



Ipsos Poll conducted for Reuters, January 2012

Florida Republican Primary

NOTE: all results shown are percentages unless otherwise labeled.

These are findings from an Ipsos poll conducted for Thomson Reuters from January 28th – 30th, 2012. For the survey, a sample of 726 likely voters in the Florida Republican Primary was interviewed online. Likely voters are defined via a seven-item summated Index, including questions on voter registration, voting in previous elections, probability of voting in the upcoming election and interest in following news about the campaign. This index is then transformed by logistic regression into estimated probabilities of voting. Statistical margins of error are not applicable to online surveys but this poll has a credibility interval of plus or minus 4.2 percentage points for registered voters. For more information about credibility intervals, please see the appendix.

The tracking data presented in these findings are the result of the previous three days of surveying. As we near the election, data from earlier dates will be dropped from the tracking total.

The data were weighted to Florida current population registered voter 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.*

ALL FIGURES BELOW ARE BASED ON LIKELY VOTERS IN THE JANUARY 31 FLORIDA REPUBLICAN PRIMARY

REPUBLICAN PRESIDENTIAL PRIMARY

1. Have you already voted in the upcoming Republican primary election by going to an early voting location, or by mailing in an early voting or absentee ballot, or not?

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
Yes	35	30	30	29
No	65	70	70	71

[ALL LIKELY PRIMARY VOTERS; COMBINED 2a & 2b]

2. If the 2012 Republican presidential primaries were being held today, for whom of the following would you vote?

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
Mitt Romney	43	42	43	41
Newt Gingrich	28	30	32	33
Rick Santorum	12	16	16	13
Ron Paul	5	6	6	5
Other/undecided	12	5	4	8



[IF ALREADY VOTED]

2a. For whom of the following did you vote?

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
Mitt Romney	47	50	46	44
Newt Gingrich	26	30	34	37
Rick Santorum	15	9	10	11
Ron Paul	7	6	6	5
Rick Perry	*	*	*	*
Jon Huntsman	*	*	*	*
Other	5	4	3	2

[IF HAVE NOT YET VOTED]

2b. If the 2012 Republican presidential primaries were being held today, for whom of the following would you vote?

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
Mitt Romney	41	39	41	40
Newt Gingrich	29	30	30	31
Rick Santorum	18	19	18	18
Ron Paul	7	6	6	7
Other/undecided	5	5	5	4

2c. If your first choice dropped out of the race, for whom of the following would you vote?

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
Mitt Romney	22	24	24	24
Newt Gingrich	30	26	28	30
Rick Santorum	31	38	33	30
Ron Paul	9	9	10	11
Other/undecided	7	3	4	5

3. Regardless of your personal preference, if the Republican Presidential Primaries came down to these two candidates, for which one would you vote?

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
Mitt Romney	56	55	53	50
Newt Gingrich	42	44	45	48
Other/undecided	2	1	2	2

4. Have you heard about the results of the following elections? (% BASED ON 'YES')

	<u>Mon 1/30/12</u>	<u>Sun 1/29/12</u>	<u>Sat 1/28/12</u>	<u>Fri 1/27/12</u>
The Republican caucuses in Iowa	90	89	90	91
The Republican primary in New Hampshire	79	87	87	88
The Republican primary in South Carolina	90	94	95	96



DEMOGRAPHICS

A. Are you currently registered to vote at this address, or not?

Yes	100
No	0
(Not sure)	0

B. PD1a. Are you registered as a Republican, Democrat, some other party or no party affiliation?

Florida Democratic Party	--
Republican Party of Florida	100
No party affiliation	--
Other political party	--

C. PARTY IDENTIFICATION

- a. Do you consider yourself a Democrat, a Republican, an Independent or none of these?
IF "DEMOCRAT" ASK Qb. IF "REPUBLICAN" ASK Qc. IF "INDEP." / "NONE" ASK Qd.
- b. Do you lean strongly or only moderately toward the Democratic Party?
- c. Do you lean strongly or only moderately toward the Republican Party?
- d. Do your beliefs tend to lean more toward the Democrats or the Republicans?

Strongly Democrat	--
Moderately Democrat	--
Lean Democrat	--
Strongly Republican	64
Moderately Republican	34
Lean Republican	2
Independent (No lean)	1
Initial Democrats	--
Total Democrats	--
Initial Republicans	98
Total Republicans	99

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 $\pi(\frac{\theta}{y})$. 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 the Florida poll published on January 30th, 2012, 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
Registered Republican likely voters: Monday, January 30, 2012	658	4.4%
Registered Republican likely voters: Sunday, January 29, 2012	726	4.2%
Registered Republican likely voters: Saturday, January 28, 2012	903	4.0%
Registered Republican likely voters: Friday, January 27, 2012	732	4.2%

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.