Behavioral Risk Factor Surveillance System

2014 Summary Data Quality Report
July 29, 2015

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Introduction

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based, CDC-assisted health-data collection project and partnership of state health departments, CDC's Division of Population Health, and other CDC programs and offices. It comprises telephone surveys conducted by the health departments of all 50 states, the District of Columbia, Puerto Rico, and Guam.

This *Summary Data Quality Report* presents detailed descriptions of the 2014 BRFSS calling outcomes and call summary information for each of the states and territories that participated in the 2014 BRFSS. All BRFSS public-use data are collected by landline telephone and cellular telephone to produce a single data set aggregated from the 2014 BRFSS territorial- and state-level data sets. The variables and outcomes provided in this document are applicable to a combined data set of responses from participants using landline telephones and cellular telephones within each of the states and territories.

The inclusion of data from cellular telephone interviews in the BRFSS public release data set has been standard protocol since 2011. In many respects, 2011 was a year of change—both in BRFSS approach and methodology. As the results of cellular telephone interviews were added in 2011, so were new weighting procedures that could accommodate the inclusion of new weighting variables. Data users should note that new weighting procedures are likely to affect trend lines when comparing BRFSS data collected before and after 2011. Because of these changes, users are advised NOT to make direct comparisons with pre-2011 data, and instead, should begin new trend lines with that year. Details of changes beginning with the 2011 BRFSS are provided in the *Morbidity and Mortality Weekly Report* (*MMWR*), which highlights weighting and coverage effects on trend lines.[1]

The measures presented in this document are designed to summarize the quality of the 2014 BRFSS survey data. Response rates, cooperation rates, and refusal rates for BRFSS are calculated using standards set by the American Association of Public Opinion Research (AAPOR).[2] The BRFSS has calculated 2014 response rates using AAPOR Response Rate #4, which is in keeping with rates provided by BRFSS before 2011 using rates from the Council of American Survey Research Organizations (CASRO).[3]

On the basis of the AAPOR guidelines, response rate calculations include assumptions of eligibility among potential respondents or households that are not interviewed. Changes in the geographic distribution of cellular telephone numbers by telephone companies and the portability of landline telephone numbers are likely to make it more difficult than in the past to ascertain which telephone numbers are out-of-sample and which telephone numbers represent likely households. The BRFSS calculates likely households using the proportions of eligible

households among all phone numbers where eligibility has been determined. This eligibility factor appears in calculations of response-, cooperation-, resolution-, and refusal rates.

Interpretation of BRFSS Response Rates

Because this report reflects the initial inclusion of BRFSS cellular telephone interviews, contextual information on cellular telephone response rates is provided below. Although cellular telephone response rates are generally lower than landline telephone response rates across most surveys, the BRFSS has achieved a cellular telephone response rate that compares favorably with other similar surveys (Table 1).

Table 1. Examples of Cellular Telephone and Landline Survey Response Rates

Survey	Year(s)	Response Rates	
		Landline	Cell Phone
California Health Interview Survey (CHIS)[a]	2011–2012	19.7%	11.1%
The Commonwealth Fund 2010 Biennial Health Insurance Survey[b]	2012	22.0%	19.0%
National Immunization Survey (NIS)[c]	2011	61.7% [a]	25.2%
Pew Internet and American Life Project[d]	2012	11.1%	10.0%
PSRAI Omnibus Survey[e]	2015	5.0%	4.0%
National Adult Tobacco Survey (NATS)[f]	2009–2010	40.4%	24.9%
BRFSS[g]	2014	48.7%	40.5%

Unlike the BRFSS, the NIS does not include household sampling in the landline portion of the study but interviews the adult who self-identifies as the most knowledgeable about household immunization information.

[a] http://healthpolicy.ucla.edu/chis/design/Documents/chis2011-2012-method-2_2014-02-21.pdf
[b] http://www.commonwealthfund.org/Surveys/2013/Biennial-Health-Insurance-Survey.aspx
[c] http://www.cdc.gov/vaccines/stats-surv/nis/dual-frame-sampling-08282012.htm
[d] http://www.people-press.org/2006/05/15/the-cell-phone-challenge-to-survey-research/
[e] http://www.pewinternet.org/2015/04/01/appendix-a-about-the-december-week-1-and-week-3-omnibus-survey/
[f] http://www.cdc.gov/tobacco/data_statistics/surveys/nats/
[g] BRFSS response rates are presented here as median rates for all states and territories.

Research by the Pew Research Center indicates that response rates for all telephone-based surveys have declined in recent years.[4] Despite lower response rates, this research supports previous findings[5] that weighting to demographic characteristics of respondents ensures accurate estimates for most measures.

The following tables present landline telephone and cellular telephone calling outcomes and rates. The BRFSS cellular telephone survey was collected in a manner similar to that of the BRFSS landline telephone survey. One important difference, however, is that interviews conducted by landline telephones include random selection among adults within households, while cellular telephone interviews are conducted with adults who are contacted on personal (nonbusiness) cellular telephones. The report presents data on three general types of measure by state:

1. Call outcome measures, including response rates, which are based on landline telephone disposition codes.

2. Call outcome measures, including response rates, which are based on cellular telephone disposition codes.

3. A weighted response rate, based on a combination of the landline telephone response rate with the cellular telephone response rate proportional to the total sample used to collect the data for a state.

For clarity, the BRFSS recommends that authors and researchers referencing BRFSS data quality include the following language, below. Note the places where authors should include information specific to their projects.

Response rates for BRFSS are calculated using standards set by the American Association of Public Opinion Research (AAPOR) Response Rate Formula #4 (http://www.aapor.org/AAPORKentico/Communications/AAPOR-Journals/Standard-Definitions.aspx). The response rate is the number of respondents who completed the survey as a proportion of all eligible and likely-eligible people. The median survey response rate for all states, territories and Washington, DC, in 2014 was 47.0, and ranged from 25.1 to 60.1.[a] Response rates for states and territories included in this analysis had a median of [provide median] and ranged from [provide range],[b] For detailed information see the BRFSS Summary Data Quality Report.[c]
[a] Response rates and ranges should reflect the year(s) included in the analyses.
[b] Response rates for states selected for analysis should be included here. This sentence may be omitted if all states are used in the analysis.
[c] This link is to the Summary Data Quality Report for the year(s) included in the analyses.
http://www.cdc.gov/brfss/annual_data/2014/pdf/2014_dqr.pdf

BRFSS 2014 Call Outcome Measures and Response Rate Formulae

The calculations of calling-outcome rates are based on final disposition codes that are assigned after all calling attempts have been exhausted. The BRFSS may make up to 15 attempts to reach a respondent before assigning a final disposition code. In 2014, the BRFSS used a single set of disposition codes for both landline and cell phones, adapted from standardized AAPOR disposition codes for telephone surveys. A few disposition codes apply only to landline telephone or cellular telephone sample numbers. For example, answering-device messages may confirm household eligibility for landline telephone numbers but are not used to determine eligibility of cellular telephone numbers. Disposition codes

reflect whether interviewers have completed or partially completed an interview (1000 level codes), determined that the household was eligible without completing an interview (2000 level codes), determined that a household or respondent was ineligible (4000 level codes), or was unable to determine the eligibility of a household or respondent (3000 level codes). The table below illustrates the codes used by the BRFSS in 2014, and it notes the instances where codes are used only for landline telephone or cellular telephone sample numbers.

The Disposition Code Table below uses a number of terms to define and categorize outcomes. These include the following:

- Respondent: A person who is contacted by an interviewer and who may be eligible for interview.
- Landline telephone: A telephone that is used within a specific location, including traditional household telephones, Voice Over Internet Protocol (VOIP), and Internet phones connected to computers in a household.
- Cellular telephone: A mobile device that is not tied to specific location for use.
- Selected respondent: A person who is eligible for interview. For the cellular telephone sample, a selected respondent is an adult associated with the phone number who lives in a private residence or college housing within the United States or territories covered by the BRFSS. For the landline telephone sample, a selected respondent is the person chosen for interview during the household enumeration section of the screening questions.
- Personal cellular telephone: A cellular telephone that is used for personal calls. Cellular telephones that are used for both personal and business calls may be categorized as personal telephones and persons contacted on one are eligible for interview. People using business-only telephones are not using personal telephones and, therefore, are not eligible for interview.

Table 2. 2014 Landline Telephone and Cellular Telephone BRFSS Disposition Codes

Category	Code	Description
Interviewed (1000 level codes)	1100	Completed interview
	1200	Partially completed interview
Eligible, Non-Interview (2000 level codes)	2111	Household level refusal (used for landline only)
Eligible, Non-Interview (2000 level codes)	2112	Selected respondent refusal
Eligible, Non-Interview (2000 level codes)	2120	Break off/termination within questionnaire
Eligible, Non-Interview (2000 level codes)	2210	Selected respondent never available
Eligible, Non-Interview (2000 level codes)	2220	Household (nonbusiness) answering device (used for landline only)
Eligible, Non-Interview (2000 level codes)	2320	Selected respondent physically or mentally unable to complete interview
Eligible, Non-Interview (2000 level codes)	2330	Language barrier of selected respondent
Unknown Eligibility	3100	Unknown if housing unit
Unknown Eligibility	3130	No answer
Unknown Eligibility	3140	Answering device, unknown whether eligible
Unknown Eligibility	3150	Telecommunication barrier (i.e. call blocking)
Unknown Eligibility	3200	Household, not known if respondent eligible
Unknown Eligibility	3322	Physical or mental impairment (household level)
Unknown Eligibility	3330	Language barrier (household level)
Unknown Eligibility	3700	On never-call list

Category	Code	Description
Not Eligible	4100	Out of sample
Not Eligible	4200	Fax/data/modem
Not Eligible	4300	Nonworking/disconnected number
Not Eligible	4400	Technological barrier (i.e., fast busy, phone circuit barriers)
Not Eligible	4430	Call forwarding/pager
Not Eligible	4450	Cellular telephone number (used for landline telephone only)
Not Eligible	4460	Landline telephone number (used for cellular telephone only)
Not Eligible	4500	Non-residence/ business
Not Eligible	4510	Group home
Not Eligible	4700	Household, no eligible respondent (teen phone/minor child cellular telephone)
Not Eligible	4900	Miscellaneous, non-eligible

Factors affecting the distribution of disposition codes by state include differences in telephone systems, sample designs, surveyed populations, and data collection processes. Table 3 defines the categories of disposition codes used to calculate outcome and response rates illustrated in Tables 4A through 6.

Table 3. Categories of 2014 Landline and Cellular Telephone Disposition Codes

Category	Disposition Code Definitions	Formulae Abbreviation
Completed Interviews	1100+1200	COIN
Eligible	1100+1200+2111+2112+2120+2210+2220+2320+2330	ELIG
Contacted Eligible	1100+1200+2111+2112+2120+2210+2320+2330	CONELIG
Terminations and Refusals	2111+2112+2120	TERE
Ineligible Phone Numbers	All 4000 level disposition codes	INELIG
Unknown Whether Eligible	All 3000 level disposition codes	UNKELIG
Eligibility Factor	ELIG/(ELIG + INELIG)	E

The disposition codes are categorized according to the groups illustrated in Table 3 to produce rates of resolution, cooperation, completion, refusal and response. In accordance with population surveillance standards, the proportions of people who may have been eligible for interview, but who were not able to be interviewed, are accounted for in the formulae.

Eligibility Factor

E = ELIG/ (ELIG + INELIG)

The Eligibility Factor is the proportion of eligible phone numbers from among all sample numbers for which eligibility has been determined. The eligibility factor, therefore, provides a measure of eligibility that can be applied to sample numbers with unknown eligibility. The purpose of the eligibility factor is to estimate the proportion of the sample that is likely to be eligible. The eligibility factor is used in the calculations of refusal and response rates. Separate eligibility factors are calculated for landline telephones and cellular telephone samples for each state and territory.

Resolution Rate

((ELIG + INELIG) / (ELIG+INELIG+UNKELIG))*100

The Resolution Rate is the percentage of numbers in the total sample for which eligibility has been determined. The total number of eligible and ineligible sample phone numbers is divided by the total number of phone numbers in the entire sample. The result is multiplied by 100 to calculate the percentage of the sample for which eligibility is determined. Separate resolution rates are calculated for landline telephone and cellular telephone samples for each state and territory.

Interview Completion Rate

(COIN / (COIN + TERE)) * 100

The Interview Completion Rate is the rate of completed interviews among all respondents who have been determined to be eligible and selected for interviewing. The numerator is the number of complete and partially completed interviews. This number is divided by the number of completed interviews, partially completed interviews, and all break offs, refusals, and terminations. The result is multiplied by 100 to provide the percentage of completed interviews among eligible respondents who are contacted by interviewers. Separate interview completion rates are calculated for landline telephone and cellular telephone samples for each state and territory.

Cooperation Rate

(COIN / CONELIG) *100

The AAPOR Cooperation Rate is the number of complete and partial complete interviews divided by the number of contacted and eligible respondents. The BRFSS Cooperation Rate follows the guidelines of AAPOR Cooperation Rate #2. Separate cooperation rates are calculated for landline telephone and cellular telephone samples for each state and territory.

Refusal Rate

(TERE / (ELIG + (E * UNKELIG))) * 100

The BRFSS Refusal Rate is the proportion of all eligible respondents who refused to complete an interview or terminated an interview prior to the threshold required to be considered a partial interview. Refusals and terminations (TERE) are in the numerator, and the denominator includes all eligible numbers and a proportion of the numbers with unknown eligibility. The proportion of numbers with unknown eligibility is determined by the eligibility factor (E as described above). The result is then multiplied by 100 to provide a percentage of refusals among all eligible and likely to be eligible numbers in the sample. Separate refusal rates are calculated for landline telephone and cellular telephone samples for each state and territory.

Response Rate

(COIN / ((ELIG + (E * UNKELIG))) * 100

A Response Rate is an outcome rate with the number of complete and partial interviews in the numerator and an estimate of the number of eligible units in the sample in the denominator. The BRFSS Response Rate calculation assumes that the unresolved numbers contain the same percentage of eligible households or eligible personal cell phones as the records whose eligibility or ineligibility are determined. The BRFSS Response Rate follows the guidelines for AAPOR Response Rate #4. It also is similar to the BRFSS CASRO Rates reported prior to 2011. Separate eligibility factors are calculated for landline telephone and cellular telephone samples for each state and territory and a combined Response

Rate for landline telephone and cellular telephone also is calculated. The combined landline telephone and cellular telephone response rate is generated by weighting to the respective size of the two samples. The total sample equals the landline telephone sample plus cellular telephone sample. The proportion of each sample is calculated using the total sample as the denominator. The formulae for the proportions of the sample are found below:

$$P1 = \text{TOTAL LANDLINE SAMPLE} /$$
$$(\text{TOTAL LANDLINE SAMPLE} + \text{TOTAL CELL PHONE SAMPLE});$$

$$P2 = \text{TOTAL CELL PHONE SAMPLE} /$$
$$(\text{TOTAL LANDLINE SAMPLE} + \text{TOTAL CELL PHONE SAMPLE});$$

The formula for the Combined Landline Telephone and Cellular Telephone Weighted Response Rate, therefore, is described below:

$$\text{COMBINED RESPONSE RATE} =$$
$$(P1 * \text{LANDLINE RESPONSE RATE}) + (P2 * \text{CELL PHONE RESPONSE RATE}).$$

Tables of Outcomes and Rates by State

The tables on the following pages illustrate calling outcomes in categories of eligibility, rates of cooperation, refusal, resolution, and response by landline telephone and cellular telephone samples.

 ➢ Tables 4A and 4B provide information on the size of the sample and the numbers and percentages of completed interviews, terminations and refusals, and contacts with eligible households by state and territory.
 ➢ Tables 5A and 5B provide information on the number and percentage of landline telephone and cellular telephone sample numbers that are eligible, ineligible, and of unknown eligibility.
 ➢ Table 6 provides response rates for landline telephone samples, cellular telephone samples, and combined samples.

Table 4A. Landline Sample Completions, Terminations and Refusals, Contacted Eligible Households and Total Sample by State

State	COIN		TERE		CONELIG		Total Sample
	N	%	N	%	N	%	
AL	4,981	3.8	3,681	2.8	10,385	8.0	130,140
AK	3,108	3.2	1,248	1.3	5,040	5.2	96,660
AZ	11,714	3.8	5,458	1.8	19,938	6.5	307,680
AR	4,018	4.6	1,817	2.1	6,801	7.7	88,020
CA	3,450	2.8	2,117	1.7	8,358	6.7	124,301
CO	8,118	6.8	1,508	1.3	11,187	9.4	119,340
CT	5,226	4.5	2,223	1.9	8,821	7.7	115,020
DE	2,866	4.2	711	1.0	4,394	6.4	68,820
DC	3,212	2.5	1,439	1.1	5,614	4.3	129,510
FL	6,836	3.4	3,133	1.5	11,795	5.8	203,790
GA	4,461	2.7	1,069	0.7	6,958	4.3	162,540
HI	2,904	2.9	831	0.8	4,868	4.9	98,910
ID	3,284	4.4	1,321	1.8	5,272	7.0	75,420
IL	3,034	4.6	1,151	1.8	5,079	7.7	65,730
IN	8,077	4.3	3,769	2.0	13,603	7.3	186,390
IA	5,068	6.0	1,673	2.0	7,719	9.2	83,970
KS	7,409	6.2	2,620	2.2	10,957	9.2	118,950
KY	8,919	4.0	1,920	0.9	11,414	5.1	224,910
LA	3,764	3.7	1,525	1.5	5,918	5.8	101,908
ME	6,556	7.0	1,762	1.9	9,337	9.9	94,320
MD	11,182	5.7	2,715	1.4	16,294	8.3	197,070
MA	11,678	2.3	6,278	1.2	18,957	3.8	504,057
MI	4,973	4.4	1,421	1.3	7,679	6.8	113,670
MN	7,927	5.8	1,452	1.1	11,344	8.3	137,460
MS	2,617	4.2	1,281	2.1	4,445	7.2	61,613
MO	4,837	6.6	1,433	2.0	7,393	10.1	73,049

State	COIN		TERE		CONELIG		Total Sample
	N	%	N	%	N	%	
MT	5,509	6.0	1,536	1.7	7,964	8.7	91,470
NE	12,962	6.9	4,569	2.4	19,816	10.5	187,920
NV	2,371	5.0	711	1.5	3,423	7.3	46,974
NH	4,403	6.3	1,512	2.2	6,797	9.7	70,230
NJ	9,764	4.6	2,106	1.0	14,668	6.8	214,290
NM	5,196	5.4	2,148	2.2	8,406	8.8	95,670
NY	4,696	3.3	2,694	1.9	9,065	6.3	142,890
NC	3,790	6.1	1,499	2.4	6,054	9.7	62,250
ND	5,603	4.3	1,771	1.4	8,318	6.4	130,950
OH	8,081	3.4	2,329	1.0	13,157	5.6	234,240
OK	4,723	6.4	1,757	2.4	7,685	10.4	74,248
OR	2,955	3.8	1,183	1.5	4,333	5.6	77,975
PA	7,694	4.3	3,877	2.2	13,623	7.6	178,170
RI	4,615	6.8	1,918	2.8	7,724	11.3	68,100
SC	6,233	7.2	1,738	2.0	9,552	11.1	86,130
SD	4,163	4.5	864	0.9	5,728	6.2	92,880
TN	3,585	3.6	1,599	1.6	5,705	5.7	100,856
TX	9,621	3.7	3,752	1.5	15,799	6.2	256,890
UT	6,684	6.4	1,311	1.3	9,643	9.2	104,430
VT	3,203	8.8	783	2.1	4,443	12.2	36,540
VA	6,458	6.5	1,077	1.1	9,233	9.3	99,750
WA	7,023	4.5	4,017	2.5	12,851	8.2	157,530
WV	4,037	13.7	871	3.0	5,448	18.5	29,520
WI	4,164	6.4	1,912	2.9	6,869	10.5	65,550
WY	5,474	3.5	2,027	1.3	8,505	5.5	155,670
GU	1,842	4.6	595	1.5	3,590	9.0	39,961
PR	3,500	6.3	443	0.8	4,925	8.8	55,650
Minimum	1,842	2.3	443	0.7	3,423	3.8	29,520

State	COIN		TERE		CONELIG		Total Sample
	N	%	N	%	N	%	
Maximum	12,962	13.7	6,278	3.0	19,938	18.5	504,057
Mean	5,633	5.0	2,003	1.7	8,923	7.9	125,283
Median	4,973	4.5	1,673	1.7	7,964	7.7	100,856

Table 4B. Cell Phone Sample Completions, Terminations and Refusals, Contacted Eligible Households and Total Sample by State

| | COIN | | TERE | | CONELIG | | |
State	N	%	N	%	N	%	Total Sample
AL	3,648	6.3	1,246	2.2	5,054	8.8	57,752
AK	1,282	7.6	181	1.1	1,552	9.3	16,770
AZ	2,938	7.0	841	2.0	4,100	9.7	42,240
AR	1,198	9.3	184	1.4	1,489	11.6	12,870
CA	4,978	7.6	4,984	7.6	11,710	17.9	65,239
CO	5,340	13.9	410	1.1	5,846	15.2	38,400
CT	2,926	5.4	900	1.7	4,218	7.9	53,700
DE	1,539	7.7	197	1.0	1,865	9.4	19,890
DC	798	2.9	206	0.7	1,097	3.9	27,810
FL	2,407	7.7	571	1.8	3,030	9.7	31,170
GA	1,695	5.9	242	0.8	2,108	7.3	28,890
HI	4,869	10.8	676	1.5	5,774	12.9	44,909
ID	2,235	15.8	423	3.0	2,794	19.8	14,130
IL	1,879	7.7	321	1.3	2,260	9.2	24,450
IN	3,493	8.9	783	2.0	4,479	11.4	39,360
IA	3,044	15.0	295	1.5	3,418	16.8	20,310
KS	6,584	8.5	1,026	1.3	7,718	9.9	77,745
KY	2,325	6.2	244	0.7	2,623	7.0	37,440
LA	3,065	6.4	650	1.4	4,256	8.9	48,069
ME	2,658	10.5	399	1.6	3,188	12.5	25,410
MD	1,326	6.0	154	0.7	1,617	7.4	21,990
MA	3,962	3.1	918	0.7	5,768	4.5	128,983
MI	3,570	7.7	895	1.9	5,278	11.4	46,290
MN	8,189	9.4	713	0.8	9,781	11.3	86,940
MS	1,570	10.9	267	1.8	1,879	13.0	14,437
MO	2,140	10.4	297	1.4	2,556	12.4	20,633
MT	2,042	10.2	284	1.4	2,371	11.8	20,013
NE	9,952	13.0	1,536	2.0	12,263	16.0	76,410

NV	1,327	10.0	137	1.0	1,491	11.2	13,319
NH	1,902	8.5	439	2.0	2,522	11.2	22,500
NJ	3,481	6.0	541	0.9	4,462	7.7	57,690
NM	3,965	11.6	744	2.2	4,819	14.1	34,111
NY	2,015	6.5	669	2.2	2,963	9.6	30,990
NC	3,292	10.2	763	2.4	4,336	13.4	32,430
ND	2,433	6.5	496	1.3	3,061	8.2	37,410
OH	2,786	6.0	464	1.0	3,775	8.2	46,080
OK	3,765	8.5	887	2.0	4,893	11.1	44,097
OR	2,139	5.7	35	0.1	2,444	6.5	37,344
PA	3,281	7.2	792	1.7	4,289	9.4	45,449
RI	1,988	7.4	554	2.1	2,784	10.4	26,760
SC	4,888	10.8	828	1.8	5,938	13.2	45,060
SD	3,384	7.7	263	0.6	3,692	8.4	43,753
TN	1,445	6.7	419	1.9	1,891	8.8	21,539
TX	5,270	8.4	1,384	2.2	7,057	11.2	63,000
UT	8,764	16.6	785	1.5	9,989	18.9	52,830
VT	3,220	8.7	552	1.5	3,991	10.8	37,020
VA	2,906	8.1	359	1.0	3,691	10.3	35,790
WA	2,868	6.6	1,522	3.5	5,186	12.0	43,320
WV	2,254	11.9	265	1.4	2,563	13.6	18,869
WI	2,958	12.4	559	2.3	3,659	15.3	23,940
WY	905	6.7	128	1.0	1,080	8.0	13,440
GU	686	6.3	139	1.3	877	8.1	10,826
PR	2,520	19.4	223	1.7	3,005	23.1	12,989
Minimum	686	2.9	35	0.1	877	3.9	10,826
Maximum	9,952	19.4	4,984	7.6	12,263	23.1	128,983
Mean	3,134	8.8	638	1.6	4,048	11.1	37,600
Median	2,868	7.7	496	1.5	3,659	10.8	35,790

Table 5A. Landline Sample Categories of Eligibility by State (Landline Only)

State	ELIG		INELIG		UNKELIG	
	N	%	N	%	N	%
AL	14,736	11.3	101,460	78.0	13,944	10.7
AK	5,468	5.7	81,622	84.4	9,570	9.9
AZ	23,191	7.5	239,033	77.7	45,456	14.8
AR	7,535	8.6	69,112	78.5	11,373	12.9
CA	9,863	7.9	84,876	68.3	29,562	23.8
CO	11,857	9.9	92,823	77.8	14,660	12.3
CT	10,613	9.2	80,973	70.4	23,434	20.4
DE	4,530	6.6	46,950	68.2	17,340	25.2
DC	8,113	6.3	99,886	77.1	21,511	16.6
FL	14,273	7.0	153,943	75.5	35,574	17.5
GA	7,177	4.4	124,271	76.5	31,092	19.1
HI	5,800	5.9	82,243	83.1	10,867	11.0
ID	5,665	7.5	61,210	81.2	8,545	11.3
IL	6,509	9.9	49,834	75.8	9,387	14.3
IN	15,679	8.4	142,769	76.6	27,942	15.0
IA	8,064	9.6	66,697	79.4	9,209	11.0
KS	11,399	9.6	93,090	78.3	14,461	12.2
KY	12,137	5.4	176,306	78.4	36,467	16.2
LA	8,595	8.4	79,171	77.7	14,142	13.9
ME	10,054	10.7	70,192	74.4	14,074	14.9
MD	16,672	8.5	135,475	68.7	44,923	22.8
MA	23,294	4.6	354,047	70.2	126,716	25.1
MI	8,464	7.4	88,763	78.1	16,443	14.5
MN	11,533	8.4	105,918	77.1	20,009	14.6
MS	5,973	9.7	49,460	80.3	6,180	10.0
MO	7,813	10.7	54,968	75.2	10,268	14.1
MT	9,032	9.9	73,069	79.9	9,369	10.2
NE	22,211	11.8	149,678	79.6	16,031	8.5
NV	4,088	8.7	33,680	71.7	9,206	19.6
NH	8,479	12.1	49,637	70.7	12,114	17.2

NH	8,479	12.1	49,637	70.7	12,114	17.2
NJ	15,005	7.0	150,558	70.3	48,727	22.7
NM	8,794	9.2	76,482	79.9	10,394	10.9
NY	10,995	7.7	101,065	70.7	30,830	21.6
NC	8,780	14.1	46,015	73.9	7,455	12.0
ND	8,952	6.8	112,085	85.6	9,913	7.6
OH	13,438	5.7	189,818	81.0	30,984	13.2
OK	7,976	10.7	57,726	77.7	8,546	11.5
OR	5,130	6.6	55,154	70.7	17,691	22.7
PA	16,171	9.1	124,955	70.1	37,044	20.8
RI	8,860	13.0	39,769	58.4	19,471	28.6
SC	10,830	12.6	64,416	74.8	10,884	12.6
SD	6,464	7.0	80,419	86.6	5,997	6.5
TN	8,366	8.3	77,091	76.4	15,399	15.3
TX	23,747	9.2	194,570	75.7	38,573	15.0
UT	10,684	10.2	82,917	79.4	10,829	10.4
VT	4,906	13.4	26,446	72.4	5,188	14.2
VA	9,389	9.4	71,512	71.7	18,849	18.9
WA	16,917	10.7	118,946	75.5	21,667	13.8
WV	6,043	20.5	18,603	63.0	4,874	16.5
WI	7,314	11.2	48,811	74.5	9,425	14.4
WY	10,724	6.9	124,075	79.7	20,871	13.4
GU	3,884	9.7	32,695	81.8	3,382	8.5
PR	5,155	9.3	44,598	80.1	5,897	10.6
Minimum	3,884	4.4	18,603	58.4	3,382	6.5
Maximum	23,747	20.5	354,047	86.6	126,716	28.6
Mean	10,327	9.1	94,903	75.8	20,052	15.1
Median	8,860	9.1	80,973	76.6	14,461	14.3

Table 5B. Cell Phone Sample Categories of Eligibility by State (Cell Phone Only)

	ELIG		INELIG		UNKELIG	
State	**N**	**%**	**N**	**%**	**N**	**%**
AL	5,054	8.8	27,637	47.9	25,061	43.4
AK	1,552	9.3	10,633	63.4	4,585	27.3
AZ	4,100	9.7	14,239	33.7	23,901	56.6
AR	1,489	11.6	5,930	46.1	5,451	42.4
CA	11,710	17.9	22,369	34.3	31,160	47.8
CO	5,846	15.2	14,119	36.8	18,435	48.0
CT	4,218	7.9	14,808	27.6	34,674	64.6
DE	1,865	9.4	8,566	43.1	9,459	47.6
DC	1,097	3.9	13,923	50.1	12,790	46.0
FL	3,030	9.7	7,128	22.9	21,012	67.4
GA	2,108	7.3	12,435	43.0	14,347	49.7
HI	5,774	12.9	13,982	31.1	25,153	56.0
ID	2,794	19.8	5,162	36.5	6,174	43.7
IL	2,260	9.2	10,505	43.0	11,685	47.8
IN	4,479	11.4	15,241	38.7	19,640	49.9
IA	3,418	16.8	8,921	43.9	7,971	39.2
KS	7,718	9.9	38,111	49.0	31,916	41.1
KY	2,623	7.0	16,442	43.9	18,375	49.1
LA	4,256	8.9	21,576	44.9	22,237	46.3
ME	3,188	12.5	9,973	39.2	12,249	48.2
MD	1,617	7.4	8,318	37.8	12,055	54.8
MA	5,768	4.5	65,397	50.7	57,818	44.8
MI	5,278	11.4	23,196	50.1	17,816	38.5
MN	9,781	11.3	39,651	45.6	37,508	43.1
MS	1,879	13.0	6,341	43.9	6,217	43.1
MO	2,556	12.4	7,165	34.7	10,912	52.9
MT	2,371	11.8	10,935	54.6	6,707	33.5
NE	12,263	16.0	40,402	52.9	23,745	31.1
NV	1,491	11.2	4,406	33.1	7,422	55.7

State	ELIG		INELIG		UNKELIG	
	N	%	N	%	N	%
NH	2,522	11.2	8,498	37.8	11,480	51.0
NJ	4,462	7.7	22,966	39.8	30,262	52.5
NM	4,819	14.1	17,184	50.4	12,108	35.5
NY	2,963	9.6	11,009	35.5	17,018	54.9
NC	4,336	13.4	11,319	34.9	16,775	51.7
ND	3,061	8.2	23,550	63.0	10,799	28.9
OH	3,775	8.2	18,609	40.4	23,696	51.4
OK	4,893	11.1	24,857	56.4	14,347	32.5
OR	2,444	6.5	13,631	36.5	21,269	57.0
PA	4,289	9.4	16,235	35.7	24,925	54.8
RI	2,784	10.4	7,484	28.0	16,492	61.6
SC	5,938	13.2	16,507	36.6	22,615	50.2
SD	3,692	8.4	24,909	56.9	15,152	34.6
TN	1,891	8.8	7,622	35.4	12,026	55.8
TX	7,057	11.2	26,301	41.7	29,642	47.1
UT	9,989	18.9	19,698	37.3	23,143	43.8
VT	3,991	10.8	14,592	39.4	18,437	49.8
VA	3,691	10.3	13,812	38.6	18,287	51.1
WA	5,186	12.0	13,122	30.3	25,012	57.7
WV	2,563	13.6	4,559	24.2	11,747	62.3
WI	3,659	15.3	11,183	46.7	9,098	38.0
WY	1,080	8.0	8,008	59.6	4,352	32.4
GU	877	8.1	7,080	65.4	2,869	26.5
PR	3,005	23.1	4,623	35.6	5,361	41.3
Minimum	877	3.9	4,406	22.9	2,869	26.5
Maximum	12,263	23.1	65,397	65.4	57,818	67.4
Mean	4,048	11.1	15,941	42.0	17,611	46.8
Median	3,659	10.8	13,812	39.8	16,775	47.8

Table 6. Response Rates for Landline Telephone, Cellular Telephone, and Combined Samples

State	Landline Response Rate	Cell Phone Response Rate	Combined Response Rate
AL	30.2	40.9	33.5
AK	51.2	60.0	52.5
AZ	43.0	31.1	41.6
AR	46.4	46.4	46.4
CA	26.7	22.2	25.1
CO	60.1	47.5	57.0
CT	39.2	24.6	34.6
DE	47.3	43.3	46.4
DC	33.0	39.3	34.1
FL	39.5	25.9	37.7
GA	50.3	40.5	48.8
HI	44.6	37.1	42.2
ID	51.4	45.0	50.4
IL	40.0	43.4	40.9
IN	43.8	39.1	43.0
IA	56.0	54.1	55.6
KS	57.1	50.3	54.4
KY	61.6	45.1	59.2
LA	37.7	38.7	38.0
ME	55.5	43.2	52.9
MD	51.8	37.0	50.3
MA	37.5	37.9	37.6
MI	50.3	41.6	47.8
MN	58.7	47.6	54.4
MS	39.4	47.6	41.0
MO	53.2	39.4	50.2
MT	54.7	57.3	55.2
NE	53.4	55.9	54.1
NV	46.6	39.4	45.0

State	Landline Response Rate	Cell Phone Response Rate	Combined Response Rate
NH	43.0	36.9	41.5
NJ	50.3	37.1	47.5
NM	52.7	53.1	52.8
NY	33.5	30.7	33.0
NC	38.0	36.7	37.5
ND	57.9	56.5	57.6
OH	52.2	35.9	49.5
OK	52.4	51.9	52.2
OR	44.5	37.7	42.3
PA	37.7	34.5	37.0
RI	37.2	27.4	34.4
SC	50.3	41.0	47.1
SD	60.2	59.9	60.1
TN	36.3	33.7	35.9
TX	34.4	39.5	35.4
UT	56.1	49.3	53.8
VT	56.0	40.5	48.2
VA	55.8	38.5	51.2
WA	35.8	23.4	33.1
WV	55.8	33.2	47.0
WI	48.7	50.1	49.1
WY	44.2	56.7	45.2
GU	43.4	57.5	46.4
PR	60.7	49.2	58.5
Minimum	26.7	22.2	25.1
Maximum	61.6	60.0	60.1
Mean	47.1	42.1	45.8
Median	48.7	40.5	47.0

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