

Montana State University (MSU) & Montana Television Network (MTN)

2018 Montana Election Surveys

METHODS NOTES

Data collected by: Human Ecology Learning & Problem Solving (HELPS) Lab
Montana State University-Bozeman

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Brief Overview of Methods for Pre-Election Survey

The MSU-MTN pre-election survey was conducted by the HELPS Lab of Montana State University-Bozeman between September 15 and October 6, 2018. The population for the poll was Montana voters who registered by August 14, 2018. We stratified the sample by state House districts, and then drew a random sample of 10,400 voters proportionally from these strata. Sampled individuals received a questionnaire by mail and were asked to return the questionnaire via a self-addressed stamped envelope. Respondents returned 2,079 surveys, a response rate of slightly over 20% based on 10,215 deliverable addresses.

The population size was 686,791 registered voters. This resulted in a margin of error (MOE) of approximately +/- 2 percentage points. We weighted the data by age, media market, marital status by gender, and education to match U.S. Census Bureau data on registered Montana voters. We also weighted on 2016 presidential vote choice to match vote returns reported by the Montana Secretary of State.

This poll was funded jointly by the Montana Television Network and Montana State University-Bozeman.

Population and Sampling Details

The population of interest was all individuals registered to vote in the state of Montana. We obtained the sampling frame (i.e., the list of all registered voters) from the Secretary of State of Montana. At the time of obtaining the voter file (August 14, 2018), this population included 686,791 individuals. We stratified the sample by state House districts, and then drew a random sample of 10,400 voters proportionally from these strata. We mailed 10,400 units, with 185 bounce backs as undeliverable. With 2,079 valid returns out of 10,215 valid addresses, the response rate was 20.35%. With a confidence level of 95% and a response distribution of 50% (the most conservative estimate) with the given population size, the margin of error for the survey "overall" is approximately +/- 2.15 percentage points. Please note that this figure is an overall approximation given sampling stratification and different response options and response patterns for specific questions.

Use of Mail Questionnaires

The researchers chose to distribute and collect questionnaires via postal mail for a number of reasons. Postal surveying tends to be less intrusive and more convenient for respondents, cheaper, and less labor intensive than surveying by phone. Further, mailing addresses were available for the entire population, while phone numbers were not. Postal surveys tend to produce a better response rate than web or web-mail hybrid data collection methods. A high initial response rate was important given the single contact with potential respondents. The downside of using this method is that it requires collection of data over a longer time period, so events happening during the data collection period might change the results in the aggregate. The survey was in the field from September 15 to October 6, 2018.

Item Language

The language for items on the questionnaire was largely based on standard items used by organizations that include the American National Election Study, the Pew Research Center, Gallup, and the General Social Survey. The researchers randomly sorted potential respondents into three groups for distribution of three different versions of the questionnaire. These different versions changed the order in which political candidates and figures appeared, with an effort made toward balancing the partisan ordering of options within and across questionnaires.

Weighting Procedures

To mitigate non-response bias in the sample, the researchers chose to weight the sample using iterative proportional fitting, or raking. Raking generates weights that adjust the sample in subsequent analyses so that the sample more closely resembles the target population, in this case registered voters in Montana. Weights are generated by forcing sample margins to approximate population margins for key demographic characteristics. The researchers generated weights using age, education, marital status by gender, media market, and 2016 presidential vote choice. Population margins for age, education, marital status, and gender were obtained using data from the U.S. Census Bureau's 2016 Current Population Survey Voter Supplement. Population margins for 2016 presidential vote choice were based on vote returns retrieved from the Montana Secretary of State's website.

Brief Overview of Methods for Post-Election Survey

The MSU-MTN post-election survey was conducted by the HELPS Lab of Montana State University-Bozeman between November 8 and December 14, 2018. The population of interest was all individuals who had registered to vote by August 14, 2018 (for reasons specified below). The researchers used a panel design to allow for certain comparisons and assessment of change. Consequently, the sample for this post-election survey was all individuals who had completed the pre-election questionnaire – a total of 2,079 individuals. For the post-election survey, sampled individuals received a questionnaire by mail and were asked to return the questionnaire via a self-addressed stamped envelope. Individuals then received a follow-up postcard approximately one week later with a reminder about completing the questionnaire and an option of completing the questionnaire online.

Respondents returned 1,424 completed questionnaires for a response rate of approximately 68%.

The population size at the time of the election was 711,844 registered voters. This resulted in an overall margin of error (MOE) of approximately +/- 2.6 percentage points. We weighted the data by age, media market, marital status by gender, and education to match U.S. Census Bureau data on registered Montana voters. We also weighted on 2018 Senate vote choice to match vote returns reported by the Montana Secretary of State.

This project was funded jointly by the Montana Television Network and Montana State University-Bozeman.

Population and Sampling Details

The population of interest was individuals registered to vote in the state of Montana. We obtained the initial sampling frame (i.e., the list of all registered voters) from the Secretary of State of Montana. We stratified the sample by state House districts, and then originally drew a random sample of 10,400 voters proportionally from these strata. At the time of the election, the Secretary of State of Montana reported a registered voter population of 711,844 individuals. With a confidence level of 95% and a response distribution of 50% (the most conservative estimate) with the given population size, the margin of error for the survey “overall” is approximately +/- 2.59 percentage points. Please note that this figure is an overall approximation given sampling stratification and different response options and response patterns for specific questions.

Use of Mail Questionnaires

The researchers chose to distribute and collect questionnaires primarily via postal mail for the same reasons mentioned in conjunction with the pre-election survey previously in this document.

Item Language

The language for items on the questionnaire was largely based on standard items used by organizations that include the American National Election Study, the Pew Research Center, Gallup, and the General Social Survey. The researchers made efforts toward balancing the partisan ordering of options across items within the questionnaire.

Weighting Procedures

To mitigate non-response bias in the sample, the researchers chose to weight the sample using iterative proportional fitting, or raking. Raking generates weights that adjust the sample in subsequent analyses so that the sample more closely resembles the target population, in this case registered voters in Montana. Weights are generated by forcing sample margins to approximate population margins for key demographic characteristics. The researchers generated weights using age, media market, marital status by gender, education, and 2018 Senate vote choice. Population margins for age, marital status, gender, and education were obtained using data from the U.S. Census Bureau's 2016 Current Population Survey Voter Supplement. Population margins for 2018 Senate vote choice were based on vote returns retrieved from the Montana Secretary of State's website.

HELPS Lab Information

The HELPS Lab is a fee-for-service facility at Montana State University-Bozeman that enables the collection of high-quality data for researchers employing a variety of social and behavioral methods. The HELPS Lab is open to the broader community of researchers and organizations, with an emphasis on providing tools necessary for researchers to study interactions between human systems and other complex phenomena like ecosystems and public health. The HELPS Lab facilitates, on a fee basis, the collection of high-quality data via web, mail, personal, and phone surveys; computer-based experiments; interviews; and focus groups. The HELPS Lab also handles data entry, cleaning, and documentation. Additional services, like transcription and assistance with sampling, are likewise available on a fee basis.