Ipsos Poll conducted for Reuters, May 2012
VEEPSTAKES ROUND ONE
NOTE: all results shown are percentages unless otherwise labeled.

These are findings from an Ipsos poll conducted for Thomson Reuters from April 27th – May 3rd, 2012. For the survey, a sample of 1,629 American registered voters 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 2.8 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.

VEEPSTAKES

ALL RESPONDENTS ARE REGISTERED VOTERS

Q1. How familiar are you with the following public figures, taking into account all the ways you may have heard about them?

	Very familiar	Somewhat familiar	Not very familiar	Heard of, but that's it	Not heard of	Total familiar	Total aware
Rick Santorum, former senator from Pennsylvania	27	37	17	9	10	**64**	**90**
Mike Huckabee, former governor of Arkansas	22	34	18	14	12	**56**	**88**
Jeb Bush, former governor of Florida	19	34	21	13	14	**53**	**86**
Chris Christie, governor of New Jersey	19	25	20	10	25	**44**	**75**
Rand Paul, senator from Kentucky	13	25	22	13	26	**39**	**74**
Paul Ryan, chair of the House Budget Committee	12	20	24	12	33	**32**	**67**
Marco Rubio, senator from Florida	10	17	24	12	37	**27**	**63**
Bobby Jindal, governor of Louisiana	11	16	23	9	41	**27**	**59**
Tim Pawlenty, former governor of Minnesota	7	16	26	12	39	**23**	**61**
Mitch Daniels, governor of Indiana	7	14	26	12	41	**21**	**59**
Jim DeMint, senator from South Carolina	6	12	26	11	46	**18**	**54**
Nikki Haley, governor of South Carolina	6	11	25	11	47	**17**	**53**
Patrick Toomey, senator from Pennsylvania	3	11	29	16	42	**14**	**58**
Bob McDonnell, governor of Virginia	3	11	25	12	48	**14**	**52**
Susana Martinez, governor of New Mexico	3	9	26	12	49	**12**	**51**
John Thune, senator from South Dakota	3	9	27	13	50	**11**	**50**
Rob Portman, senator from Ohio	3	8	27	14	48	**11**	**52**
Brian Sandoval, governor of Nevada	3	8	26	14	50	**10**	**50**
Kelly Ayotte, senator from New Hampshire	3	6	25	11	56	**8**	**44**

Q1. Familiarity by Party ID

	Republicans		Independents		Democrats		Tea Party	
	Total familiar	Total aware	Total familiar	Total aware	Total familiar	Total aware	Total familiar	Total aware
Rick Santorum, former senator from Pennsylvania	78	96	50	88	59	87	82	94
Mike Huckabee, former governor of Arkansas	68	95	44	84	52	84	80	94
Jeb Bush, former governor of Florida	65	92	38	81	50	84	70	90
Chris Christie, governor of New Jersey	53	82	39	72	39	71	61	87
Rand Paul, senator from Kentucky	47	83	29	68	36	69	62	87
Paul Ryan, chair of the House Budget Committee	43	77	22	60	27	63	59	83
Marco Rubio, senator from Florida	42	75	14	55	21	57	55	81
Bobby Jindal, governor of Louisiana	37	67	20	57	22	54	49	74
Tim Pawlenty, former governor of Minnesota	33	71	16	55	18	56	43	77
Mitch Daniels, governor of Indiana	27	67	12	57	19	54	35	74
Jim DeMint, senator from South Carolina	25	64	10	46	15	49	38	71
Nikki Haley, governor of South Carolina	24	61	12	50	14	48	34	67
Patrick Toomey, senator from Pennsylvania	17	66	9	52	14	55	22	71
Bob McDonnell, governor of Virginia	18	57	8	46	14	50	21	62
Susana Martinez, governor of New Mexico	15	58	9	45	12	47	19	59
John Thune, senator from South Dakota	15	57	8	45	10	47	22	63
Rob Portman, senator from Ohio	14	59	6	49	11	48	16	63
Brian Sandoval, governor of Nevada	10	56	8	45	11	47	13	58
Kelly Ayotte, senator from New Hampshire	8	49	5	43	10	41	11	52

[ONLY ASKED OF RESPONDENTS AWARE OF PUBLIC FIGURE, RANKED BY TOTAL FAVORABILITY]
Q2. Would you say you are generally favorable or unfavorable towards these public figures?

	Very favorable	Somewhat favorable	Lean towards favorable	Lean towards unfavorable	Somewhat unfavorable	Very unfavorable	Total fav (t2b)	Total lean (m2B)	Total unfav (b2b)
Governor Mike Huckabee	14	18	31	23	7	8	**31**	**54**	**15**
Governor Chris Christie	14	18	32	20	7	9	**31**	**52**	**17**
Senator Rick Santorum	11	19	25	21	7	16	**31**	**46**	**23**
Governor Bobby Jindal	13	16	33	23	7	8	**29**	**56**	**15**
Governor Jeb Bush	11	17	29	22	10	12	**28**	**51**	**21**
Senator Marco Rubio	13	13	36	23	8	7	**26**	**59**	**14**
Congressman Paul Ryan	11	14	37	23	6	10	**25**	**60**	**15**
Senator Rand Paul	7	16	35	27	6	9	**23**	**62**	**15**
Governor Tim Pawlenty	5	16	41	28	7	5	**21**	**68**	**11**
Senator Jim DeMint	6	15	41	25	6	7	**21**	**66**	**13**
Governor Nikki Haley	7	13	42	26	6	6	**20**	**68**	**12**
Governor Mitch Daniels	8	12	41	26	7	6	**20**	**67**	**13**
Governor Susana Martinez	5	14	45	26	6	4	**19**	**71**	**10**
Senator John Thune	5	11	44	28	8	5	**16**	**72**	**12**
Senator Patrick Toomey	2	12	48	28	6	3	**15**	**76**	**10**
Senator Rob Portman	4	11	47	27	8	3	**15**	**74**	**11**
Senator Kelly Ayotte	3	12	46	29	7	4	**15**	**75**	**11**
Governor Bob McDonnell	3	11	45	28	5	7	**15**	**73**	**12**
Governor Brian Sandoval	5	9	47	30	7	4	**13**	**77**	**10**

Q2. Favorability by Party ID

	Republicans			Independents			Democrats			Tea Party		
	Total fav	Total lean	Total unfav	Total fav	Total lean	Total unfav	Total fav	Total lean	Total unfav	Total fav	Total lean	Total unfav
Governor Mike Huckabee	55	45	3	19	67	13	16	58	26	65	33	2
Governor Chris Christie	51	46	3	24	57	20	17	55	28	55	41	3
Senator Rick Santorum	55	38	7	20	61	19	14	47	38	65	30	4
Governor Bobby Jindal	48	48	4	18	68	15	15	59	26	58	37	5
Governor Jeb Bush	52	45	3	18	64	18	11	51	38	59	36	5
Senator Marco Rubio	46	50	4	12	76	12	12	62	26	59	37	4
Congressman Paul Ryan	44	53	3	15	70	15	11	62	28	62	35	4
Senator Rand Paul	37	59	4	20	67	13	12	64	25	51	45	4
Governor Tim Pawlenty	36	61	3	10	77	14	10	71	19	45	52	3
Senator Jim DeMint	36	61	3	10	79	11	11	66	24	47	48	3
Governor Nikki Haley	34	63	3	9	81	10	10	66	22	45	52	4
Governor Mitch Daniels	27	60	3	11	73	16	9	70	21	45	50	5
Governor Susana Martinez	28	67	5	11	79	10	14	72	14	32	63	5
Senator John Thune	26	70	4	7	81	12	10	70	21	35	61	4
Senator Patrick Toomey	21	77	3	8	81	11	11	73	15	25	71	4
Senator Rob Portman	24	72	4	8	81	12	10	74	17	29	63	8
Senator Kelly Ayotte	20	75	5	8	80	12	13	72	15	28	69	4
Governor Bob McDonnell	23	73	4	6	81	13	10	71	19	27	68	5
Governor Brian Sandoval	17	80	3	4	82	14	13	71	15	25	71	4

Q3. All of these public figures have been mentioned as potentially being Mitt Romney's Vice-Presidential running mate for the 2012 Republican Presidential ticket. If you had to pick one, who would you pick?

	RVs	Republicans	Independents	Democrats	Tea Party
Senator Rick Santorum	18	18	18	18	16
Governor Chris Christie	14	13	13	15	9
Governor Mike Huckabee	12	12	9	13	10
Governor Jeb Bush	11	13	12	9	8
Senator Marco Rubio	9	17	4	5	23
Governor Susana Martinez	7	4	9	8	3
Senator Rand Paul	6	6	8	4	9
Governor Bobby Jindal	4	3	6	5	4
Senator Kelly Ayotte	3	1	5	4	1
Governor Nikki Haley	3	1	4	4	3
Congressman Paul Ryan	3	3	4	4	4
Governor Mitch Daniels	2	3	1	2	1
Senator Jim DeMint	2	3	1	2	4
Senator Patrick Toomey	2	1	2	2	2
Governor Bob McDonnell	1	1	1	2	1
Governor Tim Pawlenty	1	1	2	2	1
Senator Rob Portman	1	1	2	1	1
Governor Brian Sandoval	1	*	*	2	*
Senator John Thune	1	1	*	*	1

How to Calculate Bayesian Credibility Intervals

The calculation of credibility intervals ass

te 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   . 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:

$$\overline{=}_{..}$$

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

Analysis Domain	Sample size	Credibility intervals
Registered voters	1629	2.8
Republicans RVs	579	4.7
Independents RVs	308	6.5
Democrats RVs	741	4.2
Tea Party supporter RVs	317	6.4

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[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.*