

REUTERS / IPSOS POLL DATA Prepared by Ipsos Public Affairs

## **Ipsos Poll Conducted for Reuters**

Green Card Lottery 11.13.2017

These are findings from an Ipsos poll conducted November 4-7, 2017 on behalf of Thomson Reuters. For the survey, a sample of roughly 1,278 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English. The sample includes 529 Democrats, 432 Republicans and 187 Independents.

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 "Ampario 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 2016 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, race/ethnicity, region, and education.

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 3.1 percentage points for all respondents. 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=1,278, DEFF=1.5, adjusted Confidence Interval=4.6).

The poll has a credibility interval of plus or minus 4.9 percentage points for Democrats, plus or minus 5.4 percentage points for Republicans and plus or minus 8.2 percentage points for Independents.

For more information about conducting research intended for public release or Ipsos' online polling methodology, please visit our <u>Public Opinion Polling and Communication</u> page where you can download our brochure, see our public release protocol, or contact us.

		<u>Total</u>	Democrat	<u>Republican</u>	Independent
TM1351Y17_1 - Regarding how	Strongly support	36%	48%	25%	30%
immigrants to the US obtain Green	Somewhat support	34%	32%	40%	36%
Cards, please indicate whether you	Somewhat oppose	12%	8%	16%	14%
support or oppose Allowing foreign	Strongly oppose	10%	8%	13%	8%
spouses of American citizens to	Don't know	8%	4%	6%	12%
obtain Green Cards.	Total	1278	529	432	187
TM1351Y17_2 - Regarding how	Strongly support	29%	39%	18%	29%
immigrants to the US obtain Green	Somewhat support	32%	34%	34%	28%
Cards, please indicate whether you	Somewhat oppose	16%	14%	20%	16%
support or oppose Allowing	Strongly oppose	14%	7%	20%	16%
immigrants to America to obtain	Don't know	9%	6%	7%	11%
Green Cards via sponsorship from their American employer.	Total	1278	529	432	187
TM1351Y17_3 - Regarding how	Strongly support	10%	14%	6%	7%
immigrants to the US obtain Green	Somewhat support	15%	20%	10%	18%



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Cards, please indicate whether you	Somewhat oppose	21%	24%	17%	21%
support or oppose Allowing	Strongly oppose	39%	28%	58%	36%
immigrants to America to obtain	Don't know	15%	14%	9%	18%
Green Cards through a lottery.	Total	1278	529	432	187
	Strongly agree	27%	16%	49%	22%
TM1352Y17 - It was recently proposed that the US end the 'Green Card Lottery' program. Do you agree or disagree that the US should end the 'Green Card Lottery' program?	Somewhat agree	24%	26%	19%	33%
	Somewhat disagree	21%	27%	14%	15%
	Strongly disagree	15%	19%	11%	6%
	Don't know	14%	11%	7%	24%
	Total	639	263	212	97
	Strongly agree	200/	1 - 0/	F 20/	2.40/
TM1353Y17 - President Trump	Strongly agree	30%	15%	53%	24%
recently proposed that the US end	Somewhat agree	23%	25%	22%	27%
the 'Green Card Lottery' program.	Somewhat disagree	16%	22%	9%	24%
Do you agree or disagree that the US	Strongly disagree	17%	26%	9%	14%
should end the 'Green Card Lottery'	Don't know	14%	13%	8%	12%
program?	Total	639	266	220	90



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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  $\theta$ \, 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