



Ipsos Poll conducted for Reuters, May 2012
Current Events Poll

NOTE: all results shown are percentages unless otherwise labeled.

These are findings from an Ipsos poll conducted for Thomson Reuters from May 11-15, 2012. For the survey, a sample of 1,174 Americans was interviewed online. The precision of the Reuters/Ipsos online polls is measured using a credibility interval. In this case, the poll has a credibility interval of plus or minus 3.3 percentage points for all respondents. For more information about credibility intervals, please see the appendix.

The data were weighted to the U.S. current population data by gender, age, education, ethnicity and a political values scale. 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. Figures marked by an asterisk () indicate a percentage value of greater than zero but less than one half of a per cent. Where figures do not sum to 100, this is due to the effects of rounding.*

ROMNEY BULLYING ALLEGATION POLL

Q1. Have you heard about Mitt Romney's alleged bullying of an allegedly gay classmate when they were both in high school?

	<u>All</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Indep/other</u>
Yes	53	58	55	45
No	47	42	45	55

Q2. Does what you have heard about this incident make you more or less favorable towards Mitt Romney? (Select one)

	<u>All</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Indep/other</u>
Much more favorable	3	6	1	1
Somewhat more favorable	2	2	2	4
No impact	67	83	51	74
Somewhat less favorable	12	7	18	10
Much less favorable	16	4	28	12
Total more favorable	5	8	3	5
Total less favorable	28	11	46	22



OBAMA GAY MARRIAGE POLL

Q3. Have you heard about Barack Obama's recently announced position regarding gay marriage.

	<u>All</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Indep/other</u>	<u>Caucasians</u>	<u>African Americans</u>	<u>Hispanics</u>
Yes	87	90	89	80	88	95	79
No	13	10	11	20	12	5	21

Q4. Does what you have heard about this announcement make you more or less favorable towards Barack Obama? (Select one)

	<u>All</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Indep/other</u>	<u>Caucasians</u>	<u>African Americans</u>	<u>Hispanics</u>
Much more favorable	19	4	37	7	15	25	32
Somewhat more favorable	12	7	16	12	11	19	10
No impact	40	34	36	54	41	38	32
Somewhat less favorable	9	14	5	7	9	7	9
Much less favorable	21	42	6	19	24	11	17
Total more favorable	31	11	53	19	26	44	42
Total less favorable	30	56	11	26	31	18	26

How to Calculate Bayesian Credibility Intervals

The calculation of credibility

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 . 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 . Using a simple approximation of the posterior by the normal distribution, the 95% credibility interval is given by, approximately:

$$\bar{y} \pm 1.96 \sqrt{\frac{\bar{y}(1-\bar{y})}{n}}$$

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

Analysis Domain	Sample size	Credibility intervals
All Americans	1,174	3.3
Republicans	395	5.7
Democrats	495	5.1
Independents	284	6.8
Caucasians	783	4.1
African Americans	134	9.8
Hispanics	163	8.9

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 P_i . *Journal of Official Statistics*, 8, 2, 183200.