



IPSOS / REUTERS POLL DATA

Prepared by Ipsos Public Affairs

Ipsos Poll Conducted for Reuters

Pre-Democratic Debate Topline 10.13.2015

These are findings from an Ipsos poll conducted October 9-13, 2015 on behalf Thomson Reuters. For the survey, a sample of 1,221 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English. The sample included 1,035 registered voters, 484 Democrats, 443 Republicans and 158 Independents.

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 2015 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 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 3.2 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=1,221, DEFF=1.5, adjusted Confidence Interval=4.7).

The poll also has a credibility interval of plus or minus 3.5 percentage points for Registered Voters, plus or minus 5.1 percentage points for Democrats, plus or minus 5.3 percentage points for Republicans, and plus or minus 8.9 percentage points (see link below for more info on Ipsos online polling "Credibility Intervals").

For more information about Ipsos online polling methodology, please go here <http://goo.gl/yJBkuf>

		<u>Total</u>	<u>Registered to vote</u>	<u>Democrat</u>	<u>Republican</u>	<u>Independent</u>
Awareness...The first debate between the 2016 Democratic candidates hosted by CNN	No	62%	57%	55%	60%	60%
	Yes	38%	43%	45%	40%	40%
Q1. How interested, if at all, are you, in the Democratic primary process, that is, the pool of Democratic candidates who have declared that they are running to be the Democratic	Very interested	26%	29%	40%	18%	25%
	Somewhat interested	36%	38%	45%	33%	29%
	Not very interested	19%	18%	11%	24%	25%
	Not at all interested	19%	15%	4%	24%	21%



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nominee for
President?

Q2. - How much, if anything, have you seen or heard about the upcoming Democratic Primary debate?	Heard a great deal	10%	11%	14%	6%	13%
	Heard a fair amount	27%	29%	37%	26%	21%
	Heard a little bit	36%	38%	34%	41%	36%
	Not heard anything at all	27%	22%	16%	27%	30%
Q3. Do you expect the Democratic debate will be... <u>entertaining</u> than the Republican debates?	Significantly more	16%	13%	22%	12%	9%
	Slightly more	17%	16%	19%	15%	14%
	About the same	38%	37%	36%	32%	49%
	Slightly less	16%	18%	15%	19%	17%
	Significantly less	14%	15%	8%	22%	12%
Q3. Do you expect the Democratic debate will be... <u>substantive</u> than the Republican debates?	Significantly more	16%	16%	29%	4%	6%
	Slightly more	23%	23%	28%	20%	16%
	About the same	42%	40%	36%	36%	63%
	Slightly less	10%	10%	5%	18%	8%
	Significantly less	10%	11%	2%	22%	7%
Q3. Do you expect the Democratic debate will be... <u>offensive</u> than the Republican debates?	Significantly more	12%	12%	12%	19%	2%
	Slightly more	14%	15%	9%	21%	11%
	About the same	38%	37%	33%	33%	60%
	Slightly less	17%	16%	19%	18%	13%
	Significantly less	19%	20%	27%	9%	14%



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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 θ , i.e., $Y|\theta \sim \text{Bin}(n, \theta)$, 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 (\bar{y}) is a natural estimate of the true population proportion θ . This model is often called the likelihood function, and it is a standard concept in both the Bayesian and the Classical framework. The Bayesian¹ 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 θ 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 ($\pi(\theta/y) \sim \beta(y+a, n-y+b)$), but with updated hyper-parameters.

Our credibility interval for θ is based on this posterior distribution. As mentioned above, these intervals represent our belief about which are the most plausible values for θ 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:

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

For this poll, the Bayesian Credibility Interval was adjusted using standard weighting design effect $1+L=1.3$ to account for complex weighting²

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