



## Methodology

### Marquette Law School Poll

### January 21-24, 2016

The Marquette Law School Poll was conducted January 21-24, 2016. A total of 806 registered voters were interviewed by a combination of landline and cell phone using random digit dialing (RDD). Interviews were completed with 395 (49%) landline respondents and 411 (51%) cell phone respondents. The data collection was managed by LHK Partners, Inc. with telephone interviews conducted by SHC Universal.

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

The sample size is 806. The margin of error, including design effects due to post-stratification is  $\pm 4.0$  percentage points for the full sample. For the Republican presidential primary the sample size is 313 with a margin of error, including design effect, of  $\pm 6.5$  percentage points. The Democratic primary sample size is 312 with a margin of error, including design effect of  $\pm 6.5$  percentage points.

#### 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 characteristics into line with the population values. In this sample the population values of age groups, education levels, geographic region of the state and sex were determined using the 2004-2014 releases of the Current Population Survey (CPS) and data on registered voters supplied by the Wisconsin Government Accountability Board (GAB).

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 population, raw sample size, unweighted and weighted percentages, as well as population parameters from the CPS and GAB are shown in the table below.

Comparison of final weighted data to CPS and GAB parameters

Group	Raw N	Wisconsin		Parameter
		Unweighted	Weighted	
Gender				
Male	428	53	48	48
Female	378	47	52	52
Age				
18-29	67	8	16	16
30-44	122	15	24	24
45-59	253	31	28	28
60+	361	45	31	31
Age NA	3	0	0	
Education				
Less than high school	30	4	6	6
High school	169	21	29	29
Some college	130	16	20	20
Associates degree	108	13	13	13
College Graduate	368	46	33	33
Education NA	1	0	0	
Region				
City of Milwaukee	90	11	9	9
Rest of Milwaukee DMA	221	27	31	31
Madison DMA	164	20	18	18
Green Bay-Appleton DMA	151	19	19	19
Rest of Wisconsin	180	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 SHC Universal.
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 sample size is 806. The margin of error, including design effects due to post-stratification is  $\pm 4.0$  percentage points for the full sample. For the Republican presidential primary the sample size is 313 with a margin of error, including design effect, of  $\pm 6.5$  percentage points. The Democratic primary sample size is 312 with a margin of error, including design effect of  $\pm 6.5$  percentage points.

In this sample the population values of age groups, education levels, geographic region and sex were determined using the 2012-2014 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 1.37. 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 January 21-24, 2016.
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 8.9%.

### Sample Disposition and Response Rate

Disposition	Description
806	I=Completes
1441	R=Refusals and breakoffs
70	NC=Non-contact
144	O=Other
5312	OF=Out of sampling frame/business/not working
19967	UH=Unknown household (No answer, answering machine)
899	UO=Unknown Other
0.32	AAPOR's $e=(I+R+NC+O)/(I+R+NC+O+OF)$
8.9	AAPOR $RR3=I/(I+R+NC+O+(e*(UH+UO)))*100$