



Methodology

Marquette Law School Poll

December 3-8, 2019

The Marquette Law School Poll was conducted December 3-8, 2019. A total of 800 registered voters were interviewed by a combination of landline and cell phone using random digit dialing (RDD). Interviews were completed with 309 (39%) landline respondents and 491 (61%) 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 800. The margin of error, including design effects due to post-stratification is ± 4.2 percentage points for the full sample. The weighted sample size for registered voters is the same as the unweighted sample size, 800.

Items on the Democratic presidential candidates were asked of those who say they will vote in the April 2020 Democratic presidential primary. The unweighted sample size is 358 and the margin of error is ± 6.3 .

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 percent-

ages, 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	442	55	47	47
Female	358	45	53	53
Gender and Marital Status				
Married Male	252	32	29	29
Married Female	171	21	30	30
Unmarried Male	190	24	18	18
Unmarried Female	187	23	23	23
Age				
18-29	63	8	14	14
30-39	80	10	13	14
40-49	71	9	14	14
50-59	142	18	25	25
60-69	204	26	17	17
70+	236	30	16	16
Age NA	4	0	1	
Education				
Less than high school	18	2	2	2
High school	171	21	27	29
Some college	151	19	19	19
Associates degree	107	13	14	14
College Graduate	183	23	24	24
Post-Graduate	161	20	12	12
Education NA	9	1	2	
Region				
City of Milwaukee	78	10	8	8
Rest of Milwaukee DMA	220	28	31	31
Madison DMA	139	17	18	18
Green Bay-Appleton DMA	172	22	19	19
Rest of Wisconsin	191	24	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 800. The margin of error, including design effects due to post-stratification is ± 4.2 percentage points for the full sample. The weighted sample size for registered voters is the same as the unweighted sample size, 800.

The Democratic primary subsample includes those who say they will vote in the April 2020 Democratic presidential primary. The unweighted sample size is 358 and the margin of error, including design effect, is 6.3.

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 1.46. 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 December 3-8, 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

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 2.5%.

Sample Disposition and Response Rate

Disposition	Description
800	I=Completes
3931	R=Refusals and breakoffs
436	NC=Non-contact
153	O=Other
4336	OF=Out of sampling frame/business/not working
47369	UH=Unknown household (No answer, answering machine)
983	UO=Unknown Other
0.55	AAPOR's $e=(I+R+NC+O)/(I+R+NC+O+OF)$
2.5	AAPOR $RR3=I/(I+R+NC+O+(e*(UH+UO)))*100$