

### IPSOS / REUTERS POLL DATA

Prepared by Ipsos Public Affairs

#### **Ipsos Poll Conducted for Reuters**

Gun Violence and Gun Laws 2.8.2019

These are findings from an Ipsos poll conducted January 11-28, 2019 on behalf of Thomson Reuters. For the survey, a sample of roughly 6,813 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English. The sample includes 2,701 Democrats, 2,359 Republicans, and 973 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, 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 1.4 percentage points 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=6,813, DEFF=1.5, adjusted Confidence Interval=2.9).

The poll also has a credibility interval plus or minus 2.1 percentage points for Democrats, plus or minus 2.3 percentage points for Republicans, and plus or minus 3.6 percentage points for Independents (see link below for more info on Ipsos online polling "Credibility Intervals").

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

		Total	Democrat	Republican	Independent
TM1584Y19 - Are you a parent	Yes	24%	24%	24%	25%
of a child who is currently	No	76%	76%	76%	75%
attending public or private elementary, middle or high school?	Total	6813	2701	2359	973
V31Y13_1 - Do you, or does	No	72%	82%	59%	73%
anyone in your home, own a	Yes	28%	18%	41%	27%
gun of any kindYes, I own a gun	Total	6813	2701	2359	973
V31Y13_2 - Do you, or does anyone in your home, own a gun of any kindYes, someone else in my home owns a gun	No	83%	86%	79%	85%
	Yes	17%	14%	21%	15%
	Total	6813	2701	2359	973



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V31Y13_3 - Do you, or does	No	41%	30%	56%	39%	
anyone in your home, own a	Yes	59%	70%	44%	61%	
gun of any kindNo	Total	6813	2701	2359	973	
8	Gun ownership should	0013	2,01	2333	373	
	have strong regulations	48%	67%	33%	44%	
	or restrictions	1070	0770	3370	1175	
	Gun ownership should					
	have moderate	21%		25%	22%	
PV20 - V9 - When thinking about	regulations or		18%			
gun ownership rights and gun	restrictions					
laws, which of the following	Gun ownership should					
comes closest to your personal	have basic regulations	17%	8%	28%	19%	
opinion?	or restrictions					
·	Gun ownership should					
	have no or very few	7%	3%	11%	7%	
	restrictions					
	Unsure	7%	5%	3%	8%	
	Total	6813	2701	2359	973	
PV21B 1 - V11 1 Do you favor	Strongly favor	65%	80%	54%	63%	
or oppose the following? -	Somewhat favor	19%	12%	24%	17%	
Expanding background checks to	Somewhat oppose	8%	4%	11%	11%	
include sales at gun shows and	Strongly oppose	8%	4%	10%	10%	
those between private parties	Total	5194	2118	1877	660	
	Strongly favor	52%	73%	38%	44%	
PV21B_2 - V11_2_Do you favor	Somewhat favor	17%	13%	19%	18%	
or oppose the following? -	Somewhat oppose	15%	8%	19%	18%	
Banning military-style assault	Strongly oppose	16%	6%	24%	20%	
weapons	Total	5194	2118	1877	660	
	Strongly favor	44%	62%	31%	37%	
PV21B_3 - V11_3_Do you favor	Somewhat favor	18%	17%	19%	15%	
or oppose the following? -	Somewhat oppose	18%	13%	21%	23%	
Banning semi-automatic						
weapons	Strongly oppose	20%	8%	30%	25%	
	Total	5194	2118	1877	660	
PV21B_4 - V11_4_Do you favor	Strongly favor	51%	70%	38%	43%	
or oppose the following? -	Somewhat favor	19%	14%	20%	24%	
Banning high-capacity	Somewhat oppose	16%	10%	19%	17%	
ammunition clips	Strongly oppose	15%	6%	22%	17%	
	Total	5194	2118	1877	660	
PV21B_5 - V11_5_Do you favor	Strongly favor	45%	61%	31%	39%	
or oppose the following? -	Somewhat favor	19%	17%	20%	22%	
Banning online sales of	Somewhat oppose	20%	14%	25%	23%	
ammunition	Strongly oppose	16%	8%	24%	16%	
	Total	5194	2118	1877	660	
	Strongly favor	30%	18%	44%	27%	
PV21B_6 - V11_6_Do you favor	Somewhat favor	29%	23%	33%	30%	
or oppose the following? -	Somewhat oppose	20%	24%	15%	21%	
Publicly funding gun classes for	Strongly oppose	22%	35%	8%	22%	
teachers and school personnel	Total	5194	2118	1877	660	
	TOTAL	3134	2110	10//	000	



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	Strongly favor	23%	11%	39%	22%
PV21B_7 - V11_7_Do you favor	Somewhat favor	28%	20%	35%	28%
or oppose the following? -	Somewhat oppose	23%	26%	18%	25%
Allowing school personnel to carry guns	Strongly oppose	26%	43%	8%	25%
carry guris	Total	5194	2118	1877	660
_	Strongly favor	20%	10%	33%	17%
PV21B_8 - V11_8_Do you favor	Somewhat favor	25%	15%	36%	25%
or oppose the following? -	Somewhat oppose	25%	27%	19%	30%
Encouraging school personnel to	Strongly oppose	30%	47%	11%	28%
carry guns	Total	5194	2118	1877	660
	Strongly favor	37%	27%	51%	36%
PV21B_9 - V11_9_Do you favor	Somewhat favor	34%	33%	34%	33%
or oppose the following? -	Somewhat oppose	18%	22%	12%	19%
Placing armed security guards in	Strongly oppose	11%	17%	3%	11%
schools	Total	5194	2118	1877	660
	Strongly favor	68%	74%	67%	67%
PV21B_10 - V11_10_Do you	Somewhat favor	18%	15%	21%	17%
favor or oppose the following? -	Somewhat oppose	8%	7%	8%	8%
Banning people with a history of	Strongly oppose	5%	4%	4%	8%
mental illness from buying guns	Total	5194	2118	1877	660
	Strongly favor	57%	71%	48%	52%
PV21B_11 - V11_11_Do you	Somewhat favor	23%	19%	26%	22%
favor or oppose the following? -	Somewhat oppose	11%	6%	14%	14%
Tracking gun sales through a	Strongly oppose	9%	4%	13%	12%
federal database	Total	5194	2118	1877	660
	Strongly favor	61%	65%	61%	56%
PV21B_12 - V11_12_Do you	Somewhat favor	23%	22%	24%	22%
favor or oppose the following? -	Somewhat oppose	11%	9%	9%	14%
Prohibiting anyone on the 'no-	Strongly oppose	6%	4%	6%	7%
fly list' from buying a gun	Total	5194	2118	1877	660
	Very worried	29%	34%	26%	28%
TM1585Y19 - How worried, if at	Somewhat worried	36%	40%	32%	35%
all, are you to send your child or	Not very worried	21%	17%	25%	23%
children to school because of	Not at all worried	11%	7%	16%	11%
gun violence?	Don't know	3%	3%	1%	2%
G	Total	1812	715	617	255
	Strongly support	51%	63%	41%	48%
TM1433Y18 - Do you support or oppose raising the legal age to	Somewhat support	20%	20%	22%	19%
	Somewhat oppose	11%	7%	14%	13%
	Strongly oppose	13%	6%	20%	13%
buy a gun from 18 to 21?	Don't know	6%	4%	4%	7%
	Total	6813	2701	2359	973
	Very concerned	54%	72%	41%	47%
	Somewhat concerned	31%	22%	39%	34%
			3%	14%	10%
TM1586Y19 - How concerned, if	Not very concerned	9%			
at all, are you about gun	Not very concerned	9% 4%			
	Not very concerned  Not at all concerned  Don't know	4% 2%	1% 1%	6% 1%	6% 3%



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	Policies that make it tougher to own guns	55%	77%	41%	47%
TM1591Y19 - In your opinion, which is a better approach to	Policies that make it easier to own guns	10%	5%	15%	12%
stop gun violence in the U.S.?	Other	23%	10%	33%	29%
	Don't Know	12%	7%	12%	12%
	Total	2655	989	868	428
	Very confident	12%	12%	16%	8%
TM1587Y19 - How confident are	Somewhat confident	25%	26%	28%	22%
you that your elected	Not very confident	27%	28%	25%	26%
representatives understand	Not at all confident	22%	21%	21%	31%
your views on gun ownership?	Don't know	14%	13%	10%	13%
	Total	6813	2701	2359	973
	Very confident	7%	7%	8%	6%
TM1588Y19 - How confident are	Somewhat confident	20%	22%	22%	13%
you that your elected	Not very confident	32%	31%	33%	32%
representatives will do something this year to improve	Not at all confident	26%	28%	22%	32%
gun laws in the U.S.?	Don't know	16%	11%	15%	16%
guiriaws in the 0.5.:	Total	6813	2701	2359	973
	Parkland, Florida	64%	68%	67%	60%
TM1589Y19 - February 14th will mark the anniversary of the deadliest high school shooting in	Tempe, Arizona	2%	3%	2%	1%
	Brooklyn, New York	2%	2%	2%	1%
	Lincoln, Nebraska	3%	3%	3%	4%
U.S. history. Do you know the city where the high school is	Kenosha, Wisconsin	2%	2%	2%	1%
located?	Don't know	27%	22%	24%	32%
.ooatea.	Total	5193	2117	1877	660



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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 ( $\pi(\theta/y)^{\sim}\theta(y+a,n-y+b)$ ), 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:

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

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