

These are findings from an Ipsos poll conducted for Thomson Reuters September 11-15, 2015. For the survey, a sample of 1,251 adults 18+ were interviewed online. The precision of the Reuters/Ipsos online polls is measured using a <u>credibility interval</u>. In this case, the poll has a credibility interval of plus or minus 3.2 percentage points. 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 <u>http://polling.reuters.com/</u>.

## REFUGEES

Q1. According to the UN, wars, conflict and persecution have forced more people than at any other time since records began to flee their homes and seek refuge and safety elsewhere. Worldwide, there are an estimated 59.5 million refugees.

Please indicate the extent to which you agree or disagree with each of the following statements:

	<u>Agree</u>	<u>Disagree</u>	<u>Don't know</u>
The United States should limit the number of refugees allowed into the country	60%	18%	22%
All countries should open their borders to refugees of foreign conflicts	41%	35%	24%
The United States should open our borders to refugees of foreign conflicts	34%	40%	26%
It is Europe's responsibility to take in the majority of these refugees	28%	36%	36%
The United States should open our borders to those fleeing ISIS specifically	28%	40%	33%
The United States should welcome refugees from certain conflicts, but not others	18%	51%	31%
The United States should welcome Christian refugees, but not Muslim ones	17%	60%	23%

Q2. As you may be aware, refugees of the civil war in Syria are seeking asylum in many different countries. The United States has taken in approximately 1,500 refugees of this conflict. President Obama said the country will accept 10,000 more in the coming year. Do you think that the United States should allow more or fewer refugees from Syria to come and live in this country, or should it take the same amount as it currently does?

US should take more	20%
US should take fewer	35%
US should take the same amount as now	23%
Don't know	22%



Q3. And how many <u>additional</u> refugees of the Syrian civil war do you think should be allowed into the United States, on top of the 1,500 who are already here? (Asked of those said that the US should take more refugees at Q2, n=267)

Less than 100 4%	
1,000-1,999	4%
2,000-4,999	4%
5,000-9,999	16%
10,000-49,999	18%
50,000-99,999	13%
100,000-499,999	7%
500,000-999,999	4%
1 million – 2 million	1%
More than 2 million	5%
None	2%
Not sure	23%

Q4. Estimates by the UN and other organizations indicate that between 3-4 million refugees have already left Syria and need asylum, and that at least 6 million more have been displaced internally within Syria and will likely seek refuge outside of Syria when they can.

Turkey currently has 1.9 million Syrian refugees and Lebanon has 1.1 million. Germany has taken in approximately 100,000; Sweden over 50,000; Austria 18,000; Canada 2,400; Finland 350; and Australia has recently offered to take up to 12,000 (up from their previous 2,000).

In your opinion, how many additional refugees of the Syrian civil war do you think should be allowed into the United States, on top of the 1,500 who are already here?

Less than 100	2%
100 - 999	3%
1,000-1,999	6%
2,000-4,999	5%
5,000-9,999	10%
10,000-49,999	8%
50,000-99,999	4%
100,000-499,999	4%
500,000-999,999	2%
1 million – 2 million	1%
More than 2 million	1%
None	24%
Not sure	29%



Q5. Did you see the images of the drowned Syrian boy Aylan Kurdi washed up on a Turkish beach?

Yes, I saw the image	47%
No, but I heard about the image	19%
No, I do not know about the image	35%

Q6. Does seeing this image impact your opinion on what should be done regarding the Syrian refugees? (Asked of those that had seen or heard of the image at Q5 or agreed to be shown the photo during the survey, n=1,159)

Yes, it makes me want to do more	56%
No, it does not change my views	32%
Don't know	13%



## How to Calculate Bayesian Credibility Intervals

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter  $\theta$ \, 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 ( $\overline{y}$ ) 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 ( $\pi(\theta/y)^{\alpha}\beta(y+a,n-y+b)$ ), 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:



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. 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

<sup>1</sup> Bayesian Data Analysis, Second Edition, Andrew Gelman, John B. Carlin, Hal S. Stern, Donald B. Rubin, Chapman & Hall/CRC | ISBN: 1584883888X | 2003

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