Behavioral Risk Factor Surveillance System

## 1991 BRFSS SUMMARY QUALITY CONTROL REPORT

## BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM QUALITY CONTROL DOCUMENTATION

## RESPONSERATES

The response rate measures the extent to which interviews were completed from among the telephone numbers selected for the sample. The higher the response rate, the lower the potential will be for bias in the data.

No definitive formula for response rate estimates exists. The two estimates that are used for BRFSS provide a combination of monitoring information that are useful for program management. The formulas for each, translated into BRFSS call disposition codes, are as follows:

CASRO: This response rate formula, developed by the Council of American Survey Research Organizations (CASRO), apportions dispositions with unknown eligibility status (ring-no-answer [04] and busy (10]) to dispositions representing eligible respondents in the same proportion as exists among calls of known status (all other BRFSS call dispositions). The resulting estimate reflects telephone sampling efficiency and the degree of cooperation among eligibles contacted.

01

$$
(01+02+07+09)+\frac{(01+02+07+09)}{\frac{(01+02+07+09)+(03+05+06+08+11)}{} \times(04+10)}
$$

Upper Bound: The most liberal of response rate formulas, the upper bound calculation includes only refusals (02s), terminations ( 09 s ), and completed interviews Ols. The resulting estimate reflects the cooperation of eligibles contacted and is not affected by differences in telephone sampling efficiency.
$\frac{01}{01+02+09}$

Because the rules of replacement are disregarded during wind-down interviewing (see page 3), total response rates for a survey period will not accurately reflect performance under the rules of replacement during regular mode interviewing. Therefore, the 1991 and 1992 response rate estimates included in this report have been calculated using only the records dispositioned during regular mode interviewing. Response rate estimates calculated for previous years included wind-down records.

## OTHER IMPORTANT QUALITY CONTROL INDICATORS

Survey Efficiency: The efficiency rate used for BRFSS is the percentage of all numbers called (excluding numbers rejected during Waksberg prescreening) that resulted in completed interviews. This indicator is directly related to the percent of telephone numbers in the survey area that are assigned to households. The degree to which interviewers adhere to survey procedures and gain respondent cooperation also affects efficiency. This percentage should remain static unless there is a change in-the phone companies' assignment of phone numbers in the survey area, a change in sampling design, or a substantial change in interviewer performance.

01
Total Telephone Numbers Used
Percent 0ls on Day One: The objective for completed interviews on the first day of the interviewing period is $33 \%$ of the total sample. This percentage reflects the degree of success reaching the telephones in the sample. When using Waksberg cluster sampling, $33 \%$ of the telephone numbers have been identified as private residences through prescreening, thus the goal of $33 \%$. A broader objective, directly related to this, is to strive to call, at least once, all available numbers on each interview
occasion, including the first. The number and percentage of completes by interviewing date are included in the monthly quality control reports prepared by CDC.

Wind-Down: In order to terminate data collection activities within the allotted time period each month, wind-down procedures (i.e., suspension of the rules of replacement) are permitted once 95 percent of the sample has been completed. Each interview completed in the wind-dawn mode should be coded as such. Generally, if the percentage of wind-down interviews is greater than five percent, the survey supervisor is going into wind-down too early. The greater the proportion of interviews completing in wind-down mode, the greater the potential is for bias in the survey results. This is because data collected during wind-down is reflective only of those respondents who are easiest to reach. Respondents who are more difficult to reach may differ significantly from those who are easier to read.

Respondent Sex Distribution: The standard sex distribution within a population is approximately 52 percent female and 48 percent male. Survey samples with a respondent sex distribution that differs substantially from the norm may produce biased estimates of risk factor prevalences.

Substantially skewed sex distributions suggest that interviewing staff may not be adhering to respondent selection procedures. Sex distribution percentages are included in the monthly quality control reports prepared by CDC.

Refused Interview: The percentage of refusals (02s) of total dispositions in a given interviewing period is an indicator of both interviewer performance and degree of potential bias in the survey data. Ten percent' refusals or less in any given survey is a generally accepted standard.

Ring-No-Answer: The percentage of ring-no-answers (04s) reflects how many attempts are made and with what time variation on unanswered phone numbers. The objective for 04 s is $10 \%$ or less of total dispositions. States that exceed this percentage may not be following prescribed survey procedures.

No Eligible Respondent Could be Reached During Interview Period: This disposition (07) is used most often in wind-down and is therefore reflective of the proportion of calling done during wind-down. It also reflects the diligence of efforts to contact eligibles whose availability is limited. The objective for 07 s is $3 \%$ ' or less of total dispositions. Those states that exceed this percentage may need to extend their interviewing period.

Line Busy: This disposition (10) should be infrequent. The objective is $0.3 \%$ ' or less. A. higher percentage than 0.3 may indicate that survey guidelines are not being fully adhered to.
'Because this percentage is affected by the efficiency of the sampling methodology (i.e., the number of 03 [nonworking] and 05 [nonresidential] dispositions that occur), comparisons between surveys with different sampling methods may not be meaningful. However, for a particular survey, month-to-month and year-to-year changes in this percentage are important to monitor.

## BRFSS CALL DISPOSITION CODES

01 - Completed interview
02 - Refused interview
03 - Nonworking number
04 - Ring-no-answer
05 - Business phone
06 - No eligible respondent at this number
07 - No eligible respondent available during interviewing period
08 - Language barrier
09 - Interview terminated
10 - Busy
11-Respondent unable to communicate due to physical or mental impairment

BRFSS CALL DISPOSITIONS
FREQUENCY DISTRIBUTION BY STATE, 1991

| State | 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |  | $\begin{gathered} \hline \text { TOTAL } \\ \hline \text { No } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No | \% | No | \% | No | \% | No | \% | No | \% | No | \% | No | \% | No | \% | No | \% | No | \% | No | \% |  |
| AK | 1534 | 29.4 | 212 | 4.1 | 2242 | 43.0 | 455 | 8.7 | 492 | 9.4 | 12 | 0.2 | 195 | 3.7 | 18 | 0.3 | 8 | 0.2 | 33 | 0.6 | 14 | 0.3 | 5215 |
| AL* | 1969 | 20.0 | 136 | 1.4 | 1563 | 15.9 | 4410 | 44.9 | 847 | 8.6 | 16 | 0.2 | 33 | 0.3 | 16 | 0.2 | 11 | 0.1 | 732 | 7.4 | 93 | 0.9 | 9826 |
| AR | 1332 | 40.3 | 330 | 10.0 | 725 | 21.9 | 313 | 9.5 | 384 | 11.6 | 14 | 0.4 | 98 | 3.0 | 7 | 0.2 | 7 | 0.2 | 14 | 0.4 | 83 | 2.5 | 3307 |
| AZ | 1520 | 32.1 | 355 | 7.5 | 1474 | 31.1 | 337 | 7.1 | 625 | 13.2 | 50 | 1.1 | 241 | 5.1 | 13 | 0.3 | 9 | 0.2 | 6 | 0.1 | 107 | 2.3 | 4737 |
| CA | 3010 | 32.6 | 737 | 8.0 | 2111 | 22.9 | 1287 | 13.9 | 1186 | 12.9 | 22 | 0.2 | 450 | 4.9 | 187 | 2.0 | 52 | 0.6 | 57 | 0.6 | 128 | 1.4 | 9227 |
| CO | 1800 | 45.5 | 248 | 6.3 | 862 | 21.8 | 174 | 4.4 | 639 | 16.2 | 20 | 0.5 | 148 | 3.7 | 13 | 0.3 | 5 | 0.1 | 1 | 0.0 | 43 | 1.1 | 3953 |
| CT | 1790 | 28.2 | 432 | 6.8 | 1826 | 28.8 | 1037 | 16.3 | 746 | 11.8 | 66 | 1.0 | 160 | 2.5 | 94 | 1.5 | 1 | 0.0 | 55 | 0.9 | 139 | 2.2 | 6346 |
| DC | 1493 | 19.9 | 360 | 4.8 | 3123 | 41.7 | 914 | 12.2 | 1049 | 14.0 | 35 | 0.5 | 196 | 2.6 | 94 | 1.3 | 2 | 0.0 | 12 | 0.2 | 210 | 2.8 | 7488 |
| DE | 1512 | 35.8 | 116 | 2.7 | 977 | 23.1 | 667 | 15.8 | 585 | 13.9 | 69 | 1.6 | 166 | 3.9 | 15 | 0.4 | 4 | 0.1 | 5 | 0.1 | 106 | 2.5 | 4222 |
| FL* | 2245 | 20.0 | 455 | 4.1 | 1632 | 14.5 | 5270 | 46.9 | 738 | 6.6 | 112 | 1.0 | 246 | 2.2 | 43 | 0.4 | 25 | 0.2 | 362 | 3.2 | 99 | 0.9 | 11227 |
| GA | 1804 | 39.8 | 252 | 5.6 | 1265 | 27.9 | 418 | 9.2 | 482 | 10.6 | 12 | 0.3 | 256 | 5.6 | 10 | 0.2 | 0 | 0.0 | 21 | 0.5 | 11 | 0.2 | 4531 |
| HI | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA | 1509 | 45.8 | 187 | 5.7 | 785 | 23.8 | 195 | 5.9 | 244 | 7.4 | 3 | 0.1 | 302 | 9.2 | 8 | 0.2 | 3 | 0.1 | 11 | 0.3 | 46 | 1.4 | 3293 |
| ID | 1776 | 43.1 | 102 | 2.5 | 860 | 20.9 | 616 | 14.9 | 395 | 9.6 | 12 | 0.3 | 228 | 5.5 | 20 | 0.5 | 3 | 0.1 | 16 | 0.4 | 94 | 2.3 | 4122 |
| IL | 1920 | 33.4 | 342 | 5.9 | 1645 | 28.6 | 238 | 4.1 | 893 | 15.5 | 94 | 1.6 | 345 | 6.0 | 129 | 2.2 | 10 | 0.2 | 2 | 0.0 | 130 | 2.3 | 5748 |
| IN | 2130 | 47.8 | 220 | 4.9 | 1213 | 27.2 | 343 | 7.7 | 303 | 6.8 | 11 | 0.2 | 159 | 3.6 | 13 | 0.3 | 1 | 0.0 | 9 | 0.2 | 58 | 1.3 | 4460 |
| KY | 1946 | 38.5 | 307 | 6.1 | 1269 | 25.1 | 531 | 10.5 | 494 | 9.8 | 7 | 0.1 | 355 | 7.0 | 2 | 0.0 | 6 | 0.1 | 17 | 0.3 | 117 | 2.3 | 5051 |
| MA | 1424 | 17.5 | 743 | 9.1 | 3785 | 46.5 | 366 | 4.5 | 1401 | 17.2 | 235 | 2.9 | 44 | 0.5 | 0 | 0.0 | 16 | 0.2 | 59 | 0.7 | 68 | 0.8 | 8141 |
| MD | 1747 | 29.0 | 500 | 8.3 | 1495 | 24.8 | 1031 | 17.1 | 664 | 11.0 | 25 | 0.4 | 460 | 7.6 | 47 | 0.8 | 5 | 0.1 | 22 | 0.4 | 35 | 0.6 | 6031 |
| ME | 1260 | 41.5 | 228 | 7.5 | 868 | 28.6 | 256 | 8.4 | 235 | 7.7 | 31 | 1.0 | 114 | 3.8 | 1 | 0.0 | 6 | 0.2 | 10 | 0.3 | 30 | 1.0 | 3039 |
| MI | 2412 | 30.1 | 178 | 2.2 | 1637 | 20.4 | 1657 | 20.7 | 708 | 8.8 | 11 | 0.1 | 1168 | 14.6 | 29 | 0.4 | 4 | 0.0 | 84 | 1.0 | 122 | 1.5 | 8010 |
| MN | 3417 | 45.8 | 481 | 6.4 | 1775 | 23.8 | 535 | 7.2 | 730 | 9.8 | 60 | 0.8 | 359 | 4.8 | 8 | 0.1 | 19 | 0.3 | 27 | 0.4 | 55 | 0.7 | 7466 |
| MO | 1512 | 33.6 | 617 | 13.7 | 1025 | 22.8 | 672 | 14.9 | 452 | 10.0 | 20 | 0.4 | 109 | 2.4 | 6 | 0.1 | 7 | 0.2 | 36 | 0.8 | 47 | 1.0 | 4503 |
| MS | 1584 | 38.2 | 437 | 10.5 | 1044 | 25.2 | 341 | 8.2 | 318 | 7.7 | 15 | 0.4 | 257 | 6.2 | 5 | 0.1 | 6 | 0.1 | 23 | 0.6 | 118 | 2.8 | 4148 |
| MT | 1188 | 39.7 | 118 | 3.9 | 879 | 29.3 | 299 | 10.0 | 281 | 9.4 | 13 | 0.4 | 150 | 5.0 | 3 | 0.1 | 5 | 0.2 | 10 | 0.3 | 50 | 1.7 | 2996 |
| NC | 1901 | 38.2 | 363 | 7.3 | 1466 | 29.5 | 565 | 11.4 | 428 | 8.6 | 7 | 0.1 | 185 | 3.7 | 8 | 0.2 | 3 | 0.1 | 12 | 0.2 | 36 | 0.7 | 4974 |
| ND | 1800 | 43.9 | 166 | 4.1 | 1281 | 31.3 | 354 | 8.6 | 287 | 7.0 | 7 | 0.2 | 150 | 3.7 | 2 | 0.0 | 0 | 0.0 | 24 | 0.6 | 26 | 0.6 | 4097 |
| NE | 1353 | 33.3 | 168 | 4.1 | 1610 | 39.6 | 318 | 7.8 | 382 | 9.4 | 10 | 0.2 | 188 | 4.6 | 14 | 0.3 | 2 | 0.0 | 3 | 0.1 | 20 | 0.5 | 4068 |
| NH | 1500 | 41.8 | 379 | 10.6 | 857 | 23.9 | 285 | 7.9 | 404 | 11.3 | 45 | 1.3 | 51 | 1.4 | 8 | 0.2 | 15 | 0.4 | 4 | 0.1 | 43 | 1.2 | 3591 |
| NJ | 1492 | 33.6 | 644 | 14.5 | 360 | 8.1 | 1074 | 24.2 | 142 | 3.2 | 32 | 0.7 | 519 | 11.7 | 53 | 1.2 | 4 | 0.1 | 109 | 2.5 | 11 | 0.2 | 4440 |
| NM | 1188 | 40.8 | 351 | 12.0 | 751 | 25.8 | 204 | 7.0 | 300 | 10.3 | 3 | 0.1 | 70 | 2.4 | 9 | 0.3 | 0 | 0.0 | 11 | 0.4 | 27 | 0.9 | 2914 |
| NY | 1936 | 38.3 | 327 | 6.5 | 1019 | 20.2 | 667 | 13.2 | 670 | 13.3 | 7 | 0.1 | 244 | 4.8 | 121 | 2.4 | 8 | 0.2 | 3 | 0.1 | 53 | 1.0 | 5055 |
| OH | 1333 | 31.1 | 438 | 10.2 | 1189 | 27.7 | 692 | 16.1 | 393 | 9.2 | 3 | 0.1 | 150 | 3.5 | 7 | 0.2 | 10 | 0.2 | 48 | 1.1 | 24 | 0.6 | 4287 |
| OK | 1512 | 40.6 | 391 | 10.5 | 1010 | 27.1 | 303 | 8.1 | 264 | 7.1 | 11 | 0.3 | 166 | 4.5 | 6 | 0.2 | 5 | 0.1 | 15 | 0.4 | 41 | 1.1 | 3724 |
| OR | 3361 | 41.0 | 1073 | 13.1 | 1656 | 20.2 | 477 | 5.8 | 1080 | 13.2 | 12 | 0.1 | 281 | 3.4 | 56 | 0.7 | 50 | 0.6 | 18 | 0.2 | 127 | 1.6 | 8191 |
| PA | 2461 | 17.7 | 1069 | 7.7 | 7525 | 54.1 | 446 | 3.2 | 1997 | 14.3 | 171 | 1.2 | 90 | 0.6 | 0 | 0.0 | 35 | 0.3 | 53 | 0.4 | 75 | 0.5 | 13922 |
| RI | 1809 | 30.6 | 365 | 6.2 | 1585 | 26.8 | 915 | 15.5 | 747 | 12.6 | 72 | 1.2 | 136 | 2.3 | 93 | 1.6 | 0 | 0.0 | 64 | 1.1 | 127 | 2.1 | 5913 |
| SC@ | 1988 | 34.7 | 327 | 5.7 | 1493 | 26.1 | 852 | 14.9 | 572 | 10.0 | 11 | 0.2 | 385 | 6.7 | 9 | 0.2 | 2 | 0.0 | 46 | 0.8 | 40 | 0.7 | 5725 |
| SD | 1800 | 51.7 | 144 | 4.1 | 738 | 21.2 | 294 | 8.4 | 295 | 8.5 | 12 | 0.3 | 147 | 4.2 | 1 | 0.0 | 0 | 0.0 | 7 | 0.2 | 44 | 1.3 | 3482 |
| TN | 2694 | 36.7 | 717 | 9.8 | 2131 | 29.0 | 884 | 12.0 | 558 | 7.6 | 10 | 0.1 | 208 | 2.8 | 20 | 0.3 | 11 | 0.1 | 59 | 0.8 | 49 | 0.7 | 7341 |
| TX | 1503 | 29.2 | 506 | 9.8 | 1481 | 28.8 | 748 | 14.5 | 542 | 10.5 | 18 | 0.3 | 247 | 4.8 | 16 | 0.3 | 2 | 0.0 | 18 | 0.3 | 67 | 1.3 | 5148 |
| UT* | 1781 | 18.5 | 237 | 2.5 | 1846 | 19.2 | 4287 | 44.6 | 724 | 7.5 | 34 | 0.4 | 204 | 2.1 | 29 | 0.3 | 8 | 0.1 | 418 | 4.3 | 48 | 0.5 | 9616 |
| VA | 1800 | 39.9 | 448 | 9.9 | 1087 | 24.1 | 326 | 7.2 | 611 | 13.6 | 11 | 0.2 | 119 | 2.6 | 18 | 0.4 | 15 | 0.3 | 39 | 0.9 | 33 | 0.7 | 4507 |
| VT | 1508 | 38.1 | 155 | 3.9 | 1031 | 26.0 | 603 | 15.2 | 438 | 11.1 | 42 | 1.1 | 59 | 1.5 | 7 | 0.2 | 13 | 0.3 | 38 | 1.0 | 69 | 1.7 | 3963 |
| WA | 2101 | 37.4 | 837 | 14.9 | 1177 | 21.0 | 375 | 6.7 | 641 | 11.4 | 57 | 1.0 | 266 | 4.7 | 49 | 0.9 | 18 | 0.3 | 12 | 0.2 | 83 | 1.5 | 5616 |
| WI | 1282 | 28.6 | 309 | 6.9 | 2164 | 48.3 | 129 | 2.9 | 482 | 10.8 | 46 | 1.0 | 33 | 0.7 | 0 | 0.0 | 6 | 0.1 | 8 | 0.2 | 22 | 0.5 | 4481 |
| WV | 2405 | 45.2 | 497 | 9.3 | 1257 | 23.6 | 392 | 7.4 | 390 | 7.3 | 17 | 0.3 | 256 | 4.8 | 2 | 0.0 | 1 | 0.0 | 12 | 0.2 | 95 | 1.8 | 5324 |
| CUM | 84342 | 32.8 | 18004 | 7.0 | 70794 | 27.5 | 37552 | 14.6 | 27238 | 10.6 | 1603 | 0.6 | 10393 | 4.0 | 1309 | 0.5 | 423 | 0.2 | 2645 | 1.0 | 3163 | 1.2 | 257466 |
| MED | 1790 | 36.7 | ****** | 6.5 | ****** | 25.8 | ****** | 9.5 | ****** | 10.0 | ****** | 0.4 | ***** | 3.8 | ****** | 0.3 | ****** | 0.1 | ****** | 0.2 | ****** | 1.1 | ****** |

*Query CATI pilot site
@Data for February included 01 dispositons only

## BRFSS CASRO RESPONSE RATE ESTIMATES

BY STATE, 1987-1991

| State | 1987 |  | 1988 |  | 1989 |  | 1990 |  | 1991* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet |
| AK | NA | NA | NA | NA | NA | NA | NA | NA | 77.5 | Y |
| AL | 82 | Y | 96 | Y | 98 | Y | 92.6 | Y | 43.7** | N |
| AR | NA | NA | NA | NA | NA | NA | NA | NA | 73.6 | N |
| AZ | 56 | N | 65 | N | 60 | N | 63.9 | N | 70.1 | N |
| CA | 43 | N | 57 | N | 64 | N | 62.4 | N | 69.3 | N |
| CO | NA | NA | NA | NA | NA | NA | 73.4 | N | 82.1 | Y |
| CT | NA | NA | 56 | N | 51 | N | 58.7 | N | 70.0 | N |
| DC | 64 | N | 72 | N | 74 | N | 68.2 | N | 68.7 | N |
| DE | NA | NA | NA | NA | NA | NA | 37.9 | N | 73.8 | N |
| FL | 53 | N | 66 | N | 64 | N | 64.6 | N | 37.7** | N |
| GA | 57 | N | 60 | N | 73 | N | 76.8 | Y | 70.5 | N |
| HI | 68 | N | 67 | N | 63 | N | 61.2 | N | 68.2 | N |
| IA | NA | NA | 77 | Y | 70 | N | 71.7 | N | 73.3 | N |
| ID | 56 | N | 63 | N | 66 | N | 66.5 | N | 74.6 | N |
| IL | 53 | N | 61 | N | 64 | N | 71.8 | N | 70.3 | N |
| IN | 79 | Y | 81 | Y | 78 | Y | 81.8 | Y | 83.4 | Y |
| KY | 74 | N | 69 | N | 68 | N | 67.6 | N | 71.8 | N |
| MA | 57 | N | 65 | N | 47 | N | 56.5 | N | 60.6 | N |
| MD | 46 | N | 49 | N | 62 | N | 60.1 | N | 58.2 | N |
| ME | 61 | N | 57 | N | 66 | N | 73.5 | N | 75.2 | Y |
| MI | NA | NA | NA | NA | 55 | N | 54.1 | N | 50.2 | N |
| MN | 73 | N | 70 | N | 72 | N | 76.2 | Y | 77.3 | Y |
| MO | 65 | N | 67 | N | 67 | N | 64.1 | N | 64.2 | N |
| MS | NA | NA | NA | NA | NA | NA | 68.1 | N | 69.0 | N |
| MT | 71 | N | 69 | N | 72 | N | 72.9 | N | 77.5 | Y |
| NC | 60 | N | 66 | N | 64 | N | 68.7 | N | 71.3 | N |
| ND | 81 | Y | 84 | Y | 83 | Y | 73.7 | N | 83.7 | Y |
| NE | 70 | N | 70 | N | 64 | N | 64.4 | N | 72.8 | N |
| NH | 62 | N | 62 | N | 65 | N | 69.4 | N | 70.9 | N |
| NJ | NA | NA | NA | NA | NA | NA | NA | NA | 41.2 | N |
| NM | 71 | N | 71 | N | 60 | N | 61.2 | N | 70.8 | N |
| NY | 62 | N | 58 | N | 50 | N | 59.4 | N | 71.8 | N |
| OH | 64 | N | 56 | N | 54 | N | 57.7 | N | 69.2 | N |
| OK | NA | NA | 61 | N | 66 | N | 59.7 | N | 74.0 | N |
| OR | NA | NA | NA | NA | 61 | N | 63.0 | N | 66.3 | N |
| PA | NA | NA | NA | NA | 54 | N | 62.1 | N | 64.9 | N |
| RI | 73 | N | 66 | N | 65 | N | 64.9 | N | 72.9 | N |
| SC | 85 | Y | 81 | Y | 87 | Y | 64.6 | N | 67.3 | N |
| SD | 76 | Y | 83 | Y | 84 | Y | 82.4 | Y | 83.0 | Y |
| TN | 59 | N | 58 | N | 68 | N | 64.9 | N | 65.9 | N |
| TX | 58 | N | 57 | N | 66 | N | 64.5 | N | 61.5 | N |
| UT | 60 | N | 57 | N | 61 | N | 67.3 | N | 39.6** | N |
| VA | NA | NA | NA | NA | 53 | N | 68.4 | N | 72.4 | N |
| VT | NA | NA | NA | NA | NA | NA | 65.8 | N | 72.9 | N |
| WA | 68 | N | 69 | N | 65 | N | 61.1 | N | 60.7 | N |
| WI | 80 | Y | 78 | Y | 79 | Y | 78.1 | Y | 76.2 | Y |
| WV | 70 | N | 72 | N | 69 | N | 68.8 | N | 75.3 | Y |
| MEDIAN | 64 | N | 66 | N | 65 | N | 65.4 | N | 70.8 | N |
| RANGE | 43-85 | 6 of 33 | 49-96 | 7 of 36 | 47-98 | 6 of 40 | 37.9-92.6 | 8 of 44 | 37.7-83.7 | 10 of 47 |

Excluding wind-down records except MI
**Query CATI pilot site

## BRFSS UPPER BOUND RESPONSE RATE ESTIMATES

 BY STATE, 1987-1991|  | 1987 |  | 1988 |  | 1989 |  | 1990 |  | 1991* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet |
| AK | NA | NA | NA | NA | NA | NA | NA | NA | 89.3 | N |
| AL | 94 | Y | 98 | Y | 99 | Y | 97.3 | Y | 93.1** | Y |
| AR | NA | NA | NA | NA | NA | NA | NA | NA | 80.7 | N |
| AZ | 83 | N | 86 | N | 84 | N | 84.1 | N | 80.7 | N |
| CA | 77 | N | 80 | N | 83 | N | 82.1 | N | 79.9 | N |
| CO | NA | NA | NA | NA | NA | NA | 82.4 | N | 88.3 | N |
| CT | NA | NA | 73 | N | 63 | N | 64.9 | N | 81.6 | N |
| DC | 79 | N | 91 | Y | 92 | Y | 87.1 | N | 80.5 | N |
| DE | NA | NA | NA | NA | NA | NA | 80.4 | N | 93.6 | Y |
| FL | 74 | N | 84 | N | 83 | N | 82.4 | N | 82.5** | N |
| GA | 81 | N | 82 | N | 88 | N | 88.4 | N | 87.7 | N |
| HI | 84 | N | 83 | N | 79 | N | 80.6 | N | 81.9 | N |
| IA | NA | NA | 90 | Y | 88 | N | 90.2 | Y | 88.9 | N |
| ID | 82 | N | 79 | N | 79 | N | 90.7 | Y | 94.8 | Y |
| IL | 74 | N | 81 | N | 83 | N | 85.3 | N | 84.5 | N |
| IN | 90 | Y | 92 | Y | 94 | Y | 92.3 | Y | 91.3 | Y |
| KY | 94 | Y | 94 | Y | 91 | Y | 88.5 | N | 86.4 | N |
| MA | 74 | N | 83 | N | 64 | N | 64.1 | N | 65.2 | N |
| MD | 68 | N | 70 | N | 79 | N | 84.9 | N | 78.0 | N |
| ME | 78 | N | 81 | N | 84 | N | 86.9 | N | 84.9 | N |
| MI | NA | NA | NA | NA | 81 | N | 91.7 | Y | 93.0 | Y |
| MN | 87 | N | 87 | N | 86 | N | 88.8 | N | 87.5 | N |
| MO | 80 | N | 83 | N | 82 | N | 78.9 | N | 73.4 | N |
| MS | NA | NA | NA | NA | NA | NA | 82.0 | N | 79.8 | N |
| MT | 85 | N | 87 | N | 89 | N | 90.9 | Y | 90.6 | Y |
| NC | 89 | N | 86 | N | 84 | N | 84.7 | N | 84.1 | N |
| ND | 90 | Y | 93 | Y | 93 | Y | 91.3 | Y | 92.0 | Y |
| NE | 87 | N | 87 | N | 83 | N | 82.2 | N | 88.8 | N |
| NH | 78 | N | 81 | N | 83 | N | 80.1 | N | 79.2 | N |
| NJ | NA | NA | NA | NA | NA | NA | NA | NA | 69.7 | N |
| NM | 81 | N | 84 | N | 74 | N | 76.3 | N | 76.6 | N |
| NY | 87 | N | 81 | N | 79 | N | 81.8 | N | 85.3 | N |
| OH | 81 | N | 74 | N | 71 | N | 76.2 | N | 78.9 | N |
| OK | NA | NA | 78 | N | 79 | N | 73.1 | N | 81.1 | N |
| OR | NA | NA | NA | NA | 76 | N | 74.9 | N | 74.9 | N |
| PA | NA | NA | NA | NA | 69 | N | 68.0 | N | 69.0 | N |
| RI | 83 | N | 77 | N | 80 | N | 85.8 | N | 84.2 | N |
| SC | 95 | Y | 92 | Y | 95 | Y | 85.3 | N | 85.3 | N |
| SD | 91 | Y | 95 | Y | 94 | Y | 94.7 | Y | 92.4 | Y |
| TN | 72 | N | 70 | N | 83 | N | 80.8 | N | 79.0 | N |
| TX | 73 | N | 72 | N | 78 | N | 75.7 | N | 75.9 | N |
| UT | 84 | N | 85 | N | 87 | N | 90.1 | Y | 87.5** | N |
| VA | NA | NA | NA | NA | 74 | N | 81.0 | N | 80.1 | N |
| VT | NA | NA | NA | NA | NA | NA | 88.2 | N | 90.0 | Y |
| WA | 87 | N | 81 | N | 73 | N | 87.1 | N | 71.0 | N |
| WI | 86 | N | 83 | N | 83 | N | 81.8 | N | 80.3 | N |
| WV | 84 | N | 86 | N | 85 | N | 82.1 | N | 84.3 | N |
| MEDIAN | 83 | N | 83 | N | 83 | N | 83.3 | N | 84.1 | N |
| RANGE | 68-95 | 6 of 33 | 70-98 | 8 of 36 | 63-99 | 7 of 40 | 64.1-97.3 | 9 of 44 | 65.2-94.8 | 9 of 47 |

*Excluding wind-down records except MI
** Query CATI pilot site

## BRFSS EFFICIENCY RATES

BY STATE, 1987-1991

| State | 1987 |  | 1988 |  | 1989 |  | 1990 |  | 1991* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet | Rate | ObjMet |
| AK | NA | NA | NA | NA | NA | NA | NA | NA | 29.4 | N |
| AL | 55 | Y | 68 | Y | 67 | Y | 63.8 | Y | 20.0* | N |
| AR | NA | NA | NA | NA | NA | NA | NA | NA | 40.3 | Y |
| AZ | 32 | N | 37 | N | 31 | N | 32.6 | N | 32.1 | N |
| CA | 25 | N | 35 | N | 36 | N | 33.8 | N | 32.6 | N |
| CO | NA | NA | NA | NA | NA | NA | 41.1 | Y | 45.5 | Y |
| CT | NA | NA | 33 | N | 29 | N | 19.2 | N | 28.2 | N |
| DC | 37 | N | 39 | N | 31 | N | 26.0 | N | 19.9 | N |
| DE | NA | NA | NA | NA | NA | NA | 23.8 | N | 35.8 | N |
| FL | 28 | N | 39 | N | 36 | N | 37.0 | N | 20.0* | N |
| GA | 36 | N | 32 | N | 45 | Y | 44.3 | Y | 39.8 | N |
| HI | 41 | Y | 40 | Y | 34 | N | 31.1 | N | 27.7 | N |
| IA | NA | NA | 47 | Y | 43 | Y | 46.3 | Y | 45.8 | Y |
| ID | 32 | N | 35 | N | 40 | Y | 39.6 | N | 43.1 | Y |
| IL | 33 | N | 35 | N | 37 | N | 35.7 | N | 33.4 | N |
| IN | 52 | Y | 49 | Y | 53 | Y | 50.1 | Y | 47.8 | Y |
| KY | 44 | Y | 41 | Y | 40 | Y | 39.8 | N | 38.5 | N |
| MA | 39 | N | 43 | Y | 26 | N | 20.8 | N | 17.5 | N |
| MD | 23 | N | 27 | N | 35 | N | 34.6 | N | 29.0 | N |
| ME | 40 | Y | 37 | N | 38 | N | 44.2 | Y | 41.5 | Y |
| MI | NA | NA | NA | NA | 34 | N | 33.5 | N | 30.1 | N |
| MN | 48 | Y | 46 | Y | 47 | Y | 48.1 | Y | 45.8 | Y |
| MO | 42 | Y | 45 | Y | 43 | Y | 39.1 | N | 33.6 | N |
| MS | NA | NA | NA | NA | NA | NA | 43.1 | Y | 38.2 | N |
| MT | 41 | Y | 36 | N | 41 | Y | 39.2 | N | 39.7 | N |
| NC | 35 | N | 38 | N | 32 | N | 38.8 | N | 38.2 | N |
| ND | 46 | Y | 44 | Y | 44 | Y | 43.3 | Y | 43.9 | Y |
| NE | 30 | N | 30 | N | 28 | N | 30.0 | N | 33.3 | N |
| NH | 38 | N | 30 | N | 36 | N | 43.7 | Y | 41.8 | Y |
| NJ | NA | NA | NA | NA | NA | NA | NA | NA | 33.6 | N |
| NM | 43 | Y | 43 | Y | 38 | N | 36.6 | N | 40.8 | Y |
| NY | 40 | Y | 33 | N | 29 | N | 35.2 | N | 38.3 | N |
| OH | 37 | N | 29 | N | 29 | N | 28.5 | N | 31.1 | N |
| OK | NA | NA | 34 | N | 42 | Y | 34.6 | N | 40.6 | Y |
| OR | NA | NA | NA | NA | 38 | N | 39.5 | N | 41.0 | Y |
| PA | NA | NA | NA | NA | 28 | N | 20.8 | N | 17.7 | N |
| RI | 47 | Y | 41 | Y | 38 | N | 35.7 | N | 30.6 | N |
| SC | 48 | Y | 46 | Y | 40 | Y | 34.9 | N | 33.0 | N |
| SD | 39 | N | 49 | Y | 52 | Y | 52.2 | Y | 51.7 | Y |
| TN | 38 | N | 39 | N | 41 | Y | 42.1 | Y | 36.7 | N |
| TX | 30 | N | 29 | N | 36 | N | 34.1 | N | 29.5 | N |
| UT | 35 | N | 33 | N | 33 | N | 39.1 | N | 18.5* | N |
| VA | NA | NA | NA | NA | 31 | N | 39.6 | N | 39.9 | N |
| VT | NA | NA | NA | NA | NA | NA | 37.0 | N | 38.1 | N |
| WA | 41 | Y | 45 | Y | 41 | Y | 40.3 | Y | 37.4 | N |
| WI | 30 | N | 29 | N | 29 | N | 28.0 | N | 28.6 | N |
| WV | 46 | Y | 41 | Y | 43 | Y | 45.9 | Y | 45.2 | Y |
| MEDIAN | 39 | N | 38.5 | N | 37.5 | N | 37.9 | N | 38.1 | N |
| RANGE | 23-55 | 15 of 33 | 27-68 | 15 of 36 | 26-67 | 16 of 40 | 19.2-63.8 | 14 of 44 | 17.5-51.7 | 14 of 47 |
| * Query CATI pilot site |  |  |  |  |  |  |  |  |  |  |

BRFSS WIND-DOWN RATES BY STATE, 1990-1991

| State | 1990 |  | 1991* |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate | ObjMet | Rate | ObjMet |
| AK | NA | NA | 5.8 | N |
| AL | 0.6 | Y | 0.0* | Y |
| AR | NA | NA | 5.3 | N |
| AZ | 6.4 | N | 7.6 | N |
| CA | 7.3 | N | 8.9 | N |
| CO | 4.3 | Y | 4.4 | Y |
| CT | 0.4 | Y | 6.9 | N |
| DC | 5.8 | N | 4.2 | Y |
| DE | 2.7 | Y | 1.7 | Y |
| FL | 4.2 | Y | 0.3* | Y |
| GA | 0.1 | Y | 0.0 | Y |
| HI | 10.1 | N | 10.5 | N |
| IA | 5.2 | N | 4.5 | Y |
| ID | 5.5 | N | 3.1 | Y |
| IL | 1.8 | Y | 0.0 | Y |
| IN | 12.7 | N | 4.3 | Y |
| KY | 5.4 | N | 4.9 | Y |
| MA | 0.4 | Y | 0.0 | Y |
| MD | 36.5 | N | 39.3 | N |
| ME | 5.2 | N | 5.1 | N |
| MI | 4.5 | Y | 4.2 | Y |
| MN | 3.8 | Y | 4.5 | Y |
| MO | 6.2 | N | 6.4 | N |
| MS | 4.7 | Y | 5.9 | N |
| MT | 4.9 | Y | 4.5 | Y |
| NC | 4.1 | Y | 2.3 | Y |
| ND | 7.5 | N | 6.2 | N |
| NE | 0.0 | Y | 0.0 | Y |
| NH | 0.0 | Y | 0.0 | Y |
| NJ | NA | NA | 0.0 | Y |
| NM | 13.3 | N | 12.9 | N |
| NY | 9.1 | N | 3.8 | Y |
| OH | 12.5 | N | 13.7 | N |
| OK | 8.7 | N | 7.5 | N |
| OR | 4.3 | Y | 0.0 | Y |
| PA | 0.8 | Y | 0.0 | Y |
| RI | 6.0 | N | 7.1 | N |
| SC | 12.1 | N | 9.8 | N |
| SD | 5.0 | Y | 4.9 | Y |
| TN | 3.5 | Y | 1.3 | Y |
| TX | 4.2 | Y | 4.9 | Y |
| UT | 16.6 | N | 11.8* | Y |
| VA | 66.4 | N | 3.2 | Y |
| VT | 0.0 | Y | 0.0 | Y |
| WA | 0.2 | Y | 0.0 | Y |
| WI | 0.1 | Y | 0.0 | Y |
| WV | 5.7 | N | 4.6 | Y |
| MEDIAN | 5.0 | Y | 4.5 | Y |
| RANGE | 0-66.4 | 23 of 44 | 0-39.3 | 31 of 47 |

[^0]
## MEDIAN UPPER BOUND, CASRO, AND EFFICIENCY

1987-1991


-     -         - UPPER BOUND - - CASRO - EFFICIENCY

BRFSS
CASRO ESTIMATES OF RESPONSE AND REFUSAL RATES
BY STATE, 1991


State

BRFSS
UPPERBOUND ESTIMATES OF RESPONSE AND REFUSAL RATES BY STATE, 1991


BRFSS OBJECTIVE

|  | BRFSS | OBJECTIVE |  | BRFSS |
| :--- | :---: | :---: | :---: | :---: |
| INDICATOR | OBJECTIVE | MET | NOT MET | MEDIAN |
| CASRO RESPONSE RATE | $>75$ |  | $*$ | 70.9 |
| UPPER BOUND | $>90$ |  | $*$ | 84.1 |
| SURVEY EFFICIENCY | $>40$ |  | $*$ | 37.1 |
| \%01s DURING WIND DOWN | $<5$ | $*$ |  | 4.5 |
| \% 02s | $<10$ | $*$ |  | 6.7 |
| \% 04s | $<10$ | $*$ |  | 9.4 |
| \% 07s | $<3$ |  | $*$ | 3.8 |
| \% 10s | $<0.3$ |  | 0.4 |  |


[^0]:    Query CATI pilot site

