



## Methodology

### Marquette Law School Poll

### September 24-28, 2015

The Marquette Law School Poll was conducted September 24-28, 2015. A total of 803 registered voters were interviewed by a combination of landline and cell phone using random digit dialing (RDD). Interviews were completed with 443 (55%) landline respondents and 360 (45%) 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 803. The margin of error, including design effects due to post-stratification is  $\pm 4.1$  percentage points for the full sample. For the Republican presidential primary the sample size is 321 with a margin of error, including design effect, of  $\pm 6.5$  percentage points. The Democratic primary sample size is 394 with a margin of error, including design effect of  $\pm 5.9$  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 2012-2014 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 tables below.

Comparison of final weighted data to CPS and GAB parameters

Group	Raw N	Wisconsin		Parameter
		Unweighted	Weighted	
Gender				
Male	383	48	47	47
Female	420	52	53	53
Age				
18-29	58	7	16	16
30-44	128	16	25	25
45-59	245	31	29	29
60+	367	46	30	30
Age NA	5	1	1	
Education				
Less than high school	31	4	6	6
High school	157	20	28	30
Some college	120	15	20	20
Associates degree	102	13	13	13
College Graduate	386	48	32	32
Education NA	7	1	1	
Region				
City of Milwaukee	89	11	9	9
Rest of Milwaukee DMA	233	29	31	31
Madison DMA	149	19	18	18
Green Bay-Appleton DMA	151	19	19	19
Rest of Wisconsin	181	23	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 803. The margin of error, including design effects due to post-stratification is  $\pm 4.1$  percentage points for the full sample. For the Republican presidential primary the sample size is 321 with a margin of error, including design effect, of  $\pm 6.5$  percentage points. The Democratic primary sample size is 394 with a margin of error, including design effect of  $\pm 5.9$  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 1.4. 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 September 24-28, 2015.
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

Table 1 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 6.1%.

Table 1: Sample Disposition and Response Rate

Disposition	Description
803	I=Completes
2246	R=Refusals and breakoffs
7	NC=Non-contact
120	O=Other
5027	OF=Out of sampling frame/business/not working
24221	UH=Unknown household (No answer, answering machine)
1843	UO=Unknown Other
0.39	AAPOR's $e=(I+R+NC+O)/(I+R+NC+O+OF)$
6.1	AAPOR $RR3=I/(I+R+NC+O+(e*(UH+UO)))*100$