



## Methodology

### Marquette Law School Poll

### October 13-17, 2019

The Marquette Law School Poll was conducted October 13-17, 2019. A total of 799 registered voters were interviewed by a combination of landline and cell phone using random digit dialing (RDD). Interviews were completed with 320 (40%) landline respondents and 479 (60%) cell phone respondents. The data collection was managed by LHK Partners, Inc. with telephone interviews conducted by Precision Opinion.

The geographic coverage of the sample was the 72 counties of the state of Wisconsin.

The sample size for registered voters is 799. The margin of error, including design effects due to post-stratification is  $\pm 4.2$  percentage points for the full sample. The weighted sample size for registered voters is the same as the unweighted sample size, 799.

Items on the Democratic presidential candidates were asked of Democrats, independents who lean Democratic and pure independents. The unweighted sample size is 379 and the margin of error is  $\pm 6.3$ .

Two issue questions were asked of half the sample (Form A) and two were asked of the other half-sample (Form B). Questions on Form A have an unweighted sample size of 400 and a margin of error of  $\pm 6$  percentage points. The Form B issues have an unweighted sample size of 399 and a margin of error of  $\pm 5.9$  percentage points. Form A questions were right direction or wrong track for Wisconsin Medicare for all. Form B items were an assault weapon buy-back and a public option for health coverage.

#### Post-Stratification

Post-stratification, or weighting, compensates for patterns of non-response that shift sample characteristics from known population values. In telephone surveys it is common for potential respondents who are younger and have fewer years of formal education to exhibit higher rates of non-response resulting in these groups being under-represented in the sample. To compensate for these non-response effects the sample is weighted to bring sample demographic characteristics into line with the population values. In this sample the registered voter population values of age

groups, education levels, geographic region of the state, marital status and sex were determined using the 1996-2016 releases of the Current Population Survey (CPS) and data on registered voters supplied by the Wisconsin Elections Commission (WEC)).

A raking algorithm was used to simultaneously balance the weights so that the sample distribution closely approximates the known population distributions for age, education, geographic region, marital status, and sex. The population, raw sample size, unweighted and weighted percentages, as well as population parameters from the CPS and Wisconsin Elections Commissions are shown in the table below.

Comparison of final weighted data to CPS and WEC parameters

Group	Raw N	Wisconsin		Parameter
		Unweighted	Weighted	
Gender				
Male	409	51	47	47
Female	390	49	53	53
Gender and Marital Status				
Married Male	248	31	29	29
Married Female	221	28	30	30
Unmarried Male	161	20	18	18
Unmarried Female	169	21	23	23
Age				
18-29	76	10	14	14
30-39	53	7	13	14
40-49	74	9	14	14
50-59	159	20	24	25
60-69	198	25	17	17
70+	232	29	16	16
Age NA	7	1	1	
Education				
Less than high school	13	2	2	2
High school	167	21	28	29
Some college	147	18	19	19
Associates degree	106	13	14	14
College Graduate	172	22	24	24
Post-Graduate	192	24	12	12
Education NA	2	0	0	
Region				
City of Milwaukee	76	10	8	8
Rest of Milwaukee DMA	243	30	31	31
Madison DMA	138	17	18	18
Green Bay-Appleton DMA	168	21	19	19
Rest of Wisconsin	174	22	23	23

## AAPOR Transparency Initiative Information

The Marquette Law School Poll follows the guidelines for disclosure of the American Association for Public Opinion Research Transparency Initiative. For more information on the initiative see: <http://www.aapor.org/AAPORKentico/transparency.aspx>

1. The poll is sponsored by Marquette Law School.
2. The Marquette Law School Poll, under the direction of Prof. Charles Franklin, designed the survey instrument and sampling design. The data collection was administered by LHK Partners, Inc. with telephone interviews conducted by Precision Opinion.
3. Funding for this study was provided by the Marquette Law School Alumni Annual Fund. Their support is gratefully acknowledged.
4. The full survey instrument is available online at <https://law.marquette.edu/poll/results-data/>
5. The population surveyed consists of registered voters in the 72 counties of Wisconsin. Registration is determined by self-report. Those who are not registered but who say they will register by election day and included as registered voters.
6. The sample frame is a dual frame landline and cell telephone sample using a random digit dialing design. Sampling was stratified by region of the state to provide approximately proportional sample sizes for each region.
7. The sample was supplied by Marketing Systems Group (MSG).
8. The dual-frame random digit dial design was used to ensure that both cell phone and landlines and listed and unlisted numbers would be included in the sample. Registered voters, age 18 and over, in the landline sample were selected using the “most recent birthday” method. Respondents were also screened to ensure they were current residents of the 72 counties of Wisconsin included in the sampling frame. Interviews in the cell phone sample were conducted with the person who answered the phone if they were registered voter, age 18 or over, and lived in one of the 72 Wisconsin counties.
9. The sample is a probability design using a random digit dialed (RDD) dual-frame design of cell phone and landline numbers.
10. See 8 and 9 above.
11. The sample was designed to be representative of the state of Wisconsin. The registered voter sample size is 799. The margin of error, including design effects due to post-stratification is  $\pm 4.2$  percentage points for the full sample. The weighted sample size for registered voters is the same as the unweighted sample size, 799.

The Democratic primary subsample includes Democrats, independents who lean Democratic and independents who lean to neither party. The unweighted sample size is 379 and the margin of error, including design effect, is 6.3.

Some items were asked of half the sample. Those items on Form A were asked of 400 respondents and have a margin of error of +/-6 and those on form B were asked of 399 respondents and have a margin of error of +/- 5.9.

In this sample the population values of age groups, education levels, geographic region and sex were determined using the 2002-2018 data from the Current Population Survey conducted by the U.S. Census Bureau in Wisconsin and from data on registered voters reported by the Wisconsin Government Accountability Board.

A raking algorithm was used to simultaneously balance the weights so that the sample distribution closely approximates the known population distributions for age, education, geographic region, and sex.

The design effect,  $deff$ , for a sample of size  $n$  and with each case having a weight,  $w_i$ , is calculated as:

$$deff = \frac{n \sum_{i=1}^n w_i^2}{\left( \sum_{i=1}^n w_i \right)^2}$$

Incorporating the design effect, the 95% confidence interval around a percentage is:

$$\hat{p} \pm \left( \sqrt{deff} \times 1.96 \sqrt{\frac{\hat{p}(1 - \hat{p})}{n - 1}} \right)$$

where  $\hat{p}$  is the sample estimate and  $n$  is unweighted number of cases.

The design effects due to post-stratification for the sample is 1.47. That effect is included in the calculated margin of error reported above.

12. The design effect has been incorporated in the calculation of all reported margins of error.
13. Results reported reflect the full sample within Wisconsin, with the margins of error corresponding to those reported above in item 11. When subsamples are reported the appropriate margin of error is also reported, as in item 11 above.
14. The survey was administered in English by telephone (landline and cell) using live interviewers. The data were collected October 13-17, 2019.
15. Full results, including the complete instrument, topline results and crosstabs as well as this methodological report are available online at <https://law.marquette.edu/poll/results-data/>  
For further information contact the survey director, Prof. Charles Franklin at [Charles.franklin@marquette.edu](mailto:Charles.franklin@marquette.edu)

## Sample Disposition and Response Rate Report

The table below presents the disposition of all sampled numbers that were ever dialed as part of this survey. The response rate is computed according to the AAPOR standard definition 3. In this survey the response rate was 2.2%.

### Sample Disposition and Response Rate

Disposition	Description
799	I=Completes
5077	R=Refusals and breakoffs
686	NC=Non-contact
177	O=Other
3222	OF=Out of sampling frame/business/not working
43347	UH=Unknown household (No answer, answering machine)
534	UO=Unknown Other
0.68	AAPOR's $e=(I+R+NC+O)/(I+R+NC+O+OF)$
2.2	AAPOR RR3= $I/(I+R+NC+O+(e*(UH+UO)))*100$