# そBRFSS 

## 2018

# Behavioral Risk Factor Surveillance System 

## Asthma Call-back Survey

Summary Data Quality Report



National
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## 2018 Asthma Call-back Survey (ACBS) Summary Data Quality Report

## Introduction

Procedures for interview disposition and response rates for the Behavioral Risk Factor Surveillance System (BRFSS) Asthma Call-back Survey (ACBS) follow the usual BRFSS procedures; however, some additions and adaptations are required for the call-back survey. Disposition codes, disposition code categories, and response rates are discussed in the sections below. Figure 1 is a flow chart that describes the eligibility paths BRFSS respondents with asthma follow through the ACBS process.

Because asthma characteristics vary by season, a seasonal analysis must consider any state for which interviewing was not conducted throughout the year. States may have interrupted interviewing due to contract interruptions with their data collection company. In addition, some ACBS interviews are finalized in the first few months of the next calendar year. If a state has less than 6 complete months of child or adult data, the data from that state are not considered sufficiently comparable with the data from other states and are excluded from the public release file and the response rate calculations. If a state has fewer than seventy-five (75) complete child interviews, reliable weights cannot be calculated and the child data from that state are excluded from the public release file.

Appendix A presents tables showing disposition code categories, response rates, and completed interviews by month for each state participating in the ACBS each year. Appendix B provides additional instructions on assigning the ACBS-specific disposition codes. Appendix C presents the ACBS nonresponse bias analysis plan and supporting tables showing demographic breakout and prevalence for each state. Details on BRFSS response rates and procedures can be found in the BRFSS Data Quality Report Handbook and the BRFSS Summary Data Quality Report for each survey year (http://www.cdc.gov/brfss/annual_data/annual_data.htm).

## Disposition Codes

The BRFSS disposition codes are used for the ACBS; however, a few additional codes are needed to account for situations specific to a call-back survey. In the list below, disposition codes added to the ACBS are underlined and bolded. There are no equivalent BRFSS codes for ACBS-specific codes. Detailed descriptions of the ACBS codes can be found in Appendix B.

The ACBS 4-digit disposition codes for 2018 are:

## I. Eligible, contacted: complete interview

1100 Complete.
1200 Partial complete (through the end of section 8).

## II. Eligible, contacted: refusal or termination

4413 Refused to participate in the call-back during the BRFSS interview.
2112 Refused to begin the ACBS interview after contacted.
2120 Terminated within the questionnaire during the ACBS interview before section 9.
2211 Refused to allow combining ACBS responses with BRFSS responses.
$\underline{2212}$ Refused to answer the "ever had asthma" question during the ACBS interview.

## III. Eligible, lost to follow-up because unable to contact or communicate with the BRFSS respondent with asthma

2111 Hang up or termination before respondent contacted. Household contacted but ACBS respondent not contacted.
2210 Selected respondent never reached or reached but did not begin interview during interviewing period. Selected respondent away from residence during the entire interviewing period.
2220 Telephone answering device, message confirming private residential status. Telecommunication technological barrier, message confirming private residential status.
2320 Selected respondent physically or mentally unable to complete an interview during the entire interviewing period.
2330 Language problem after respondent selection.
3100 Contact, hang-up or termination, unknown if private residence.
3130 No answer.
3140 Telephone answering device, unknown if private residence.
3200 Hang-up or termination, known household. Household contact, eligibility undetermined.
3322 Physical or mental impairment.
3330 Language problem.
4100 Household members away from residence during entire interviewing period.
4900 Miscellaneous, non-eligible (for ACBS miscellaneous non-contact).
4306 Selected ACBS respondent no longer living in the BRFSS household.

## Temporary codes: should be resolved prior to submission

5050 Hang-up, unknown if housing unit.
5100 Appointment.
5111 Household-level refusal.
5112 Refusal: hang-up or termination.
5120 Break off/termination in questionnaire before Section 9.
5130 No answer.
5140 Answering machine, unknown if private residence.
5220 Answering machine, message confirming residential status.
5320 Physical or mental impairment.
5330 Language problem.

5550 Busy.
5560 Unsafe location for interview.
IV. Eligible, lost to follow-up for technical reasons

3150 Telecommunication technological barrier, unknown if private residence.
3700 On never-call list.
4200 Dedicated fax/data/modem line with no human contact.
4300 Telephone number no longer in service or changed. Non-working/disconnected number.
4400 Busy/Fast busy/Circuit busy.
4430 Call forwarding/Pager.
4450 Landline sample number connects to cell phone.
4460 Cell phone sample number connects to landline.
4470 Cell phone respondent also has landline, less than $90 \%$ of all calls on cell phone.
4500 Not a private residence - business.
4510 Not a private residence - group home.
5150 Technological barrier other than answering machine-unknown if private residence.
5200 Fax/Data/Modem.
5300 Phone number temporarily out of service. Possible non-working number.
5400 Technological barrier other than answering machine with message confirming residential status. Fast busy. Circuit busy.
5599 Mistaken Ctrl-End.
5700 Supervisor attention needed.
5900 Null attempt.
9999 Missing disposition code.

## V. Ineligible: all codes specific to ACBS (no BRFSS equivalent)

2290 Most-knowledgeable person is not parent or guardian.
2291 No parent or legal guardian in the household (child ineligible).
4480 Not recruited for call-back at BRFSS interview (excluded by state).
4490 Random child/adult selection: adult ineligible, child selected.
4491 Random child/adult selection: child ineligible, adult selected.
4405 Out-of-state when ACBS records are not transferred to state of residence.
4700 Household, no eligible respondent (respondent does not have asthma).
4411 Selected respondent not eligible for follow-up.
4412 Transferred from BRFSS but not attempted (excluded by state).
4471 Misdiagnosed asthma in respondent.

## Definitions and Labels for Disposition Code Categories

Because the ACBS is a call-back interview, all those identified with asthma at the BRFSS interview are, with a few notable exceptions, eligible for the call-back survey. The ACBS eligibility flow chart (Figure 1) summarizes how BRFSS respondents are categorized for ACBS response rate calculation.

ACBS interviews are considered complete (COIN) if the respondents finish the entire interview or if they complete through section 8 of the ACBS interview. ACBS interviews are refusals if the respondent refuses participation at either the BRFSS interview or at the time of the ACBS interview. Terminations are ACBS interviews that start but are terminated during the interview before completing section 8 (Medication Section).

The disposition codes that relate to contact problems or technology issues are considered "eligible but lost to follow-up." If they had been contacted, a small proportion of those eligible but lost to follow-up might actually be ineligible. All temporary disposition codes (numbered 5000 or higher) that should have been resolved but were not are treated as comparable 4000level codes.

BRFSS respondents with asthma who are considered ineligible for the ACBS include those who are not asked to participate at the time of the BRFSS interview. Each year, between $10 \%$ and $15 \%$ of those technically eligible are not asked to participate in the call-back survey.
Respondents might not be asked for several reasons:

- States with split samples may include respondents in the call-back only if they are in specified splits of the BRFSS sample. Counts for states that exclude split-sample respondents are excluded from the following tables and rate calculations.
- The BRFSS respondent may partially complete the BRFSS interview but terminate before the call-back request.
- Specific state BRFSS call-back contracts may limit the number of call-back interviews due to budgetary constraints.
- States may stop conducting call-back interviews during contract negotiations.

BRFSS respondents with asthma who are asked to participate in the ACBS but are later classified as ineligible include:

- Respondents in households where both the selected adult and selected child in the household have asthma. When both have asthma, only one is eligible for the ACBS.
- Respondents who move out-of-state between the BRFSS interview and the ACBS interview in states that are not transferring ACBS interview data or to/from states not participating in the ACBS.
- Respondents who indicate, at the time of the ACBS interview, that the reported diagnosis of asthma was an error.
- Child respondents for whom the adult BRFSS respondent is not the child's parent or guardian.
- Some respondents in states that have reached a pre-specified quota for ACBS interviews.

The following table indicates how disposition codes are grouped into response rate categories shown in the eligibility flow chart (Figure 1):

Table 1: Disposition Code Categories

| Category | Disposition Codes | Notes |
| :---: | :---: | :---: |
| Eligible COIN Completed interview | 1100, 1200 | Through section 8 |
| Eligible TERE <br> Terminations and refusals | $\underline{4413}$ | At BRFSS interview |
|  | $\underline{\text { 2112, 2120, 2211, 2212, }}$ | At ACBS |
| Eligible, lost to followup <br> Not interviewed | $\begin{aligned} & 2111,2210,2220,2320,2330,3100,3130, \\ & 3140,3200,3322,3330,4100,4900,4306 \\ & 5050,5100,5111,5112,5120,5130,5140, \\ & 5220,5320,5330,5550,5560 \end{aligned}$ | Unable to contact or communicate with eligible respondent |
|  | 3150, 3700, 4200, 4300, 4400, 4430, 4450, 4460, 4470, 4500, 4510, 5400, 5150, 5200, 5300, 5599, 5700, 5900, 9999 | Technical problems |
| Ineligible | 2290, 2291, 4480, 4490, 4491 | At BRFSS interview |
|  | 4405, 4700, 4411, 4471 | At ACBS |
|  | $\underline{4412}$ | No ACBS attempt |

Figure 1: ACBS Eligibility Flow Chart:


## ACBS Response Rates

The ACBS Interview Completion Rate is the proportion of completed interviews among eligible respondents who are contacted for and started the ACBS interview. Those who refuse at the initial BRFSS interview (4413), are ineligible, and those never contacted are excluded from the denominator. This rate is based on actual contacts with the eligible respondents at the time of the call-back interview. The numerator of the rate includes completed interviews (COIN). The denominator of the rate includes completed interviews (COIN), plus the number contacted later for the ACBS interview who refused or terminated the interview (disposition codes 2112, 2120, 2211, and 2212).

The ACBS Cooperation Rate is the proportion of completed interviews among all eligible respondents who are recruited and contacted for the ACBS interview. Eligible respondents who refuse the call-back at the time of the BRFSS interview are included. Non-contacts are excluded from the denominator, but contacts with communication problems specific to the respondent with asthma are included. The numerator of the rate consists of completed interviews (COIN). The denominator of the rate includes completed interviews (COIN), plus refusals and terminations (TERE), plus the number of non-interviews that involved language problems with the respondent with asthma (2330) or physical/mental impairment of the respondent with asthma (2320). A Cooperation Rate below sixty-five percent (65\%) may indicate some problem with interviewing techniques.

The Refusal Rate is the percentage of all eligible respondents who refuse to be interviewed or terminate an interview early in the questionnaire. The numerator includes terminations and refusals (TERE). The denominator is the same as for the CASRO rate (below). The denominator includes completed interviews (COIN), terminations and refusals (TERE), and a proportion of those eligible, but lost to follow-up. The proportion represents an estimate of the number of those lost to follow-up who would be expected to remain eligible if they had been contacted. The proportion of cases lost to follow-up that are estimated to be eligible is the same as the proportion of cases not lost to follow-up that are eligible. A Refusal Rate above thirty-five percent (35\%) indicates some problem with interviewing techniques.

The Council of American Survey Research Organizations (CASRO) rate is a measure of respondent cooperation and is generally defined as the proportion of all eligible respondents in the sample for whom an interview has been completed. The numerator of the CASRO rate includes completed interviews (COIN). The denominator includes completed interviews (COIN), terminations and refusals (TERE), and a proportion of those eligible, but lost to follow-up. The proportion represents an estimate of the number of those lost to follow-up who would be expected to remain eligible if they had been contacted. The proportion of cases lost to follow-up that are estimated to be eligible is the same as the proportion of cases not lost to follow-up that are eligible. A CASRO rate below forty percent (40\%) should be cause for a review of data collection practices that could affect it, especially sample management and interviewer recruitment, retention, training, supervision, and monitoring.

Response rate formulae for the ACBS are specified below. Response rate tables for the ACBS, including response rates for each state/area participating in the ACBS, can be found in Appendix A. Details on ACBS-specific disposition codes can be found in Appendix B.

## Response Rate Formulae for the ACBS

## ACBS Interview Completion Rate:

$\frac{1100+1200}{1100+1200+\underline{\mathbf{2 1 1 2}}+\underline{\mathbf{2 1 2 0}}+\underline{\mathbf{2 2 1 1}}+\underline{\mathbf{2 2 1 2}}}$

## ACBS Cooperation Rate:

$\frac{1100+1200}{1100+1200+\underline{\mathbf{2 1 1 2}}+\underline{\mathbf{2 1 2 0}}+\underline{\mathbf{2 2 1 1}}+\underline{\mathbf{2 2 1 2}}+\underline{\mathbf{4 4 1 3}}+2320+2330}$

## ACBS CASRO Rate:

$$
1100+1200
$$

$$
[1100+1200+\underline{\mathbf{2 1 1 2}}+\underline{\mathbf{2 1 2 0}}+\underline{\mathbf{2 1 1 1}}+\underline{\mathbf{2 2 1 2}}+\underline{4413}]+\mathrm{P} *[\text { Eligible lost }]
$$

## ACBS Refusal Rate:

$\frac{\underline{\mathbf{2 1 1 2}}+\underline{\mathbf{2 1 2 0}}+\underline{\mathbf{2 2 1 1}}+\underline{\mathbf{2 2 1 2}}+\underline{\mathbf{4 4 1 3}}}{[1100+1200+\underline{\mathbf{2 1 2 0}}+\underline{\mathbf{2 2 1 1}}+\underline{\mathbf{2 2 1 2}}+\underline{\mathbf{2 1 1 2}}+\underline{4413}]+\mathrm{P} *[\text { Eligible lost }]}$

Where:
P $($ Proportion $)=($ COIN + ACBS TERE $) /($ COIN + ACBS TERE + Ineligible $)$

$$
[(1100+1200)+(\underline{2112}+\underline{2120}+\underline{2211}+\underline{2212})]
$$

$[(1100+1200)+(\underline{\mathbf{2 1 1 2}}+\underline{\mathbf{2 1 2 0}}+\underline{\mathbf{2 2 1 1}}+\underline{\mathbf{2 2 1 2}})+\underline{4405}+\underline{4700}+\underline{\mathbf{4 4 1 1}}+\underline{\mathbf{4 4 7 1}}+\underline{\mathbf{2 2 9 1}}+\underline{\mathbf{2 2 9 0}}+\underline{4480}+\underline{4490}+$
Eligible lost = 2111, 2210, 2220, 2320, 2330, 3100, 3130, 3140, 3200, 3322, 3330, 4100, 4900, 4306, 5050, 5100, 5111, 5112, 5120, 5130, 5140, 5220, 5320, 5330, 5550, 5560, 3150, 3700, 4200, 4300, 4400, 4430, 4450, 4460, 4470, 4500, 4510, 5400, 5150, 5200, 5300, 5599, 5700, 5900, 5999

## ACBS Nonresponse Bias

The Asthma Call-back Survey (ACBS) uses post-stratification weighting to ensure the sample conforms to the state estimated asthma population with respect to geography, age, sex, race, ethnicity, and other characteristics. Nonresponse bias, however, cannot be completely removed. In order to communicate the potential impact of nonresponse bias on the ACBS analysis results, in Appendix C two groups of tables are being provided (see Appendix C). The first group of tables presents ACBS unweighted frequencies for respondents, non-respondents, and BRFSSeligible asthma respondents by age, sex, and race/ethnicity demographic categories for each state. The second group of tables report current asthma prevalence (Appendix C). ACBS respondents are those respondents who completed or partially completed the interview. Nonresponse for the ACBS is influenced by eligible BRFSS respondents for which no interview was conducted such as: (1) refusals, terminations, and non-consent; (2) lost to follow-up due to non-contact or communication; and (3) lost to follow-up due to technological circumstances. BRFSS-eligible respondents are individuals on the BRFSS survey who answered, "Yes" to the question, "Has a doctor, nurse, or other health professional EVER told you that you had asthma?" A respondent is classified as current prevalence if he or she also responded "Yes" to the question: "Do you still have asthma?"

## Appendix A:

## List of Tables in the 2018 BRFSS ACBS Summary Data Quality Report

## Landline and Cell Phone Samples

Table 1.1 ACBS 2018 Disposition Categories by State/Territory: Adult Landline and Cell Phone Sample
Table 1.2 ACBS 2018 Disposition Categories by State/Territory: Child Landline and Cell Phone Sample
Table 2.1 ACBS 2018 Response Rates by State/Territory: Adult Landline and Cell Phone Sample
Table 2.2 ACBS 2018 Response Rates by State/Territory: Child Landline and Cell Phone Sample
Table 3.1 ACBS 2018 Completed Interviews by State/Territory and Month: Adult Landline and Cell Phone Sample Table 3.2 ACBS 2018 Completed Interviews by State/Territory and Month: Child Landline and Cell Phone Sample

| State | BRFSS Asthma | Ineligible Not Recruited |  | Recruited for Call-back |  |  |  | Ineligible |  | Total | Eligible |  |  |  | Ineligible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Refused BRFSS TERE |  | Agreed |  | Child <br> Selected | Never Called |  | COIN | $\begin{array}{\|l\|} \hline \text { ACBS } \\ \text { TERE } \end{array}$ | Lost to Follow up |  |  |
|  |  |  |  | Contact | Technical |  |  |  |  |  |  |  |  |
| Arizona* | 1160 | 137 | 11.81\% |  |  | 367 | 31.64\% | 656 | 56.55\% | 0 | 100 | 556 | 232 | 21 | 274 | 25 | 4 |
| California | 1717 | 380 | 22.13\% | 427 | 24.87\% | 913 | 53.17\% | 24 | 95 | 791 | 361 | 61 | 338 | 18 | 13 |
| Connecticut | 1538 | 178 | 11.57\% | 483 | 31.40\% | 877 | 57.02\% | 36 | 5 | 836 | 388 | 22 | 374 | 41 | 11 |
| Florida | 1747 | 318 | 18.20\% | 337 | 19.29\% | 1092 | 62.51\% | 24 | 0 | 1068 | 693 | 41 | 315 | 18 | 1 |
| Georgia | 1098 | 592 | 53.92\% | 119 | 10.84\% | 387 | 35.25\% | 26 | 0 | 361 | 230 | 13 | 113 | 5 | 0 |
| Hawaii | 1244 | 173 | 13.91\% | 349 | 28.05\% | 722 | 58.04\% | 24 | 39 | 659 | 330 | 15 | 306 | 4 | 4 |
| Illinois | 668 | 57 | 8.53\% | 165 | 24.70\% | 446 | 66.77\% | 8 | 0 | 438 | 229 | 12 | 194 | 3 | 0 |
| Indiana | 1052 | 137 | 13.02\% | 308 | 29.28\% | 607 | 57.70\% | 34 | 11 | 562 | 265 | 24 | 244 | 21 | 8 |
| Iowa* | 980 | 100 | 10.20\% | 239 | 24.39\% | 641 | 65.41\% | 0 | 0 | 641 | 368 | 27 | 239 | 7 | 0 |
| Kansas | 1430 | 83 | 5.80\% | 399 | 27.90\% | 948 | 66.29\% | 18 | 2 | 924 | 385 | 49 | 432 | 51 | 7 |
| Maine | 1632 | 82 | 5.02\% | 387 | 23.71\% | 1163 | 71.26\% | 45 | 48 | 1070 | 634 | 89 | 287 | 46 | 14 |
| Maryland | 2361 | 981 | 41.55\% | 499 | 21.14\% | 881 | 37.31\% | 6 | 54 | 821 | 426 | 17 | 327 | 40 | 11 |
| Massachusetts | 910 | 81 | 8.90\% | 285 | 31.32\% | 544 | 59.78\% | 15 | 22 | 507 | 254 | 42 | 184 | 23 | 4 |
| Michigan | 1538 | 113 | 7.35\% | 438 | 28.48\% | 987 | 64.17\% | 48 | 7 | 932 | 655 | 83 | 180 | 7 | 7 |
| Minnesota | 1836 | 208 | 11.33\% | 432 | 23.53\% | 1196 | 65.14\% | 27 | 0 | 1169 | 791 | 24 | 344 | 9 | 1 |
| Missouri | 779 | 35 | 4.49\% | 284 | 36.46\% | 460 | 59.05\% | 15 | 0 | 445 | 259 | 11 | 152 | 11 | 12 |
| Montana | 669 | 31 | 4.63\% | 220 | 32.88\% | 418 | 62.48\% | 10 | 1 | 407 | 224 | 7 | 154 | 17 | 5 |
| Nebraska | 1663 | 146 | 8.78\% | 521 | 31.33\% | 996 | 59.89\% | 22 | 9 | 965 | 568 | 57 | 315 | 16 | 9 |
| Nevada* | 374 | 33 | 8.82\% | 103 | 27.54\% | 238 | 63.64\% | 0 | 3 | 235 | 138 | 9 | 82 | 6 | 0 |
| New Hampshire* | 867 | 64 | 7.38\% | 312 | 35.99\% | 491 | 56.63\% | 0 | 18 | 473 | 244 | 13 | 190 | 18 | 8 |
| New Jersey*** | 377 | 166 | 44.03\% | 48 | 12.73\% | 163 | 43.24\% | 8 | 0 | 155 | 99 | 5 | 49 | 2 | 0 |
| New Mexico | 987 | 112 | 11.35\% | 307 | 31.10\% | 568 | 57.55\% | 14 | 25 | 529 | 282 | 39 | 177 | 17 | 14 |
| New York** | 1796 | 209 | 11.64\% | 452 | 25.17\% | 1135 | 63.20\% | 45 | 15 | 1075 | 441 | 46 | 473 | 95 | 20 |
| Ohio | 1612 | 216 | 13.40\% | 373 | 23.14\% | 1023 | 63.46\% | 23 | 211 | 789 | 544 | 25 | 213 | 6 | 1 |
| Oregon | 977 | 73 | 7.47\% | 216 | 22.11\% | 688 | 70.42\% | 39 | 35 | 614 | 344 | 39 | 180 | 37 | 14 |
| Pennsylvania | 829 | 85 | 10.25\% | 186 | 22.44\% | 558 | 67.31\% | 14 | 4 | 540 | 286 | 21 | 225 | 7 | 1 |
| Rhode Island | 922 | 97 | 10.52\% | 238 | 25.81\% | 587 | 63.67\% | 20 | 4 | 562 | 245 | 24 | 255 | 32 | 6 |
| Texas* | 1384 | 213 | 15.39\% | 374 | 27.02\% | 797 | 57.59\% | 0 | 5 | 792 | 342 | 23 | 341 | 65 | 21 |
| Utah | 1445 | 74 | 5.12\% | 512 | 35.43\% | 859 | 59.45\% | 26 | 1 | 832 | 517 | 28 | 254 | 20 | 13 |
| Vermont | 1010 | 76 | 7.52\% | 301 | 29.80\% | 633 | 62.67\% | 15 | 4 | 613 | 314 | 16 | 239 | 39 | 5 |
| Wisconsin | 548 | 106 | 19.34\% | 76 | 13.87\% | 366 | 66.79\% | 7 | 2 | 357 | 254 | 26 | 75 | 0 | 2 |
| Puerto Rico**** | 914 | 27 | 2.95\% | 176 | 19.26\% | 711 | 77.79\% | 34 | 34 | 643 | 330 | 65 | 180 | 46 | 22 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32 Areas Total | 38064 | 5383 | 14.14\% | 9933 | 26.10\% | 22751 | 59.77\% | 627 | 754 | 21361 | 11672 | 994 | 7705 | 752 | 238 |
| Notes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *States that did not collect child data: Arizona, Iowa, New Hampshire, Nevada and Texas ** States only included in version 1 of sample split: New York |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *** New Jersey will be excluded because of less than 6 months data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ****Puerto Rico did not collect 6 months of consecutive data in 2018 but did collect 6 or more months of data throughout 2018 and 2019 State that did not collect adult data : Kentucky |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Appendix A

Table 1.2 ACBS 2018 Disposition Categories by State/Territory: Child Landline and Cell Phone Sample

| State | BRFSS Asthma | Ineligible Not Recruited |  | Recruited for Call-back |  |  |  | Ineligible |  | Total Called | Eligible |  |  |  | Ineligible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Refused BRFSS TERE |  | Agreed |  | Child Selected | Never Called |  | COIN | ACBS TERE | Lost to Follow-up |  |  |
|  |  |  |  | Contact | Technical |  |  |  |  |  |  |  |  |
| California* | 296 | 7 | 2\% |  |  | 92 | 31\% | 200 | 68\% | 0 | 27 | 173 | 41 | 6 | 87 | 0 | 4 |
| Connecticut* | 308 | 20 | 6\% | 86 | 28\% | 202 | 66\% | 0 | 2 | 200 | 53 | 5 | 96 | 8 | 8 |
| Florida | 352 | 70 | 20\% | 64 | 18\% | 218 | 62\% | 0 | 0 | 218 | 80 | 2 | 89 | 4 | 1 |
| Georgia* | 268 | 76 | 28\% | 48 | 18\% | 144 | 54\% | 0 | 0 | 144 | 72 | 4 | 48 | 4 | 0 |
| Hawaii* | 310 | 75 | 24\% | 64 | 21\% | 171 | 55\% | 0 | 12 | 159 | 48 | 5 | 55 | 2 | 0 |
| Illinois* | 129 | 22 | 17\% | 22 | 17\% | 85 | 66\% | 0 | 0 | 85 | 27 | 1 | 36 | 0 | 0 |
| Indiana* | 182 | 8 | 4\% | 45 | 25\% | 129 | 71\% | 0 | 1 | 128 | 42 | 2 | 60 | 5 | 7 |
| Kansas* | 286 | 26 | 9\% | 69 | 24\% | 191 | 67\% | 0 | 6 | 185 | 46 | 3 | 86 | 7 | 3 |
| Kentucky**** | 248 | 41 | 17\% | 43 | 17\% | 164 | 66\% | 0 | 19 | 145 | 66 | 7 | 67 | 1 | 4 |
| Maine* | 219 | 2 | 1\% | 48 | 22\% | 169 | 77\% | 0 | 55 | 114 | 44 | 11 | 39 | 2 | 6 |
| Maryland* ** | 138 | 27 | 20\% | 36 | 26\% | 75 | 54\% | 0 | 2 | 73 | 18 | 2 | 41 | 3 | 1 |
| Massachusetts*** | 86 | 1 | 1\% | 25 | 29\% | 60 | 70\% | 0 | 8 | 52 | 18 | 2 | 28 | 2 | 1 |
| Michigan | 322 | 3 | 1\% | 74 | 23\% | 245 | 76\% | 0 | 3 | 242 | 104 | 23 | 55 | 3 | 21 |
| Minnesota | 340 | 66 | 19\% | 69 | 20\% | 205 | 60\% | 0 | 0 | 205 | 105 | 2 | 65 | 1 | 0 |
| Missouri* | 122 | 24 | 20\% | 27 | 22\% | 71 | 58\% | 0 | 0 | 71 | 25 | 4 | 29 | 0 | 1 |
| Montana* | 103 | 10 | 10\% | 22 | 21\% | 71 | 69\% | 0 | 0 | 71 | 27 | 0 | 27 | 1 | 0 |
| Nebraska* | 261 | 35 | 13\% | 45 | 17\% | 181 | 69\% | 0 | 2 | 179 | 69 | 7 | 63 | 3 | 0 |
| New Jersey* | 75 | 25 | 33\% | 12 | 16\% | 38 | 51\% | 0 | 0 | 38 | 19 | 3 | 12 | 0 | 0 |
| New Mexico* | 184 | 50 | 27\% | 8 | 4\% | 126 | 68\% | 0 | 2 | 124 | 39 | 9 | 46 | 5 | 6 |
| New York* ** | 296 | 3 | 1\% | 82 | 28\% | 211 | 71\% | 0 | 10 | 201 | 51 | 6 | 100 | 8 | 3 |
| Ohio | 313 | 48 | 15\% | 60 | 19\% | 205 | 66\% | 0 | 45 | 160 | 78 | 4 | 44 | 2 | 0 |
| Oregon* | 144 | 1 | 1\% | 28 | 19\% | 115 | 80\% | 0 | 17 | 98 | 45 | 5 | 41 | 6 | 1 |
| Pennsylvania* | 178 | 19 | 11\% | 26 | 15\% | 133 | 75\% | 0 | 0 | 133 | 43 | 4 | 49 | 1 | 2 |
| Rhode Island* | 137 | 3 | 2\% | 41 | 30\% | 93 | 68\% | 0 | 3 | 90 | 24 | 5 | 44 | 4 | 0 |
| Utah | 330 | 42 | 13\% | 83 | 25\% | 205 | 62\% | 0 | 0 | 205 | 92 | 4 | 56 | 8 | 1 |
| Vermont* | 168 | 4 | 2\% | 46 | 27\% | 118 | 70\% | 0 | 1 | 117 | 54 | 1 | 45 | 2 | 0 |
| Wisconsin* | 111 | 18 | 16\% | 16 | 14\% | 77 | 69\% | 0 | 1 | 76 | 34 | 3 | 26 | 1 | 1 |
| Puerto Rico* | 294 | 32 | 11\% | 39 | 13\% | 223 | 76\% | 0 | 27 | 196 | 72 | 10 | 50 | 13 | 8 |



Notes:
 Island, Vermont, Wisconsin, and Puerto Rico were not included in the public release data file because of having too few records (<75) to produce reliable weights
** States only included in version 1 of the sample split: Maryland, Massachusetts, and New York
*** State that did not collect adult data: Kentucky
States that did not collect child data: Arizona, Iowa, New Hampshire, Nevada, and Texas

Table 2.1 ACBS 2018 Response Rates by State/Territory: Adult Landline and Cell Phone Sample

| STATE | COMPLETION RATE | COOPERATION RATE | REFUSAL RATE | CASRO RATE |
| :---: | :---: | :---: | :---: | :---: |
| Arizona* | 91.70\% | 37.00\% | 50.19\% | 30.01\% |
| California | 85.55\% | 42.47\% | 48.32\% | 35.75\% |
| Connecticut | 94.63\% | 42.83\% | 43.58\% | 33.48\% |
| Florida | 94.41\% | 64.71\% | 29.12\% | 53.39\% |
| Georgia | 94.65\% | 63.54\% | 33.39\% | 58.18\% |
| Hawaii | 95.65\% | 47.48\% | 41.51\% | 37.64\% |
| Illinois | 95.02\% | 56.13\% | 31.54\% | 40.81\% |
| Indiana | 91.70\% | 44.39\% | 43.86\% | 35.01\% |
| Iowa* | 93.16\% | 57.86\% | 32.04\% | 44.32\% |
| Kansas | 88.71\% | 46.00\% | 36.68\% | 31.52\% |
| Maine | 87.69\% | 56.86\% | 34.64\% | 46.14\% |
| Maryland | 96.16\% | 45.03\% | 49.11\% | 40.54\% |
| Massachusetts | 85.81\% | 43.64\% | 44.94\% | 34.91\% |
| Michigan | 88.75\% | 55.37\% | 39.26\% | 49.35\% |
| Minnesota | 97.06\% | 63.43\% | 29.99\% | 52.01\% |
| Missouri | 95.93\% | 46.58\% | 42.97\% | 37.72\% |
| Montana | 96.97\% | 49.67\% | 38.27\% | 37.77\% |
| Nebraska | 90.88\% | 49.52\% | 41.25\% | 40.54\% |
| Nevada* | 93.88\% | 54.98\% | 34.92\% | 43.03\% |
| New Hampshire* | 94.94\% | 42.81\% | 44.95\% | 33.75\% |
| New Jersey*** | 95.19\% | 65.13\% | 30.98\% | 57.87\% |
| New Mexico | 87.85\% | 44.69\% | 45.76\% | 37.29\% |
| New York** | 90.55\% | 46.67\% | 38.44\% | 34.04\% |
| Ohio | 95.61\% | 57.75\% | 37.40\% | 51.12\% |
| Oregon | 89.82\% | 57.33\% | 33.92\% | 45.76\% |
| Pennsylvania | 93.16\% | 58.01\% | 31.07\% | 42.92\% |
| Rhode Island | 91.08\% | 47.85\% | 37.29\% | 34.87\% |
| Texas* | 93.70\% | 45.78\% | 40.33\% | 34.74\% |
| Utah | 94.86\% | 48.87\% | 42.07\% | 40.28\% |
| Vermont | 95.15\% | 49.76\% | 37.51\% | 37.15\% |
| Wisconsin | 90.71\% | 71.35\% | 24.95\% | 62.12\% |
| Puerto Rico ${ }^{* * * *}$ | 83.54\% | 57.19\% | 32.33\% | 44.27\% |
| - |  |  |  |  |
| 32 Areas Total | 92.15\% | 51.46\% | 38.96\% | 41.61\% |

## Notes:

*States that did not collect child data: Arizona, Iowa, New Hampshire, Nevada and Texas
Appendix $A$
** States only included in version 1 of sample split: New York
*** New Jersey will be excluded because of less than 6 months data
****Puerto Rico did not collect 6 months of consecutive data in 2018 but did collect 6 or more months of data throughout 2018 and 2019
State that did not collect adult data : Kentucky

Table 2.2 ACBS 2018 Response Rates by State/Territory: Child Landline and Cell Phone Sample


| STATE | 2018 |  |  |  |  |  |  |  |  |  |  |  | 2019 |  |  |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018JAN | 2018FEB | 2018MAR | 2018APR | 2018MAY | 2018JUN | 2018JUL | 2018AUG | 2018SEP | 20180CT | 2018NOV | 2018DEC | 2019JAN | 2019FEB | 2019MAR | 2019APR | 2019MAY | 2019JUN |  |
| Arizona* | 16 | 16 | 23 | 25 | 17 | 9 | 32 | 24 | 20 | 14 | 8 | 5 | 23 | . | . | . | . | . | 232 |
| California |  |  | 7 | 66 | 25 | 73 | 10 | 28 | 13 | 7 | 65 | 28 | 11 | 28 | . | . | . | . | 361 |
| Connecticut | 7 | 21 | 18 | 65 | 30 | 15 | 46 | 39 | 29 | 36 | 30 | 15 | 37 | . | . | . | . | . | 388 |
| Florida | 65 | 89 | 48 | 46 | 45 | 70 | 63 | 65 | 38 | 21 | 55 | 86 | 2 | . | . | . | . | . | 693 |
| Georgia | 10 | 36 | 32 | 46 | 37 | 35 | 5 | . |  | 22 | 7 | . | . | . | . | . | . | . | 230 |
| Hawaii | 10 | 14 | 31 | 17 | 35 | 30 | 26 | 34 | 29 | 50 | 34 | 19 | 1 | . | . | . | . | . | 330 |
| Illinois |  |  | 35 | 22 | 24 | 20 | 12 | 12 | 16 | 20 | 20 | 21 | 20 | 7 | . | . | . | . | 229 |
| Indiana | . | 19 | 5 | 28 | 36 | 13 | 28 | 21 | 23 | 25 | 24 | 20 | 23 | . | . | . | . | . | 265 |
| Iowa* |  | 32 | 20 | 24 | 28 | 38 | 50 | 38 | 37 | 35 | 19 | 26 | 21 | . | . | . | . | . | 368 |
| Kansas |  |  |  |  | 79 | 15 | 41 | 24 | 105 | 20 | 24 | 30 | 47 | . | . | . | . | . | 385 |
| Maine | . | 74 | 25 | 55 | 42 | 41 | 72 | 87 | 71 | 90 | 43 | 34 | . | . | . | . | . | . | 634 |
| Maryland | . | . |  | 39 | 70 | 51 | 84 | 40 | 53 | 45 | 17 | 8 | 19 | . | . | . | . | . | 426 |
| Massachusetts | 28 | 20 | 16 | 24 | 17 | 17 | 21 | 14 | 14 | 29 | 21 | 33 | . | . | . | . | . | . | 254 |
| Michigan |  | 9 | 71 | 50 | 33 | 62 | 46 | 42 | 56 | 52 | 40 | 57 | 49 | 55 | 31 | 2 | . | . | 655 |
| Minnesota | 10 | 144 | 104 | 99 | 52 | 74 | 49 | 36 | 42 | 56 | 59 | 50 | 16 | . | . | . | . | . | 791 |
| Missouri |  | . | . |  | 56 | 7 | 14 | 8 | 9 | 15 | 4 | 39 | 101 | 6 | . | . | . | . | 259 |
| Montana | . | . |  | . | 33 | 6 | 32 | 14 | 5 | 24 | 8 | 15 | 66 | 21 | . | . | . | . | 224 |
| Nebraska | . | 23 | 70 | 51 | 53 | 73 | 47 | 38 | 24 | 51 | 40 | 50 | 7 | 31 | 10 | . | . | . | 568 |
| Nevada* | . | 18 | 16 | 4 | 17 | 10 | 12 | 15 | 6 | 10 | 9 | 14 | 4 | 3 | . | . | . | . | 138 |
| New Hampshire* | 5 | 17 | 14 | 42 | 16 | 5 | 30 | 21 | 13 | 27 | 31 | 23 | . | . | . | . | . | . | 244 |
| New Jersey*** | . | 29 | 69 | 1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 99 |
| New Mexico | . | . | 40 | 5 | . | . | . | 38 | 37 | 48 | 33 | 21 | 59 | 1 | . | . | . | . | 282 |
| New York** |  | 5 | 24 | 52 | 46 | 34 | 54 | 44 | 39 | 41 | 45 | 19 | 38 | . | . | . | . | . | 441 |
| Ohio | 42 | 97 | 77 | . | 46 | 38 | 15 | 33 | 51 | 52 | 44 | 49 | . | . | . | . | . | . | 544 |
| Oregon | . | 35 | 31 | 18 | 24 | 29 | 18 | 20 | 32 | 47 | 52 | 38 | . | . | . | . | . | . | 344 |
| Pennsylvania | . | . | . | . | . | 39 | 20 | 39 | 26 | 37 | 55 | 40 | 26 | 4 | . | . | . | . | 286 |
| Rhode Island | 4 | 13 | 11 | 41 | 24 | 14 | 30 | 23 | 12 | 28 | 24 | 13 | 8 | . | . | . | . | . | 245 |
| Texas* | . | 6 | 8 | 48 | 48 | 11 | 43 | 49 | 35 | 34 | 28 | 16 | 16 | . | . | . | . | . | 342 |
| Utah | . | . | 17 | 81 | 46 | 47 | 12 | 78 | 7 | 77 | 27 | 18 | 88 | 19 | . | . | . | . | 517 |
| Vermont | 8 | 25 | 21 | 39 | 30 | 15 | 38 | 25 | 17 | 42 | 25 | 14 | 15 | . | . | . | . | . | 314 |
| Wisconsin | . | 20 | 34 | 22 | 21 | 28 | 23 | 25 | 18 | 8 | 22 | 5 | 16 | 11 | 1 | . | . | . | 254 |
| Puerto Rico**** |  | . |  | . | . | . | . | . | . | 24 | 61 | 23 | 41 | 59 | 8 | 105 | 8 | 1 | 330 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AREA TOTAL | 205 | 762 | 867 | 1010 | 1030 | 919 | 973 | 974 | 877 | 1087 | 974 | 829 | 754 | 245 | 50 | 107 | 8 | 1 | 11672 |
| Notes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *States that did not collect child data: Arizona, Iowa, New Hampshire, Nevada and Texas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ** States only included in version 1 of sample split: New York |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *** New Jersey will be excluded because of less than 6 months data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ****Puerto Rico did not collect 6 months of consecutive data in 2018 but did collect 6 or more months of data throughout 2018 and 2019 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 3.2 ACBS 2018 Completed Interviews by State/Territory and Month: Child Landline and Cell Phone Sample

| STATE | 2018 |  |  |  |  |  |  |  |  |  |  |  | 2019 |  |  |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018JAN | 2018FEB | 2018MAR | 2018APR | 2018MAY | 2018JUN | 2018JUL | 2018AUG | 2018SEP | 2018OCT | 2018NOV | 2018DEC | 2019JAN | 2019FEB | 2019MAR | 2019APR | 2019MAY | 2019AUG |  |
| California* | . | . | . | 10 | 2 | 11 | 2 | 2 | . | . | 5 | 5 | 2 | 2 | . | . | . | . | 41 |
| Connecticut* | 3 | 2 | 6 | 4 | 4 | 4 | 6 | 7 | 2 | 3 | 6 | 3 | 3 | . | . | . | . |  | 53 |
| Florida | 5 | 11 | 2 | 7 | 4 | 12 | 5 | 10 | 6 | 2 | 7 | 9 | . | . | . | . | . | . | 80 |
| Georgia* | . | 7 | 5 | 9 | 5 | 9 | 2 | 4 | 7 | 15 | 6 | 3 | . | . | . | . | . | . | 72 |
| Hawaii* | . | 3 | 4 | 4 | 2 | 6 | 4 | 4 | 4 | 6 | 7 | 4 | . | . | . | . | . |  | 48 |
| Illinois* | . | . | 5 | 5 | 1 | 2 | . | 2 | 3 | 4 | 5 | . | . | . | . | . | . | . | 27 |
| Indiana* | . | 3 | . | 3 | 7 | 2 | . | 6 | 6 | 3 | 6 | 1 | 5 | . | . | . | . | . | 42 |
| Kansas* | . | . | . | . | 5 | . | 3 | 6 | 15 | 8 | 6 | 3 | . | . | . | . | . | . | 46 |
| Kentucky**** | . | 3 | 5 | 4 | 3 | 5 | 4 | 4 | 3 | 11 | 2 | 2 | 10 | 5 | 3 | 2 | . | . | 66 |
| Maine* | . | 4 | 3 | 1 | 1 | 6 | 7 | 7 | 3 | 8 | 3 | 1 | . | . | . | . | . | . | 44 |
| Maryland*** | . | . | . | 2 | 1 | 1 | 2 | 1 | 4 | 4 | 3 | . | . | . | . | . | . | . | 18 |
| Massachusetts*** | 3 | 2 | 2 | . | 1 | 1 | 1 | 1 | 1 | 3 | 3 | . | . | . | . | . | . | . | 18 |
| Michigan | . | 1 | 8 | 8 | 3 | 10 | 5 | 6 | 10 | 6 | 7 | 11 | 10 | 12 | 7 | . | . | . | 104 |
| Minnesota | . | 22 | 19 | 15 | 5 | 9 | 5 | 4 | 4 | 6 | 9 | 5 | 2 | . | . | . | . | . | 105 |
| Missouri* | . | . | . | . | . | 2 | 1 | . | . | 3 | 2 | 4 | 12 | 1 | . | . | . | . | 25 |
| Montana* | . | . | . | . | . | 2 | 6 | 2 | . | 3 | . | 2 | 4 | 8 | . | . | . | . | 27 |
| Nebraska* | . | 2 | 13 | 7 | 5 | 4 | 6 | 5 | 1 | 3 | 7 | 4 | . | 8 | 4 | . | . | . | 69 |
| New Jersey* | . | 7 | 12 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 19 |
| New Mexico* | . | . | . | . | . | . | . | . | 8 | 8 | 8 | 8 | 7 | . | . | . | . | . | 39 |
| New York*** | . | 1 | 6 | 6 | 2 | 4 | 2 | 4 | 8 | 5 | 8 | 2 | 3 | . | . | . | . | . | 51 |
| Ohio | 10 | 11 | 9 | . | 8 | 11 | 2 | 9 | 5 | 2 | 9 | 2 | . | . | . | . | . | . | 78 |
| Oregon* | . | 7 | 1 | . | 5 | 3 | . | 4 | 3 | 10 | 7 | 5 | . | . | . | . | . | . | 45 |
| Pennsylvania* | . | . | . | . | . | 3 | 2 | 4 | 3 | 9 | 9 | 6 | 6 | 1 | . | . | . | . | 43 |
| Rhode Island* | 2 | 1 | 2 | 6 | 2 | . | 1 | 2 | 2 | 1 | 1 | 2 | 2 | . | . | . | . | . | 24 |
| Utah | . | . | . | . | . | 32 | 4 | 14 | . | 15 | 10 | 5 | 12 | . | . | . | . | . | 92 |
| Vermont* | 2 | 5 | 3 | 6 | 6 | 2 | 10 | 3 | 5 | 5 | 7 | . | . | . | . | . | . | . | 54 |
| Wisconsin* | . | 4 | 9 | 2 | . | 3 | 7 | 2 | . | . | 2 | 1 | 3 | 1 | . | . | . | . | 34 |
| Puerto Rico* | . | . | . | . | . | . | . | . | 7 | 5 | 1 | 3 | 18 | 13 | . | 22 | 2 | 1 | 72 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STATE TOTAL | 25 | 96 | 114 | 99 | 72 | 144 | 87 | 113 | 110 | 148 | 146 | 91 | 99 | 51 | 14 | 24 | 2 | 1 | 1436 |

## Notes:


Wisconsin, and Puerto Rico were not included in the public release data file because of having too few records ( $<75$ ) to produce reliable weights
** States only included in version 1 of the sample split: Maryland, Massachusetts, and New York
** State that did not collect adult data: Kentucky
States that did not collect child data: Arizona, Iowa, New Hampshire, Nevada, and Texa

## Appendix B: Instructions for Assigning Additional ACBS Disposition Codes

Following are descriptions of the ACBS disposition codes adapted from standard BRFSS disposition codes and the ACBS disposition codes added to the standard set of BRFSS disposition codes. For detailed definitions for the standard BRFSS disposition codes, see the Data Quality Handbook for each survey year (http://www.cdc.gov/brfss/annual_data/annual_data.htm).

## I. Eligible, contacted: complete interview

1100 Complete
Definition: Respondent completes the ACBS interview through the last question.
1200 Partial complete
Definition: Respondent completes the ACBS interview at least through the end of Section 8 (medications).

## II. Eligible, contacted: refusal

4413 Refused to participate in the call-back during the BRFSS interview
Definition: During the BRFSS interview, respondents who indicate they have ever been told by a doctor that they have asthma are asked if they will participate in an additional survey at a later date. Some state Institutional Review Boards (IRBs) require that the content of the additional survey (asthma) be disclosed; other state IRBs require that the specific content not be disclosed. Some states have multiple call-back surveys in the field and do not specify the content of any of the callback interviews. If a respondent refuses to participate in the call-back survey, that record is assigned disposition code 4413.
2112 Refused to begin the ACBS interview after contacted
Definition: If the selected respondent is contacted for the ACBS interview but refuses to begin the interview, then the record is assigned code 2112.
2120 Terminated within the questionnaire during the ACBS interview
Definition: If the respondent is contacted for the ACBS and terminates after the interview begins (section 3) but before completing section 8 , then record is considered incomplete and is assigned disposition code 2120.

2211 Refused to allow combining ACBS responses with BRFSS responses
Definition: Some states require that the respondent provide active approval to combine their responses from the initial BRFSS interview with their responses from the ACBS interview. This approval may be requested at either the initial BRFSS interview or at the beginning of the ACBS interview. If the respondent does not approve combining data from the two interviews, the record is assigned disposition code 2211.

2212 Refused to answer the "ever had asthma" question during the ACBS interview Definition: The selected respondent is contacted for the ACBS interview but refuses to answer the initial asthma question. If the respondent answers "don't know" or "refused" to the ACBS question EVER-ASTH (2.1) "Have you ever been told by a doctor or other health professional that (you have/sample child has) asthma?", then the record is assigned code 2212.

## III. Eligible, lost to follow-up because unable to contact or communicate with the BRFSS respondent

4306 Selected ACBS respondent no longer living in the BRFSS household
Definition: The BRFSS respondent with asthma left the BRFSS household between the BRFSS interview and the ACBS interview. If the selected respondent (from the BRFSS) no longer lives in the BRFSS household but did live in the household during the BRFSS interview, then attempts should be made to obtain new contact information for the selected respondent, and the follow-up should be conducted using the new telephone number. If this is not possible or the household refuses to provide new contact information, then the record is assigned disposition code 4306.

Refer to the Data Quality Handbook for each survey year for the definitions of all other codes in this category (http://www.cdc.gov/brfss/annual_data/annual_data.htm).

## IV. Eligible, lost to follow-up for technical reasons

Refer to the Data Quality Handbook for each survey year for the definitions of all codes in this category (http://www.cdc.gov/brfss/annual_data/annual_data.htm).

## V. Ineligible

$\underline{2290}$ The person the most knowledgeable about the selected child with asthma is not the parent or legal guardian (child ineligible)
Definition: This code applies only to the child ACBS interview. The child selected during the BRFSS interview is eligible for the ACBS (the BRFSS respondent indicated that the selected child has an asthma diagnosis). The ACBS child protocol allows a parent or guardian to transfer the interview to a more knowledgeable proxy respondent. If the BRFSS respondent is not the parent or guardian of the selected child with asthma, but the parent or guardian is present to transfer to the person most knowledgeable about the child's heath, but the most knowledgeable person is not available, then the child is ineligible for the ACBS. The child record is assigned disposition code 2290

2291 No parent or legal guardian in the household (child ineligible)
Definition: This code applies only to the child ACBS interview. The child selected during the BRFSS interview is eligible for the ACBS (the BRFSS respondent indicated that the selected child has an asthma diagnosis); however, ACBS child
protocol requires that the BRFSS respondent must be the parent or guardian of the child to provide proxy responses for the child or to approve transfer to a moreknowledgeable proxy respondent. If there is no parent or guardian of the selected child with asthma in the household, the child is ineligible for the ACBS. The child record is assigned disposition code 2291.

4405 Out-of-state
Definition: The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. If the respondent is a state resident at the time of the BRFSS interview, but moves to an out-of-state residence between the BRFSS interview and the ACBS interview, the respondent is not eligible for the ACBS if either the new state or the old state is not participating in record transfers, and the record is assigned disposition code 4405.

4700 Household, no eligible respondent (respondent does not have asthma)
Definition: The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. If the respondent informs the ACBS interviewer that the recorded response from the BRFSS interview was in error and terminates the call, then the respondent is not eligible for the ACBS, and the record is assigned disposition code 4700.

4411 Selected respondent not eligible for follow-up
Definition: If the respondent disagrees with the recorded response to the asthma question from the BRFSS interview and answers "no" to the ACBS question EVER-ASTH (2.1) "Have you ever been told by a doctor or other health professional that (you have/the sample child has) asthma?", then the respondent is not eligible for the ACBS, and the record is assigned disposition code 4411.

4412 Transferred from BRFSS but not attempted (excluded by state)
Definition: The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. Eligible respondents are then asked for permission to call back. Those that agree should be called for the ACBS interview, but if a respondent eligible to be called is transferred from BRFSS to the ACBS but never called, then the record is assigned disposition code 4412.

4471 Misdiagnosed asthma in respondent (2008 and later)
Definition: The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. The initial diagnosis, however, could have been in error and changed.

This misdiagnosis is not captured by the BRFSS or ACBS. If the respondent informs the interviewer of the misdiagnosis, the respondent is not eligible for the ACBS, and the record is assigned disposition code 4470.

4480 Not recruited for call-back at BRFSS interview (excluded by state)
Definition: The BRFSS question that determines eligibility for the ACBS is "Have you ever been told by a doctor, nurse, or other health professional that (you have/the sample child has) asthma?" Respondents who answer "yes" are eligible for the ACBS. Eligible respondents are then asked for permission to call back. Those who agree should be called for the ACBS interview. However, if a respondent eligible to be called is not transferred from BRFSS to the ACBS and is never called, then the record is assigned disposition code 4480.

4490 Random child/adult selection: adult ineligible, child selected
Definition: If both the BRFSS respondent and the randomly selected child in the household have asthma and the BRFSS respondent agrees to the call-back interview, one or the other is randomly selected to be eligible for the call-back. If the child is selected, the adult is ineligible, and the adult record is assigned disposition code 4490.

4491 Random child/adult selection: child ineligible, adult selected
Definition: If both the BRFSS respondent and the randomly selected child in the household have asthma and the BRFSS respondent agrees to the call-back interview, one or the other is randomly selected to be eligible for the call-back. If the adult is selected, the child is ineligible, and the child record is assigned disposition code 4491.

## Appendix C: <br> Asthma Call-back Survey (ACBS) <br> Non-response Bias Analysis

Two data tables follow adult and child participants. The first table reports ACBS unweighted frequencies for respondents, nonrespondents, and BRFSS-eligible asthma respondents by age, sex, and race/ethnicity demographic categories for each state. The second table reports estimated current asthma percentage among individuals who have ever been diagnosed with asthma.

Table 1A. Percentage of ACBS adult respondents, non-respondents, and BRFSS-eligible asthma respondents by demographic groups and state/territory
Table 1B. Percentage of ACBS child respondents, non-respondents, and BRFSS-eligible asthma respondents by demographic groups and state/territory

Table 2A. Estimated percentage of current asthma status among adults ever-diagnosed with asthma by state/territory
Table 2B. Estimated percentage of current asthma status among children ever-diagnosed with asthma by state/territory

| Table 1.A Percentage of ACBS adult respondent, non-respondents, and BRFSS-eligible asthma respondents by demographic groups and state/territory |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADULT |  | BRFSS |  |  |  |  |  | ACBS |  |  |  |
| State | Demographics | Eligible Asthma |  |  |  | NonRespondents |  | Respondents |  |  |  |
|  |  | Respondents |  |  |  |  |  |  |  |  |  |
|  |  | Sample <br> size <br> (unweighted) | Percent <br> (unweighted) | Weighted total | Percent <br> (weighted) | Sample <br> size <br> (unweighted) | Percent <br> (unweighted) | Sample <br> size <br> (unweighted) | Percent <br> (unweighted) | Weighted total | Percent <br> (weighted) |
| States/areas total | Male | 14,060 | 36.9 | 10,468,292 | 40.7 | 9,411 | 37.1 | 4,649 | 36.7 | 10,493,251 | 40.7 |
|  | Female | 24,004 | 63.1 | 15,262,596 | 59.3 | 15,987 | 62.9 | 8,017 | 63.3 | 15,291,019 | 59.3 |
|  | Age 18 to 24 | 2,914 | 7.8 | 3,893,046 | 15.3 | 2,128 | 8.6 | 786 | 6.2 | 3,948,129 | 15.4 |
|  | Age 25 to 34 | 4,385 | 11.7 | 4,357,526 | 17.2 | 3,148 | 12.7 | 1,237 | 9.8 | 4,333,779 | 16.9 |
|  | Age 35 to 44 | 4,652 | 12.4 | 3,903,576 | 15.4 | 3,328 | 13.4 | 1,324 | 10.5 | 3,842,460 | 15 |
|  | Age 45 to 54 | 6,050 | 16.2 | 4,186,489 | 16.5 | 4,163 | 16.7 | 1,887 | 15 | 4,325,119 | 16.9 |
|  | Age 55 to 64 | 7,951 | 21.2 | 4,276,792 | 16.9 | 4,966 | 20 | 2,985 | 23.7 | 4,322,848 | 16.9 |
|  | Age 65 or older | 11,485 | 30.7 | 4,744,892 | 18.7 | 7,125 | 28.7 | 4,360 | 34.7 | 4,809,222 | 18.8 |
|  | White - NonHispanic | 27,269 | 73.1 | 15,231,760 | 60.4 | 17,657 | 71.1 | 9,612 | 77 | 16,670,401 | 65.6 |
|  | Black - NonHispanic | 2,861 | 7.7 | 3,236,811 | 12.8 | 2,102 | 8.5 | 759 | 6.1 | 3,004,184 | 11.8 |
|  | Other race only, Non-Hispanic | 2,035 | 5.5 | 1,574,661 | 6.2 | 1,495 | 6 | 540 | 4.3 | 1,129,304 | 4.4 |
|  | Multiracial, NonHispanic | 1,213 | 3.2 | 483,668 | 1.9 | 793 | 3.2 | 420 | 3.4 | 540,883 | 2.1 |
|  | Hispanic | 3,951 | 10.6 | 4,693,455 | 18.6 | 2,802 | 11.3 | 1,149 | 9.2 | 4,061,985 | 16 |
| Arizona | Male | 429 | 37 | 322,055 | 44.3 | 333 | 36.7 | 96 | 37.9 | 322,098 | 44.2 |
|  | Female | 731 | 63 | 404,129 | 55.7 | 574 | 63.3 | 157 | 62.1 | 406,275 | 55.8 |
|  | Age 18 to 24 | 55 | 4.9 | 91,640 | 12.9 | 50 | 5.6 | 5 | 2 | 106,988 | 14.9 |
|  | Age 25 to 34 | 115 | 10.2 | 113,184 | 15.9 | 96 | 10.8 | 19 | 7.7 | 97,836 | 13.7 |
|  | Age 35 to 44 | 102 | 9 | 119,000 | 16.7 | 86 | 9.7 | 16 | 6.5 | 91,582 | 12.8 |

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|  | Age 45 to 54 | 181 | 16 | 118,195 | 16.6 | 143 | 16.2 | 38 | 15.4 | 143,922 | 20.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 260 | 23 | 124,329 | 17.5 | 207 | 23.4 | 53 | 21.5 | 129,908 | 18.1 |
|  | Age 65 or older | 418 | 37 | 144,889 | 20.4 | 303 | 34.2 | 115 | 46.7 | 146,060 | 20.4 |
|  | White - NonHispanic | 783 | 69.7 | 436,983 | 61.9 | 592 | 67.5 | 191 | 77.3 | 494,432 | 69.5 |
|  | Black - Non- <br> Hispanic | 32 | 2.8 | 39,602 | 5.6 | 25 | 2.9 | 7 | 2.8 | 25,577 | 3.6 |
|  | Other race only, Non-Hispanic | 133 | 11.8 | 53,864 | 7.6 | 110 | 12.5 | 23 | 9.3 | 69,163 | 9.7 |
|  | Multiracial, NonHispanic | 31 | 2.8 | 8,568 | 1.2 | 23 | 2.6 | 8 | 3.2 | 12,486 | 1.8 |
|  | Hispanic | 145 | 12.9 | 166,735 | 23.6 | 127 | 14.5 | 18 | 7.3 | 109,644 | 15.4 |
| California | Male | 761 | 44.3 | 1,931,239 | 43.8 | 591 | 45.6 | 170 | 40.3 | 1,935,626 | 43.8 |
|  | Female | 956 | 55.7 | 2,478,198 | 56.2 | 704 | 54.4 | 252 | 59.7 | 2,481,241 | 56.2 |
|  | Age 18 to 24 | 188 | 11 | 664,720 | 15.2 | 151 | 11.7 | 37 | 8.8 | 664,720 | 15 |
|  | Age 25 to 34 | 252 | 14.8 | 752,369 | 17.2 | 206 | 16 | 46 | 10.9 | 754,591 | 17.1 |
|  | Age 35 to 44 | 254 | 14.9 | 686,648 | 15.7 | 212 | 16.5 | 42 | 10 | 708,303 | 16 |
|  | Age 45 to 54 | 282 | 16.5 | 770,418 | 17.6 | 222 | 17.3 | 60 | 14.2 | 775,931 | 17.6 |
|  | Age 55 to 64 | 325 | 19 | 691,878 | 15.8 | 229 | 17.8 | 96 | 22.7 | 693,081 | 15.7 |
|  | Age 65 or older | 407 | 23.8 | 814,492 | 18.6 | 266 | 20.7 | 141 | 33.4 | 820,241 | 18.6 |
|  | White - NonHispanic | 812 | 48.2 | 1,857,287 | 42.9 | 580 | 45.7 | 232 | 55.9 | 2,097,660 | 48.1 |
|  | Black - NonHispanic | 115 | 6.8 | 383,243 | 8.8 | 87 | 6.9 | 28 | 6.7 | 439,432 | 10.1 |
|  | Other race only, Non-Hispanic | 177 | 10.5 | 628,973 | 14.5 | 149 | 11.8 | 28 | 6.7 | 296,096 | 6.8 |
|  | Multiracial, NonHispanic | 68 | 4 | 114,386 | 2.6 | 49 | 3.9 | 19 | 4.6 | 154,243 | 3.5 |
|  | Hispanic | 511 | 30.4 | 1,349,451 | 31.1 | 403 | 31.8 | 108 | 26 | 1,376,138 | 31.5 |
| Connecticut | Male | 555 | 36.1 | 175,437 | 41.5 | 413 | 36.6 | 142 | 34.6 | 175,562 | 41.5 |
|  | Female | 983 | 63.9 | 247,669 | 58.5 | 715 | 63.4 | 268 | 65.4 | 247,954 | 58.5 |
|  | Age 18 to 24 | 84 | 5.6 | 63,582 | 15.4 | 71 | 6.5 | 13 | 3.2 | 52,949 | 12.6 |
|  | Age 25 to 34 | 138 | 9.3 | 63,147 | 15.2 | 111 | 10.2 | 27 | 6.6 | 73,780 | 17.5 |
|  | Age 35 to 44 | 171 | 11.5 | 67,411 | 16.3 | 145 | 13.4 | 26 | 6.4 | 35,791 | 8.5 |

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|  | Age 45 to 54 | 293 | 19.7 | 76,151 | 18.4 | 212 | 19.6 | 81 | 19.9 | 111,344 | 26.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 342 | 22.9 | 70,396 | 17 | 226 | 20.8 | 116 | 28.5 | 72,136 | 17.1 |
|  | Age 65 or older | 463 | 31.1 | 73,446 | 17.7 | 319 | 29.4 | 144 | 35.4 | 74,674 | 17.8 |
|  | White - NonHispanic | 1,103 | 73.5 | 254,508 | 61.5 | 797 | 72.7 | 306 | 75.7 | 259,511 | 62.7 |
|  | Black - Non- <br> Hispanic | 132 | 8.8 | 51,003 | 12.3 | 95 | 8.7 | 37 | 9.2 | 53,278 | 12.9 |
|  | Other race only, Non-Hispanic | 69 | 4.6 | 17,354 | 4.2 | 55 | 5 | 14 | 3.5 | 18,550 | 4.5 |
|  | Multiracial, NonHispanic | 23 | 1.5 | 5,347 | 1.3 | 13 | 1.2 | 10 | 2.5 | 9,249 | 2.2 |
|  | Hispanic | 174 | 11.6 | 85,466 | 20.7 | 137 | 12.5 | 37 | 9.2 | 73,518 | 17.8 |
| Florida | Male | 608 | 34.8 | 589,260 | 34 | 348 | 34.4 | 260 | 35.4 | 603,723 | 34.5 |
|  | Female | 1,139 | 65.2 | 1,146,123 | 66 | 665 | 65.6 | 474 | 64.6 | 1,146,136 | 65.5 |
|  | Age 18 to 24 | 117 | 6.8 | 154,811 | 9 | 72 | 7.2 | 45 | 6.1 | 154,811 | 8.8 |
|  | Age 25 to 34 | 188 | 10.9 | 255,431 | 14.9 | 125 | 12.5 | 63 | 8.6 | 255,431 | 14.6 |
|  | Age 35 to 44 | 203 | 11.7 | 265,697 | 15.5 | 128 | 12.8 | 75 | 10.2 | 266,586 | 15.2 |
|  | Age 45 to 54 | 275 | 15.9 | 302,958 | 17.7 | 171 | 17.2 | 104 | 14.2 | 315,676 | 18 |
|  | Age 55 to 64 | 348 | 20.1 | 354,580 | 20.7 | 183 | 18.4 | 165 | 22.5 | 357,439 | 20.4 |
|  | Age 65 or older | 600 | 34.7 | 382,759 | 22.3 | 318 | 31.9 | 282 | 38.4 | 399,916 | 22.9 |
|  | White - NonHispanic | 1,240 | 72.4 | 939,846 | 55.2 | 694 | 69.6 | 546 | 76.3 | 1,124,943 | 65.7 |
|  | Black - NonHispanic | 190 | 11.1 | 262,204 | 15.4 | 130 | 13 | 60 | 8.4 | 210,156 | 12.3 |
|  | Other race only, Non-Hispanic | 65 | 3.8 | 50,531 | 3 | 42 | 4.2 | 23 | 3.2 | 17,789 | 1 |
|  | Multiracial, NonHispanic | 32 | 1.9 | 7,798 | 0.5 | 16 | 1.6 | 16 | 2.2 | 6,348 | 0.4 |
|  | Hispanic | 186 | 10.9 | 441,765 | 26 | 115 | 11.5 | 71 | 9.9 | 352,849 | 20.6 |
| Georgia | Male | 370 | 33.7 | 370,436 | 37.7 | 283 | 33.1 | 87 | 35.8 | 370,436 | 37.7 |
|  | Female | 728 | 66.3 | 611,570 | 62.3 | 572 | 66.9 | 156 | 64.2 | 611,570 | 62.3 |
|  | Age 18 to 24 | 104 | 9.6 | 172,618 | 17.8 | 85 | 10.1 | 19 | 7.8 | 143,085 | 14.6 |
|  | Age 25 to 34 | 118 | 10.9 | 155,656 | 16 | 87 | 10.3 | 31 | 12.8 | 185,189 | 18.9 |
|  | Age 35 to 44 | 144 | 13.3 | 154,513 | 15.9 | 119 | 14.1 | 25 | 10.3 | 168,380 | 17.1 |

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|  | Age 45 to 54 | 164 | 15.1 | 157,315 | 16.2 | 130 | 15.4 | 34 | 14 | 150,439 | 15.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 221 | 20.4 | 162,677 | 16.8 | 171 | 20.3 | 50 | 20.6 | 166,139 | 16.9 |
|  | Age 65 or older | 334 | 30.8 | 167,907 | 17.3 | 250 | 29.7 | 84 | 34.6 | 168,774 | 17.2 |
|  | White - NonHispanic | 641 | 59.6 | 518,285 | 54 | 484 | 58 | 157 | 65.1 | 574,649 | 59.1 |
|  | Black - Non- <br> Hispanic | 312 | 29 | 354,043 | 36.9 | 253 | 30.3 | 59 | 24.5 | 301,815 | 31 |
|  | Other race only, Non-Hispanic | 33 | 3.1 | 24,349 | 2.5 | 30 | 3.6 | 3 | 1.2 | 11,248 | 1.2 |
|  | Multiracial, NonHispanic | 30 | 2.8 | 14,981 | 1.6 | 25 | 3 | 5 | 2.1 | 14,176 | 1.5 |
|  | Hispanic | 59 | 5.5 | 48,979 | 5.1 | 42 | 5 | 17 | 7.1 | 71,166 | 7.3 |
| Hawaii | Male | 500 | 40.2 | 79,535 | 44 | 354 | 39.4 | 146 | 42.3 | 79,790 | 44 |
|  | Female | 744 | 59.8 | 101,117 | 56 | 545 | 60.6 | 199 | 57.7 | 101,350 | 56 |
|  | Age 18 to 24 | 118 | 9.7 | 28,830 | 16.2 | 103 | 11.7 | 15 | 4.4 | 23,623 | 13.2 |
|  | Age 25 to 34 | 170 | 13.9 | 34,943 | 19.7 | 128 | 14.5 | 42 | 12.3 | 40,332 | 22.6 |
|  | Age 35 to 44 | 140 | 11.5 | 24,963 | 14 | 108 | 12.3 | 32 | 9.4 | 25,329 | 14.2 |
|  | Age 45 to 54 | 192 | 15.7 | 22,909 | 12.9 | 146 | 16.6 | 46 | 13.5 | 22,532 | 12.6 |
|  | Age 55 to 64 | 243 | 19.9 | 30,457 | 17.1 | 168 | 19.1 | 75 | 21.9 | 31,045 | 17.4 |
|  | Age 65 or older | 359 | 29.4 | 35,621 | 20 | 227 | 25.8 | 132 | 38.6 | 35,798 | 20 |
|  | White - NonHispanic | 322 | 26.1 | 34,981 | 19.5 | 221 | 24.8 | 101 | 29.4 | 36,473 | 20.2 |
|  | Black - NonHispanic | 10 | 0.8 | 1,717 | 1 | 6 | 0.7 | 4 | 1.2 | 5,293 | 2.9 |
|  | Other race only, Non-Hispanic | 464 | 37.6 | 81,777 | 45.5 | 344 | 38.6 | 120 | 35 | 71,489 | 39.5 |
|  | Multiracial, NonHispanic | 287 | 23.3 | 37,073 | 20.6 | 202 | 22.7 | 85 | 24.8 | 39,098 | 21.6 |
|  | Hispanic | 151 | 12.2 | 24,077 | 13.4 | 118 | 13.2 | 33 | 9.6 | 28,481 | 15.7 |
| Illinois | Male | 273 | 40.9 | 503,927 | 41.7 | 173 | 40.5 | 100 | 41.5 | 503,927 | 41.6 |
|  | Female | 395 | 59.1 | 705,413 | 58.3 | 254 | 59.5 | 141 | 58.5 | 707,326 | 58.4 |
|  | Age 18 to 24 | 57 | 8.6 | 173,274 | 14.5 | 35 | 8.3 | 22 | 9.2 | 209,849 | 17.4 |
|  | Age 25 to 34 | 93 | 14 | 217,875 | 18.2 | 70 | 16.6 | 23 | 9.6 | 181,300 | 15.1 |
|  | Age 35 to 44 | 93 | 14 | 195,651 | 16.3 | 66 | 15.6 | 27 | 11.3 | 195,651 | 16.3 |

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|  | Age 45 to 54 | 101 | 15.3 | 176,835 | 14.8 | 69 | 16.4 | 32 | 13.3 | 178,509 | 14.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 143 | 21.6 | 216,223 | 18 | 83 | 19.7 | 60 | 25 | 216,631 | 18 |
|  | Age 65 or older | 175 | 26.4 | 218,647 | 18.2 | 99 | 23.5 | 76 | 31.7 | 221,070 | 18.4 |
|  | White - NonHispanic | 428 | 64.5 | 756,538 | 62.8 | 269 | 63.3 | 159 | 66.5 | 799,316 | 66.3 |
|  | Black - NonHispanic | 130 | 19.6 | 262,013 | 21.7 | 83 | 19.5 | 47 | 19.7 | 252,106 | 20.9 |
|  | Other race only, Non-Hispanic | 20 | 3 | 37,413 | 3.1 | 17 | 4 | 3 | 1.3 | 27,532 | 2.3 |
|  | Multiracial, NonHispanic | 18 | 2.7 | 18,118 | 1.5 | 10 | 2.4 | 8 | 3.3 | 18,847 | 1.6 |
|  | Hispanic | 68 | 10.2 | 130,738 | 10.9 | 46 | 10.8 | 22 | 9.2 | 107,864 | 8.9 |
| Indiana | Male | 350 | 33.3 | 263,999 | 37.5 | 253 | 33.2 | 97 | 33.6 | 263,999 | 37.5 |
|  | Female | 702 | 66.7 | 439,512 | 62.5 | 510 | 66.8 | 192 | 66.4 | 439,512 | 62.5 |
|  | Age 18 to 24 | 57 | 5.6 | 95,310 | 13.9 | 42 | 5.7 | 15 | 5.3 | 110,052 | 16 |
|  | Age 25 to 34 | 92 | 9 | 123,953 | 18.1 | 71 | 9.6 | 21 | 7.4 | 109,211 | 15.9 |
|  | Age 35 to 44 | 105 | 10.3 | 102,183 | 14.9 | 76 | 10.3 | 29 | 10.3 | 96,521 | 14.1 |
|  | Age 45 to 54 | 182 | 17.8 | 123,471 | 18 | 130 | 17.6 | 52 | 18.4 | 134,948 | 19.7 |
|  | Age 55 to 64 | 218 | 21.4 | 114,621 | 16.8 | 153 | 20.7 | 65 | 23 | 112,876 | 16.4 |
|  | Age 65 or older | 366 | 35.9 | 124,562 | 18.2 | 266 | 36 | 100 | 35.5 | 122,630 | 17.9 |
|  | White - NonHispanic | 828 | 80.5 | 553,754 | 80.2 | 602 | 81 | 226 | 79 | 568,846 | 81.6 |
|  | Black - NonHispanic | 95 | 9.2 | 76,254 | 11 | 61 | 8.2 | 34 | 11.9 | 82,658 | 11.9 |
|  | Other race only, Non-Hispanic | 38 | 3.7 | 14,800 | 2.1 | 28 | 3.8 | 10 | 3.5 | 18,935 | 2.7 |
|  | Multiracial, NonHispanic | 34 | 3.3 | 10,858 | 1.6 | 25 | 3.4 | 9 | 3.1 | 10,501 | 1.5 |
|  | Hispanic | 34 | 3.3 | 34,451 | 5 | 27 | 3.6 | 7 | 2.4 | 16,365 | 2.3 |
| Iowa | Male | 405 | 41.3 | 118,863 | 43.2 | 241 | 41.2 | 164 | 41.5 | 118,963 | 43.1 |
|  | Female | 575 | 58.7 | 156,549 | 56.8 | 344 | 58.8 | 231 | 58.5 | 156,970 | 56.9 |
|  | Age 18 to 24 | 98 | 10.1 | 52,022 | 19 | 74 | 12.8 | 24 | 6.1 | 40,285 | 14.7 |
|  | Age 25 to 34 | 128 | 13.2 | 49,175 | 18 | 73 | 12.6 | 55 | 14 | 60,912 | 22.2 |
|  | Age 35 to 44 | 128 | 13.2 | 39,664 | 14.5 | 79 | 13.7 | 49 | 12.5 | 40,270 | 14.7 |

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|  | Age 45 to 54 | 155 | 16 | 41,242 | 15.1 | 90 | 15.6 | 65 | 16.6 | 41,711 | 15.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 190 | 19.6 | 41,283 | 15.1 | 107 | 18.5 | 83 | 21.2 | 41,661 | 15.2 |
|  | Age 65 or older | 271 | 27.9 | 49,758 | 18.2 | 155 | 26.8 | 116 | 29.6 | 49,963 | 18.2 |
|  | White - NonHispanic | 861 | 88.6 | 231,997 | 84.8 | 508 | 87.7 | 353 | 89.8 | 236,921 | 86.3 |
|  | Black - Non- <br> Hispanic | 31 | 3.2 | 17,273 | 6.3 | 22 | 3.8 | 9 | 2.3 | 12,260 | 4.5 |
|  | Other race only, Non-Hispanic | 20 | 2.1 | 8,202 | 3 | 12 | 2.1 | 8 | 2 | 8,586 | 3.1 |
|  | Multiracial, NonHispanic | 32 | 3.3 | 7,752 | 2.8 | 18 | 3.1 | 14 | 3.6 | 8,119 | 3 |
|  | Hispanic | 28 | 2.9 | 8,401 | 3.1 | 19 | 3.3 | 9 | 2.3 | 8,802 | 3.2 |
| Kansas | Male | 539 | 37.7 | 121,263 | 38.9 | 385 | 38.7 | 154 | 35.5 | 121,918 | 39 |
|  | Female | 891 | 62.3 | 190,452 | 61.1 | 611 | 61.3 | 280 | 64.5 | 190,779 | 61 |
|  | Age 18 to 24 | 131 | 9.3 | 62,366 | 20.2 | 101 | 10.3 | 30 | 7 | 62,366 | 20 |
|  | Age 25 to 34 | 166 | 11.8 | 57,954 | 18.8 | 132 | 13.5 | 34 | 7.9 | 58,493 | 18.8 |
|  | Age 35 to 44 | 166 | 11.8 | 46,669 | 15.1 | 124 | 12.6 | 42 | 9.8 | 46,669 | 15 |
|  | Age 45 to 54 | 214 | 15.2 | 42,892 | 13.9 | 156 | 15.9 | 58 | 13.5 | 43,665 | 14 |
|  | Age 55 to 64 | 268 | 19 | 44,457 | 14.4 | 179 | 18.2 | 89 | 20.7 | 45,179 | 14.5 |
|  | Age 65 or older | 466 | 33 | 54,702 | 17.7 | 289 | 29.5 | 177 | 41.2 | 54,710 | 17.6 |
|  | White - NonHispanic | 1,202 | 84.7 | 245,722 | 79.3 | 828 | 84 | 374 | 86.4 | 248,350 | 79.7 |
|  | Black - NonHispanic | 74 | 5.2 | 20,268 | 6.5 | 59 | 6 | 15 | 3.5 | 13,947 | 4.5 |
|  | Other race only, Non-Hispanic | 37 | 2.6 | 8,869 | 2.9 | 24 | 2.4 | 13 | 3 | 9,247 | 3 |
|  | Multiracial, NonHispanic | 41 | 2.9 | 10,694 | 3.5 | 27 | 2.7 | 14 | 3.2 | 19,442 | 6.2 |
|  | Hispanic | 65 | 4.6 | 24,386 | 7.9 | 48 | 4.9 | 17 | 3.9 | 20,759 | 6.7 |
| Maine | Male | 548 | 33.6 | 71,935 | 40.5 | 315 | 34.7 | 233 | 32.2 | 71,935 | 40.5 |
|  | Female | 1,084 | 66.4 | 105,766 | 59.5 | 594 | 65.3 | 490 | 67.8 | 105,766 | 59.5 |
|  | Age 18 to 24 | 81 | 5 | 29,737 | 16.9 | 56 | 6.3 | 25 | 3.5 | 29,737 | 16.7 |
|  | Age 25 to 34 | 151 | 9.4 | 32,049 | 18.2 | 91 | 10.2 | 60 | 8.3 | 32,049 | 18 |
|  | Age 35 to 44 | 173 | 10.7 | 26,732 | 15.1 | 121 | 13.6 | 52 | 7.2 | 26,732 | 15.1 |

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|  | Age 45 to 54 | 228 | 14.2 | 26,758 | 15.2 | 124 | 13.9 | 104 | 14.5 | 27,402 | 15.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 353 | 21.9 | 28,395 | 16.1 | 174 | 19.5 | 179 | 24.9 | 28,336 | 16 |
|  | Age 65 or older | 625 | 38.8 | 32,806 | 18.6 | 326 | 36.5 | 299 | 41.6 | 33,323 | 18.8 |
|  | White - NonHispanic | 1,464 | 92 | 162,989 | 92.9 | 809 | 91.6 | 655 | 92.4 | 161,966 | 91.5 |
|  | Black - NonHispanic | 11 | 0.7 | 2,202 | 1.3 | 5 | 0.6 | 6 | 0.8 | 6,231 | 3.5 |
|  | Other race only, Non-Hispanic | 44 | 2.8 | 4,171 | 2.4 | 29 | 3.3 | 15 | 2.1 | 2,805 | 1.6 |
|  | Multiracial, NonHispanic | 51 | 3.2 | 3,763 | 2.1 | 26 | 2.9 | 25 | 3.5 | 5,410 | 3.1 |
|  | Hispanic | 22 | 1.4 | 2,343 | 1.3 | 14 | 1.6 | 8 | 1.1 | 614 | 0.3 |
| Maryland | Male | 783 | 33.2 | 280,139 | 41.1 | 644 | 33.6 | 139 | 31.4 | 280,175 | 41.1 |
|  | Female | 1,578 | 66.8 | 401,562 | 58.9 | 1,274 | 66.4 | 304 | 68.6 | 402,009 | 58.9 |
|  | Age 18 to 24 | 121 | 5.3 | 111,262 | 16.7 | 101 | 5.4 | 20 | 4.6 | 110,722 | 16.5 |
|  | Age 25 to 34 | 206 | 9 | 132,717 | 19.9 | 175 | 9.4 | 31 | 7.1 | 133,256 | 19.9 |
|  | Age 35 to 44 | 242 | 10.5 | 103,759 | 15.5 | 196 | 10.5 | 46 | 10.5 | 105,603 | 15.7 |
|  | Age 45 to 54 | 376 | 16.3 | 107,466 | 16.1 | 312 | 16.7 | 64 | 14.6 | 110,985 | 16.5 |
|  | Age 55 to 64 | 533 | 23.2 | 106,269 | 15.9 | 434 | 23.3 | 99 | 22.7 | 103,134 | 15.4 |
|  | Age 65 or older | 822 | 35.7 | 106,189 | 15.9 | 645 | 34.6 | 177 | 40.5 | 107,182 | 16 |
|  | White - NonHispanic | 1,539 | 66.5 | 338,862 | 50.1 | 1,230 | 65.5 | 309 | 70.5 | 380,029 | 56 |
|  | Black - NonHispanic | 540 | 23.3 | 235,586 | 34.9 | 456 | 24.3 | 84 | 19.2 | 187,110 | 27.6 |
|  | Other race only, Non-Hispanic | 78 | 3.4 | 30,033 | 4.4 | 65 | 3.5 | 13 | 3 | 38,625 | 5.7 |
|  | Multiracial, NonHispanic | 58 | 2.5 | 10,816 | 1.6 | 44 | 2.3 | 14 | 3.2 | 13,556 | 2 |
|  | Hispanic | 101 | 4.4 | 60,417 | 8.9 | 83 | 4.4 | 18 | 4.1 | 59,447 | 8.8 |
| Massachusetts | Male | 344 | 37.8 | 309,660 | 41 | 228 | 37.1 | 116 | 39.2 | 309,660 | 41 |
|  | Female | 566 | 62.2 | 445,230 | 59 | 386 | 62.9 | 180 | 60.8 | 445,230 | 59 |
|  | Age 18 to 24 | 72 | 8.1 | 116,721 | 15.9 | 56 | 9.4 | 16 | 5.5 | 114,335 | 15.4 |
|  | Age 25 to 34 | 107 | 12.1 | 138,816 | 18.9 | 81 | 13.6 | 26 | 8.9 | 141,202 | 19 |
|  | Age 35 to 44 | 111 | 12.5 | 112,122 | 15.2 | 74 | 12.5 | 37 | 12.7 | 116,146 | 15.6 |

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|  | Age 45 to 54 | 146 | 16.5 | 116,889 | 15.9 | 95 | 16 | 51 | 17.5 | 115,652 | 15.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 181 | 20.5 | 112,008 | 15.2 | 122 | 20.5 | 59 | 20.3 | 113,275 | 15.3 |
|  | Age 65 or older | 268 | 30.3 | 139,367 | 18.9 | 166 | 27.9 | 102 | 35.1 | 142,168 | 19.1 |
|  | White - NonHispanic | 700 | 78.9 | 564,907 | 76.7 | 456 | 76.3 | 244 | 84.4 | 615,899 | 82.5 |
|  | Black - NonHispanic | 47 | 5.3 | 39,588 | 5.4 | 34 | 5.7 | 13 | 4.5 | 44,810 | 6 |
|  | Other race only, Non-Hispanic | 28 | 3.2 | 27,991 | 3.8 | 20 | 3.3 | 8 | 2.8 | 24,003 | 3.2 |
|  | Multiracial, NonHispanic | 21 | 2.4 | 13,845 | 1.9 | 11 | 1.8 | 10 | 3.5 | 23,069 | 3.1 |
|  | Hispanic | 91 | 10.3 | 90,175 | 12.2 | 77 | 12.9 | 14 | 4.8 | 38,485 | 5.2 |
| Michigan | Male | 614 | 39.9 | 508,091 | 42.1 | 318 | 39.8 | 296 | 40.1 | 510,268 | 42.1 |
|  | Female | 924 | 60.1 | 698,472 | 57.9 | 482 | 60.3 | 442 | 59.9 | 700,698 | 57.9 |
|  | Age 18 to 24 | 158 | 10.4 | 189,363 | 16 | 102 | 13 | 56 | 7.6 | 190,950 | 16 |
|  | Age 25 to 34 | 213 | 14.1 | 211,787 | 17.9 | 124 | 15.9 | 89 | 12.1 | 213,098 | 17.8 |
|  | Age 35 to 44 | 203 | 13.4 | 195,688 | 16.5 | 120 | 15.3 | 83 | 11.3 | 191,619 | 16 |
|  | Age 45 to 54 | 244 | 16.1 | 196,468 | 16.6 | 136 | 17.4 | 108 | 14.7 | 201,206 | 16.8 |
|  | Age 55 to 64 | 315 | 20.8 | 195,827 | 16.5 | 135 | 17.3 | 180 | 24.6 | 195,774 | 16.4 |
|  | Age 65 or older | 382 | 25.2 | 196,058 | 16.5 | 165 | 21.1 | 217 | 29.6 | 203,815 | 17 |
|  | White - NonHispanic | 1,172 | 77.7 | 861,651 | 73.3 | 587 | 75.4 | 585 | 80.1 | 891,494 | 74.9 |
|  | Black - NonHispanic | 191 | 12.7 | 211,119 | 18 | 114 | 14.6 | 77 | 10.5 | 185,626 | 15.6 |
|  | Other race only, Non-Hispanic | 46 | 3 | 32,348 | 2.8 | 20 | 2.6 | 26 | 3.6 | 43,178 | 3.6 |
|  | Multiracial, NonHispanic | 50 | 3.3 | 22,819 | 1.9 | 31 | 4 | 19 | 2.6 | 22,740 | 1.9 |
|  | Hispanic | 50 | 3.3 | 47,869 | 4.1 | 27 | 3.5 | 23 | 3.2 | 47,809 | 4 |
| Minnesota | Male | 734 | 40 | 200,750 | 41.4 | 419 | 41 | 315 | 38.7 | 201,410 | 41.5 |
|  | Female | 1,102 | 60 | 283,661 | 58.6 | 602 | 59 | 500 | 61.3 | 284,256 | 58.5 |
|  | Age 18 to 24 | 165 | 9.1 | 70,987 | 14.9 | 93 | 9.3 | 72 | 8.8 | 70,987 | 14.6 |
|  | Age 25 to 34 | 243 | 13.4 | 91,475 | 19.2 | 145 | 14.6 | 98 | 12 | 92,217 | 19 |
|  | Age 35 to 44 | 256 | 14.1 | 72,756 | 15.3 | 150 | 15.1 | 106 | 13 | 75,897 | 15.6 |

Appendix C

|  | Age 45 to 54 | 287 | 15.9 | 73,001 | 15.3 | 156 | 15.7 | 131 | 16.1 | 76,496 | 15.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 386 | 21.3 | 84,663 | 17.8 | 205 | 20.6 | 181 | 22.2 | 84,958 | 17.5 |
|  | Age 65 or older | 473 | 26.1 | 84,085 | 17.6 | 246 | 24.7 | 227 | 27.9 | 85,110 | 17.5 |
|  | White - NonHispanic | 1,528 | 84.6 | 386,588 | 81.1 | 820 | 82 | 708 | 87.7 | 418,036 | 86.9 |
|  | Black - NonHispanic | 83 | 4.6 | 39,291 | 8.2 | 60 | 6 | 23 | 2.9 | 16,676 | 3.5 |
|  | Other race only, Non-Hispanic | 93 | 5.1 | 29,383 | 6.2 | 62 | 6.2 | 31 | 3.8 | 26,182 | 5.4 |
|  | Multiracial, NonHispanic | 38 | 2.1 | 7,361 | 1.5 | 18 | 1.8 | 20 | 2.5 | 7,881 | 1.6 |
|  | Hispanic | 65 | 3.6 | 14,310 | 3 | 40 | 4 | 25 | 3.1 | 12,396 | 2.6 |
| Missouri | Male | 248 | 31.8 | 224,358 | 36.1 | 167 | 32.8 | 81 | 30 | 224,358 | 36 |
|  | Female | 531 | 68.2 | 397,655 | 63.9 | 342 | 67.2 | 189 | 70 | 398,284 | 64 |
|  | Age 18 to 24 | 43 | 5.6 | 86,265 | 14 | 25 | 5 | 18 | 6.7 | 98,660 | 15.9 |
|  | Age 25 to 34 | 71 | 9.2 | 117,169 | 19 | 52 | 10.3 | 19 | 7.1 | 105,402 | 17 |
|  | Age 35 to 44 | 84 | 10.9 | 99,188 | 16.1 | 67 | 13.3 | 17 | 6.3 | 58,518 | 9.4 |
|  | Age 45 to 54 | 103 | 13.3 | 88,571 | 14.4 | 63 | 12.5 | 40 | 14.9 | 133,457 | 21.5 |
|  | Age 55 to 64 | 171 | 22.2 | 114,564 | 18.6 | 111 | 22 | 60 | 22.4 | 114,564 | 18.5 |
|  | Age 65 or older | 300 | 38.9 | 110,940 | 18 | 186 | 36.9 | 114 | 42.5 | 109,397 | 17.6 |
|  | White - NonHispanic | 636 | 83.5 | 484,165 | 79.5 | 409 | 82.5 | 227 | 85.3 | 512,587 | 83.4 |
|  | Black - NonHispanic | 85 | 11.2 | 85,926 | 14.1 | 58 | 11.7 | 27 | 10.2 | 63,988 | 10.4 |
|  | Other race only, Non-Hispanic | 13 | 1.7 | 16,193 | 2.7 | 10 | 2 | 3 | 1.1 | 22,152 | 3.6 |
|  | Multiracial, NonHispanic | 13 | 1.7 | 7,031 | 1.2 | 9 | 1.8 | 4 | 1.5 | 8,755 | 1.4 |
|  | Hispanic | 15 | 2 | 15,435 | 2.5 | 10 | 2 | 5 | 1.9 | 6,908 | 1.1 |
| Montana | Male | 263 | 39.3 | 49,692 | 44.2 | 171 | 39 | 92 | 39.8 | 49,692 | 44.1 |
|  | Female | 406 | 60.7 | 62,771 | 55.8 | 267 | 61 | 139 | 60.2 | 62,953 | 55.9 |
|  | Age 18 to 24 | 51 | 7.7 | 15,904 | 14.3 | 38 | 8.8 | 13 | 5.7 | 13,326 | 11.9 |
|  | Age 25 to 34 | 74 | 11.2 | 21,602 | 19.4 | 50 | 11.6 | 24 | 10.4 | 24,211 | 21.6 |
|  | Age 35 to 44 | 83 | 12.6 | 16,170 | 14.5 | 60 | 14 | 23 | 10 | 16,170 | 14.4 |

Appendix C

|  | Age 45 to 54 | 106 | 16.1 | 17,676 | 15.9 | 67 | 15.6 | 39 | 17 | 17,983 | 16 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 148 | 22.4 | 20,168 | 18.1 | 90 | 20.9 | 58 | 25.2 | 20,173 | 18 |
|  | Age 65 or older | 198 | 30 | 19,721 | 17.7 | 125 | 29.1 | 73 | 31.7 | 20,382 | 18.2 |
|  | White - NonHispanic | 514 | 78 | 94,069 | 85.1 | 345 | 79.7 | 169 | 74.8 | 90,181 | 81 |
|  | Black - Non- <br> Hispanic | 2 | 0.3 | 475 | 0.4 | 1 | 0.2 | 1 | 0.4 | 683 | 0.6 |
|  | Other race only, Non-Hispanic | 100 | 15.2 | 9,015 | 8.2 | 60 | 13.9 | 40 | 17.7 | 11,937 | 10.7 |
|  | Multiracial, NonHispanic | 26 | 3.9 | 3,108 | 2.8 | 15 | 3.5 | 11 | 4.9 | 3,667 | 3.3 |
|  | Hispanic | 17 | 2.6 | 3,849 | 3.5 | 12 | 2.8 | 5 | 2.2 | 4,806 | 4.3 |
| Nebraska | Male | 619 | 37.2 | 77,471 | 41.3 | 385 | 37.1 | 234 | 37.4 | 77,982 | 41.5 |
|  | Female | 1,044 | 62.8 | 109,935 | 58.7 | 653 | 62.9 | 391 | 62.6 | 110,000 | 58.5 |
|  | Age 18 to 24 | 125 | 7.6 | 29,579 | 15.8 | 93 | 9 | 32 | 5.1 | 29,579 | 15.7 |
|  | Age 25 to 34 | 211 | 12.8 | 35,103 | 18.8 | 138 | 13.4 | 73 | 11.7 | 35,221 | 18.7 |
|  | Age 35 to 44 | 198 | 12 | 27,353 | 14.7 | 132 | 12.8 | 66 | 10.6 | 27,841 | 14.8 |
|  | Age 45 to 54 | 240 | 14.5 | 31,064 | 16.6 | 151 | 14.7 | 89 | 14.3 | 31,455 | 16.7 |
|  | Age 55 to 64 | 314 | 19 | 30,179 | 16.2 | 178 | 17.3 | 136 | 21.8 | 30,364 | 16.2 |
|  | Age 65 or older | 565 | 34.2 | 33,417 | 17.9 | 337 | 32.8 | 228 | 36.5 | 33,520 | 17.8 |
|  | White - NonHispanic | 1,444 | 87.9 | 155,237 | 84.3 | 901 | 87.8 | 543 | 88.1 | 157,838 | 85.7 |
|  | Black - NonHispanic | 40 | 2.4 | 9,590 | 5.2 | 25 | 2.4 | 15 | 2.4 | 7,996 | 4.3 |
|  | Other race only, Non-Hispanic | 45 | 2.7 | 3,982 | 2.2 | 26 | 2.5 | 19 | 3.1 | 4,857 | 2.6 |
|  | Multiracial, NonHispanic | 31 | 1.9 | 6,062 | 3.3 | 23 | 2.2 | 8 | 1.3 | 3,757 | 2 |
|  | Hispanic | 82 | 5 | 9,260 | 5 | 51 | 5 | 31 | 5 | 9,811 | 5.3 |
| Nevada | Male | 139 | 37.2 | 102,079 | 38.9 | 87 | 38.3 | 52 | 35.4 | 102,079 | 38.9 |
|  | Female | 235 | 62.8 | 160,035 | 61.1 | 140 | 61.7 | 95 | 64.6 | 160,035 | 61.1 |
|  | Age 18 to 24 | 38 | 10.4 | 42,202 | 16.3 | 24 | 10.9 | 14 | 9.6 | 51,415 | 19.7 |
|  | Age 25 to 34 | 48 | 13.1 | 44,536 | 17.2 | 30 | 13.6 | 18 | 12.3 | 35,324 | 13.5 |
|  | Age 35 to 44 | 42 | 11.5 | 45,795 | 17.7 | 27 | 12.3 | 15 | 10.3 | 31,995 | 12.3 |

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|  | Age 45 to 54 | 53 | 14.5 | 34,411 | 13.3 | 30 | 13.6 | 23 | 15.8 | 51,314 | 19.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 83 | 22.7 | 52,761 | 20.4 | 47 | 21.4 | 36 | 24.7 | 47,451 | 18.2 |
|  | Age 65 or older | 102 | 27.9 | 38,874 | 15 | 62 | 28.2 | 40 | 27.4 | 43,681 | 16.7 |
|  | White - NonHispanic | 234 | 64.1 | 121,780 | 47.6 | 130 | 59.1 | 104 | 71.7 | 173,439 | 66.6 |
|  | Black - NonHispanic | 18 | 4.9 | 23,311 | 9.1 | 13 | 5.9 | 5 | 3.4 | 12,169 | 4.7 |
|  | Other race only, Non-Hispanic | 29 | 7.9 | 43,190 | 16.9 | 22 | 10 | 7 | 4.8 | 30,153 | 11.6 |
|  | Multiracial, NonHispanic | 25 | 6.8 | 7,326 | 2.9 | 16 | 7.3 | 9 | 6.2 | 6,110 | 2.3 |
|  | Hispanic | 59 | 16.2 | 59,991 | 23.5 | 39 | 17.7 | 20 | 13.8 | 38,593 | 14.8 |
| New Hampshire | Male | 301 | 34.7 | 75,943 | 40.8 | 214 | 35.1 | 87 | 33.9 | 75,943 | 40.8 |
|  | Female | 566 | 65.3 | 110,276 | 59.2 | 396 | 64.9 | 170 | 66.1 | 110,276 | 59.2 |
|  | Age 18 to 24 | 43 | 5.1 | 27,116 | 14.7 | 35 | 5.9 | 8 | 3.1 | 29,805 | 16 |
|  | Age 25 to 34 | 67 | 7.9 | 35,068 | 19 | 53 | 8.9 | 14 | 5.5 | 32,379 | 17.4 |
|  | Age 35 to 44 | 105 | 12.4 | 30,061 | 16.3 | 81 | 13.6 | 24 | 9.4 | 27,423 | 14.8 |
|  | Age 45 to 54 | 161 | 18.9 | 34,482 | 18.7 | 114 | 19.1 | 47 | 18.5 | 37,945 | 20.4 |
|  | Age 55 to 64 | 197 | 23.2 | 29,541 | 16 | 134 | 22.5 | 63 | 24.8 | 29,992 | 16.1 |
|  | Age 65 or older | 277 | 32.6 | 28,076 | 15.2 | 179 | 30 | 98 | 38.6 | 28,225 | 15.2 |
|  | White - NonHispanic | 790 | 92.7 | 167,539 | 91.2 | 556 | 92.8 | 234 | 92.5 | 176,925 | 95.7 |
|  | Black - Non- <br> Hispanic | 5 | 0.6 | 1,783 | 1 | 4 | 0.7 | 1 | 0.4 | 1,347 | 0.7 |
|  | Other race only, Non-Hispanic | 23 | 2.7 | 4,395 | 2.4 | 14 | 2.3 | 9 | 3.6 | 2,436 | 1.3 |
|  | Multiracial, NonHispanic | 20 | 2.3 | 3,225 | 1.8 | 12 | 2 | 8 | 3.2 | 3,341 | 1.8 |
|  | Hispanic | 14 | 1.6 | 6,796 | 3.7 | 13 | 2.2 | 1 | 0.4 | 842 | 0.5 |
| New Mexico | Male | 369 | 37.4 | 94,911 | 39.4 | 252 | 37.8 | 117 | 36.4 | 95,061 | 39.3 |
|  | Female | 618 | 62.6 | 146,202 | 60.6 | 414 | 62.2 | 204 | 63.6 | 146,757 | 60.7 |
|  | Age 18 to 24 | 76 | 7.7 | 39,445 | 16.5 | 56 | 8.5 | 20 | 6.2 | 45,414 | 18.8 |
|  | Age 25 to 34 | 112 | 11.4 | 37,842 | 15.8 | 87 | 13.2 | 25 | 7.8 | 31,874 | 13.2 |
|  | Age 35 to 44 | 101 | 10.3 | 28,095 | 11.7 | 74 | 11.2 | 27 | 8.4 | 28,245 | 11.7 |

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|  | Age 45 to 54 | 158 | 16.1 | 39,180 | 16.3 | 113 | 17.1 | 45 | 14 | 40,185 | 16.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 216 | 22 | 40,864 | 17 | 135 | 20.4 | 81 | 25.2 | 41,711 | 17.2 |
|  | Age 65 or older | 319 | 32.5 | 54,360 | 22.7 | 196 | 29.7 | 123 | 38.3 | 54,390 | 22.5 |
|  | White - NonHispanic | 539 | 55.9 | 105,623 | 44.8 | 345 | 53.4 | 194 | 61 | 120,618 | 50.2 |
|  | Black - NonHispanic | 15 | 1.6 | 2,688 | 1.1 | 12 | 1.9 | 3 | 0.9 | 739 | 0.3 |
|  | Other race only, Non-Hispanic | 110 | 11.4 | 24,222 | 10.3 | 82 | 12.7 | 28 | 8.8 | 13,411 | 5.6 |
|  | Multiracial, NonHispanic | 14 | 1.5 | 3,093 | 1.3 | 9 | 1.4 | 5 | 1.6 | 4,001 | 1.7 |
|  | Hispanic | 286 | 29.7 | 100,232 | 42.5 | 198 | 30.7 | 88 | 27.7 | 101,400 | 42.2 |
| New York | Male | 676 | 37.6 | 938,886 | 39.8 | 478 | 36.5 | 198 | 40.7 | 938,886 | 39.8 |
|  | Female | 1,120 | 62.4 | 1,420,233 | 60.2 | 831 | 63.5 | 289 | 59.3 | 1,420,233 | 60.2 |
|  | Age 18 to 24 | 146 | 8.4 | 361,651 | 15.9 | 117 | 9.4 | 29 | 6.1 | 361,651 | 15.7 |
|  | Age 25 to 34 | 218 | 12.6 | 457,037 | 20.1 | 176 | 14.1 | 42 | 8.8 | 460,154 | 20 |
|  | Age 35 to 44 | 247 | 14.3 | 298,605 | 13.1 | 193 | 15.4 | 54 | 11.3 | 311,025 | 13.5 |
|  | Age 45 to 54 | 294 | 17 | 373,036 | 16.4 | 229 | 18.3 | 65 | 13.6 | 377,527 | 16.4 |
|  | Age 55 to 64 | 379 | 21.9 | 347,286 | 15.3 | 246 | 19.7 | 133 | 27.8 | 351,684 | 15.3 |
|  | Age 65 or older | 446 | 25.8 | 436,561 | 19.2 | 290 | 23.2 | 156 | 32.6 | 437,219 | 19 |
|  | White - NonHispanic | 1,330 | 75.9 | 1,313,026 | 57.5 | 934 | 73.5 | 396 | 82.3 | 1,579,548 | 68.5 |
|  | Black - NonHispanic | 140 | 8 | 340,263 | 14.9 | 104 | 8.2 | 36 | 7.5 | 324,790 | 14.1 |
|  | Other race only, Non-Hispanic | 79 | 4.5 | 167,793 | 7.3 | 65 | 5.1 | 14 | 2.9 | 182,106 | 7.9 |
|  | Multiracial, NonHispanic | 37 | 2.1 | 27,988 | 1.2 | 28 | 2.2 | 9 | 1.9 | 26,912 | 1.2 |
|  | Hispanic | 166 | 9.5 | 435,351 | 19.1 | 140 | 11 | 26 | 5.4 | 194,089 | 8.4 |
| Ohio | Male | 550 | 34.1 | 495,050 | 43.3 | 367 | 35.2 | 183 | 32.2 | 495,371 | 43.3 |
|  | Female | 1,062 | 65.9 | 647,044 | 56.7 | 676 | 64.8 | 386 | 67.8 | 648,875 | 56.7 |
|  | Age 18 to 24 | 120 | 7.5 | 193,326 | 17.1 | 83 | 8 | 37 | 6.5 | 193,326 | 16.9 |
|  | Age 25 to 34 | 133 | 8.3 | 157,082 | 13.9 | 92 | 8.9 | 41 | 7.2 | 157,082 | 13.7 |
|  | Age 35 to 44 | 183 | 11.4 | 198,332 | 17.5 | 134 | 13 | 49 | 8.6 | 198,332 | 17.3 |

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|  | Age 45 to 54 | 240 | 15 | 172,622 | 15.2 | 173 | 16.8 | 67 | 11.8 | 178,068 | 15.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 379 | 23.7 | 179,068 | 15.8 | 223 | 21.6 | 156 | 27.4 | 181,060 | 15.8 |
|  | Age 65 or older | 546 | 34.1 | 233,199 | 20.6 | 327 | 31.7 | 219 | 38.5 | 236,377 | 20.7 |
|  | White - NonHispanic | 1,333 | 84.8 | 868,291 | 78.3 | 861 | 84.8 | 472 | 84.7 | 903,790 | 80.9 |
|  | Black - Non- <br> Hispanic | 122 | 7.8 | 149,590 | 13.5 | 84 | 8.3 | 38 | 6.8 | 109,262 | 9.8 |
|  | Other race only, Non-Hispanic | 39 | 2.5 | 19,589 | 1.8 | 21 | 2.1 | 18 | 3.2 | 22,138 | 2 |
|  | Multiracial, NonHispanic | 42 | 2.7 | 19,617 | 1.8 | 25 | 2.5 | 17 | 3.1 | 19,053 | 1.7 |
|  | Hispanic | 36 | 2.3 | 51,781 | 4.7 | 24 | 2.4 | 12 | 2.2 | 62,752 | 5.6 |
| Oregon | Male | 367 | 37.6 | 224,317 | 41.5 | 223 | 37.5 | 144 | 37.6 | 224,996 | 41.5 |
|  | Female | 610 | 62.4 | 316,744 | 58.5 | 371 | 62.5 | 239 | 62.4 | 317,144 | 58.5 |
|  | Age 18 to 24 | 70 | 7.3 | 62,916 | 11.8 | 50 | 8.6 | 20 | 5.3 | 73,925 | 13.7 |
|  | Age 25 to 34 | 142 | 14.8 | 109,726 | 20.6 | 102 | 17.6 | 40 | 10.5 | 99,396 | 18.5 |
|  | Age 35 to 44 | 137 | 14.3 | 86,410 | 16.2 | 83 | 14.3 | 54 | 14.2 | 88,530 | 16.4 |
|  | Age 45 to 54 | 176 | 18.3 | 89,969 | 16.9 | 113 | 19.4 | 63 | 16.6 | 93,805 | 17.4 |
|  | Age 55 to 64 | 175 | 18.2 | 80,586 | 15.1 | 99 | 17 | 76 | 20 | 80,586 | 15 |
|  | Age 65 or older | 261 | 27.2 | 103,679 | 19.4 | 134 | 23.1 | 127 | 33.4 | 102,427 | 19 |
|  | White - NonHispanic | 778 | 82.3 | 407,986 | 78.2 | 462 | 80.2 | 316 | 85.6 | 448,749 | 86.3 |
|  | Black - NonHispanic | 12 | 1.3 | 10,172 | 2 | 8 | 1.4 | 4 | 1.1 | 6,016 | 1.2 |
|  | Other race only, Non-Hispanic | 30 | 3.2 | 22,870 | 4.4 | 23 | 4 | 7 | 1.9 | 8,451 | 1.6 |
|  | Multiracial, NonHispanic | 49 | 5.2 | 34,481 | 6.6 | 26 | 4.5 | 23 | 6.2 | 33,452 | 6.4 |
|  | Hispanic | 76 | 8 | 45,924 | 8.8 | 57 | 9.9 | 19 | 5.1 | 23,407 | 4.5 |
| Pennsylvania | Male | 296 | 35.7 | 505,020 | 36.7 | 178 | 34.1 | 118 | 38.4 | 505,020 | 36.7 |
|  | Female | 533 | 64.3 | 872,598 | 63.3 | 344 | 65.9 | 189 | 61.6 | 872,598 | 63.3 |
|  | Age 18 to 24 | 75 | 9.2 | 227,917 | 16.7 | 52 | 10.1 | 23 | 7.6 | 219,760 | 16.1 |
|  | Age 25 to 34 | 126 | 15.4 | 259,048 | 18.9 | 90 | 17.4 | 36 | 11.9 | 267,204 | 19.5 |
|  | Age 35 to 44 | 104 | 12.7 | 184,620 | 13.5 | 75 | 14.5 | 29 | 9.6 | 186,243 | 13.6 |

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|  | Age 45 to 54 | 134 | 16.4 | 197,288 | 14.4 | 88 | 17.1 | 46 | 15.2 | 194,216 | 14.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 173 | 21.1 | 239,315 | 17.5 | 103 | 20 | 70 | 23.1 | 239,315 | 17.5 |
|  | Age 65 or older | 207 | 25.3 | 259,605 | 19 | 108 | 20.9 | 99 | 32.7 | 261,465 | 19.1 |
|  | White - NonHispanic | 609 | 74.7 | 999,627 | 73.8 | 369 | 71.8 | 240 | 79.7 | 1,119,294 | 82.7 |
|  | Black - NonHispanic | 124 | 15.2 | 177,113 | 13.1 | 86 | 16.7 | 38 | 12.6 | 152,094 | 11.2 |
|  | Other race only, <br> Non-Hispanic | 17 | 2.1 | 42,184 | 3.1 | 16 | 3.1 | 1 | 0.3 | 661 | 0 |
|  | Multiracial, NonHispanic | 16 | 2 | 13,596 | 1 | 7 | 1.4 | 9 | 3 | 20,291 | 1.5 |
|  | Hispanic | 49 | 6 | 122,428 | 9 | 36 | 7 | 13 | 4.3 | 61,061 | 4.5 |
| Rhode Island | Male | 329 | 35.7 | 58,914 | 42.9 | 233 | 35.7 | 96 | 35.7 | 59,150 | 43 |
|  | Female | 593 | 64.3 | 78,272 | 57.1 | 420 | 64.3 | 173 | 64.3 | 78,422 | 57 |
|  | Age 18 to 24 | 49 | 5.4 | 19,773 | 14.8 | 40 | 6.3 | 9 | 3.4 | 13,055 | 9.6 |
|  | Age 25 to 34 | 90 | 10 | 25,427 | 19 | 75 | 11.8 | 15 | 5.6 | 32,269 | 23.8 |
|  | Age 35 to 44 | 107 | 11.9 | 18,579 | 13.9 | 80 | 12.6 | 27 | 10.2 | 18,803 | 13.9 |
|  | Age 45 to 54 | 155 | 17.2 | 20,806 | 15.5 | 104 | 16.4 | 51 | 19.2 | 21,876 | 16.1 |
|  | Age 55 to 64 | 202 | 22.4 | 22,105 | 16.5 | 140 | 22.1 | 62 | 23.3 | 22,773 | 16.8 |
|  | Age 65 or older | 297 | 33 | 27,267 | 20.4 | 195 | 30.8 | 102 | 38.3 | 26,769 | 19.7 |
|  | White - NonHispanic | 721 | 80.2 | 95,744 | 72 | 499 | 78.7 | 222 | 83.8 | 102,999 | 76.1 |
|  | Black - NonHispanic | 29 | 3.2 | 5,991 | 4.5 | 24 | 3.8 | 5 | 1.9 | 4,981 | 3.7 |
|  | Other race only, Non-Hispanic | 40 | 4.4 | 8,117 | 6.1 | 30 | 4.7 | 10 | 3.8 | 7,419 | 5.5 |
|  | Multiracial, NonHispanic | 26 | 2.9 | 3,052 | 2.3 | 17 | 2.7 | 9 | 3.4 | 4,205 | 3.1 |
|  | Hispanic | 83 | 9.2 | 20,114 | 15.1 | 64 | 10.1 | 19 | 7.2 | 15,722 | 11.6 |
| Texas | Male | 511 | 36.9 | 961,413 | 44.1 | 369 | 36.2 | 142 | 38.9 | 961,413 | 43.9 |
|  | Female | 873 | 63.1 | 1,216,298 | 55.9 | 650 | 63.8 | 223 | 61.1 | 1,227,378 | 56.1 |
|  | Age 18 to 24 | 119 | 8.8 | 426,583 | 19.9 | 96 | 9.7 | 23 | 6.4 | 471,032 | 21.8 |
|  | Age 25 to 34 | 146 | 10.8 | 291,739 | 13.6 | 119 | 12 | 27 | 7.5 | 247,291 | 11.4 |
|  | Age 35 to 44 | 152 | 11.2 | 312,222 | 14.6 | 123 | 12.4 | 29 | 8 | 329,662 | 15.3 |

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|  | Age 45 to 54 | 198 | 14.6 | 370,490 | 17.3 | 153 | 15.4 | 45 | 12.5 | 357,834 | 16.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 287 | 21.2 | 371,499 | 17.3 | 198 | 19.9 | 89 | 24.7 | 370,682 | 17.2 |
|  | Age 65 or older | 453 | 33.4 | 372,631 | 17.4 | 305 | 30.7 | 148 | 41 | 383,365 | 17.7 |
|  | White - NonHispanic | 879 | 64.8 | 1,123,503 | 52.3 | 614 | 61.7 | 265 | 73.4 | 1,162,103 | 53.3 |
|  | Black - NonHispanic | 158 | 11.7 | 270,312 | 12.6 | 121 | 12.2 | 37 | 10.2 | 299,260 | 13.7 |
|  | Other race only, Non-Hispanic | 49 | 3.6 | 106,601 | 5 | 42 | 4.2 | 7 | 1.9 | 120,506 | 5.5 |
|  | Multiracial, NonHispanic | 35 | 2.6 | 35,372 | 1.6 | 27 | 2.7 | 8 | 2.2 | 10,636 | 0.5 |
|  | Hispanic | 235 | 17.3 | 613,730 | 28.6 | 191 | 19.2 | 44 | 12.2 | 588,846 | 27 |
| Utah | Male | 624 | 43.2 | 138,857 | 44.4 | 385 | 42.8 | 239 | 43.9 | 139,021 | 44.5 |
|  | Female | 821 | 56.8 | 173,579 | 55.6 | 515 | 57.2 | 306 | 56.1 | 173,665 | 55.5 |
|  | Age 18 to 24 | 162 | 11.4 | 60,039 | 19.5 | 108 | 12.3 | 54 | 10 | 60,039 | 19.3 |
|  | Age 25 to 34 | 225 | 15.8 | 65,830 | 21.4 | 144 | 16.4 | 81 | 14.9 | 64,950 | 20.9 |
|  | Age 35 to 44 | 233 | 16.4 | 51,652 | 16.8 | 141 | 16.1 | 92 | 17 | 52,366 | 16.9 |
|  | Age 45 to 54 | 221 | 15.6 | 44,244 | 14.4 | 140 | 15.9 | 81 | 14.9 | 46,742 | 15.1 |
|  | Age 55 to 64 | 246 | 17.3 | 40,422 | 13.1 | 138 | 15.7 | 108 | 19.9 | 40,766 | 13.1 |
|  | Age 65 or older | 333 | 23.5 | 45,359 | 14.7 | 207 | 23.6 | 126 | 23.2 | 45,523 | 14.7 |
|  | White - NonHispanic | 1,255 | 88.8 | 260,119 | 85.6 | 769 | 87.7 | 486 | 90.7 | 267,135 | 87.9 |
|  | Black - NonHispanic | 15 | 1.1 | 3,976 | 1.3 | 9 | 1 | 6 | 1.1 | 3,620 | 1.2 |
|  | Other race only, Non-Hispanic | 33 | 2.3 | 6,942 | 2.3 | 21 | 2.4 | 12 | 2.2 | 6,831 | 2.2 |
|  | Multiracial, NonHispanic | 16 | 1.1 | 5,983 | 2 | 10 | 1.1 | 6 | 1.1 | 6,596 | 2.2 |
|  | Hispanic | 94 | 6.7 | 26,881 | 8.8 | 68 | 7.8 | 26 | 4.9 | 19,585 | 6.4 |
| Vermont | Male | 370 | 36.6 | 35,149 | 41.8 | 243 | 35.7 | 127 | 38.5 | 35,149 | 41.8 |
|  | Female | 640 | 63.4 | 48,961 | 58.2 | 437 | 64.3 | 203 | 61.5 | 48,961 | 58.2 |
|  | Age 18 to 24 | 58 | 5.8 | 15,249 | 18.3 | 41 | 6.1 | 17 | 5.2 | 12,672 | 15.2 |
|  | Age 25 to 34 | 99 | 9.9 | 14,136 | 17 | 66 | 9.9 | 33 | 10.1 | 16,713 | 20.1 |
|  | Age 35 to 44 | 117 | 11.8 | 11,885 | 14.3 | 85 | 12.7 | 32 | 9.8 | 11,885 | 14.3 |

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|  | Age 45 to 54 | 167 | 16.8 | 12,369 | 14.8 | 127 | 19 | 40 | 12.3 | 12,111 | 14.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 55 to 64 | 254 | 25.5 | 14,799 | 17.8 | 162 | 24.2 | 92 | 28.2 | 14,929 | 17.9 |
|  | Age 65 or older | 300 | 30.2 | 14,913 | 17.9 | 188 | 28.1 | 112 | 34.4 | 14,980 | 18 |
|  | White - NonHispanic | 905 | 91.4 | 76,682 | 92.7 | 605 | 90.8 | 300 | 92.6 | 75,605 | 91.6 |
|  | Black - NonHispanic | 6 | 0.6 | 479 | 0.6 | 3 | 0.5 | 3 | 0.9 | 958 | 1.2 |
|  | Other race only, Non-Hispanic | 40 | 4 | 2,900 | 3.5 | 30 | 4.5 | 10 | 3.1 | 1,823 | 2.2 |
|  | Multiracial, NonHispanic | 30 | 3 | 1,185 | 1.4 | 21 | 3.2 | 9 | 2.8 | 1,438 | 1.7 |
|  | Hispanic | 9 | 0.9 | 1,435 | 1.7 | 7 | 1.1 | 2 | 0.6 | 2,705 | 3.3 |
| Wisconsin | Male | 205 | 37.4 | 203,620 | 40.9 | 108 | 40.3 | 97 | 34.6 | 203,620 | 40.8 |
|  | Female | 343 | 62.6 | 293,646 | 59.1 | 160 | 59.7 | 183 | 65.4 | 295,439 | 59.2 |
|  | Age 18 to 24 | 39 | 7.2 | 64,017 | 12.9 | 18 | 6.8 | 21 | 7.5 | 84,526 | 16.9 |
|  | Age 25 to 34 | 71 | 13.1 | 94,174 | 19 | 45 | 17.1 | 26 | 9.3 | 88,679 | 17.8 |
|  | Age 35 to 44 | 71 | 13.1 | 79,728 | 16.1 | 43 | 16.3 | 28 | 10 | 66,507 | 13.3 |
|  | Age 45 to 54 | 89 | 16.4 | 77,531 | 15.7 | 52 | 19.8 | 37 | 13.2 | 79,722 | 16 |
|  | Age 55 to 64 | 127 | 23.4 | 86,927 | 17.6 | 38 | 14.4 | 89 | 31.8 | 86,970 | 17.4 |
|  | Age 65 or older | 146 | 26.9 | 92,654 | 18.7 | 67 | 25.5 | 79 | 28.2 | 92,654 | 18.6 |
|  | White - NonHispanic | 440 | 82.1 | 398,561 | 82.3 | 214 | 81.7 | 226 | 82.5 | 396,622 | 83.1 |
|  | Black - NonHispanic | 37 | 6.9 | 38,409 | 7.9 | 17 | 6.5 | 20 | 7.3 | 47,618 | 10 |
|  | Other race only, Non-Hispanic | 23 | 4.3 | 6,487 | 1.3 | 11 | 4.2 | 12 | 4.4 | 3,483 | 0.7 |
|  | Multiracial, NonHispanic | 13 | 2.4 | 9,111 | 1.9 | 6 | 2.3 | 7 | 2.6 | 8,831 | 1.9 |
|  | Hispanic | 23 | 4.3 | 31,431 | 6.5 | 14 | 5.3 | 9 | 3.3 | 20,775 | 4.4 |
| Puerto Rico** | Male | 243 | 26.6 | 179,374 | 35.4 | 146 | 28.1 | 97 | 24.6 | 179,374 | 35.4 |
|  | Female | 671 | 73.4 | 327,210 | 64.6 | 373 | 71.9 | 298 | 75.4 | 327,210 | 64.6 |
|  | Age 18 to 24 | 65 | 7.2 | 67,371 | 13.5 | 33 | 6.4 | 32 | 8.1 | 79,292 | 15.9 |
|  | Age 25 to 34 | 134 | 14.8 | 92,684 | 18.5 | 87 | 17 | 47 | 12 | 80,762 | 16.2 |
|  | Age 35 to 44 | 146 | 16.1 | 79,057 | 15.8 | 84 | 16.4 | 62 | 15.8 | 79,057 | 15.8 |

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| Age 45 to 54 | 165 | 18.2 | 79,949 | 16 | 104 | 20.3 | 61 | 15.5 | 78,658 | 15.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age 55 to 64 | 186 | 20.6 | 82,683 | 16.5 | 90 | 17.6 | 96 | 24.4 | 82,229 | 16.5 |
| Age 65 or older | 209 | 23.1 | 98,823 | 19.7 | 114 | 22.3 | 95 | 24.2 | 98,823 | 19.8 |
| White - NonHispanic | 5 | 0.5 | 3,536 | 0.7 | 4 | 0.8 | 1 | 0.3 | 1,113 | 0.2 |
| Other race only, Non-Hispanic | 7 | 0.8 | 4,284 | 0.8 | 3 | 0.6 | 4 | 1 | 5,896 | 1.2 |
| Hispanic | 901 | 98.7 | 497,727 | 98.5 | 511 | 98.6 | 390 | 98.7 | 499,575 | 98.6 |

## Notes:

*Adult: aged $\geq 18$
**Puerto Rico did not collect 6 consecutive months of adult data but did collect 6 or more months of data throughout 2018 and 2019 altogether.

Table 1B. Percentage of ACBS child* respondents, non-respondents, and BRFSS eligible asthma respondents by demographic groups and state/territory

| CHILD |  | BRFSS |  |  |  | ACBS |  | ACBS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State | Demographics | Eligible Asthma Respondents |  |  |  | Non-Respondents |  | Respondents |  |  |  |
|  |  | Sample <br> size <br> (unweighted) | Percent (unweighted) | Weighted <br> total | Percent (weighted) | Sample <br> size <br> (unweighted) | Percent <br> (unweighted) | Sample <br> size <br> (unweighted) | Percent <br> (unweighted) | Weighted total | Percent (weighted) |
| States/areas total | Boy | 987 | 60.5 | 778,946 | 63.9 | 703 | 61.7 | 284 | 57.6 | 787,438 | 63.9 |
|  | Girl | 645 | 39.5 | 441,009 | 36.1 | 436 | 38.3 | 209 | 42.4 | 445,273 | 36.1 |
|  | Age 0 to 4 | 122 | 8.6 | 97,125 | 9.2 | 89 | 9.4 | 33 | 6.9 | 79,732 | 6.5 |
|  | Age 5 to 9 | 317 | 22.3 | 301,212 | 28.6 | 217 | 23 | 100 | 20.9 | 355,367 | 29.1 |
|  | Age 10 to 14 | 512 | 36 | 353,762 | 33.6 | 334 | 35.4 | 178 | 37.2 | 444,759 | 36.4 |
|  | Age 15 to 17 | 471 | 33.1 | 300,433 | 28.5 | 303 | 32.1 | 168 | 35.1 | 341,626 | 28 |
|  | White only | 1,230 | 76.3 | 730,759 | 62.2 | 841 | 74.8 | 389 | 79.7 | 873,985 | 71.5 |
|  | Black or African American only | 207 | 12.8 | 309,645 | 26.3 | 155 | 13.8 | 52 | 10.7 | 219,269 | 17.9 |
|  | Other Races and Multiracial | 175 | 10.9 | 135,000 | 11.5 | 128 | 11.4 | 47 | 9.6 | 128,509 | 10.5 |
| Florida | Boy | 204 | 58.6 | 334,187 | 66.3 | 160 | 60.2 | 44 | 53.7 | 336,578 | 66 |
|  | Girl | 144 | 41.4 | 169,885 | 33.7 | 106 | 39.8 | 38 | 46.3 | 173,110 | 34 |
|  | Age 0 to 4 | 34 | 11.5 | 25,051 | 6 | 24 | 11.2 | 10 | 12.3 | 40,222 | 7.9 |
|  | Age 5 to 9 | 77 | 26 | 123,431 | 29.7 | 62 | 28.8 | 15 | 18.5 | 151,128 | 29.7 |
|  | Age 10 to 14 | 102 | 34.5 | 154,359 | 37.2 | 72 | 33.5 | 30 | 37 | 187,104 | 36.7 |
|  | Age 15 to 17 | 83 | 28 | 112,514 | 27.1 | 57 | 26.5 | 26 | 32.1 | 131,234 | 25.7 |
|  | White only | 244 | 71.8 | 281,877 | 58.8 | 186 | 71.5 | 58 | 72.5 | 345,442 | 69.2 |
|  | Black or African American only | 62 | 18.2 | 148,235 | 30.9 | 48 | 18.5 | 14 | 17.5 | 99,678 | 20 |
|  | Other Races and Multiracial | 34 | 10 | 49,363 | 10.3 | 26 | 10 | 8 | 10 | 54,345 | 10.9 |

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| Michigan | Boy | 199 | 62.4 | 163,580 | 63.7 | 125 | 65.1 | 74 | 58.3 | 165,254 | 64 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Girl | 120 | 37.6 | 93,092 | 36.3 | 67 | 34.9 | 53 | 41.7 | 93,092 | 36 |
|  | Age 0 to 4 | 17 | 5.8 | 24,635 | 10.3 | 11 | 6.3 | 6 | 5 | 14,559 | 5.8 |
|  | Age 5 to 9 | 69 | 23.4 | 68,808 | 28.7 | 41 | 23.6 | 28 | 23.1 | 76,317 | 30.3 |
|  | Age 10 to 14 | 109 | 36.9 | 73,401 | 30.6 | 65 | 37.4 | 44 | 36.4 | 87,878 | 34.9 |
|  | Age 15 to 17 | 100 | 33.9 | 73,079 | 30.5 | 57 | 32.8 | 43 | 35.5 | 73,079 | 29 |
|  | White only | 211 | 67.4 | 154,502 | 62.7 | 124 | 66.3 | 87 | 69 | 158,710 | 61.4 |
|  | Black or African American only | 63 | 20.1 | 63,954 | 26 | 39 | 20.9 | 24 | 19 | 61,381 | 23.8 |
|  | Other Races and Multiracial | 39 | 12.5 | 27,890 | 11.3 | 24 | 12.8 | 15 | 11.9 | 38,256 | 14.8 |
| Minnesota | Boy | 204 | 61.6 | 56,642 | 61.3 | 140 | 62.2 | 64 | 60.4 | 57,030 | 61.2 |
|  | Girl | 127 | 38.4 | 35,820 | 38.7 | 85 | 37.8 | 42 | 39.6 | 36,228 | 38.8 |
|  | Age 0 to 4 | 23 | 8.2 | 11,216 | 13.9 | 17 | 9.7 | 6 | 5.7 | 6,151 | 6.6 |
|  | Age 5 to 9 | 52 | 18.5 | 21,961 | 27.1 | 33 | 18.8 | 19 | 18.1 | 28,594 | 30.6 |
|  | Age 10 to 14 | 101 | 35.9 | 18,916 | 23.4 | 66 | 37.5 | 35 | 33.3 | 21,439 | 22.9 |
|  | Age 15 to 17 | 105 | 37.4 | 28,840 | 35.6 | 60 | 34.1 | 45 | 42.9 | 37,359 | 39.9 |
|  | White only | 262 | 78.9 | 66,619 | 72.9 | 172 | 76.4 | 90 | 84.1 | 74,128 | 79.2 |
|  | Black or African American only | 25 | 7.5 | 10,543 | 11.5 | 21 | 9.3 | 4 | 3.7 | 3,933 | 4.2 |
|  | Other Races and Multiracial | 45 | 13.6 | 14,217 | 15.6 | 32 | 14.2 | 13 | 12.1 | 15,484 | 16.6 |
| Ohio | Boy | 185 | 60.3 | 179,265 | 61.1 | 138 | 61.3 | 47 | 57.3 | 183,304 | 61.7 |
|  | Girl | 122 | 39.7 | 113,980 | 38.9 | 87 | 38.7 | 35 | 42.7 | 113,980 | 38.3 |
|  | Age 0 to 4 | 22 | 8.4 | 29,052 | 11.5 | 18 | 9.9 | 4 | 4.9 | 10,198 | 3.4 |
|  | Age 5 to 9 | 55 | 20.9 | 70,180 | 27.9 | 36 | 19.9 | 19 | 23.2 | 80,083 | 26.9 |
|  | Age 10 to 14 | 96 | 36.5 | 83,450 | 33.2 | 61 | 33.7 | 35 | 42.7 | 124,375 | 41.8 |
|  | Age 15 to 17 | 90 | 34.2 | 69,012 | 27.4 | 66 | 36.5 | 24 | 29.3 | 82,629 | 27.8 |
|  | White only | 231 | 75.5 | 167,298 | 58.4 | 164 | 73.2 | 67 | 81.7 | 228,509 | 76.9 |


|  | Black or African American only | 47 | 15.4 | 83,883 | 29.3 | 39 | 17.4 | 8 | 9.8 | 51,806 | 17.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Other Races and Multiracial | 28 | 9.2 | 35,180 | 12.3 | 21 | 9.4 | 7 | 8.5 | 16,969 | 5.7 |
| Utah** | Boy | 195 | 59.6 | 45,273 | 61.6 | 140 | 60.6 | 55 | 57.3 | 45,273 | 61.1 |
|  | Girl | 132 | 40.4 | 28,231 | 38.4 | 91 | 39.4 | 41 | 42.7 | 28,862 | 38.9 |
|  | Age 0 to 4 | 26 | 9.1 | 7,171 | 11.1 | 19 | 9.6 | 7 | 7.8 | 8,602 | 12.4 |
|  | Age 5 to 9 | 64 | 22.3 | 16,833 | 26 | 45 | 22.8 | 19 | 21.1 | 19,245 | 27.8 |
|  | Age 10 to 14 | 104 | 36.2 | 23,636 | 36.6 | 70 | 35.5 | 34 | 37.8 | 23,963 | 34.7 |
|  | Age 15 to 17 | 93 | 32.4 | 16,990 | 26.3 | 63 | 32 | 30 | 33.3 | 17,325 | 25.1 |
|  | White only | 282 | 87.9 | 60,463 | 84.2 | 195 | 85.5 | 87 | 93.5 | 67,197 | 91.9 |
|  | Black or African American only | 10 | 3.1 | 3,030 | 4.2 | 8 | 3.5 | 2 | 2.2 | 2,471 | 3.4 |
|  | Other Races and Multiracial | 29 | 9 | 8,350 | 11.6 | 25 | 11 | 4 | 4.3 | 3,456 | 4.7 |

## Notes:

*Child: aged 0-17 years
**Utah did not collect 6 consecutive months of adult data but did collect 6 or more months of data throughout 2018 and 2019 altogether.

| Table 2A. Estimated percentage of current asthma status among adults* ever diagnosed with asthma by state/territory |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adult | ACBS Respondents |  |  |  | BRFSS Eligible Asthma Respondents |  |  |  |
| State | ACBS <br> Sample size | Current Prevalence (weighted percent) | Standard Error | CI ACBS | BRFSS <br> Sample size | Current Prevalence (weighted percent) | Standard <br> Error | CI BRFSS |
| States/areas total | 11,348 | 66 | 1.15 | (63.7-68.2) | 36,590 | 65.5 | 0.55 | (64.4-66.6) |
| Arizona | 226 | 67.8 | 6.54 | (53.9-79.2) | 1,125 | 68.1 | 2.34 | (63.4-72.5) |
| California | 362 | 57.5 | 3.69 | (50.2-64.5) | 1,689 | 56.4 | 1.61 | (53.2-59.5) |
| Connecticut | 375 | 72.6 | 3.49 | (65.3-78.9) | 1,490 | 69.9 | 1.67 | (66.6-73.1) |
| Florida | 682 | 60.6 | 4.17 | (52.2-68.4) | 1,696 | 65.5 | 2.47 | (60.5-70.1) |
| Georgia | 229 | 61.4 | 4.31 | (52.6-69.4) | 1,052 | 69.2 | 1.88 | (65.4-72.7) |
| Hawaii | 328 | 68.1 | 3.7 | (60.5-74.9) | 1,230 | 58.1 | 2 | (54.2-62.0) |
| Illinois | 223 | 66.1 | 4.06 | (57.8-73.6) | 654 | 68.4 | 2.17 | (64.0-72.5) |
| Indiana | 259 | 74.9 | 3.49 | (67.5-81.1) | 1,014 | 71.9 | 1.88 | (68.0-75.4) |
| Iowa | 362 | 64.9 | 3.16 | (58.5-70.9) | 952 | 68 | 1.81 | (64.4-71.5) |
| Kansas | 380 | 70.6 | 3.52 | (63.2-77.0) | 1,385 | 69.7 | 1.61 | (66.5-72.8) |
| Maine | 614 | 77.2 | 3.19 | (70.3-82.8) | 1,564 | 74.2 | 2.01 | (70.1-78.0) |
| Maryland | 412 | 65.3 | 4 | (57.1-72.7) | 2,272 | 65.3 | 1.63 | (62.0-68.4) |
| Massachusetts | 247 | 75.3 | 3.76 | (67.3-82.0) | 884 | 69.6 | 2.21 | (65.1-73.7) |
| Michigan | 643 | 75.8 | 2.25 | (71.1-79.9) | 1,498 | 71.4 | 1.47 | (68.4-74.2) |
| Minnesota | 784 | 71.3 | 2 | (67.2-75.0) | 1,790 | 73.2 | 1.3 | (70.6-75.6) |
| Missouri | 253 | 65.4 | 4.56 | (56.0-73.7) | 758 | 66.7 | 2.62 | (61.4-71.6) |
| Montana | 218 | 68.1 | 4.55 | (58.7-76.3) | 649 | 72 | 2.4 | (67.1-76.5) |
| Nebraska | 558 | 69.9 | 3.11 | (63.5-75.6) | 1,625 | 68.5 | 1.73 | (65.0-71.8) |
| Nevada | 134 | 64.4 | 6.8 | (50.3-76.4) | 360 | 66.1 | 4.18 | (57.5-73.7) |
| New Hampshire | 237 | 75.5 | 4.1 | (66.6-82.6) | 844 | 69.2 | 2.32 | (64.5-73.5) |
| New Mexico | 281 | 69.8 | 4.28 | (60.8-77.4) | 965 | 65 | 2.27 | (60.4-69.3) |
| New York | 429 | 74.1 | 3.93 | (65.7-81.0) | 1,726 | 70.9 | 1.92 | (67.0-74.5) |
| Ohio | 536 | 69.6 | 3.45 | (62.5-75.9) | 1,570 | 72.4 | 1.81 | (68.8-75.9) |

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| Oregon | 330 | 73 | 3.08 | $(66.6-78.6)$ | 937 | 68.5 | 1.84 | $(64.8-72.0)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pennsylvania | 281 | 73.3 | 3.93 | $(65.0-80.3)$ | 803 | 71 | 2.25 | $(66.4-75.3)$ |
| Rhode Island | 241 | 69.6 | 5.52 | $(57.9-79.2)$ | 902 | 73.1 | 2.33 | $(68.3-77.4)$ |
| Texas | 332 | 52.2 | 6.72 | $(39.2-65.0)$ | 1,331 | 56.5 | 3.12 | $(50.3-62.4)$ |
| Utah | 509 | 68.2 | 2.68 | $(62.7-73.2)$ | 1,395 | 67.2 | 1.59 | $(64.0-70.2)$ |
| Vermont | 304 | 69.8 | 4.62 | $(60.1-78.1)$ | 980 | 70.6 | 2.34 | $(65.8-75.0)$ |
| Wisconsin | 249 | 79.8 | 3.92 | $(71.0-86.4)$ | 537 | 76.9 | 2.61 | $(71.4-81.6)$ |
| Puerto Rico** | 330 | 61.9 | 3.53 | $(54.8-68.6)$ | 913 | 60.1 | 2.2 | $(55.7-64.3)$ |

## Notes:

*Adult: age $\geq 18$ years
**Puerto Rico did not collect 6 consecutive months of adult data but did collect 6 or more months of data throughout 2018 and 2019 altogether.

Table 2B. Estimated percentage of current asthma status among children* ever diagnosed with asthma by state/territory

| Child | ACBS Respondents |  |  |  | BRFSS Eligible Asthma Respondents |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State | ACBS <br> Sample size | Current Prevalence <br> (weighted percent) | Standard <br> Error | CI ACBS | BRFSS <br> Sample size | Current Prevalence <br> (weighted percent) | Standard <br> Error | CI BRFSS |
| States/areas total | 449 | 61.3 | 5.3 | $(50.6-$ <br> $71.1)$ | 1,604 | 65.4 | 2.58 | $(60.2-70.3)$ |
| Florida | 77 | 54.8 | 11.28 | $(33.1-$ <br> $74.8)$ | 340 | 60.9 | 5.27 | $(50.2-70.6)$ |
| Michigan | 102 | 62 | 6.18 | $(49.3-$ <br> $73.2)$ | 309 | 70.6 | 3.25 | $(63.8-76.5)$ |
| Minnesota | 102 | 66.5 | 5.92 | $(54.0-$ <br> $77.0)$ | 329 | 72.6 | 2.92 | $(66.5-78.0)$ |
| Ohio | 78 | 70.5 | 6.92 | $(55.4-$ <br> $82.1)$ | 306 | 65.6 | 4.54 |  |
| Utah** | 90 | 60.5 | 6.12 | $(48.1-$ <br> $71.7)$ | 320 | 68.7 | 3.2 | $(56.2-73.9)$ |

## Note:

* Children: aged 0-17 years
**Utah did not collect 6 consecutive months of adult data but did collect 6 or more months of data throughout 2018 and 2019 altogether.

