

Treasure State 2020 Election Surveys

METHODS NOTES

Survey Information

Data collection period: Pre-election survey: September 14 – October 2, 2020
Post-election survey: November 4 – November 25, 2020

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

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Brief Overview of Methods

The Treasure State 2020 Pre-Election Poll was conducted by the HELPS Lab of Montana State University-Bozeman between September 14 and October 2, 2020. The original population for the poll was Montana voters who registered by August 20, 2020, and were deemed active by the Montana Secretary of State. We stratified the sample by state house districts, and then drew a random sample of 9,000 voters proportionally from these strata. Sampled individuals received a questionnaire by mail and were asked to return the questionnaire via a prepaid business reply envelope. Respondents returned 1,789 surveys, a response rate of 20.2% based on 8,836 deliverable addresses. The Treasure State 2020 Post-Election Poll, also conducted by the HELPS Lab, used a panel design that returned to the individuals who responded to the Pre-Election Poll. This poll was in the field from November 4-25, 2020. Of the 1,789 original respondents, 1,069 completed the post-election questionnaire, for a response rate of 59.8%. The procedures for the Post-Election Poll otherwise paralleled those for the Pre-Election Poll.

The number of individuals voting in the 2020 general election in Montana was 612,075, according to information from the Montana Secretary of State. We have adjusted the overall survey margin of error (MoE) for design effect owing to our subsequent use of weights in calculating results. This adjustment has the consequence of making the margin of error substantially larger than it otherwise would be. For the pre-election sample, this results in a MoE of **+/- 3.7** percentage points, using a confidence level of 95% and a response distribution of 50% (the most conservative estimate) with the given population size. For the post-election sample, the corresponding MoE is **+/- 6.0** percentage points. We note that these figures are overall approximations given sampling stratification and different response options and response patterns for specific questions.

This poll was funded by over 100 individual donors to the Montana State University Alumni Foundation and by Montana State University. If you have questions concerning the survey methods, please contact the HELPS Lab (helpslab@montana.edu).

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 individuals who voted in the 2020 Montana elections. Weights are generated by forcing sample margins to approximate population margins for key demographic characteristics. The researchers generated weights for individuals using age, education, gender, media market, self-reported 2020 presidential vote choice, and self-reported vote on the state marijuana measure I-190. Population margins for education and gender were obtained using data from the U.S. Census Bureau's 2018 Current Population Survey Voter Supplement. Population margins for 2020 presidential vote choice and vote on the state marijuana measure were based on vote returns retrieved from the Montana Secretary of State's website. Population margins for media market and age came from public data also available from the Montana Secretary of State.

The pre-election weight used in the current data release differs slightly from the weight used by the investigators prior to the 2020 election. Consequently, the full set of results differs from earlier-published results in minor ways. The updated weight incorporates better information about "likely" voters by including individuals who actually voted in the election. Therefore, all results are meant to represent the views of Montana voters. Survey respondents were filtered prior to the creation of survey weights to retain only respondents who actually voted in the 2020 general election. This left 1,765 respondents for the Pre-Election Poll and 1,066 respondents for the Post-Election Poll.

Non-Response Bias

While weighting helps with creating more representative results, particularly for the Post-Election Poll, some concerns about non-response bias remain. Individuals who are younger and individuals who have completed lesser schooling tend to respond at disproportionately lower rates. Individuals from rural areas are slightly less likely to respond. However, non-response is especially acute from Trump voters – a problem that has been identified nationwide and that led to error in predicting the outcome of 2020 electoral races. The Treasure State Poll and the HELPS Lab are working on ways to produce more accurate results despite these challenges. While some polling groups have resorted to just adding a few percentage points to totals for Republican candidates, there is no scientific basis for doing so. The HELPS Lab is proceeding with the construction of an online statewide panel of potential respondents, a method that has worked well in other states, as a means of producing more representative responses. Furthermore, while the Treasure State Poll project may issue reports prior to the 2022 election based on the 2020 and 2018 data, it will avoid reporting on any newly collected data prior to the 2022 election itself. Reporting of 2022 data will wait until after the election concludes.

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. A 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. Further, the method appears to have produced more non-response bias in 2020 than was the case in 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.

HELPS Lab Information

The HELPS Lab is a fee-for-service facility at Montana State University-Bozeman that enables the collection and assembly 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 assists with research design and facilitates the collection of high-quality data via web, mail, and phone surveys. The HELPS Lab also provides services in the areas of customizing data collection instruments; sampling and targeting of desired audiences; transcription; coding and entry of data; processing and cleaning of data; and providing visual summaries and documentation of data.