll 03.07.2019

These are findings from an Ipsos poll conducted February 27-March 4, 2019 on behalf of Thomson Reuters. For the survey, a sample of roughly 2,738 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English. The sample includes 2,274 registered voters, 1,078 Democrats, and 976 Republicans.

The sample for this study was randomly drawn from Ipsos's online panel (see link below for more info on "Access Panels and Recruitment"), partner online panel sources, and "river" sampling (see link below for more info on the Ipsos "Ampario Overview" sample method) and does not rely on a population frame in the traditional sense. Ipsos uses fixed sample targets, unique to each study, in drawing sample. After a sample has been obtained from the Ipsos panel, Ipsos calibrates respondent characteristics to be representative of the U.S. Population using standard procedures such as raking-ratio adjustments. The source of these population targets is U.S. Census 2016 American Community Survey data. The sample drawn for this study reflects fixed sample targets on demographics. Post-hoc weights were made to the population characteristics on gender, age, region, race/ethnicity and income.

Statistical margins of error are not applicable to online non-probability polls. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. Where figures do not sum to 100, this is due to the effects of rounding. The precision of Ipsos online polls is measured using a credibility interval. In this case, the poll has a credibility interval of plus or minus 2.1 percentage points for all respondents (see link below for more info on Ipsos online polling "Credibility Intervals"). Ipsos calculates a design effect (DEFF) for each study based on the variation of the weights, following the formula of Kish (1965). This study had a credibility interval adjusted for design effect of the following (n=2,738 DEFF=1.5, adjusted Confidence Interval=3.6).

The poll also has a credibility interval plus or minus 2.3 percentage points for registered voters, plus or minus 3.4 percentage points for Democrats, and plus or minus 3.6 percentage points for Republicans (see link below for more info on Ipsos online polling "Credibility Intervals").

For more information about Ipsos online polling methodology, please go here <a href="http://goo.ql/yJBkuf">http://goo.ql/yJBkuf</a>

		All Americans	Registered voters	Democrats	Republicans
AB11. Overall, do you approve or disapprove about the way Donald Trump is handling his job as President?	Strongly approve	23%	26%	6%	51%
	Somewhat approve	15%	15%	4%	28%
	Lean towards approve	2%	2%	0%	3%
	Lean towards disapprove	2%	2%	2%	1%
	Somewhat disapprove	12%	11%	12%	9%
	Strongly disapprove	42%	42%	74%	8%
	Not sure	5%	2%	1%	1%
	Total	2738	2274	1078	976



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AB11. Overall, do you approve or disapprove about the way Donald Trump is handling his job as President? Summary	TOTAL APPROVE	40%	43%	10%	81%
	TOTAL DISAPPROVE	56%	55%	89%	17%
	Not sure	5%	2%	1%	1%
	Total	2738	2274	1078	976
TM1465Y18 - Which of the following comes closest to your opinion?	President Trump should be impeached	48%	47%	78%	16%
	President Trump should not be impeached	40%	43%	12%	79%
	Don't know	13%	9%	10%	4%
	Total	2379	2003	995	867
	Strongly agree	38%	40%	65%	15%
TM1211Y17 - To what extent do you agree or disagree with the statement I think that President Trump or someone from his campaign worked with Russia to influence the 2016 election?	Somewhat agree	15%	14%	19%	8%
	Somewhat disagree	9%	9%	4%	14%
	Strongly disagree	23%	26%	4%	52%
	Don't know	15%	11%	7%	11%
	Total	2379	2003	995	867
TM1210Y17 - To what extent do you agree or disagree that President Trump tried to stop investigations into Russian influence on his administration?	Strongly agree	34%	37%	54%	18%
	Somewhat agree	17%	16%	16%	17%
	Somewhat disagree	11%	11%	7%	16%
	Strongly disagree	21%	22%	16%	32%
	Don't know	18%	14%	8%	17%
	Total	2379	2003	995	867



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### **How to Calculate Bayesian Credibility Intervals**

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter  $\theta$ \, i.e., Y| $\theta$ ^Bin(n, $\theta$ ), where n is the size of our sample. In this setting, Y counts the number of "yes", or "1", observed in the sample, so that the sample mean ( $\overline{y}$ ) is a natural estimate of the true population proportion  $\theta$ . This model is often called the likelihood function, and it is a standard concept in both the Bayesian and the Classical framework. The Bayesian <sup>1</sup> statistics combines both the prior distribution and the likelihood function to create a posterior distribution. The posterior distribution represents our opinion about which are the plausible values for  $\theta$  adjusted after observing the sample data. In reality, the posterior distribution is one's knowledge base updated using the latest survey information. For the prior and likelihood functions specified here, the posterior distribution is also a beta distribution ( $\pi(\theta/y)$ ^ $\theta$ (y+a,n-y+b)), but with updated hyper-parameters.

Our credibility interval for  $\vartheta$  is based on this posterior distribution. As mentioned above, these intervals represent our belief about which are the most plausible values for  $\vartheta$  given our updated knowledge base. There are different ways to calculate these intervals based on  $\pi(\theta/y)$ . Since we want only one measure of precision for all variables in the survey, analogous to what is done within the Classical framework, we will compute the largest possible credibility interval for any observed sample. The worst case occurs when we assume that a=1 and b=1 and y=n/2. Using a simple approximation of the posterior by the normal distribution, the 95% credibility interval is given by, approximately:

$$\bar{y} \mp \frac{1}{\sqrt{n}}$$

For this poll, the Bayesian Credibility Interval was adjusted using standard weighting design effect 1+L=1.3 to account for complex weighting<sup>2</sup>

Examples of credibility intervals for different base sizes are below. Ipsos does not publish data for base sizes (sample sizes) below 100.

Sample size	Credibility intervals
2,000	2.5
1,500	2.9
1,000	3.5
750	4.1
500	5.0
350	6.0
200	7.9
100	11.2