



# Cornell National Social Survey 2018

## Report 1: Introduction & Methodology

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### Introduction

This report outlines the methodology used for the 2018 Cornell National Social Survey (CNSS), a general survey of continental United States residents that was managed and conducted by the Survey Research Institute (SRI). Since it was founded in 1996, the Survey Research Institute has grown into a premier survey research facility and now includes more than 60 staff and 22 Computer-Assisted Telephone Interviewing (CATI) stations.

The CNSS is an omnibus national survey, initiated in 2008 by the Office of the Provost for the Social Sciences at Cornell University, with the objective of providing Cornell researchers the opportunities to:

- Test survey questions on a national sample
- Collect survey data for inclusion in grant proposals, thus enhancing the likelihood of investigator's achievement of external funding.
- Enhance current and/or future research efforts.
- Measure trends over time.
- Have access to a national data set for use in classroom instruction.

All surveys were conducted via phone. The data consist of standard demographic variables in addition to questions submitted by researchers at Cornell University. To get a copy of the codebook and data set please go to:

<https://cisermgmt.cornell.edu/cnss/>

### CNSS Omnibus Modules

The CNSS includes questions developed by Cornell University faculty and researchers who are interested in surveying continental United States residents on special topics. Unlike other surveys, in which researchers pay a nominal fee to include questions on the survey (see, for example, the Empire State Poll at [www.sri.cornell.edu/sri/esp.introduction.cfm](http://www.sri.cornell.edu/sri/esp.introduction.cfm)), participation in the CNSS is on a competitive basis and is free of charge.

Researchers at Cornell were encouraged to submit survey

questions related to their research. Those who demonstrated that participation would supplement and enhance their research activities were given priority in the competitive review process.

This year's successful applicants cover a range of topics, and the selected modules for the 2018 CNSS include:

- Government trust
- Gun policies and gun ownership status
- Neighborhood design and violent crime
- Civil litigation and compensation
- Quality of healthcare services
- Clinician diversity
- Chronic pain
- Workplace wellness
- Workplace racial discrimination
- Climate change impact on food
- Fossil fuels and climate change
- Renewable energy
- Organic dairy farming
- Immigrant farmworkers
- Self-weighting and body image
- Facial appearance as social information resource

### Sampling Methodology

The CNSS telephone sample consisted of randomly selected households generated by random digit dial (RDD) sampling of all telephone exchanges within the continental United States and included both listed unlisted households and cell phones. Marketing Systems Group of Horsham, PA (a widely used full-service sampling company that provides samples to survey research organizations) supplied the sample, which excluded known business telephone numbers, disconnected numbers, and non-household numbers.

Respondent selection came in two steps: a household was randomly selected and then a household member who was at least 18 years old was selected using the "most recent birthday" method.<sup>1</sup>

These selection procedures ensured that every household with a telephone had an equal chance of being included in the survey; and once a household was selected, each adult in the



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household had an equal chance of being chosen.

<sup>1</sup> O'Rourke, D., Blair, J., "Improving Random Respondent Selection in Telephone Surveys," *Journal of Marketing Research*, Vol. XX (November 1983), 428-32.

## CNSS Data Collection

Data collection began on September 04, 2018 and was completed on December 10, 2018. All interviews were conducted using a Computer-Assisted Telephone Interviewing (CATI) software system, with an average interview length of 25 minutes. The survey was administered in English only.

SRI survey interviewers are employed throughout the year. All interviewers undergo rigorous training by the SRI training staff and then complete four weeks of probationary interviewing and follow-up training. For each survey project, including CNSS, interviewers are given a survey-specific orientation in addition to training on the survey instrument.

All interviewing staff are monitored and supervised at all times by an SRI supervisory team. The SRI employs a computer-based proxy system that allows for audio and video monitoring of all interviewer stations. Supervisors regularly monitor interviewers to maintain data collection quality, provide immediate feedback, and troubleshoot issues as they arise.

SRI utilizes a Computer-Assisted Telephone Interviewing (CATI) system called CASES (Computer-Assisted Survey Execution System). CASES is developed, distributed and supported by the Computer-Assisted Survey Methods (CSM) Program at the University of California, Berkeley and commissioned by the U.S. Census Bureau. For more than 20 years, CASES has been one of the most widely used interviewing systems by survey centers in the United States. SRI employs programmers to support the CATI software and survey operations and to ensure data collection quality.

For the CNSS, the core demographic questions and the omnibus modules were administered to all respondents. Overall, the cooperation rate (which is often referred to as the response rate) was 58.3% and the American Association of Public Opinion Research definition (3) of response rate was 20.1%. Additional data are detailed in Table 1.

**Table 1.** Final Telephone Sample Status for CNSS

Status	Total
Completed Survey	1000
Refusal	715
Non-contact	3008
Physical/Mentally Incapable	16
Language Problem	234
Unknown Eligibility	4115
Nonworking Number	6101
Non-Residence	306
Age Ineligible (<18 years old)	138
Quota filled	362
<b>Total Sample Used</b>	<b>15995</b>
Response Rate <sup>2</sup>	20.1 %
Cooperation Rate <sup>2</sup>	58.3%

<sup>2</sup> American Association for Public Opinion Research (AAPOR) response rate and cooperation rate calculations. The response rate is the total number of survey completions divided by the total eligible sample (total sample minus all ineligible, non-households, and estimated proportion of households where eligibility was not determined). Cooperation rate is the total number of survey completions divided by the number of potential interviews (this includes all instances where contact was made with a properly selected person, but not including those instances where the respondent was incapable of cooperating due to language or physical limitations).

## Sampling Error

The sampling error for the CNSS assumes the traditional 95% confidence level, which is equivalent to a "significance level" of .05. This means that for questions with approximately 1000 respondents there is no more than a one in twenty chance that variations in the respondent sample will cause the CNSS results to deviate by more than 3.1 percentage points when respondents are asked yes/no questions and an even distribution of responses is assumed (i.e., 50% say "yes" and 50% say "no").

Sampling error is determined by the assumed distribution of responses and by the size of the sample. An extreme distribution of question responses has a smaller error range. If the distribution of responses were 80/20, for example, the sampling error would be 2.5% for the total sample of 1000. See Table 2 for additional distributions and sampling error calculations. The size of the sample or subpopulation is also important because the margin of sampling error increases as the sample size decreases.

The margin of error from responses of demographically distinct subgroups within the CNSS will vary depending on the size of the group in question. Again, Table 2 provides some standard sampling errors for different size groups.



**Table 2.** Sampling Error Margins by Question Response Distribution and Sample Size<sup>3</sup>

		Sample Size (N)				
		1000	800	600	400	200
Question	50/50	<b>3.1</b>	<b>3.5</b>	<b>4.0</b>	<b>4.9</b>	<b>6.9</b>
Response	60/40	<b>3.0</b>	<b>3.4</b>	<b>3.9</b>	<b>4.8</b>	<b>6.8</b>
Distribution	70/30	<b>2.8</b>	<b>3.2</b>	<b>3.7</b>	<b>4.5</b>	<b>6.4</b>
(%)	80/20	<b>2.5</b>	<b>2.8</b>	<b>3.2</b>	<b>3.9</b>	<b>5.5</b>
	90/10	<b>1.9</b>	<b>2.1</b>	<b>2.4</b>	<b>2.9</b>	<b>4.2</b>

<sup>3</sup> Calculations made using the Survey System sample size calculator. <http://www.surveysystem.com/sscalc.htm>

Lastly, besides the possible sample error mentioned above, all public opinion polls may incur other sources of error associated with telephone data collection procedures, including the sampling error from the systematic exclusion of households without telephones, question wording, question order, and interviewer-induced bias.

## Respondent Demographics

The accuracy of the CNSS can be evaluated by comparing selected characteristics of the survey respondents to data from the U.S. Census. Table 3 compares the distribution of all 1000 CNSS respondents' characteristics with the actual continental distributions as drawn from the 2010 census and the 2016 American Community Survey 5-year estimates of the U.S. Census and Bureau of Labor Statistics (BLS).

The CNSS ensures accurate reporting of race by allowing respondents to select multiple races. Consequently, the CNSS and U.S. Census/ACS<sup>4</sup> percentages in Table 3 will not sum to 100.

**Table 3.** Key Respondent Demographics for CNSS (% reported)

Characteristics	Telephone (N=1000)	US Census/ ACS <sup>4</sup>
<b>Age</b>		
18-24	14	13
25-34	17	18
35-44	15	17
45-54	18	18
55-64	17	16
65 and older	19	19
<b>Gender</b>		
Male	50	49
Female	50	51
Other	0.5	*
<b>Race</b>		
White	80	76
Black	12	14
Other	17	14
<b>Ethnicity</b>		
Hispanic	11	17
Non-Hispanic	89	83
<b>Employment Status</b>		
Employed	67	58
Unemployed	15	7
Not in labor force	18	35
<b>Annual Household Income</b>		
Less than \$10,000	2	7
\$10,000-49,999	27	38
\$50,000-99,999	36	30
\$100,000 or more	36	35
<b>Education (18 yrs+)</b>		
Less than Bachelor's Degree	51	72
Bachelor's Degree or higher	49	28

\* Notes: Percentages are based upon un-weighted calculations that exclude non-responses. Due to rounding, distributions may not add up to 100. Reported percentages exclude non-responses.

<sup>4</sup> Estimates made using the 2010 census and the 2016 American Community Survey 5-year estimates of the U.S. Census and Bureau of Labor Statistics. <http://www.census.gov>

<sup>6</sup> No ACS estimate for gender since ACS does not report on "Other" as a gender category.

**For More Information:**

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**Citing Results from the CNSS:**

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