IPSOS / REUTERS POLL DATA

Prepared by Ipsos Public Affairs

Ipsos Poll Conducted for Reuters

Apple and the FBI Topline 2.23.2016

These are findings from an Ipsos poll conducted February 19-23, 2016 on behalf Thomson Reuters. For the survey, a sample of roughly 1,576 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English.

The sample for this study was randomly drawn from Ipsos's online panel (see link below for more info on "Access Panels and Recruitment"), partner online panel sources, and "river" sampling (see link below for more info on the Ipsos "Amparo Overview" sample method) and does not rely on a population frame in the traditional sense. Ipsos uses fixed sample targets, unique to each study, in drawing sample. After a sample has been obtained from the Ipsos panel, Ipsos calibrates respondent characteristics to be representative of the U.S. Population using standard procedures such as raking-ratio adjustments. The source of these population targets is U.S. Census 2015 American Community Survey data. The sample drawn for this study reflects fixed sample targets on demographics. Post-hoc weights were made to the population characteristics on gender, age, region, race/ethnicity and income.

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. Where figures do not sum to 100, this is due to the effects of rounding. The precision of 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 point for all respondents (see link below for more info on Ipsos online polling "Credibility Intervals"). Ipsos calculates a design effect (DEFF) for each study based on the variation of the weights, following the formula of Kish (1965). This study had a credibility interval adjusted for design effect of the following (n=1,576, DEFF=1.5, adjusted Confidence Interval=4.3).

For more information about Ipsos online polling methodology, please go here http://goo.gl/yJBkuf

		Total
TM53Y13_1_1 - Would you be willing to Give up privacy of my email if it would...Help the US government foil foreign terrorist plots? *Added on 2/18/2016	No	69%
	Yes	31%
	Total	1576
TM53Y13_1_2 - Would you be willing to Give up privacy of my email if it would...Help the US government foil domestic terrorist plots? *Added on 2/18/2016	No	71%
	Yes	29%
	Total	1576
TM53Y13_1_3 - Would you be willing to Give up privacy of my email if it would...Help the US government counter hacking of US networks and infrastructure by foreign powers? *Added on 2/18/2016	No	78%
	Yes	22%
	Total	1576
TM53Y13_1_4 - Would you be willing to Give up privacy of my email if it would...None of these? *Added on 2/18/2016	No	41%
	Yes	59%
	Total	1576
TM53Y13_2_1 - Would you be willing to Give up privacy of my text messages if it would...Help the US government foil foreign terrorist plots? *Added on 2/18/2016	No	75%
	Yes	25%
	Total	1576
TM53Y13_2_2 - Would you be willing to Give up privacy of my text messages if it would...Help the US government foil domestic terrorist	No	72%
	Yes	28%

plots? *Added on 2/18/2016	Total	1576
TM53Y13_2_3 - Would you be willing to Give up privacy of my text messages if it would...Help the US government counter hacking of US networks and infrastructure by foreign powers? *Added on 2/18/2016	No Yes Total	79% 21% 1576
TM53Y13_2_4 - Would you be willing to Give up privacy of my text messages if it would...None of these? *Added on 2/18/2016	No Yes Total	38% 62% 1576
TM53Y13_3_1 - Would you be willing to Give up privacy of my phone records if it would...Help the US government foil foreign terrorist plots? *Added on 2/18/2016	No Yes Total	71% 29% 1576
TM53Y13_3_2 - Would you be willing to Give up privacy of my phone records if it would...Help the US government foil domestic terrorist plots? *Added on 2/18/2016	No Yes Total	70% 30% 1576
TM53Y13_3_3 - Would you be willing to Give up privacy of my phone records if it would...Help the US government counter hacking of US networks and infrastructure by foreign powers? *Added on 2/18/2016	No Yes Total	76% 24% 1576
TM53Y13_3_4 - Would you be willing to Give up privacy of my phone records if it would...None of these? *Added on 2/18/2016	No Yes Total	42% 58% 1576
TM53Y13_4_1 - Would you be willing to Give up privacy of my internet activities if it would...Help the US government foil foreign terrorist plots? *Added on 2/18/2016	No Yes Total	74% 26% 1576
TM53Y13_4_2 - Would you be willing to Give up privacy of my internet activities if it would...Help the US government foil domestic terrorist plots? *Added on 2/18/2016	No Yes Total	73% 27% 1576
TM53Y13_4_3 - Would you be willing to Give up privacy of my internet activities if it would...Help the US government counter hacking of US networks and infrastructure by foreign powers? *Added on 2/18/2016	No Yes Total	77% 23% 1576
TM53Y13_4_4 - Would you be willing to Give up privacy of my internet activities if it would...None of these? *Added on 2/18/2016	No Yes Total	38% 62% 1576
TM853Y16 - Apple is opposing a court order to unlock a smart phone that was used by one of the shooters in the San Bernardino attack. Apple is concerned that if it helps the FBI this time, it will be forced to help the government in future cases that may not be linked to national security, opening the door for hackers and potential future	Agree Disagree Don't know	46% 35% 20%

data breaches for smartphone users.
Do you agree or disagree with Apple's decision to oppose the court order?

	Total	1284
TM854Y16_1 - Level of agreement with the following...The government should be able to look at data on Americans' phones in order to protect against terror threats	Strongly agree	18%
	Somewhat agree	28%
	Somewhat disagree	17%
	Strongly disagree	25%
	Not sure	13%
	Total	1284
TM854Y16_2 - Level of agreement with the following...If Apple unlocks the iPhone for the government, cybercriminals will soon be able to steal data from locked iPhones	Strongly agree	27%
	Somewhat agree	27%
	Somewhat disagree	14%
	Strongly disagree	12%
	Not sure	20%
	Total	1284
TM854Y16_3 - Level of agreement with the following...The government will use this ability to unlock phones to spy on iPhone users	Strongly agree	30%
	Somewhat agree	25%
	Somewhat disagree	13%
	Strongly disagree	15%
	Not sure	17%
	Total	1284

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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|θ~Bin(n,θ), 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 (π(θ/y)~β(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 π(θ/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[2]

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