## Ipsos Public Affairs

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Interview dates: Oct 1-5, 2012 Base: 1,728 Registered voters (RV) Base for Voting Intention: 1,434 Likely Voters (LV)

## Ipsos Poll conducted for Reuters DAILY ELECTION TRACKING 10.05.12

These are findings from an Ipsos poll conducted for Thomson Reuters from Oct. 1-5, 2012. For the survey, a sample of 1,728 American registered voters (age 18 and over) 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 2.7 percentage points for Registered Voters and 3.0 for Likely Voters. 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, and ethnicity. 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.

### **DAILY ELECTION TRACKER**

Q1. If the 2012 Presidential Election were being held today and the candidates were [ROTATE] Barack Obama for president and Joe Biden for vice president, the Democrats, and Mitt Romney for president and Paul Ryan for vice president, the Republicans [END ROTATE], for whom would you vote?

	All LIKELY Voters (LV)	All Registered Voters (RV)	Democrats (RV)	Republicans (RV)	Independents (RV)
Barack Obama for president and Joe Biden for vice president, the Democrats	46%	45%	86%	7%	32%
Mitt Romney for president and Paul Ryan for vice president, the Republicans	44%	41%	7%	85%	38%
Wouldn't vote	2%	2%	1%	1%	6%
None / Other	3%	4%	2%	2%	8%
Don't know / Refused	6%	7%	4%	5%	16%

### [ASK IF OBAMA OR ROMNEY SELECTED IN Q1]

Q2. Have you definitely decided to vote for [INSERT RESPONSE FROM Q1], or is there a chance you might change your mind before you vote? (n=1,136)

	All Registered	Democrats	Republicans	Independents
	Voters (RV)	<u>(RV)</u>	(RV)	<u>(RV)</u>
Definitely will vote for candidate	85%	88%	87%	69%
Could change my mind	15%	12%	13%	31%

Q3. Have you already voted in the upcoming November general election by going to an early voting location, or by mailing in an early voting or absentee ballot, or not?

	All Registered	<u>Democrats</u>	<u>Republicans</u>	<u>Independents</u>
	Voters (RV)	<u>(RV)</u>	<u>(RV)</u>	<u>(RV)</u>
Yes	8%	9%	7%	7%
No	92%	91%	93%	93%

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[IF "No" at Q3, ASK Q4]

Q4. And do you plan to vote at an early voting location or by mailing in an early voting or absentee ballot? (n=1,239)

	All Registered	<u>Democrats</u>	<u>Republicans</u>	Independents
	Voters (RV)	<u>(RV)</u>	<u>(RV)</u>	<u>(RV)</u>
Yes – I plan to vote at an early voting location	11%	10%	12%	11%
Yes – I plan to mail in an early voting ballot	10%	11%	9%	8%
Yes – I plan to mail in an absentee ballot	10%	10%	9%	15%
No – I do not plan to vote early	70%	69%	69%	65%

### **FIRST PRESIDENTIAL DEBATE**

These questions have been included in the survey since 11pm EST the night of the debate (October  $3^{rd}$ ). The base size for these questions is 976 American registered voters, and has a credibility interval of plus or minus 3.6 percentage points

Q5. Have you seen, heard or read anything about the Presidential debate on Wednesday, October 3rd?

POST-DEBATE	All Registered	Democrats	Republicans	<u>Independents</u>
	Voters (RV)	<u>(RV)</u>	<u>(RV)</u>	<u>(RV)</u>
A great deal	40%	43%	42%	39%
A fair amount	28%	27%	28%	27%
A little bit	23%	22%	23%	24%
Not heard anything at all	9%	7%	6%	11%
Seen, heard or read something	91%	93%	94%	89%

Q6. Regardless of which candidate you happen to support, who do you think did the better job in the debate?

POST-DEBATE	All Registered	<u>Democrats</u>	<u>Republicans</u>	<u>Independents</u>
	Voters (RV)	<u>(RV)</u>	<u>(RV)</u>	<u>(RV)</u>
Barack Obama, Democrat	24%	43%	6%	17%
Mitt Romney, Republican	54%	31%	83%	52%
Don't know	23%	27%	11%	31%

Q7. And has the debate changed your view of each candidate?

POST-DEBATE		All Registered Voters (RV)	Democrats (RV)	Republicans (RV)	Independents (RV)
Barack Obama, Democrat	Yes – more positive towards candidate	14%	26%	5%	8%
	Yes – more negative towards candidate	20%	5%	39%	16%
	No – has not changed my view	55%	62%	50%	55%
	Don't know	11%	8%	6%	21%
Mitt Romney, Republican	Yes – more positive towards candidate	30%	9%	58%	23%
	Yes – more negative towards candidate	14%	28%	3%	7%
	No – has not changed my view	42%	50%	33%	46%
	Don't know	13%	12%	6%	24%



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Q8. After watching this debate, are you now more or less likely to watch the next Presidential debate, or has it made no difference?

POST-DEBATE	All Registered	<u>Democrats</u>	<u>Republicans</u>	<u>Independents</u>
	Voters (RV)	<u>(RV)</u>	<u>(RV)</u>	<u>(RV)</u>
More likely	47%	48%	52%	37%
Less likely	3%	3%	3%	2%
No difference	35%	33%	33%	41%
Didn't watch first debate	16%	15%	12%	21%

Q9. If you had to choose one, which of the following activities would you do?

POST-DEBATE	All Registered Voters (RV)	Democrats (RV)	Republicans (RV)	Independents (RV)
Watch the Presidential debate	62%	68%	64%	52%
Have a tooth pulled	4%	2%	3%	3%
Watch paint dry	9%	6%	9%	13%
Do your taxes	7%	7%	7%	6%
Wait in line at security at the airport	7%	8%	6%	10%
Jury duty	11%	9%	11%	16%

### **PARTY ID**

	All Registered  Voters (RV)
Strong Democrat	18%
Moderate Democrat	19%
Lean Democrat	7%
Lean Republican	7%
Moderate Republican	18%
Strong Republican	13%
Independent	12%
None of these	4%
DK	2%



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

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter  $\theta\setminus$ , 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 (y  $\square$ ) 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.

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

<sup>&</sup>lt;sup>1</sup> Bayesian Data Analysis, Second Edition, Andrew Gelman, John B. Carlin, Hal S. Stern, Donald B. Rubin, Chapman & Hall/CRC | ISBN: 158488388X | 2003

<sup>&</sup>lt;sup>2</sup> Kish, L. (1992). Weighting for unequal Pi . Journal of Official, Statistics, 8, 2, 183200.