

Ipsos Poll Conducted for Reuters

Democratic Primary Poll 06.05.2019

These are findings from an Ipsos poll conducted May 29- June 5, 2019 on behalf of Thomson Reuters. For the survey, a sample of roughly 4,416 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English. The sample includes 3,851 registered voters, 1,537 registered Democrats, 1,382 registered Republicans, and 734 registered 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 non-probability 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 1.7 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=4,416 DEFF=1.5, adjusted Confidence Interval=3.2).

The poll also has a credibility interval of plus or minus 1.8 percentage points for registered voters, 2.9 percentage points for registered Democrats, 3.0 percentage points for registered Republicans, and 4.1 percentage points for registered Independents. (see link below for more info on Ipsos online polling "Credibility Intervals").

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

TOPLINE BEGINS ON NEXT PAGE



		All Americans	All Registered Voters	Democrat Registered Voters	Republican Registered Voters	Independent Registered Voters
	Joe Biden	30%	31%	36%	-	21%
	Kamala Harris	6%	6%	8%	-	2%
	Elizabeth Warren	8%	9%	11%	-	5%
	Bernie Sanders	15%	14%	16%	-	12%
	Beto O'Rourke	4%	3%	4%	-	2%
	Cory Booker	2%	2%	2%	-	2%
	Julian Castro	0%	1%	1%	-	0%
	Amy Klobuchar	1%	2%	1%	-	2%
	Kirsten Gillibrand	0%	0%	0%	-	0%
	Pete Buttigieg	5%	5%	5%	-	4%
If the 2020	Tulsi Gabbard	1%	1%	0%	-	1%
Democratic presidential	John Hickenlooper	1%	1%	0%	-	1%
primary election	Steve Bullock	0%	0%	0%	-	0%
were held today,	Jay Inslee	0%	0%	0%	-	0%
and you had to choose from the	John Delaney	0%	0%	0%	-	0%
list of candidates below, for whom	Marianne Williamson	0%	0%	0%	-	0%
would you vote?	Andrew Yang	1%	1%	1%	-	2%
(Asked only of Democrats and Independents)	Tim Ryan	1%	1%	0%	-	1%
	Wayne Messam	0%	0%	0%	-	0%
	Eric Swalwell	0%	0%	0%	-	0%
	Seth Moulton	0%	0%	0%	-	1%
	Michael Bennet	0%	0%	0%	-	0%
	Bill de Blasio	1%	1%	0%	-	1%
	Mike Gravel	0%	0%	0%	-	0%
	Other	1%	1%	1%	-	2%
	Don't know	13%	12%	10%	-	17%
	l can't/won't vote in the Democratic primary	8%	7%	0%	-	23%
	Total	2525	2271	1537	0	734
	וטנמו	2325	22/1	1237		/34



	Joe Biden	15%	15%	17%	-	10%
If your first choice dropped out of the race	Kamala Harris	12%	13%	14%	-	8%
	Elizabeth Warren	12%	12%	14%	-	9%
or you had to	Bernie Sanders	19%	19%	20%	-	16%
choose someone	Beto O'Rourke	6%	6%	6%	-	6%
to vote for, who	Cory Booker	6%	6%	6%	-	7%
would you vote	Julian Castro	2%	3%	3%	-	2%
for in the upcoming presidential	Amy Klobuchar	3%	3%	3%	-	3%
primary election? (Asked	Kirsten Gillibrand	2%	2%	2%	-	2%
only of	Pete Buttigieg	7%	7%	7%	-	8%
Democrats and	Other	16%	15%	10%	-	30%
Independents)	Don't know	0%	0%	0%	-	0%
	Total	2303	2089	1537	0	552
If the 2020	Joe Biden (Democrat)	47%	50%	86%	10%	46%
presidential election were being held today and the	Donald Trump (Republican)	34%	36%	5%	80%	30%
	Neither / Other	8%	7%	4%	6%	14%
candidates were as below, for	Wouldn't vote	5%	2%	2%	1%	3%
whom would you vote?	Don't know/Refused	5%	5%	3%	3%	8%
,	Total	4416	3851	1537	1382	734
If the 2020	Donald Trump (Republican)	35%	37%	5%	81%	31%
presidential election were being held today and the candidates were as below, for whom would you vote?	Bernie Sanders (Democrat)	44%	46%	81%	7%	42%
	Neither / Other	10%	10%	8%	9%	18%
	Wouldn't vote	6%	3%	2%	2%	2%
	Don't know/Refused	6%	5%	4%	2%	7%
	Total	4416	3851	1537	1382	734
If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?	Donald Trump (Republican)	36%	38%	6%	81%	34%
	Elizabeth Warren (Democrat)	40%	43%	78%	5%	38%
	Neither / Other	11%	11%	8%	9%	17%
	Wouldn't vote	7%	3%	3%	1%	4%
	Don't know/Refused	6%	5%	5%	3%	7%
	Total	4416	3851	1537	1382	734



If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?	Donald Trump (Republican)	35%	37%	6%	81%	32%
	Pete Buttigieg (Democrat)	37%	39%	72%	5%	35%
	Neither / Other	13%	12%	11%	10%	18%
	Wouldn't vote	7%	4%	5%	1%	4%
	Don't know/Refused	8%	7%	6%	4%	11%
	Total	4416	3851	1537	1382	734
If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?	Donald Trump (Republican)	36%	38%	6%	82%	33%
	Kamala Harris (Democrat)	39%	41%	77%	5%	36%
	Neither / Other	11%	11%	9%	9%	18%
	Wouldn't vote	6%	3%	3%	1%	3%
	Don't know/Refused	8%	7%	6%	4%	10%
	Total	4416	3851	1537	1382	734



Prepared by Ipsos Public Affairs

Main Questionnaire

REUP1. Are you currently registered to vote, or not? (Select one)

Yes No Don't know / Refused

REUS8. In your opinion, what is the most important problem facing the US today? (Select from below or write in)

[RANDOMIZE]

Economy generally Unemployment / lack of jobs War / foreign conflicts Immigration Terrorism / terrorist attacks Healthcare Energy issues Morality Education Crime Environment Other **[INSERT TEXT BOX]** Don't know [ASK ALL GROUPS]

REUAB1. Generally speaking, would you say things in this country are heading in the right direction, or are they off on the wrong track?

[ROTATE 1-2; 2-1]

Right direction Wrong track Don't know **[ANCHOR]**

REUAB11. Overall, do you approve or disapprove of the way Donald Trump is handling his job as President?

[ROTATE 1-2; 2-1]

Approve Disapprove Don't know [ANCHOR]

[IF "APPROVE" OR "DISAPPROVE" TO REUAB11, ASK QUESTION REUAB12.]

REUAB12. Is that strongly [INSERT RESPONSE FROM AB11] or somewhat [INSERT RESPONSE FROM AB11]



Prepared by Ipsos Public Affairs

lpsos

[ROTATE 1-2; 2-1] Strongly [INSERT RESPONSE FROM AB11] Somewhat [INSERT RESPONSE FROM AB11]

[IF "DK" TO AB11, ASK QUESTION REUAB13]

AB13. If you had to choose, do you lean more towards approve or disapprove?

[ROTATE 1-2; 2-1]

Approve Disapprove Don't know / Refused [ANCHOR]

REUTM3. How familiar are you with the following public figures, taking into account all the ways you may have heard about them?

[GRID ACROSS: PROGRESSIVE ROTATE 1-5;5-1]

Very familiar Somewhat familiar Not very familiar Have heard of them, but that's it Have not heard about them

[GRID DOWN: RANDOMIZE]

Donald Trump Joe Biden Kamala Harris Elizabeth Warren **Bernie Sanders** Beto O'Rourke Cory Booker Julian Castro Amy Klobuchar Kirsten Gillibrand Pete Buttigieg Tulsi Gabbard John Hickenlooper Steve Bullock Jay Inslee John Delaney Marianne Williamson Andrew Yang Tim Ryan Wayne Messam Eric Swalwell Seth Moulton Michael Bennet Bill de Blasio Mike Gravel

REUTM4. Would you say you are generally favorable or unfavorable towards these public figures?



Prepared by Ipsos Public Affairs

[GRID ACROSS: PROGRESSIVE ROTATE 1-6;6-1]

Very favorable Somewhat favorable Lean towards favorable Lean towards unfavorable Somewhat unfavorable Very unfavorable

[GRID DOWN: ONLY INCLUDE INDIVIDUALS RESPONDENT IS AWARE OF (REUTM3:1-4); RANDOMIZE IN SAME ORDER]

Donald Trump Joe Biden Kamala Harris Elizabeth Warren **Bernie Sanders** Beto O'Rourke Cory Booker Julian Castro Amy Klobuchar Kirsten Gillibrand Pete Buttigieg Tulsi Gabbard John Hickenlooper Steve Bullock Jay Inslee John Delaney Marianne Williamson Andrew Yang Tim Ryan Wayne Messam Eric Swalwell Seth Moulton Michael Bennet Bill de Blasio Mike Gravel

[ASK STRONG/MODERATE/LEAN DEMOCRAT AND INDEPENDENTS ONLY FROM PID] TM1633Y19. If the 2020 Democratic presidential primary election were held today, for whom would you vote?

[OPEN END]

[ASK STRONG/MODERATE/LEAN DEMOCRAT AND INDEPENDENTS ONLY FROM PID] TM1634Y19. If the 2020 Democratic presidential primary election were held today, and you had to choose from the list of candidates below, for whom would you vote?

[RANDOMIZE LIST] Joe Biden Kamala Harris Elizabeth Warren



Bernie Sanders Beto O'Rourke Cory Booker Julian Castro Amy Klobuchar Kirsten Gillibrand Pete Buttigieg Tulsi Gabbard John Hickenlooper Steve Bullock Jay Inslee John Delaney Marianne Williamson Andrew Yang Tim Ryan Wayne Messam Eric Swalwell Seth Moulton Michael Bennet Bill de Blasio Mike Gravel I can't/won't vote in the Democratic primary [ASK INDEPENDENTS ONLY, DO NOT ASK TM1657Y19 IF SAYS CAN'T/WON'T VOTE] Other [ANCHOR] Don't know [ANCHOR]

[ASK STRONG/MODERATE/LEAN DEMOCRAT AND INDEPENDENTS ONLY FROM PID AND ONLY THOSE DID NOT SAY 'CAN'T/WON'T VOTE IN THE DEMOCRATIC PRIMARY'IN TM1634Y19]

TM1657Y19. If your first choice dropped out of the race or you had to choose someone to vote for, who would you vote for in the upcoming presidential primary election?

[HOLD ORDER FROM PREVIOUS QUESTION, DO NOT INCLUDE RESPONSE FROM TM1634Y19 UNLESS 'OTHER' ' Joe Biden Kamala Harris Elizabeth Warren Bernie Sanders Beto O'Rourke Cory Booker Julian Castro Amy Klobuchar Kirsten Gillibrand Pete Buttigieg Other [ANCHOR]

[RANDOMIZE ORDER OF TM651Y15_1 - TM651Y15_5 - ASK EVERYONE]



Prepared by Ipsos Public Affairs

TM651Y15_1. If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?

[RANDOMIZE ITEMS, ANCHOR LAST THREE ITEMS (Neither/Wouldn't vote/DK) FOR EACH.

Donald Trump (Republican) Joe Biden (Democrat) Neither / Other Wouldn't vote Don't know/Refused

TM651Y15_2. If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?

[RANDOMIZE ITEMS, ANCHOR LAST THREE ITEMS (Neither/Wouldn't vote/DK) FOR EACH.

Donald Trump (Republican) Bernie Sanders (Democrat) Neither / Other Wouldn't vote Don't know / Refused

TM651Y15_3. If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?

[RANDOMIZE ITEMS, ANCHOR LAST THREE ITEMS (Neither/Wouldn't vote/DK) FOR EACH.

Donald Trump (Republican) Elizabeth Warren (Democrat) Neither / Other Wouldn't vote Don't know / Refused

TM651Y15_4. If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?

[RANDOMIZE ITEMS, ANCHOR LAST THREE ITEMS (Neither/Wouldn't vote/DK) FOR EACH.

Donald Trump (Republican) Pete Buttigieg (Democrat) Neither / Other Wouldn't vote Don't know / Refused



Prepared by Ipsos Public Affairs

TM651Y15_5. If the 2020 presidential election were being held today and the candidates were as below, for whom would you vote?

[RANDOMIZE ITEMS, ANCHOR LAST THREE ITEMS (Neither/Wouldn't vote/DK) FOR EACH.

Donald Trump (Republican) Kamala Harris (Democrat) Neither / Other Wouldn't vote Don't know / Refused



Prepared by Ipsos Public Affairs

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 (\overline{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:



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