



## Methodology

### Marquette Law School Poll

### February 19-23, 2020

The Marquette Law School Poll was conducted February 19-23, 2020. A total of 1000 registered voters were interviewed by a combination of landline and cell phone using random digit dialing (RDD). Interviews were completed with 373 (37%) landline respondents and 627 (63%) 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 1000. The margin of error, including design effects due to post-stratification is  $\pm 3.6$  percentage points for the full sample. The weighted sample size for registered voters is the same as the unweighted sample size, 1000.

Items on the Democratic presidential primary were asked of those who said they will vote in that primary. The unweighted sample size is 490 and the margin of error is  $\pm 5.1$ . The weighted sample size for the Democratic primary sample is 464.

Four issue questions were asked of half the sample (Form A) and four were asked of the other half-sample (Form B). Questions on Form A have an unweighted sample size of 500 and a margin of error of  $\pm 5.2$  percentage points. The Form B issues have an unweighted sample size of 500 and a margin of error of  $\pm 5.1$  percentage points.

Form A questions were approval of the state legislature, condition of the state budget and how to conduct redistricting. Form B questions concerned abortion, undocumented immigrants and same-sex marriage.

#### 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 1996-2018 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	525	52	47	47
Female	475	48	53	53
Gender and Marital Status				
Married Male	313	31	29	29
Married Female	256	26	30	30
Unmarried Male	212	21	18	18
Unmarried Female	219	22	23	23
Age				
18-29	74	7	14	14
30-39	84	8	13	14
40-49	114	11	14	14
50-59	197	20	25	25
60-69	256	26	17	17
70+	270	27	16	16
Age NA	5	0	1	
Education				
Less than high school	17	2	2	2
High school	222	22	28	29
Some college	176	18	19	19
Associates degree	142	14	14	14
College Graduate	227	23	24	24
Post-Graduate	212	21	12	12
Education NA	4	0	0	
Region				
City of Milwaukee	98	10	8	8
Rest of Milwaukee DMA	312	31	33	31
Madison DMA	183	18	18	18
Green Bay-Appleton DMA	185	18	18	19
Rest of Wisconsin	222	22	22	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 1000. The margin of error, including design effects due to post-stratification is  $\pm 3.6$  percentage points for the full sample. The weighted sample size for registered voters is the same as the unweighted sample size, 1000.

Items on the Democratic presidential primary were asked of those who said they will vote in that primary. The unweighted sample size is 490 and the margin of error is  $\pm 5.1$ . The weighted sample size for the Democratic primary sample is 464.

Some items were asked of half the sample. Those items on Form A were asked of 500 respondents and have a margin of error of +/-5.2 and those on form B were asked of 500 respondents and have a margin of error of +/- 5.1.

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 1.38. 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 February 19-23, 2020.
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 3%.

### Sample Disposition and Response Rate

Disposition	Description
1000	I=Completes
7270	R=Refusals and breakoffs
547	NC=Non-contact
267	O=Other
13513	OF=Out of sampling frame/business/not working
59571	UH=Unknown household (No answer, answering machine)
663	UO=Unknown Other
0.4	AAPOR's $e=(I+R+NC+O)/(I+R+NC+O+OF)$
3	AAPOR RR3= $I/(I+R+NC+O+(e*(UH+UO)))*100$