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Daily Tracking Poll of New Hampshire Voters

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See http://uml.edu/polls for full questionnaire/topline results.

Do you have a question about this poll? If so, tweet @UML_CPO and we'll get back to you.

METHODOLOGY

Abt SRBI conducted the New Hampshire Statewide Tracking Poll on behalf of the University of Massachusetts Lowell. The poll included telephone interviews with a representative sample of target size n = 467 New Hampshire registered voters (RVs) every night over the course of 10 nights. Telephone interviews were conducted by landline (target size n=250 RVs each night) and cell phone (target size n=217 RVs each night). Interviewing was conducted from Jan. 29 to Feb. 7, 2016.

Sampling

The sample design was a random digit dialed sample of cell phone numbers and landline numbers with a New Hampshire telephone exchange. This sample design is referred to as a "dual-frame" because it includes cell phones and landlines.

The landline frame is constructed by compiling all New Hampshire telephone exchanges that are classified as providing regular telephone service. The frame is referred to as "list-assisted" because a complete file of directory-listed residential numbers is used to remove 100-banks from the frame if they contain zero residential listings. The remaining 100-banks are "working" and used to enumerate all the telephone numbers within the bank from which a sample is drawn. All landline numbers (directory-listed and unlisted) in the working banks are eligible to be randomly dialed. Telephone numbers known to belong to businesses are removed.

The cellular telephone frame begins with 1,000-blocks constructed from exchanges that provide cellular telephone service. The frame of 1,000-blocks is then expanded to the 100-block level to identify and remove "mixed use" 100-blocks, or those that include landline numbers. The result is a sampling of cellular 100-blocks that is mutually exclusive of the list-assisted RDD sampling frame described above.

For the landline sample, interviewers were asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to

speak with the youngest adult of the other gender. For the cell sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey.

Weighting

The final weights produced for this poll accounted for the dual-frame sample design and aligned the sample to match the population parameters of the adult population in New Hampshire. To construct the weights, we used the full sample registered voters (RVs) interviewed as well as the non-registered voters (non-RVs) who screened out of the survey. This full sample of RVs and non-RVs was weighted, though the non-RVs were not included in the final survey dataset or any survey analysis. The non-RVs are included in the weighting because the U.S. Census Bureau publishes reliable population benchmarks for the entire adult population in New Hampshire (RVs + non-RVs), but no such reliable estimates are available for just the RV population[1]. The data were weighted on a three nights rolling average basis. That is, the data collected every three nights were cumulated and then weighted together according to the steps presented below.

The first stage of weighting corrected for different probabilities of selection associated with the number of adults in the household and the respondent's telephone usage (landline-only, cell phone-only or has both kinds of phones). This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample.

The second stage of weighting balanced sample demographics to estimated adult population parameters for the state of New Hampshire. The sample was balanced to match adult population parameters for sex, age, education level, race/ethnicity, region (Rockingham, Hillsborough, West and Northeast), and telephone usage (cell phone-only, dual-user, landline-only). The demographic population parameters were computed from the 2014 one-year American Community Survey (ACS) estimates. The population parameter for region of state was obtained from the 2014 five-years American Community Survey (ACS) estimate. The telephone usage population estimates for New Hampshire were constructed from model-based state-level estimates released by the National Center for Health Statistics for the year 2013[2]. Since the cell phone-only adult population has increased since 2013, the state-level estimate was updated to reflect national trends according to the 2015 NCHS report.[3]

The second-stage weighting was conducted using an operation known as raking ratio estimation, or "raking." Raking is used to reduce the risk of biases due to nonresponse and non-coverage in sample surveys. The raking procedure uses an iterative technique that simultaneously calibrates the sample to population distributions defined by socio-demographic parameters. After the raked weights were

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[1] Polls that take the alternate approach of weighting just the weighting the likely voter sample to previous turnout numbers run the risk of using benchmarks that are inaccurate as the demographic profile of who turns out to vote varies from election to election.

[2] Blumberg SJ, Ganesh N, Luke JV, Gonzales G. Wireless substitution: State-level estimates from the National Health Interview Survey, 2013. Hyattsville, MD: National Center for Health Statistics. 2014.

[3] Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, Jan.–June 2015. National Center for Health Statistics. Dec. 2015. Available from: http://www.cdc.gov/nchs/nhis.htm.

generated, we examined the distribution of values. The final weights were trimmed to prevent individual interviews from having too much influence on the final results.

Margin of Error

The margin of error for an estimate is a measure of uncertainty that reflects the fact that the estimate is derived from a sample drawn from the population. If one were to draw a second sample in the exact same manner, the estimate would be different from the first simply due to the fact that the sample contains different members of the population. A third sample would be different from the first two, and so on. The margin of error measures how different estimates could be based on drawing different samples from the same population.

Using a 95% confidence level, the margin of error for the entire sample of 1,412 registered voters (three-nights rolling average) is +/-2.95 percentage points. This includes a "design effect" of 1.28. The design effect is the amount of variability introduced by the sample design, such as the dual-frame sample and weighting. The margin of error for sample of 443 likely democratic voters (three-nights rolling average) is +/-5.27 percentage points, which also assumes a 95% confidence level and includes a "design effect" of 1.30. The margin of error for sample of 470 likely republican voters (three-nights rolling average) is +/-5.03 percentage points, which also assumes a 95% confidence level and includes a "design effect" of 1.24.