

These are findings from an Ipsos poll conducted for Thomson Reuters April 10-21, 2015. For the survey, a sample of 3,576 Americans, including 1,419 Democrats, 1,223 Republicans, and 530 Independents ages 18+ were 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 1.9 percentage points for all adults, 3.0 percentage points for Democrats, 3.2 percentage points for Republicans, and 4.9 percentage points for Independents. 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 one per cent. Where figures do not sum to 100, this is due to the effects of rounding. To see more information on this and other Reuters/Ipsos polls, please visit <http://polling.reuters.com/>.

LIBERTARIANS

Q1. Please indicate how much you agree or disagree with the following statements:

<u>All adults</u>	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure	TOTAL AGREE	TOTAL DISAGREE
The U.S. military should only be involved in conflicts when the United States faces a direct and imminent threat	29%	32%	19%	8%	12%	61%	27%
Government should not be involved in deciding who can and can't marry, including people of the same sex	42%	19%	13%	14%	13%	61%	27%
The U.S. should use a flat tax or broad sales tax to finance the government	20%	28%	15%	10%	27%	48%	24%
The U.S. should replace the federal income tax with a flat tax or federal sales tax (<i>Added on 4/15, n=1,793</i>)	20%	25%	19%	12%	23%	45%	32%
State governments should have much more authority than the federal government	16%	25%	25%	14%	20%	41%	39%
Gun ownership should not be regulated by the government	23%	17%	17%	30%	12%	41%	48%
The federal government should have very little authority over domestic affairs	15%	24%	24%	19%	18%	40%	43%
Government should not prohibit the use and possession of most drugs, including marijuana	18%	20%	20%	28%	13%	39%	48%
The U.S. federal income tax should be abolished	19%	17%	23%	25%	17%	36%	47%
Most federal regulatory agencies, like the Food and Drug Administration, should be abolished or significantly reduced in authority.	11%	17%	24%	32%	16%	28%	56%
Government should have minimal authority over immigration into the United States	9%	11%	21%	46%	13%	20%	67%
Government programs assisting the poor like Medicaid or Food Stamps should be abolished	6%	13%	22%	48%	11%	19%	70%
Government programs assisting the elderly like Social Security or Medicare should be abolished	5%	7%	11%	66%	11%	12%	77%

Q1. Please indicate how much you agree or disagree with the following statements: (cont.)

<u>Democrats</u>	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure	TOTAL AGREE	TOTAL DISAGREE
Government should not be involved in deciding who can and can't marry, including people of the same sex	48%	19%	11%	11%	11%	67%	22%
The U.S. military should only be involved in conflicts when the United States faces a direct and imminent threat	32%	33%	17%	7%	10%	65%	25%
Government should not prohibit the use and possession of most drugs, including marijuana	22%	26%	20%	22%	10%	48%	42%
The U.S. should use a flat tax or broad sales tax to finance the government	15%	26%	16%	13%	30%	41%	28%
The U.S. should replace the federal income tax with a flat tax or federal sales tax (Added on 4/15, n=725)	11%	24%	23%	15%	27%	35%	38%
The federal government should have very little authority over domestic affairs	11%	19%	26%	26%	18%	31%	51%
State governments should have much more authority than the federal government	10%	21%	30%	20%	19%	31%	50%
Gun ownership should not be regulated by the government	12%	14%	18%	45%	11%	27%	62%
The U.S. federal income tax should be abolished	12%	14%	26%	33%	15%	26%	59%
Government should have minimal authority over immigration into the United States	9%	13%	22%	44%	12%	22%	66%
Most federal regulatory agencies, like the Food and Drug Administration, should be abolished or significantly reduced in authority.	8%	13%	22%	43%	14%	21%	65%
Government programs assisting the poor like Medicaid or Food Stamps should be abolished	5%	9%	16%	61%	9%	14%	77%
Government programs assisting the elderly like Social Security or Medicare should be abolished	6%	6%	7%	72%	9%	12%	79%

Q1. Please indicate how much you agree or disagree with the following statements: (cont.)

<u>Republicans</u>	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure	TOTAL AGREE	TOTAL DISAGREE
The U.S. should use a flat tax or broad sales tax to finance the government	32%	30%	13%	8%	17%	63%	20%
Gun ownership should not be regulated by the government	39%	23%	17%	15%	5%	62%	32%
The U.S. military should only be involved in conflicts when the United States faces a direct and imminent threat	29%	32%	23%	11%	6%	60%	34%
State governments should have much more authority than the federal government	28%	32%	20%	8%	12%	60%	28%
Government should not be involved in deciding who can and can't marry, including people of the same sex	36%	23%	15%	19%	7%	59%	34%
The U.S. should replace the federal income tax with a flat tax or federal sales tax (Added on 4/15, n=600)	32%	27%	16%	9%	17%	58%	25%
The federal government should have very little authority over domestic affairs	22%	34%	22%	12%	10%	56%	34%
The U.S. federal income tax should be abolished	28%	22%	22%	18%	10%	50%	40%
Most federal regulatory agencies, like the Food and Drug Administration, should be abolished or significantly reduced in authority.	17%	25%	27%	21%	11%	41%	47%
Government should not prohibit the use and possession of most drugs, including marijuana	15%	17%	20%	40%	8%	31%	60%
Government programs assisting the poor like Medicaid or Food Stamps should be abolished	10%	20%	32%	32%	7%	29%	64%
Government should have minimal authority over immigration into the United States	8%	10%	19%	55%	8%	18%	74%
Government programs assisting the elderly like Social Security or Medicare should be abolished	6%	9%	17%	62%	6%	15%	79%

Q1. Please indicate how much you agree or disagree with the following statements: (cont.)

<u>Independents</u>	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure	TOTAL AGREE	TOTAL DISAGREE
The U.S. military should only be involved in conflicts when the United States faces a direct and imminent threat	26%	33%	21%	7%	12%	60%	28%
Government should not be involved in deciding who can and can't marry, including people of the same sex	39%	20%	15%	15%	12%	59%	29%
The U.S. should use a flat tax or broad sales tax to finance the government	21%	33%	16%	8%	22%	54%	24%
The U.S. should replace the federal income tax with a flat tax or federal sales tax (Added on 4/15, n=269)	23%	27%	22%	12%	16%	50%	34%
The U.S. federal income tax should be abolished	23%	20%	20%	21%	15%	44%	41%
Gun ownership should not be regulated by the government	27%	16%	18%	31%	8%	43%	49%
State governments should have much more authority than the federal government	16%	26%	29%	13%	16%	42%	42%
The federal government should have very little authority over domestic affairs	19%	22%	28%	19%	11%	41%	47%
Government should not prohibit the use and possession of most drugs, including marijuana	21%	20%	23%	26%	11%	40%	49%
Most federal regulatory agencies, like the Food and Drug Administration, should be abolished or significantly reduced in authority.	13%	17%	28%	30%	13%	29%	57%
Government should have minimal authority over immigration into the United States	10%	15%	22%	43%	10%	25%	64%
Government programs assisting the poor like Medicaid or Food Stamps should be abolished	7%	14%	24%	46%	8%	21%	71%
Government programs assisting the elderly like Social Security or Medicare should be abolished	5%	7%	10%	67%	11%	12%	77%

Q2. Do you consider yourself a libertarian?

	<u>Total</u>	<u>Democrats</u>	<u>Republicans</u>	<u>Independents</u>
Yes	19%	21%	17%	24%
No	81%	79%	83%	76%



Ipsos Poll Conducted for Reuters

Libertarians 04.21.2015

PARTY ID	<u>All Adults</u>
Strong Democrat	14%
Moderate Democrat	20%
Lean Democrat	9%
Lean Republican	6%
Moderate Republican	14%
Strong Republican	10%
Independent	15%
None of these	7%
Don't know	6%
<i>Total Democrat</i>	<i>42%</i>
<i>Total Republican</i>	<i>30%</i>

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 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:

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

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

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.