Ipsos Poll Conducted for Reuters
Government Shutdown 10.01.2013

GOVERNMENT SHUTDOWN

Q1. So far, the US Congress has been unable to reach an agreement on a spending bill that would fund the federal government. If Congress fails to settle on a plan to keep the government funded by Oct. 1, the federal government will shutdown.

How concerned, if at all, are you about this issue?

	All respondents	Democrats	Republicans	Independents
Very concerned	33%	39%	29%	37%
Somewhat concerned	32%	38%	33%	25%
Not very concerned	15%	11%	20%	17%
Not at all concerned	10%	6%	14%	13%
Don't know	9%	6%	3%	9%
TOTAL CONCERNED	*65%*	*77%*	*63%*	*62%*
TOTAL NOT CONCERNED	*25%*	*17%*	*35%*	*29%*

Q2. Who would you say most deserves blame if a deal is not reached and the federal government shuts down?

	All respondents	Democrats	Republicans	Independents
Democrats in Congress	6%	4%	11%	2%
Republicans in Congress	24%	50%	5%	10%
President Obama	13%	4%	25%	18%
All of the above	46%	31%	53%	59%
Other	1%	*%	*%	2%
Unsure	10%	10%	4%	9%

Q3. As you may have heard, the Republican-controlled House has passed a spending bill that eliminates funding for Obamacare. Please indicate to the extent to which you agree or disagree that funding for Obamacare should be linked to measures that fund government operations.

	All respondents	Democrats	Republicans	Independents
Strongly agree	19%	12%	31%	24%
Somewhat agree	16%	12%	25%	12%
Neither agree nor disagree	33%	30%	19%	44%
Somewhat disagree	10%	12%	10%	7%
Strongly disagree	22%	34%	15%	13%
TOTAL AGREE	*35%*	*24%*	*56%*	*36%*
TOTAL DISAGREE	*32%*	*46%*	*25%*	*20%*

PARTY ID	All Adults
Strong Democrat	16%
Moderate Democrat	19%
Lean Democrat	6%
Lean Republican	6%
Moderate Republican	14%
Strong Republican	10%
Independent	14%
None of these	9%
Don't know	6%
Total Democrat	*41%*
Total Republican	*29%*

How to Calculate Bayesian Credibility Intervals

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter $\theta\backslash$, i.e., $Y|\theta \sim Bin(n,\theta)$, 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 Bayesian [1] 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:

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

For this poll, the Bayesian Credibility Interval was adjusted using standard weighting design effect $1+L=1.3$ to account for complex weighting[2]

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

[1] *Bayesian Data Analysis, Second Edition, Andrew Gelman, John B. Carlin, Hal S. Stern, Donald B. Rubin, Chapman & Hall/CRC | ISBN: 158488388X | 2003*
[2] *Kish, L. (1992). Weighting for unequal Pi . Journal of Official, Statistics, 8, 2, 183200.*