2013-2014
National Survey on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology

Section A: Overview of NSDUH and Model-Based State Estimates

A.1 Introduction

This document provides information on the model-based small area estimates of substance use and mental disorders in states based on data from the combined 2013-2014 National Surveys on Drug Use and Health (NSDUHs). These estimates are available online along with other related information.[1] An annual survey of the civilian, noninstitutionalized population aged 12 or older, NSDUH is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), and it collects information from individuals residing in households, noninstitutionalized group quarters (e.g., shelters, rooming houses, dormitories), and civilians living on military bases. In 2013-2014, NSDUH collected data from 135,739 respondents aged 12 or older and was designed to obtain representative samples from the 50 states and the District of Columbia. NSDUH is planned and managed by SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ). Data collection and analysis are conducted under contract with RTI International.[2] The survey is conducted annually from January through December. A summary of NSDUH's methodology is given in Section A.2. Section A.3 lists all of the tables and files associated with the 2013-2014 state small area estimates and when and where they can be found. Information is given in Section A.4 on the confidence intervals and margins of error and how to make interpretations with respect to the small area estimates. Section A.5 discusses related substance use measures and warns users about not drawing conclusions by subtracting small area estimates from two different measures.

The survey-weighted hierarchical Bayes (SWHB) estimation methodology used in the production of state estimates from the 1999 to 2013 surveys also was used in the production of the 2013-2014 state estimates. The SWHB methodology is described in Appendix E of the 2001 state report (Wright, 2003b) and in Folsom, Shah, and Vaish (1999). The goals and implementation of small area estimation (SAE) modeling remain the same and are described in Appendix E of the 2001 state report (Wright, 2003b). A general model description is given in Section B.1 of this document. A list of measures for which small area estimates are produced is given in Section B.2. Predictors used in the 2013-2014 SAE modeling are listed and described in Section B.3.

Small area estimates obtained using the SWHB methodology are design consistent (i.e., the small area estimates for states with large sample sizes are close to the robust design-based estimates). The state small area estimates when aggregated using the appropriate population totals result in national small area estimates that are very close to the national design-based estimates. However, to ensure internal consistency, it is desirable to have national small area

[1] See http://www.samhsa.gov/data/.

[2] RTI International is a registered trademark and a trade name of Research Triangle Institute, Research Triangle Park, North Carolina.

estimates[3] exactly match the national design-based estimates. The benchmarked state-level estimates are also potentially less biased than the unbenchmarked state-level estimates. Beginning in 2002, exact benchmarking was introduced, as described in Section B.4.[4] Tables of the estimated numbers of individuals associated with each measure are available online,[5] and an explanation of how these counts and their respective Bayesian confidence intervals[6] are calculated can be found in Section B.5. Section B.6 discusses the method to compare the estimates of a particular measure between two states. For all measures except major depressive episode (MDE, i.e., depression), serious mental illness (SMI), any mental illness (AMI), and past year serious thoughts of suicide, the age groups for which estimates are provided are 12 to 17, 18 to 25, 26 or older, 18 or older, and 12 or older.[7] Estimates of underage (aged 12 to 20) alcohol use and binge alcohol use were also produced. Alcohol consumption is expected to differ significantly across the 18 to 25 age group because of the legalization of alcohol at age 21. Therefore, it was decided that it would be useful to produce small area estimates for individuals aged 12 to 20.

In Section C, the 2012, 2013, 2014, pooled 2012-2013, and pooled 2013-2014 survey sample sizes, population estimates, and response rates are included in Tables C.1 to C.14, respectively. Table C.15 lists all of the measures and the years for which small area estimates were produced going back to the 2002 NSDUH, and Table C.16 lists all of the measures by age groups for which small area estimates were produced. In addition, Table C.17 provides a summary of milestones implemented in the SAE production process from 2002 to 2014.

A.2 Summary of NSDUH Methodology

This section provides a brief overview of the NSDUH methodology, specifically the sample design. For additional details on NSDUH's methodology, see Section A.2 of the 2011-2012 state SAE methodology document.[8]

The 1999 through 2001 National Household Surveys on Drug Abuse (NHSDAs)[9] and the 2002 through 2013 NSDUHs employed a 50-state design with an independent, multistage area probability sample for each of the 50 states and the District of Columbia. For the 50-state design, 8 states were designated as large sample states (California, Florida, Illinois, Michigan,

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[3] *National small area estimates = Population-weighted averages of state-level small area estimates*.

[4] The census region-level estimates in the tables are population-weighted aggregates of the state estimates. The national estimates, however, are benchmarked to exactly match the design-based estimates.

[5] At http://www.samhsa.gov/data/, see Tables 1 to 26 in "2013-2014 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia)."

[6] Note that in the 2004-2005 NSDUH state report and prior reports, the term "prediction interval" (PI) was used to represent uncertainty in the state and regional estimates. However, that term also is used in other applications to estimate future values of a parameter of interest. That interpretation does not apply to NSDUH state report estimates; thus, "prediction interval" was dropped and replaced with "Bayesian confidence interval."

[7] For MDE, estimates for individuals 12 or older are not included. For AMI, SMI, and thoughts of suicide, estimates for youths aged 12 to17 and individuals aged 12 or older are not included.

[8] At http://www.samhsa.gov/data/, see "2011-2012 National Surveys on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology."

[9] In 2002, the survey's name changed from the National Household Survey on Drug Abuse (NHSDA) to the National Survey on Drug Use and Health (NSDUH).

New York, Ohio, Pennsylvania, and Texas) with target sample sizes of 3,600 per year. For the remaining 42 states and the District of Columbia, the target sample size was 900 per year. This approach ensured that there was sufficient sample in every state to support SAE while at the same time maintaining efficiency for national estimates. The design also oversampled youths and young adults, so that each state's sample was approximately equally distributed among three major age groups: 12 to 17 years, 18 to 25 years, and 26 years or older.

A coordinated design was developed for the 2014 through 2017 NSDUHs. Similar to the 1999 through 2013 surveys, the coordinated 4-year design is state-based with an independent, multistage area probability sample within each state and the District of Columbia. This design designates 12 states as large sample states. These 12 states have the following target sample sizes per year: 4,560 interviews in California; 3,300 interviews in Florida, New York, and Texas; 2,400 interviews in Illinois, Michigan, Ohio, and Pennsylvania; and 1,500 interviews in Georgia, New Jersey, North Carolina, and Virginia. Making the sample sizes more proportional to the state population sizes improves the precision of national NSDUH estimates. This change also allows for a more cost-efficient sample allocation to the largest states while slightly increasing the sample sizes in smaller states to improve the precision of state estimates (note that the target sample size per year in the small states is 960 interviews with the exception of Hawaii where the target sample size is 967 interviews). The fielded sample sizes for each state in 2014 are provided in Table C.5, and the combined 2013-2014 sample sizes are provided in Table C.9.

Starting in 2014, the allocation of the NSDUH sample is 25 percent for adolescents aged 12 to 17, 25 percent for adults aged 18 to 25, and 50 percent for adults aged 26 or older. The sample of adults aged 26 or older is further divided into three subgroups: aged 26 to 34 (15 percent), aged 35 to 49 (20 percent), and aged 50 or older (15 percent). For more information on the 2014 through the 2017 NSDUH sample design and for differences between the 2013 and 2014 surveys, refer to the 2014 NSDUH sample design report (CBHSQ, 2015b).

Nationally in 2013-2014, 287,930 addresses were screened, and 135,739 individuals responded within the screened addresses (see Table C.9). The screening response rate (SRR) for 2013-2014 combined averaged 82.9 percent, and the interview response rate (IRR) averaged 71.4 percent, for an overall response rate (ORR) of 59.2 percent (Table C.9). The ORRs for 2013-2014 ranged from 44.7 percent in New York to 74.0 percent in Utah. Estimates have been adjusted to reflect the probability of selection, unit nonresponse, poststratification to known census population estimates, item imputation, and other aspects of the estimation process. These procedures are described in detail in the 2012, 2013, and 2014 NSDUHs' methodological resource books (MRBs) (CBHSQ, 2014, 2015a, in press).

A.3 Presentation of Data

In addition to this methodology document for the 2013-2014 state SAE results, the following files are available at http://www.samhsa.gov/data/:

- **2013-2014 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia) (Tables 1 to 26, by Age Group)**: Tables of percentages and associated 95 percent Bayesian confidence intervals are included for youths aged 12 to 17, young adults aged 18 to 25, adults aged 26 or older, adults 18 or older, and all individuals aged 12 or

older. Also included are tables for underage (12 to 20) use of alcohol and underage binge alcohol use. These tables are available in Excel and PDF format. In order to increase the precision of small area estimates and rankings especially for small sample states and to detect year-to-year changes more efficiently, an SAE expert panel[10] recommended producing annual state estimates based on 2 consecutive years of pooled NSDUH data and to base comparisons of estimates (to measure change) on 2-year moving averages.

- **2013-2014 NSDUH National Maps of Prevalence Estimates, by State (Figures 1a to 26d)**: The color of each state on the U.S. maps indicates how the state ranks relative to other states for each measure. States could fall into one of five groups according to their ranking by quintiles. Because 51 states were ranked for each measure, the middle quintile was assigned to 11 states, and the remaining quintiles were assigned 10 states each. In some cases, a "quintile" could have more or fewer states than desired because two (or more) states had the same estimate (to two decimal places). When such ties occurred at the "boundary" between two quintiles, all of the states with the same estimate were conservatively assigned to the lower quintile. Those states with the highest rates for a given measure are in red, with the exception of the perceptions of risk measures, for which the lowest perceptions of great risk are in red. Those states with the lowest estimates are in white, with the exception of the perceptions of risk measures, for which the highest perceptions of great risk are in white.

  Note that because the average annual incidence of marijuana was so low for the 26 or older age group and had such an abbreviated range, no U.S. map was included for it.

- **2013-2014 NSDUH State Estimates Categorized into Five Groups, by Age Group**: This Excel table shows the ranges of percentages for each outcome categorized into five groups (used to form the U.S. maps described above) from the lowest to highest estimate for youths aged 12 to 17, young adults aged 18 to 25, adults aged 26 or older, adults aged 18 or older, and all individuals aged 12 or older. Also included are ranges for underage (12 to 20) alcohol use and underage binge alcohol use.

- **2013-2014 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia) (Tables 1 to 26)**: Tables showing estimated numbers (counts in thousands) and confidence intervals are included for youths aged 12 to 17, young adults aged 18 to 25, adults aged 26 or older, adults aged 18 or older, and all individuals aged 12 or older. Also included are tables for underage (12 to 20) alcohol use and underage binge alcohol use. These tables are available in Excel and PDF format.

- **2013-2014 NSDUH State-Specific Tables (Tables 1 to 112)**: Tables are provided for each individual state and the District of Columbia, as well as for the total United States and the

[10] The SAE expert panel, convened in April 2002, had six members: Dr. William Bell of the U.S. Bureau of the Census; Partha Lahiri, Professor of the Joint Program in Survey Methodology at the University of Maryland at College Park; Professor Balgobin Nandram of Worcester Polytechnic Institute; Wesley Schaible, formerly Associate Commissioner for Research and Evaluation at the Bureau of Labor Statistics; Professor J. N. K. Rao of Carleton University; and Professor Alan Zaslavsky of Harvard University.

four census regions (i.e., Northeast, Midwest, South, and West). The tables (two per area) show the percentages and the numbers of individuals (counts in thousands).

- **NSDUH: Comparison of 2012-2013 and 2013-2014 Population Percentages (50 States and the District of Columbia) (Tables 1 to 26)**: Tables are presented that show the 2012-2013 (previously published data) and 2013-2014 NSDUH state estimates and an indication of the statistical significance of the difference or change (*p* value). Estimates are shown for youths aged 12 to 17, young adults aged 18 to 25, adults aged 26 or older, adults aged 18 or older, and all individuals aged 12 or older. Also included are tables for underage (12 to 20) alcohol use and underage binge alcohol use. Because annual state-level estimates are based on 2 years of pooled NSDUH data, two consecutive sets of estimates have a 1-year overlap (e.g., 2012-2013 and 2013-2014). If the population totals across the 3 years (e.g., 2012, 2013, and 2014) were the same, then the null hypothesis of no difference between the log odds of the 2012-2013 and 2013-2014 prevalence rates would be equivalent to testing the null hypothesis that the difference between the 2012-2013 and 2013-2014 prevalence rates is zero, which in turn would be equivalent to testing that the difference between the 2012 and 2014 prevalence rates is zero.

- **NSDUH: Comparison of 2002-2003 and 2013-2014 Population Percentages (50 States and the District of Columbia) (Tables 1 to 22)**: Tables are presented that show the 2002-2003 and 2013-2014 NSDUH state estimates and an indication of the statistical significance of the difference or change (*p* value). Estimates are shown for youths aged 12 to 17, young adults aged 18 to 25, adults aged 26 or older, and all individuals aged 12 or older. Also included are tables for underage (12 to 20) alcohol use and underage binge alcohol use. This comparison is done between the most recent estimates (in this case, 2013-2014) and the earliest comparable estimates (based on 2002-2003 NSDUH data).

- **2013-2014 NSDUH: Other Sources of State-Level Data**: This document compares two outcomes (cigarette and alcohol use) from NSDUH with data from the Behavioral Risk Factor Surveillance System (BRFSS).

A.4 Confidence Intervals and Margins of Error

At the top of each of the 26 state model-based estimate tables[11] is the design-based national estimate along with a 95 percent design-based confidence interval, all of which are based on the survey design, the survey weights, and the reported data. The state estimates are model-based statistics (using SAE methodology) that have been adjusted (benchmarked) such that the population-weighted mean of the estimates across the 50 states and the District of Columbia equals the design-based national estimate. For more details on this benchmarking, see Section B.4. The region-level estimates are also benchmarked and are obtained by taking the population-weighted mean of the associated state-level benchmarked estimates. Associated with each state and regional estimate is a 95 percent Bayesian confidence interval. These intervals indicate the uncertainty in the estimate due to both sampling variability and model fit.

[11] At http://www.samhsa.gov/data/, see "2013-2014 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" (Tables 1 to 26, by Age Group).

For example, the state with the highest estimate of past month use of marijuana for young adults aged 18 to 25 was Colorado, with an estimate of 31.2 percent and a 95 percent confidence interval that ranged from 27.7 to 35.1 percent (Table 3 of the state model-based estimates' tables). Assuming that sampling and modeling conditions held, the Bayes posterior probability was 0.95 that the true percentage of past month marijuana use in Colorado for young adults aged 18 to 25 in 2013-2014 was between 27.7 and 35.1 percent. As noted earlier in a Section A.1 footnote, the term "prediction interval" (PI) was used in the 2004-2005 NSDUH state report and prior reports to represent uncertainty in the state and regional estimates. However, that term also is used in other applications to estimate future values of a parameter of interest. That interpretation does not apply to NSDUH state model-based estimates, so PI was replaced with "Bayesian confidence interval."

Margin of error is another term used to describe uncertainty in the estimates. For example, if (l, u) is a 95 percent symmetric confidence interval for the population proportion (p) and $\hat{p}$ is an estimate of p obtained from the survey data, then the margin of error of $\hat{p}$ is given by $(u - \hat{p})$ or $(\hat{p} - l)$. Because (l, u) is a symmetric confidence interval, $(u - \hat{p})$ will be the same as $(\hat{p} - l)$. In this case, the probability is 0.95 that the interval $\pm(u - \hat{p})$ or $\pm(\hat{p} - l)$ will contain the true population value (p). The margin of error defined above will vary for each estimate and will be affected not only by the sample size (e.g., the larger the sample, the smaller the margin of error), but also by the sample design (e.g., telephone surveys using random digit dialing and surveys employing a stratified multistage cluster design will, more than likely, produce a different margin of error) (Scheuren, 2004).

The confidence intervals shown in NSDUH reports are asymmetric, meaning that the distance between the estimate and the lower confidence limit will not be the same as the distance between the upper confidence limit and the estimate. For example, Utah's past month marijuana use estimate of 11.6 percent for adults aged 18 to 25 years with a 95 percent confidence interval equal to (9.3, 14.3) (see Table 3 of the state model-based estimates' tables). Therefore Utah's estimate is 2.3 (i.e., 11.6 – 9.3) percentage points from the lower 95 percent confidence limit and 2.7 (i.e., 14.3 – 11.6) percentage points from the upper limit. These asymmetric confidence intervals work well for small percentages often found in NSDUH tables and reports while still being appropriate for larger percentages. Some surveys or polls provide only one margin of error for all reported percentages. This single number is usually calculated by setting the sample percentage estimate $(\hat{p})$ equal to 50 percent, which will produce an upper bound or maximum margin of error. Such an approach would not be feasible in NSDUH because the estimates vary from less than 1 percent to over 75 percent; hence, applying a single margin of error to these estimates could significantly overstate or understate the actual precision levels. Therefore, given the differences mentioned above, it is more useful and informative to report the confidence interval for each estimate instead of a margin of error.

When it is indicated that a state has the highest or lowest estimate, it does not imply that the state's estimate is significantly higher or lower than the next highest or lowest state's estimate. Additionally, two significantly different state estimates (at the 5 percent level of significance) may have overlapping 95 percent confidence intervals. For details on a more accurate test to compare state estimates, see Section B.6.

A.5 Related Substance Use Measures

Small area estimates are produced for a number of related drug measures, such as marijuana use and illicit drug use. It might appear that one could draw conclusions by subtracting one from the other (e.g., subtracting the percentage who used illicit drugs other than marijuana in the past month from the percentage who used illicit drugs in the past month to find the percentage who only used marijuana in the past month). Because related measures have been estimated with different models (i.e., separate models by age group and outcome), subtracting one measure from another related measure at the state or census region level can give misleading results, perhaps even a "negative" estimate, and should be avoided. However, these comparisons can be made at the national level because these estimates are design-based estimates. For example, at the national level, subtracting cigarette use estimates from tobacco use estimates will give the estimate of individuals who did not use cigarettes, but used other forms of tobacco.

Section B: State Model-Based Estimation Methodology

B.1 General Model Description

The model can be characterized as a complex mixed[12] model (including both fixed and random effects) of the following form:

$$\log[\pi_{aijk} / (1-\pi_{aijk})] = x'_{aijk}\beta_a + \eta_{ai} + \nu_{aij},$$

where π_{aijk} is the probability of engaging in the behavior of interest (e.g., using marijuana in the past month) for person-*k* belonging to age group-*a* in grouped state sampling region (SSR)-*j* of state-*i*.[13] Let x_{aijk} denote a $p_a \times 1$ vector of auxiliary (predictor) variables associated with age group-*a* (12 to 17, 18 to 25, 26 to 34, and 35 or older) and β_a denote the associated vector of the regression parameters. The age group-specific vectors of the auxiliary variables are defined for every block group in the nation and also include person-level demographic variables, such as race/ethnicity and gender. The vectors of state-level random effects $\eta_i = (\eta_{1i}, \cdots, \eta_{Ai})'$ and grouped SSR-level random effects $\nu_{ij} = (\nu_{1ij}, \cdots, \nu_{Aij})'$ are assumed to be mutually independent with $\eta_i \sim N_A(0, D_\eta)$ and $\nu_{ij} \sim N_A(0, D_\nu)$, where A is the total number of individual age groups modeled (generally, $A = 4$). For hierarchical Bayes (HB) estimation purposes, an improper uniform prior distribution is assumed for β_a, and proper Wishart prior distributions are assumed for D_η^{-1} and D_ν^{-1}. The HB solution for π_{aijk} involves a series of complex Markov Chain Monte Carlo (MCMC) steps to generate values of the desired fixed and

[12] The use of mixed models (fixed and random effects) allows additional error components (random effects) to be included. These account for differences between states and within-state variations that are not taken into account by the predictor variables (fixed effects) alone. It is also difficult (if not impossible) to produce valid mean squared errors (MSEs) for small area estimates based solely on a fixed-effect national regression model (i.e., synthetic estimation) (Rao, 2003, p. 52). The mixed models produce estimates that are approximately represented by a weighted combination of the direct estimate from the state data and a regression estimate from the national model. The regression coefficients of the national model are estimated using data from all of the states (i.e., borrowing strength), and the regression estimate for a particular state is obtained by applying the national model to the state-specific predictor data. The regression estimate for the state is then combined with the direct estimate from the state data in a weighted combination where the weights are obtained by minimizing the MSE (variance + squared bias) of the small area estimate.

[13] To increase the precision of the estimated random effects at the within-state level, three SSRs were grouped together. California had 12 grouped SSRs; Florida, New York, and Texas each had 10 grouped SSRs; Illinois, Michigan, Ohio, and Pennsylvania each had 8 grouped SSRs; Georgia, New Jersey, North Carolina, and Virginia each had 5 grouped SSRs; and the rest of the states and the District of Columbia each had 4 grouped SSRs. Note that these 250 grouped SSRs were used on both the 2013 and 2014 samples.

random effects from the underlying joint posterior distribution. The basic process is described in Folsom et al. (1999), Shah, Barnwell, Folsom, and Vaish (2000), and Wright (2003a, 2003b).

Once the required number of MCMC samples (1,250 in all) for the parameters of interest are generated and tested for convergence properties (see Raftery & Lewis, 1992), the small area estimates for each race/ethnicity × gender cell within a block group can be obtained for each age group. These block group-level small area estimates then can be aggregated using the appropriate population count projections for the desired age group(s) to form state-level small area estimates. These state-level small area estimates are benchmarked to the national design-based estimates as described in Section B.4.

B.2 Variables Modeled

The 2014 NSDUH data were pooled with the 2013 NSDUH data, and age group-specific state estimates for 25 binary (0, 1) measures were produced for the following outcomes:

1. past month use of illicit drugs,
2. past year use of marijuana,
3. past month use of marijuana,
4. perceptions of great risk from smoking marijuana once a month,
5. average annual rate of first use of marijuana,[14]
6. past month use of illicit drugs other than marijuana,
7. past year use of cocaine,
8. past year nonmedical use of pain relievers,
9. past month use of alcohol,
10. past month binge alcohol use,
11. perceptions of great risk from having five or more drinks of an alcoholic beverage once or twice a week,
12. past month use of tobacco products,
13. past month use of cigarettes,

[14] For details on how the average annual rate of marijuana (incidence of marijuana) is calculated, see Section B.8 of "2011-2012 National Surveys on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology" at http://www.samhsa.gov/data/.

14. perceptions of great risk from smoking one or more packs of cigarettes per day,

15. past year alcohol dependence or abuse,

16. past year alcohol dependence,

17. past year illicit drug dependence or abuse,

18. past year illicit drug dependence,

19. past year dependence or abuse of illicit drugs or alcohol,

20. needing but not receiving treatment for illicit drug use in the past year,

21. needing but not receiving treatment for alcohol use in the past year,

22. serious mental illness (SMI) in the past year,

23. any mental illness (AMI) in the past year,

24. serious thoughts of suicide in the past year, and

25. past year major depressive episode (MDE, i.e., depression).

Estimates of underage (aged 12 to 20) alcohol use and binge alcohol use were also produced. Comparisons between the 2012-2013 and the 2013-2014 state estimates were produced for all of these measures as well. For details on how measures such as AMI, SMI, MDE, illicit drugs, dependence or abuse, and average annual rate of first use of marijuana are defined, see "2011-2012 National Surveys on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology" at http://www.samhsa.gov/data/.

Illicit drug use includes the use of methamphetamines. NSDUH questions on methamphetamine use are asked in the stimulant module of the core section of the questionnaire in the context of questions about the nonmedical use of prescription stimulants. Beginning in 2005, new questions were added to the special drug module in the noncore section of the NSDUH questionnaire to capture information from respondents who may have used methamphetamines but did not recognize it as a prescription drug and therefore did not report use in the core stimulant module. However, the illicit drug estimates (including dependence, abuse, and treatment of illicit drugs) shown in the 2013-2014 small area estimation (SAE) documents include data from the original methamphetamine questions, but they do not include the new methamphetamine items added in 2005 and 2006 (i.e., the responses to the noncore questions). For more information on these new methamphetamine questions, see the findings from the methamphetamine analysis section of the *2005 NSDUH Methodological Resource Book* (Center for Behavioral Health Statistics and Quality [CBHSQ], 2007).

B.3 Predictors Used in Mixed Logistic Regression Models

Local area data used as potential predictor variables in the mixed logistic regression models were obtained from several sources, including Nielsen Claritas, the U.S. Census Bureau, the Federal Bureau of Investigation (FBI) (Uniform Crime Reports [UCRs]), the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), the Substance Abuse and Mental Health Services Administration (SAMHSA) (National Survey of Substance Abuse Treatment Services [N-SSATS]), and the National Center for Health Statistics (NCHS) (mortality data). Note that the predictors used to produce the 2013-2014 state small area estimates are the same as the predictors used to produce the 2012-2013 state small area estimates (however, values of the data were updated when possible). That is, no new variable selection was done for 2013-2014.

Sources and potential data items used in the modeling are provided in the following text and lists.

- *Nielsen Claritas*. This demographic data package contains data for 2013 with projections to 2018. The population projections are used to update these predictor variables each year. The 2013 population estimates and the 2014 population projections were used for producing the 2013-2014 state estimates. For more information on these data, see Section B.4.

- *U.S. Census Bureau*. The 2010 census (demographic and geographic variables) and 2012 food stamp participation estimates were used (http://www.census.gov/did/www/saipe/inputdata/cntysnap.xls). The Census Bureau's small area income and poverty estimates division obtains Food Stamp Program (now known as the Supplemental Nutrition Assistance Program [SNAP]) participation estimates from the U.S. Department of Agriculture, Food and Nutrition Service.

- *American Community Survey (ACS)*. The 2009-2013 5-year ACS demographic and socioeconomic variables at the tract level and poverty variable at the county level were used (http://www.census.gov/acs/www/data_documentation/data_main/).

- *Federal Bureau of Investigation*. Uniform Crime Report (UCR) arrest totals were obtained from http://www.icpsr.umich.edu/icpsrweb/NACJD/archive.jsp. The most current data used are from 2012 for most counties, with previous years' data substituted in a few cases.

- *Bureau of Labor Statistics (BLS)*. The 2014 county-level unemployment estimates were used (http://www.bls.gov/lau/tables.htm). The BLS uses results from the Current Population Survey (CPS) to provide county-level unemployment estimates. The CPS is a monthly survey of households conducted by the Census Bureau for the BLS.

- *Bureau of Economic Analysis (BEA)*. The 2013 county-level per capita income estimates were used (http://bea.gov/iTable/index.cfm). These county-level per capita income estimates are produced by the Regional Income Division of the BEA.

- *National Center for Health Statistics (NCHS)*. Mortality data using International Classification of Diseases, 10th revision (ICD-10), 2006-2011, were used. The ICD-10 death data are from the NCHS at the Centers for Disease Control and Prevention (CDC).

- *SAMHSA, Center for Behavioral Health Statistics and Quality (CBHSQ, formerly the Office of Applied Studies [OAS])*. Data were used from the National Survey of Substance Abuse Treatment Services (N-SSATS), formerly known as the Uniform Facility Data Set (UFDS). The 2013-2014 data on drug and alcohol treatment estimates were obtained. Maintenance of effort expenditures, block grant awards, cost of services, and total taxable resources data were also used.

The following lists provide the specific independent variables that were potential predictors in the models.

Nielsen Claritas Data **(Description)**	***Nielsen Claritas Data*** **(Level)**
% Population Aged 0 to 19 in Block Group	Block Group
% Population Aged 20 to 24 in Block Group	Block Group
% Population Aged 25 to 34 in Block Group	Block Group
% Population Aged 35 to 44 in Block Group	Block Group
% Population Aged 45 to 54 in Block Group	Block Group
% Population Aged 55 to 64 in Block Group	Block Group
% Population Aged 65 or Older in Block Group	Block Group
% Non-Hispanic Blacks in Block Group	Block Group
% Hispanics in Block Group	Block Group
% Non-Hispanic Other Races in Block Group	Block Group
% Non-Hispanic Whites in Block Group	Block Group
% Males in Block Group	Block Group
% American Indians, Eskimos, Aleuts in Tract	Tract
% Asians, Pacific Islanders in Tract	Tract
% Population Aged 0 to 19 in Tract	Tract
% Population Aged 20 to 24 in Tract	Tract
% Population Aged 25 to 34 in Tract	Tract
% Population Aged 35 to 44 in Tract	Tract
% Population Aged 45 to 54 in Tract	Tract
% Population Aged 55 to 64 in Tract	Tract
% Population Aged 65 or Older in Tract	Tract
% Non-Hispanic Blacks in Tract	Tract
% Hispanics in Tract	Tract
% Non-Hispanic Other Races in Tract	Tract
% Non-Hispanic Whites in Tract	Tract
% Males in Tract	Tract
% Population Aged 0 to 19 in County	County
% Population Aged 20 to 24 in County	County
% Population Aged 25 to 34 in County	County
% Population Aged 35 to 44 in County	County
% Population Aged 45 to 54 in County	County
% Population Aged 55 to 64 in County	County

Nielsen Claritas Data (Description)	*Nielsen Claritas Data* (Level)
% Population Aged 65 or Older in County	County
% Non-Hispanic Blacks in County	County
% Hispanics in County	County
% Non-Hispanic Other Races in County	County
% Non-Hispanic Whites in County	County
% Males in County	County

2010 Census Data (Description)	*2010 Census Data* (Level)
% Hispanics Who Are Cuban	Tract

American Community Survey (ACS) (Description)	*ACS Data* (Level)
% Population Who Dropped Out of High School	Tract
% Housing Units Built in 1940 to 1949	Tract
% Females 16 Years or Older in Labor Force	Tract
% Females Never Married	Tract
% Females Separated, Divorced, Widowed, or Other	Tract
% One-Person Households	Tract
% Males 16 Years or Older in Labor Force	Tract
% Males Never Married	Tract
% Males Separated, Divorced, Widowed, or Other	Tract
% Housing Units Built in 1939 or Earlier	Tract
Average Number of Persons per Room	Tract
% Families below Poverty Level	Tract
% Households with Public Assistance Income	Tract
% Housing Units Rented	Tract
% Population with 9 to 12 Years of School, No High School Diploma	Tract
% Population with 0 to 8 Years of School	Tract
% Population with Associate's Degree	Tract
% Population with Some College and No Degree	Tract
% Population with Bachelor's, Graduate, Professional Degree	Tract
% Housing Units with No Telephone Service Available	Tract
% Households with No Vehicle Available	Tract
Median Rents for Rental Units	Tract
Median Value of Owner-Occupied Housing Units	Tract
Median Household Income	Tract
% Families below the Poverty Level	County

Uniform Crime Report (UCR) Data (Description)	*UCR Data* (Level)
Drug Possession Arrest Rate	County
Drug Sale or Manufacture Arrest Rate	County
Drug Violations' Arrest Rate	County
Marijuana Possession Arrest Rate	County
Marijuana Sale or Manufacture Arrest Rate	County
Opium or Cocaine Possession Arrest Rate	County
Opium or Cocaine Sale or Manufacture Arrest Rate	County

***Uniform Crime Report (UCR) Data* (Description)**	***UCR Data* (Level)**
Other Drug Possession Arrest Rate	County
Other Dangerous Non-Narcotics Arrest Rate	County
Serious Crime Arrest Rate	County
Violent Crime Arrest Rate	County
Driving under Influence Arrest Rate	County

***Other Categorical Data* (Description)**	***Other Categorical Data* (Source)**	***Other Categorical Data* (Level)**
= 1 if Hispanic, = 0 Otherwise	National Survey on Drug Use and Health (NSDUH) Sample	Person
= 1 if Non-Hispanic Black, = 0 Otherwise	NSDUH Sample	Person
= 1 if Non-Hispanic Other, = 0 Otherwise	NSDUH Sample	Person
= 1 if Male, = 0 if Female	NSDUH Sample	Person
= 1 if Metropolitan Statistical Area (MSA) with ≥ 1 Million, = 0 Otherwise	2010 Census	County
= 1 if MSA with < 1 Million, = 0 Otherwise	2010 Census	County
= 1 if Non-MSA Urban, = 0 Otherwise	2010 Census	Tract
= 1 if Urban Area, = 0 if Rural Area	2010 Census	Tract
= 1 if No Cubans in Tract, = 0 Otherwise	2010 Census	Tract
= 1 if No Arrests for Dangerous Non-Narcotics, = 0 Otherwise	Uniform Crime Report (UCR)	County
= 1 if No Arrests for Opium or Cocaine Possession = 0 Otherwise	UCR	County
= 1 if No Housing Units Built in 1939 or Earlier, = 0 Otherwise	American Community Survey (ACS)	Tract
=1 if No Housing Units Built in 1940 to 1949, = 0 Otherwise	ACS	Tract
= 1 if No Households with Public Assistance Income, = 0 Otherwise	ACS	Tract

***Miscellaneous Data* (Description)**	***Miscellaneous Data* (Source)**	***Miscellaneous Data* (Level)**
Alcohol Death Rate, Underlying Cause	National Center for Health Statistics (NCHS) International Classification of Diseases, 10th revision (NCHS-ICD-10)	County
Cigarette Death Rate, Underlying Cause	NCHS-ICD-10	County
Drug Death Rate, Underlying Cause	NCHS-ICD-10	County
Alcohol Treatment Rate	National Survey of Substance Abuse Treatment Services (N-SSATS) (Formerly Called Uniform Facility Data Set [UFDS])	County
Alcohol and Drug Treatment Rate	N-SSATS (Formerly Called UFDS)	County
Drug Treatment Rate	N-SSATS (Formerly Called UFDS)	County
Unemployment Rate	Bureau of Labor Statistics (BLS)	County
Per Capita Income (in Thousands)	Bureau of Economic Analysis (BEA)	County
Average Suicide Rate (per 10,000)	NCHS-ICD-10	County
Food Stamp Participation Rate	Census Bureau	County

Miscellaneous Data (Description)	*Miscellaneous Data* (Source)	*Miscellaneous Data* (Level)
Single State Agency Maintenance of Effort	National Association of State Alcohol and Drug Abuse Directors (NASADAD)	State
Block Grant Awards	Substance Abuse and Mental Health Services Administration (SAMHSA)	State
Cost of Services Factor Index	SAMHSA	State
Total Taxable Resources per Capita Index	U.S. Department of Treasury	State

B.4 Benchmarking the Age Group-Specific Small Area Estimates

The self-calibration built into the survey-weighted hierarchical Bayes (SWHB) solution ensures that the population-weighted average of the state small area estimates will closely match the national design-based estimates. The national design-based estimates in NSDUH are based entirely on survey-weighted data using a direct estimation approach, whereas the state and census region estimates are model-based. Given the self-calibration ensured by the SWHB solution, for state reports prior to 2002, the standard Bayes prescription was followed; specifically, the posterior mean was used for the point estimate, and the tail percentiles of the posterior distribution were used for the Bayesian confidence interval limits.

Singh and Folsom (2001) extended Ghosh's (1992) results on constrained Bayes estimation to include exact benchmarking to design-based national estimates. In the simplest version of this constrained Bayes solution where only the design-based mean is imposed as a benchmarking constraint, each of the 2013-2014 state-by-age group small area estimates is adjusted by adding the common factor $\Delta_a = (D_a - P_a),$ where D_a is the design-based national estimate and P_a is the population-weighted mean of the state small area estimates (P_{sa}) for age group-*a*. The exactly benchmarked state-*s* and age group-*a* small area estimates then are given by $\theta_{sa} = P_{sa} + \Delta_a.$ Experience with such additive adjustments suggests that the resulting exactly benchmarked state small area estimates will always be between 0 percent and 100 percent because the SWHB self-calibration ensures that the adjustment factor is small relative to the size of the state-level small area estimates.

Relative to the Bayes posterior mean, these benchmark-constrained state small area estimates are biased by the common additive adjustment factor. Therefore, the posterior mean squared error (MSE) for each benchmarked state small area estimate has the square of this adjustment factor added to its posterior variance. To achieve the desirable feature of exact benchmarking, this constrained Bayes adjustment factor was implemented for the state-by-age group small area estimates. The associated Bayesian confidence (credible) intervals can be recentered at the benchmarked small area estimates on the logit scale with the symmetric interval end points based on the posterior root mean squared errors (RMSEs). The adjusted 95 percent Bayesian confidence intervals $(Lower_{sa}, Upper_{sa})$ are defined below:

$$Lower_{sa} = \exp(L_{sa}) / [1 + \exp(L_{sa})] \text{ and } Upper_{sa} = \exp(U_{sa}) / [1 + \exp(U_{sa})],$$

where

$$L_{sa} = \ln[\theta_{sa} / (1 - \theta_{sa})] - 1.96 * \sqrt{MSE_{sa}},$$

$$U_{sa} = \ln[\theta_{sa} / (1 - \theta_{sa})] + 1.96 * \sqrt{MSE_{sa}}, \text{ and}$$

$$MSE_{sa} = (\ln[P_{sa} / (1 - P_{sa})] - \ln[\theta_{sa} / (1 - \theta_{sa})])^2 + \text{posterior variance of } \ln[P_{sa} / (1 - P_{sa})].$$

The associated posterior coverage probabilities for these benchmarked intervals are very close to the prescribed 0.95 value because the state small area estimates have posterior distributions that can be approximated exceptionally well by a Gaussian distribution.

B.5 Calculation of Estimated Number of Individuals Associated with Each Outcome

Tables 1 to 26 of "2013-2014 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia)" show the estimated numbers of individuals associated with each of the 25 outcomes of interest.[15] To calculate these numbers, the benchmarked small area estimates and the associated 95 percent Bayesian confidence intervals are multiplied by the average population across the 2 years (in this case, 2013 and 2014) of the state by the age group of interest.

For example, past month use of alcohol among 18 to 25 year olds in Alabama was 51.36 percent.[16] The corresponding Bayesian confidence intervals ranged from 47.49 to 55.21 percent. The population count for 18 to 25 year olds averaged across 2013 and 2014 in Alabama was 535,409 (see Table C.10 in Section C of this methodology document). Hence, the estimated number of 18 to 25 year olds using alcohol in the past month in Alabama was 0.5136 * 535,409, which is 274,986.[17] The associated Bayesian confidence intervals ranged from 0.4749 * 535,409 (i.e., 254,266) to 0.5521 * 535,409 (i.e., 295,599). Note that when estimates of the number of individuals are calculated for Tables 1 to 26 in "2013-2014 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia)" (follow the link in footnote 17), the unrounded percentages and population counts are used, then the numbers are reported to the nearest thousand. Hence, the number obtained by multiplying the published estimate with the published population estimate may not exactly match the counts that are published in these tables because of rounding differences.

The only exception to this calculation is the production of the estimated numbers of marijuana initiates. Those estimates cannot be directly calculated as the product of the percentage estimate of first use of marijuana and the population counts available in Section C. That is because the denominator of that percentage estimate is defined as the number of person

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[15] This file is available at http://www.samhsa.gov/data/.

[16] See Table 9 of the "2013-2014 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" at http://www.samhsa.gov/data/.

[17] See Table 9 of "2013-2014 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia)" at http://www.samhsa.gov/data/.

years at risk for marijuana initiation, which is a combination of individuals who never used marijuana and one half of the individuals who initiated in the past 24 months.

B.6 Comparison of Two 2013-2014 Small Area Estimates

This section describes a method for determining whether differences between two 2013-2014 State population percentages are statistically significant. This procedure can be used for any two State population percentages representing the same age group (e.g., young adults aged 18 to 25) and time period (e.g., 2013-2014).

Let π_{1a} and π_{2a} denote the 2013-2014 age group-a specific prevalence rates for two different states, $s1$ and $s2$, respectively. The null hypothesis of no difference, that is, $\pi_{1a} = \pi_{2a}$, is equivalent to the log-odds ratio equal to zero, that is, $lor_a = 0$, where lor_a is defined as $lor_a = \ln\left[\frac{\pi_{2a}/(1-\pi_{2a})}{\pi_{1a}/(1-\pi_{1a})}\right]$, where ln denotes the natural logarithm. An estimate of lor_a is given by $\hat{l}or_a = \ln\left[\frac{p_{2a}/(1-p_{2a})}{p_{1a}/(1-p_{1a})}\right]$, where p_{1a} and p_{2a} are the 2013-2014 state estimates given in the "2013-2014 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia) (Tables 1 to 26, by Age Group)" (follow the link in footnote 16). To compute the variance of $\hat{l}or_a$, that is, $v(\hat{l}or_a)$, let $\hat{\theta}_1 = \frac{p_{1a}}{1-p_{1a}}$ and $\hat{\theta}_2 = \frac{p_{2a}}{1-p_{2a}}$, then $v(\hat{l}or_a) = v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)] - 2\,\mathrm{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)]$, where $\mathrm{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)]$ denotes the covariance between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$. This covariance is defined in terms of the associated correlation as follows:

$$\mathrm{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)] = \text{correlation}\,[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)] \times \sqrt{v[\ln(\hat{\theta}_1)] \times v[\ln(\hat{\theta}_2)]}\,.$$

The quantities $v[\ln(\hat{\theta}_1)]$ and $v[\ln(\hat{\theta}_2)]$ can be obtained by using the 95 percent Bayesian confidence intervals given in the "2013-2014 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia) (Tables 1 to 26, by Age Group)" (follow the link in footnote 16). For this purpose, let $(lower_1, upper_1)$ and $(lower_2, upper_2)$ denote the 95 percent Bayesian confidence intervals for the two states, $s1$ and $s2$, respectively. Then

$$v[\ln(\hat{\theta}_i)] = \left(\frac{U_i - L_i}{2 \times 1.96}\right)^2 \quad \text{for } i = 1, 2,$$

where $U_i = \ln\frac{upper_i}{1-upper_i}$ and $L_i = \ln\frac{lower_i}{1-lower_i}$.

For all practical purposes, the correlation between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$ is assumed to be negligible; hence, $v(\hat{lor}_a)$ can be approximated by $v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)]$. The correlation is assumed to be negligible because each State was a stratum in the first level of stratification; therefore, each State sample is selected independently. However, the correlation between the two State estimates is theoretically nonzero because State estimates share common fixed-effect parameters in the SAE models. Hence, the test statistic z (defined below) might result in a different conclusion in a few cases when the correlation between the State estimates is incorporated in calculating $v(\hat{lor}_a)$. To calculate the p value for testing the null hypothesis of no difference ($lor_a = 0$), it is assumed that the posterior distribution of lor_a is normal with $mean = \hat{lor}_a$ and $variance = v(\hat{lor}_a)$. With the null value of $lor_a = 0$, the Bayes p value or significance level for the null hypothesis of no difference is $p\ value = 2 * P[Z \geq abs(z)]$, where Z is a standard normal random variate, $z = \dfrac{\hat{lor}_a}{\sqrt{v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)]}}$, and $abs(z)$ denotes the absolute value of z. This Bayesian significance level (or p value) for the null value of lor, say lor_0, is defined following Rubin (1987) as the posterior probability for the collection of the lor values that are less likely or have smaller posterior density $d(lor)$ than the null (no change) value lor_0. That is, $p\,value(lor_0) = probability[d(lor) \leq d(lor_0)]$. With the posterior distribution of lor approximately normal, $p\ value(lor_0)$ is given by the above expression.

Hence, to test whether differences between two 2013-2014 state estimates are statistically significant, the test statistic z and the associated p value can be used. If $p \leq 0.05$, then the two state estimates can be considered different at the 5 percent level of significance. Because age group estimates within a state are correlated, the method described here cannot be used to test whether differences between two age group estimates within a state are statistically significant.

When comparing estimates for two states, it is tempting and often convenient to look at their 95 percent Bayesian confidence intervals to decide whether the difference in the state estimates is significant. If the two Bayesian confidence intervals overlap, one would conclude that the difference is not statistically significant. If the two Bayesian confidence intervals do not overlap, it implies that the state estimates are significantly different from each other. However, the type-I error for the overlapping 95 percent Bayesian confidence intervals test may be as low as 0.6 percent (assuming that the two state estimates are uncorrelated and have the same variances) as compared with the 5 percent type-I error of the test based on the z statistics defined above (Payton, Greenstone, & Schenker, 2003).

As discussed in Schenker and Gentleman (2001), the method of overlapping Bayesian confidence intervals is more conservative (i.e., it rejects the null hypothesis of no difference less often) than the standard method based on z statistics when the null hypothesis is true. Even if Bayesian confidence intervals for two states overlap, the two estimates may be declared significantly different by the test based on z statistics. Hence, the method of overlapping Bayesian confidence intervals is not recommended to test the difference of two state estimates. A detailed description of the method of overlapping confidence intervals and its comparison with

the standard methods for testing of a hypothesis is given in Schenker and Gentleman (2001) and Payton et al. (2003).

Example. The percentages for past month alcohol use among 12 to 17 year olds in New Jersey and Oklahoma are shown in the following exhibit and also in Table 9 of the "2013-2014 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" at http://www.samhsa.gov/data/. Looking at the two 95 percent Bayesian confidence intervals, it would appear that the Oklahoma and New Jersey percentages for past month alcohol use are not statistically different at the 5 percent level of significance because the two Bayesian confidence intervals overlap:

State	Point Estimate (%)	95% Bayesian Confidence Interval (%)
New Jersey	14.31	(12.14, 16.78)
Oklahoma	10.89	(9.00, 13.13)

However, in the following example, the test based on the z statistic described earlier concludes that they are significantly different at the 5 percent level of significance.

Let $p_{1a} = 0.1431$, $lower_1 = 0.1214$, $upper_1 = 0.1678$, $p_{2a} = 0.1089$, $lower_2 = 0.0900$, $upper_2 = 0.1313$. Then,

$$U_1 = \ln\frac{0.1678}{1-0.1678} = \text{-}1.6013,\ L_1 = \ln\frac{0.1214}{1-0.1214} = \text{-}1.9792,$$
$$U_2 = \ln\frac{0.1313}{1-0.1313} = \text{-}1.8895,\ L_2 = \ln\frac{0.0900}{1-0.0900} = \text{-}2.3136,$$

$$\hat{l}or_a = \ln\left[\frac{p_{2a}/(1-p_{2a})}{p_{1a}/(1-p_{1a})}\right] = \ln\left[\frac{0.1089/(1-0.1089)}{0.1431/(1-0.1431)}\right] = -0.3122,$$

$$v[\ln(\hat{\theta}_1)] = \left(\frac{U_1 - L_1}{2\times 1.96}\right)^2 = \left(\frac{-1.6013+1.9792}{2\times 1.96}\right)^2 = 0.00930,$$
$$v[\ln(\hat{\theta}_2)] = \left(\frac{U_2 - L_2}{2\times 1.96}\right)^2 = \left(\frac{-1.8895+2.3136}{2\times 1.96}\right)^2 = 0.01171, \text{ and}$$

$$z = \frac{\hat{l}or_a}{\sqrt{v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)]}} = \frac{0.3122}{\sqrt{0.00930+0.01171}} = -2.1546.$$

Because the computed absolute value of z is greater than or equal to 1.96 (the critical value of the z statistic), then at the 5 percent level of significance, the hypothesis of no difference (Oklahoma prevalence rate = New Jersey prevalence rate) is rejected. Thus, the two state prevalence rates are statistically different. The Bayes p value or significance level for the null hypothesis of no difference is p value = 2 * P [$Z \geq abs$ (-2.1546)] = 0.0312.

Section C: Sample Sizes, Response Rates, and Population Estimates

Table C.1 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2012

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Total U.S.	214,274	178,586	153,873	86.07%	87,656	68,309	260,057,325	73.04%	62.87%
Northeast	47,763	40,410	32,868	79.93%	18,301	13,773	47,174,958	69.59%	55.62%
Midwest	58,534	49,381	43,010	87.61%	24,499	19,142	55,924,697	74.27%	65.06%
South	66,141	54,110	47,494	88.15%	26,279	20,886	96,373,144	74.22%	65.42%
West	41,836	34,685	30,501	86.04%	18,577	14,508	60,584,526	72.75%	62.59%
Alabama	3,012	2,372	2,141	90.30%	1,145	901	4,005,432	74.57%	67.34%
Alaska	2,424	1,869	1,642	87.82%	1,076	829	577,147	73.34%	64.40%
Arizona	2,771	2,143	1,928	90.16%	1,139	922	5,362,657	77.11%	69.52%
Arkansas	2,776	2,292	2,090	90.92%	1,212	913	2,422,926	69.77%	63.43%
California	9,489	8,314	6,852	82.37%	4,779	3,608	31,424,054	70.20%	57.82%
Colorado	3,071	2,579	2,201	85.23%	1,188	927	4,260,412	74.95%	63.88%
Connecticut	2,855	2,535	2,107	82.76%	1,261	964	3,034,241	72.36%	59.88%
Delaware	2,847	2,292	2,008	87.57%	1,110	893	765,733	79.90%	69.97%
District of Columbia	5,055	4,104	3,327	80.90%	1,125	962	544,627	80.64%	65.24%
Florida	12,768	10,055	8,516	84.67%	4,579	3,544	16,382,543	70.57%	59.75%
Georgia	2,365	2,042	1,796	87.94%	1,144	885	8,040,955	73.07%	64.26%
Hawaii	3,212	2,761	2,239	80.80%	1,285	938	1,130,820	68.98%	55.73%
Idaho	2,300	1,939	1,821	93.92%	1,136	921	1,288,271	78.38%	73.61%
Illinois	11,385	9,964	7,678	77.04%	4,871	3,672	10,680,769	70.95%	54.66%
Indiana	2,491	2,110	1,921	91.01%	1,171	911	5,391,372	72.95%	66.39%
Iowa	2,529	2,199	2,022	91.72%	1,137	900	2,550,660	74.74%	68.55%
Kansas	2,598	2,198	1,977	89.98%	1,109	912	2,336,047	77.88%	70.07%
Kentucky	2,852	2,407	2,202	91.46%	1,184	927	3,607,428	73.49%	67.21%
Louisiana	2,741	2,143	1,977	92.28%	1,100	901	3,745,460	77.61%	71.63%
Maine	3,866	2,858	2,585	90.56%	1,134	938	1,145,565	79.20%	71.72%
Maryland	2,680	2,308	1,802	78.13%	1,074	874	4,905,827	75.90%	59.30%
Massachusetts	3,064	2,653	2,208	83.22%	1,253	955	5,661,530	71.52%	59.52%
Michigan	11,441	9,207	7,826	85.05%	4,606	3,655	8,319,227	75.75%	64.43%
Minnesota	2,483	2,160	1,975	91.57%	1,092	902	4,470,679	81.16%	74.32%
Mississippi	2,553	2,087	1,951	93.50%	1,100	901	2,419,811	78.58%	73.48%

(continued)

Table C.1 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2012 (continued)

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Missouri	2,879	2,409	2,188	90.88%	1,149	915	4,985,565	74.36%	67.58%
Montana	3,295	2,610	2,415	92.62%	1,109	876	842,009	77.46%	71.74%
Nebraska	2,556	2,175	2,018	92.74%	1,170	940	1,511,302	73.14%	67.83%
Nevada	2,354	1,879	1,721	91.75%	1,134	903	2,278,656	75.62%	69.38%
New Hampshire	2,990	2,507	2,191	87.40%	1,259	950	1,133,661	73.08%	63.87%
New Jersey	2,622	2,227	1,935	86.87%	1,155	898	7,440,994	73.64%	63.97%
New Mexico	2,771	2,052	1,889	92.22%	1,101	879	1,702,667	74.17%	68.39%
New York	14,547	12,547	9,115	71.89%	5,267	3,680	16,532,006	64.38%	46.28%
North Carolina	2,848	2,246	1,990	88.48%	1,117	917	8,007,328	75.46%	66.77%
North Dakota	3,374	2,633	2,461	93.42%	1,156	895	577,526	73.47%	68.64%
Ohio	11,722	10,122	9,023	89.14%	4,827	3,687	9,638,652	72.73%	64.84%
Oklahoma	2,960	2,382	2,173	91.22%	1,189	908	3,099,247	72.38%	66.03%
Oregon	2,547	2,250	2,019	89.57%	1,165	923	3,293,097	76.48%	68.51%
Pennsylvania	11,907	10,256	8,453	82.09%	4,705	3,580	10,790,033	70.67%	58.02%
Rhode Island	2,620	2,190	1,957	89.37%	1,131	923	895,345	77.76%	69.50%
South Carolina	3,306	2,666	2,374	88.97%	1,171	938	3,900,041	75.13%	66.85%
South Dakota	2,636	2,163	2,031	93.92%	1,113	878	676,283	76.12%	71.49%
Tennessee	2,532	2,095	1,929	91.91%	1,105	927	5,363,074	81.06%	74.50%
Texas	9,048	7,651	6,792	88.52%	4,612	3,625	20,852,844	73.36%	64.94%
Utah	1,793	1,558	1,474	94.67%	1,099	926	2,214,352	83.26%	78.83%
Vermont	3,292	2,637	2,317	87.81%	1,136	885	541,583	73.81%	64.82%
Virginia	2,576	2,293	2,027	88.47%	1,095	894	6,735,698	76.50%	67.68%
Washington	2,700	2,306	2,078	90.10%	1,218	928	5,736,136	71.82%	64.71%
West Virginia	3,222	2,675	2,399	89.39%	1,217	976	1,574,171	74.07%	66.21%
Wisconsin	2,440	2,041	1,890	92.37%	1,098	875	4,786,617	75.55%	69.79%
Wyoming	3,109	2,425	2,222	91.72%	1,148	928	474,248	77.48%	71.07%

DU = dwelling unit.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012.

Table C.2 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Total U.S.	27,147	22,492	24,933,051	82.84%	28,639	22,762	34,589,953	79.26%	31,870	23,055	200,534,321	70.76%
Northeast	5,513	4,421	4,237,419	79.81%	6,114	4,720	6,153,492	76.54%	6,674	4,632	36,784,047	67.26%
Midwest	7,733	6,399	5,416,148	83.34%	7,891	6,270	7,361,823	79.64%	8,875	6,473	43,146,726	72.22%
South	8,292	6,973	9,305,299	83.52%	8,583	7,012	12,758,779	81.70%	9,404	6,901	74,309,066	71.75%
West	5,609	4,699	5,974,186	83.44%	6,051	4,760	8,315,859	77.22%	6,917	5,049	46,294,482	70.61%
Alabama	342	278	384,244	80.41%	383	312	536,932	80.90%	420	311	3,084,257	72.65%
Alaska	304	233	60,308	76.07%	348	286	81,619	82.25%	424	310	435,220	71.44%
Arizona	366	312	539,163	85.61%	371	293	713,584	74.97%	402	317	4,109,911	76.39%
Arkansas	394	312	236,048	78.13%	404	310	317,735	75.45%	414	291	1,869,143	67.71%
California	1,409	1,159	3,139,169	81.82%	1,584	1,216	4,452,711	76.51%	1,786	1,233	23,832,173	67.51%
Colorado	376	319	399,087	86.13%	390	301	560,123	78.11%	422	307	3,301,202	73.13%
Connecticut	361	288	289,862	79.74%	426	339	373,279	80.56%	474	337	2,371,100	70.39%
Delaware	376	307	68,973	82.59%	305	246	102,090	83.85%	429	340	594,670	79.02%
District of Columbia	362	329	31,338	91.77%	398	344	95,556	87.06%	365	289	417,734	78.39%
Florida	1,419	1,193	1,383,312	83.48%	1,535	1,222	1,970,724	79.16%	1,625	1,129	13,028,506	67.81%
Georgia	344	287	828,383	81.72%	360	284	1,096,583	79.58%	440	314	6,115,989	70.82%
Hawaii	377	284	96,933	75.93%	382	308	140,267	80.83%	526	346	893,621	66.50%
Idaho	389	345	139,664	88.85%	334	262	173,325	80.12%	413	314	975,282	76.28%
Illinois	1,517	1,234	1,051,880	81.95%	1,562	1,190	1,393,334	76.45%	1,792	1,248	8,235,555	68.62%
Indiana	330	271	540,535	82.24%	408	328	731,531	80.64%	433	312	4,119,306	70.63%
Iowa	373	314	241,376	82.15%	362	287	347,524	79.41%	402	299	1,961,760	72.90%
Kansas	388	343	236,447	88.15%	318	265	322,233	84.49%	403	304	1,777,368	75.30%
Kentucky	384	318	339,442	81.85%	380	302	461,441	80.21%	420	307	2,806,546	71.39%
Louisiana	330	292	367,661	88.75%	364	303	523,034	82.65%	406	306	2,854,766	75.23%
Maine	359	305	95,666	85.30%	387	325	129,416	84.13%	388	308	920,484	77.79%
Maryland	330	282	458,368	85.48%	363	306	631,975	83.31%	381	286	3,815,483	73.39%
Massachusetts	380	309	493,395	81.19%	408	312	772,360	77.20%	465	334	4,395,776	69.50%
Michigan	1,445	1,178	809,401	81.72%	1,508	1,231	1,101,787	81.78%	1,653	1,246	6,408,038	73.97%
Minnesota	363	324	424,357	89.54%	339	272	571,203	79.91%	390	306	3,475,119	80.32%
Mississippi	384	313	248,208	80.62%	338	297	336,270	88.22%	378	291	1,835,332	76.36%

(continued)

Table C.2 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012 (continued)

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Missouri	367	312	474,059	85.89%	356	290	654,819	82.34%	426	313	3,856,687	71.53%
Montana	388	316	73,775	81.81%	350	279	107,843	78.48%	371	281	660,391	76.71%
Nebraska	322	278	147,378	86.79%	433	365	205,771	84.84%	415	297	1,158,152	69.50%
Nevada	333	290	220,899	86.58%	368	289	284,532	79.10%	433	324	1,773,226	73.75%
New Hampshire	405	305	102,103	75.51%	417	324	139,482	78.95%	437	321	892,076	71.84%
New Jersey	349	291	708,659	83.09%	378	292	881,583	78.25%	428	315	5,850,752	71.73%
New Mexico	332	290	168,839	87.22%	369	303	226,708	81.39%	400	286	1,307,120	71.17%
New York	1,564	1,193	1,466,519	75.84%	1,778	1,266	2,246,785	71.75%	1,925	1,221	12,818,701	61.76%
North Carolina	354	298	760,601	83.53%	382	337	1,033,454	87.89%	381	282	6,213,274	72.36%
North Dakota	371	309	48,912	83.61%	339	268	93,645	79.86%	446	318	434,970	70.99%
Ohio	1,628	1,297	926,791	79.72%	1,475	1,148	1,232,694	77.78%	1,724	1,242	7,479,167	71.02%
Oklahoma	385	303	305,458	78.05%	383	297	424,952	76.87%	421	308	2,368,838	70.82%
Oregon	311	270	292,395	87.03%	407	318	409,756	79.10%	447	335	2,590,946	75.05%
Pennsylvania	1,425	1,169	958,552	82.15%	1,536	1,218	1,404,841	79.74%	1,744	1,193	8,426,641	67.91%
Rhode Island	320	276	77,245	86.40%	391	329	132,691	84.47%	420	318	685,409	75.55%
South Carolina	385	317	358,471	81.59%	349	295	515,765	84.67%	437	326	3,025,806	72.71%
South Dakota	316	265	64,543	84.11%	371	300	91,525	82.83%	426	313	520,215	74.13%
Tennessee	299	261	505,108	85.96%	419	352	688,253	83.32%	387	314	4,169,713	80.11%
Texas	1,472	1,246	2,279,511	84.37%	1,471	1,183	2,943,283	80.38%	1,669	1,196	15,630,050	70.45%
Utah	319	287	272,004	90.49%	384	310	363,798	81.78%	396	329	1,578,549	82.34%
Vermont	350	285	45,420	80.52%	393	315	73,055	80.92%	393	285	423,108	71.93%
Virginia	373	322	619,042	85.05%	316	270	891,542	85.19%	406	302	5,225,114	73.95%
Washington	368	301	528,812	81.58%	406	310	737,911	75.50%	444	317	4,469,414	70.24%
West Virginia	359	315	131,131	87.64%	433	352	189,192	81.40%	425	309	1,253,848	71.61%
Wisconsin	313	274	450,470	86.72%	420	326	615,758	77.80%	365	275	3,720,389	73.85%
Wyoming	337	293	43,140	85.79%	358	285	63,681	78.58%	453	350	367,427	76.36%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012.

Table C.3 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2013

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Total U.S.	227,075	190,067	160,325	83.93%	88,742	67,838	262,391,455	71.69%	60.18%
Northeast	51,312	43,608	34,787	78.54%	18,334	13,661	47,388,235	68.75%	54.00%
Midwest	61,705	51,906	44,380	85.68%	24,842	18,822	56,214,652	71.54%	61.30%
South	69,936	57,463	49,288	85.67%	26,758	20,782	97,513,014	73.32%	62.81%
West	44,122	37,090	31,870	83.74%	18,808	14,573	61,275,553	71.48%	59.86%
Alabama	3,110	2,522	2,141	84.04%	1,156	900	4,025,044	69.26%	58.21%
Alaska	3,177	2,347	2,044	87.05%	1,122	863	577,309	74.91%	65.21%
Arizona	3,013	2,324	1,991	85.43%	1,170	882	5,443,545	69.25%	59.16%
Arkansas	2,721	2,189	1,984	90.66%	1,193	908	2,435,182	73.21%	66.38%
California	9,994	8,965	7,211	80.33%	4,864	3,729	31,739,919	70.45%	56.60%
Colorado	2,790	2,436	2,016	82.93%	1,173	885	4,339,337	71.19%	59.04%
Connecticut	2,989	2,691	2,294	85.25%	1,198	893	3,045,630	70.24%	59.88%
Delaware	3,042	2,485	2,073	83.64%	1,113	862	774,640	72.21%	60.40%
District of Columbia	5,466	4,554	3,700	80.83%	1,142	907	555,335	75.40%	60.95%
Florida	14,174	11,056	9,176	81.41%	4,792	3,649	16,599,656	71.63%	58.31%
Georgia	2,660	2,218	1,836	82.63%	1,093	852	8,133,541	73.03%	60.34%
Hawaii	3,294	2,861	2,235	77.45%	1,240	924	1,135,919	66.79%	51.73%
Idaho	2,388	2,020	1,863	92.19%	1,163	907	1,305,833	75.66%	69.75%
Illinois	11,767	10,379	7,912	76.19%	4,935	3,503	10,713,667	65.98%	50.27%
Indiana	2,992	2,513	2,182	86.71%	1,165	894	5,430,975	71.51%	62.00%
Iowa	2,700	2,318	2,120	91.46%	1,164	900	2,566,989	71.34%	65.25%
Kansas	2,608	2,191	1,944	88.60%	1,165	887	2,344,171	73.15%	64.81%
Kentucky	3,085	2,556	2,341	91.53%	1,160	904	3,633,237	73.51%	67.28%
Louisiana	2,877	2,321	2,096	90.32%	1,160	903	3,774,189	73.28%	66.19%
Maine	3,624	2,708	2,444	90.02%	1,125	926	1,147,984	78.25%	70.44%
Maryland	2,759	2,430	1,919	79.18%	1,183	925	4,947,041	76.85%	60.85%
Massachusetts	3,007	2,692	2,189	80.96%	1,240	897	5,711,595	69.49%	56.26%
Michigan	12,080	9,938	8,310	83.39%	4,716	3,636	8,346,148	72.79%	60.70%
Minnesota	2,595	2,272	2,056	90.74%	1,126	906	4,509,704	77.38%	70.21%
Mississippi	2,441	2,019	1,829	90.55%	1,088	918	2,428,802	79.27%	71.77%

(continued)

Table C.3 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2013 (continued)

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Missouri	3,144	2,586	2,330	89.93%	1,183	917	5,009,791	73.20%	65.83%
Montana	2,991	2,429	2,251	92.54%	1,177	910	850,469	74.42%	68.87%
Nebraska	3,052	2,500	2,279	91.03%	1,146	910	1,524,399	74.27%	67.61%
Nevada	2,753	2,285	2,004	87.68%	1,137	932	2,312,257	74.64%	65.44%
New Hampshire	3,488	2,919	2,498	85.43%	1,243	953	1,137,904	76.03%	64.95%
New Jersey	3,164	2,774	2,281	82.31%	1,238	913	7,476,944	68.88%	56.70%
New Mexico	2,868	2,254	2,038	90.20%	1,168	922	1,707,564	73.84%	66.60%
New York	15,157	12,992	9,243	71.27%	5,248	3,637	16,619,482	63.66%	45.36%
North Carolina	2,872	2,382	2,090	87.63%	1,103	880	8,114,142	75.94%	66.55%
North Dakota	3,634	2,767	2,562	92.58%	1,257	945	593,987	68.81%	63.71%
Ohio	11,540	9,824	8,450	85.92%	4,734	3,568	9,677,958	71.01%	61.01%
Oklahoma	2,830	2,326	2,100	90.39%	1,250	950	3,130,656	68.89%	62.27%
Oregon	2,770	2,458	2,153	87.44%	1,093	861	3,327,918	76.84%	67.19%
Pennsylvania	13,292	11,490	9,213	80.00%	4,760	3,663	10,808,879	73.13%	58.50%
Rhode Island	2,969	2,515	2,205	87.59%	1,167	904	897,301	71.97%	63.04%
South Carolina	3,291	2,763	2,308	83.36%	1,134	908	3,952,463	76.40%	63.69%
South Dakota	2,728	2,204	2,059	93.35%	1,106	889	685,112	76.78%	71.68%
Tennessee	2,967	2,431	2,152	88.53%	1,121	894	5,407,982	73.11%	64.72%
Texas	9,323	7,887	6,873	87.12%	4,743	3,604	21,223,105	72.07%	62.79%
Utah	2,032	1,771	1,678	95.05%	1,150	930	2,258,561	75.09%	71.37%
Vermont	3,622	2,827	2,420	85.51%	1,115	875	542,516	76.92%	65.78%
Virginia	2,792	2,413	2,072	85.14%	1,148	902	6,803,508	76.51%	65.15%
Washington	2,598	2,235	1,937	86.55%	1,175	900	5,797,644	71.56%	61.93%
West Virginia	3,526	2,911	2,598	89.32%	1,179	916	1,574,493	76.28%	68.13%
Wisconsin	2,865	2,414	2,176	90.41%	1,145	867	4,811,751	73.66%	66.60%
Wyoming	3,454	2,705	2,449	90.40%	1,176	928	479,279	78.69%	71.14%

DU = dwelling unit.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013.

Table C.4 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2013

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Total U.S.	27,630	22,532	24,892,618	81.95%	28,921	22,458	34,785,501	77.34%	32,191	22,848	202,713,336	69.45%
Northeast	5,700	4,561	4,187,318	79.38%	5,915	4,465	6,149,025	74.20%	6,719	4,635	37,051,892	66.60%
Midwest	7,730	6,220	5,398,028	80.27%	8,236	6,328	7,406,554	76.24%	8,876	6,274	43,410,071	69.65%
South	8,368	6,904	9,356,405	82.51%	8,566	6,762	12,857,518	78.55%	9,824	7,116	75,299,092	71.29%
West	5,832	4,847	5,950,868	84.38%	6,204	4,903	8,372,403	78.74%	6,772	4,823	46,952,282	68.53%
Alabama	381	322	382,694	82.54%	377	304	536,933	78.79%	398	274	3,105,417	66.03%
Alaska	364	276	60,220	76.37%	380	301	83,264	77.91%	378	286	433,826	74.16%
Arizona	396	323	541,841	81.38%	385	293	727,937	76.31%	389	266	4,173,767	66.25%
Arkansas	327	255	236,968	78.23%	454	350	319,725	76.45%	412	303	1,878,489	72.01%
California	1,490	1,263	3,095,715	85.24%	1,571	1,236	4,464,898	78.73%	1,803	1,230	24,179,306	66.97%
Colorado	322	259	405,187	80.90%	399	304	570,429	75.38%	452	322	3,363,721	69.41%
Connecticut	391	316	287,546	82.74%	351	271	378,789	78.01%	456	306	2,379,294	67.41%
Delaware	334	281	67,694	82.04%	396	309	102,069	78.44%	383	272	604,877	70.04%
District of Columbia	374	327	30,375	88.49%	304	237	93,799	80.28%	464	343	431,161	73.41%
Florida	1,407	1,156	1,387,520	82.81%	1,513	1,184	1,973,936	77.89%	1,872	1,309	13,238,200	69.64%
Georgia	358	291	834,836	82.28%	384	306	1,103,523	79.41%	351	255	6,195,182	70.39%
Hawaii	368	306	97,238	81.23%	417	321	140,183	75.08%	455	297	898,498	64.16%
Idaho	337	280	142,022	84.51%	429	341	172,682	82.06%	397	286	991,129	73.13%
Illinois	1,460	1,145	1,039,658	79.14%	1,661	1,201	1,395,665	71.65%	1,814	1,157	8,278,344	63.39%
Indiana	366	292	541,496	78.05%	365	288	738,003	77.25%	434	314	4,151,475	69.66%
Iowa	357	287	242,247	79.14%	395	315	350,483	80.07%	412	298	1,974,259	68.83%
Kansas	369	296	237,924	80.42%	386	295	324,627	77.64%	410	296	1,781,619	71.39%
Kentucky	366	300	340,478	82.34%	365	296	468,033	81.37%	429	308	2,824,726	71.05%
Louisiana	370	297	367,993	78.65%	340	276	520,801	79.72%	450	330	2,885,395	71.59%
Maine	390	328	94,311	82.76%	361	306	127,972	84.65%	374	292	925,702	76.97%
Maryland	375	302	455,935	81.11%	389	306	630,762	76.22%	419	317	3,860,344	76.45%
Massachusetts	370	285	489,152	76.58%	427	311	777,767	73.11%	443	301	4,444,677	68.04%
Michigan	1,488	1,194	802,126	80.07%	1,550	1,220	1,112,833	78.07%	1,678	1,222	6,431,190	70.93%
Minnesota	335	287	424,921	87.36%	391	307	571,675	76.12%	400	312	3,513,108	76.46%
Mississippi	377	337	246,305	88.95%	328	287	338,137	87.14%	383	294	1,844,359	76.42%

(continued)

Table C.4 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2013 (continued)

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Missouri	358	302	471,719	82.66%	381	292	655,369	76.22%	444	323	3,882,703	71.61%
Montana	394	314	74,018	79.63%	397	309	110,155	77.44%	386	287	666,296	73.30%
Nebraska	390	321	148,681	80.79%	371	309	208,331	82.84%	385	280	1,167,387	71.59%
Nevada	355	310	221,435	88.57%	351	314	286,394	87.34%	431	308	1,804,427	70.98%
New Hampshire	393	304	100,312	76.63%	414	319	140,525	77.94%	436	330	897,067	75.64%
New Jersey	380	293	703,594	78.88%	404	313	887,966	77.36%	454	307	5,885,384	66.32%
New Mexico	340	297	167,385	87.52%	378	297	229,365	77.50%	450	328	1,310,813	71.52%
New York	1,685	1,303	1,446,714	77.33%	1,649	1,136	2,239,850	68.87%	1,914	1,198	12,932,918	61.18%
North Carolina	310	266	768,619	87.00%	368	290	1,050,264	77.57%	425	324	6,295,258	74.28%
North Dakota	368	297	50,250	78.97%	402	315	99,046	78.91%	487	333	444,691	65.58%
Ohio	1,542	1,220	924,863	78.72%	1,525	1,173	1,238,671	78.36%	1,667	1,175	7,514,424	68.82%
Oklahoma	423	346	308,182	82.96%	412	319	428,032	77.07%	415	285	2,394,443	65.70%
Oregon	321	263	291,705	80.87%	361	289	413,732	79.98%	411	309	2,622,480	75.89%
Pennsylvania	1,383	1,146	945,209	82.78%	1,575	1,220	1,391,012	77.81%	1,802	1,297	8,472,657	71.23%
Rhode Island	372	312	75,840	84.51%	360	289	131,461	79.12%	435	303	690,001	69.39%
South Carolina	392	319	360,578	80.86%	345	285	522,722	82.89%	397	304	3,069,164	74.75%
South Dakota	359	304	65,259	84.23%	361	286	93,194	78.68%	386	299	526,659	75.61%
Tennessee	371	317	505,527	85.19%	359	292	697,396	81.65%	391	285	4,205,059	70.31%
Texas	1,404	1,139	2,311,623	80.63%	1,588	1,219	2,985,606	76.39%	1,751	1,246	15,925,876	70.06%
Utah	371	318	279,317	86.38%	419	340	370,856	81.41%	360	272	1,608,388	71.37%
Vermont	336	274	44,641	81.36%	374	300	73,683	80.65%	405	301	424,193	75.81%
Virginia	394	331	620,869	85.27%	322	247	895,156	79.29%	432	324	5,287,483	74.84%
Washington	353	297	530,892	85.62%	365	289	738,379	78.95%	457	314	4,528,373	68.85%
West Virginia	405	318	130,210	78.65%	322	255	190,624	79.31%	452	343	1,253,658	75.55%
Wisconsin	338	275	448,884	80.11%	448	327	618,657	71.94%	359	265	3,744,210	73.13%
Wyoming	421	341	43,892	80.89%	352	269	64,129	78.38%	403	318	371,258	78.50%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013.

Table C.5 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2014

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Total U.S.	185,013	154,533	127,605	81.94%	91,640	67,901	265,122,865	71.20%	58.34%
Northeast	40,667	34,065	26,744	76.59%	18,175	12,999	47,631,944	67.54%	51.73%
Midwest	42,681	35,695	30,189	83.61%	21,523	15,825	56,462,258	71.17%	59.51%
South	61,543	50,983	42,788	84.59%	30,192	22,781	98,843,935	72.44%	61.27%
West	40,122	33,790	27,884	80.21%	21,750	16,296	62,184,728	72.05%	57.79%
Alabama	2,640	2,083	1,730	82.92%	1,272	964	4,042,640	71.97%	59.67%
Alaska	2,985	2,346	1,950	83.13%	1,386	947	580,556	67.80%	56.37%
Arizona	2,514	1,912	1,659	86.87%	1,269	971	5,545,689	74.84%	65.01%
Arkansas	2,674	2,203	1,946	88.05%	1,262	964	2,443,636	72.68%	63.99%
California	10,239	9,203	7,083	76.31%	6,403	4,664	32,201,663	69.82%	53.28%
Colorado	2,607	2,254	1,843	81.83%	1,357	1,008	4,426,093	72.95%	59.70%
Connecticut	2,790	2,484	1,997	80.29%	1,438	980	3,054,946	64.87%	52.08%
Delaware	2,772	2,401	1,855	77.44%	1,264	951	784,117	73.66%	57.05%
District of Columbia	4,330	3,706	2,802	75.60%	1,219	935	564,072	72.83%	55.06%
Florida	10,269	8,222	6,823	82.44%	4,385	3,331	16,916,262	70.33%	57.98%
Georgia	3,693	3,089	2,567	83.01%	2,029	1,549	8,240,647	74.40%	61.76%
Hawaii	2,942	2,469	1,934	77.80%	1,339	968	1,149,245	71.50%	55.63%
Idaho	1,932	1,690	1,477	87.33%	1,267	987	1,326,157	75.54%	65.97%
Illinois	6,904	5,866	4,407	75.00%	3,488	2,397	10,738,476	67.24%	50.43%
Indiana	2,504	2,078	1,782	85.70%	1,294	967	5,460,095	72.26%	61.93%
Iowa	2,496	2,101	1,851	87.94%	1,240	912	2,582,849	71.52%	62.89%
Kansas	2,304	1,990	1,705	85.58%	1,296	982	2,356,686	73.83%	63.19%
Kentucky	2,556	2,080	1,827	87.74%	1,284	946	3,653,138	69.25%	60.76%
Louisiana	2,435	1,987	1,742	87.36%	1,302	992	3,798,948	73.51%	64.22%
Maine	3,342	2,364	2,106	89.08%	1,230	940	1,151,035	75.33%	67.10%
Maryland	2,483	2,251	1,757	77.14%	1,297	971	4,988,662	72.12%	55.63%
Massachusetts	2,948	2,541	2,068	81.37%	1,437	1,000	5,769,623	66.32%	53.97%
Michigan	6,609	5,404	4,498	83.31%	3,269	2,418	8,372,529	70.92%	59.08%
Minnesota	2,375	2,111	1,825	86.44%	1,266	967	4,544,275	75.42%	65.20%
Mississippi	2,199	1,714	1,498	87.30%	1,170	909	2,438,813	76.34%	66.64%

(continued)

Table C.5 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2014 (continued)

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Missouri	2,578	2,116	1,839	86.82%	1,218	934	5,033,932	75.64%	65.67%
Montana	2,829	2,270	2,036	89.64%	1,287	977	857,904	72.51%	65.00%
Nebraska	2,459	2,102	1,842	87.61%	1,268	938	1,536,175	73.47%	64.36%
Nevada	2,421	2,047	1,592	77.33%	1,279	961	2,359,905	72.75%	56.25%
New Hampshire	3,044	2,439	2,055	84.32%	1,288	932	1,144,239	68.75%	57.97%
New Jersey	4,403	3,745	2,951	78.97%	2,167	1,536	7,522,494	69.70%	55.05%
New Mexico	2,313	1,746	1,555	89.09%	1,172	959	1,712,519	80.40%	71.62%
New York	11,063	9,562	6,603	68.76%	4,835	3,284	16,716,169	64.15%	44.11%
North Carolina	4,185	3,443	2,972	86.23%	1,956	1,533	8,216,513	76.58%	66.03%
North Dakota	3,043	2,363	2,136	90.40%	1,240	969	605,994	77.32%	69.89%
Ohio	6,322	5,307	4,531	85.14%	3,337	2,415	9,706,544	69.80%	59.43%
Oklahoma	2,259	1,828	1,609	88.21%	1,284	937	3,156,090	68.47%	60.40%
Oregon	2,529	2,207	1,877	85.36%	1,318	992	3,365,496	72.93%	62.26%
Pennsylvania	7,101	6,028	4,875	80.53%	3,186	2,388	10,828,027	70.81%	57.02%
Rhode Island	2,681	2,251	1,859	82.83%	1,334	991	902,080	72.13%	59.74%
South Carolina	2,843	2,307	1,958	84.71%	1,308	998	4,008,720	75.19%	63.69%
South Dakota	2,163	1,779	1,679	94.39%	1,275	981	691,583	75.06%	70.85%
Tennessee	2,326	1,939	1,676	86.31%	1,204	946	5,459,207	78.68%	67.91%
Texas	7,004	5,857	5,066	86.53%	4,581	3,383	21,690,765	70.38%	60.90%
Utah	1,534	1,344	1,275	94.87%	1,186	972	2,299,458	80.57%	76.44%
Vermont	3,295	2,651	2,230	83.96%	1,260	948	543,332	73.63%	61.82%
Virginia	3,671	3,261	2,678	82.32%	2,020	1,539	6,870,308	73.13%	60.20%
Washington	2,449	2,173	1,705	78.75%	1,241	935	5,879,524	74.01%	58.28%
West Virginia	3,204	2,612	2,282	87.55%	1,355	933	1,571,398	67.70%	59.27%
Wisconsin	2,924	2,478	2,094	84.25%	1,332	945	4,833,121	69.67%	58.70%
Wyoming	2,828	2,129	1,898	89.09%	1,246	955	480,520	74.19%	66.10%

DU = dwelling unit.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014.

Table C.6 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2014

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Total U.S.	21,392	17,046	24,874,753	80.03%	21,726	16,570	34,934,626	75.88%	48,522	34,285	205,313,486	69.34%
Northeast	4,205	3,276	4,156,404	77.70%	4,204	3,117	6,150,189	71.74%	9,766	6,606	37,325,350	65.72%
Midwest	4,989	3,919	5,371,702	78.29%	5,143	3,820	7,427,562	73.42%	11,391	8,086	43,662,994	69.94%
South	7,210	5,824	9,410,988	81.01%	7,124	5,622	12,942,634	79.34%	15,858	11,335	76,490,313	70.20%
West	4,988	4,027	5,935,659	81.65%	5,255	4,011	8,414,241	75.77%	11,507	8,258	47,834,829	70.22%
Alabama	282	231	381,574	84.31%	291	236	533,886	80.90%	699	497	3,127,180	69.01%
Alaska	365	253	59,580	67.20%	314	222	83,648	68.72%	707	472	437,329	67.72%
Arizona	270	230	545,127	85.91%	311	244	737,788	78.17%	688	497	4,262,775	72.91%
Arkansas	308	249	236,364	78.53%	257	211	319,018	81.55%	697	504	1,888,254	70.65%
California	1,373	1,115	3,065,381	80.92%	1,531	1,151	4,473,314	74.54%	3,499	2,398	24,662,968	67.62%
Colorado	322	256	411,672	79.70%	409	311	580,685	76.85%	626	441	3,433,735	71.35%
Connecticut	335	256	285,016	78.02%	306	219	384,157	68.85%	797	505	2,385,774	62.71%
Delaware	330	264	68,288	78.60%	302	233	100,409	79.53%	632	454	615,419	72.13%
District of Columbia	273	233	30,727	85.77%	289	235	93,220	81.11%	657	467	440,125	70.19%
Florida	1,060	869	1,392,741	82.44%	1,062	847	1,987,479	79.44%	2,263	1,615	13,536,042	67.74%
Georgia	463	367	841,562	78.40%	543	438	1,112,868	81.03%	1,023	744	6,286,218	72.63%
Hawaii	312	249	96,703	81.76%	298	213	141,189	71.89%	729	506	911,353	70.37%
Idaho	276	233	143,867	84.58%	327	246	174,040	74.71%	664	508	1,008,249	74.52%
Illinois	749	558	1,027,930	74.50%	802	561	1,394,050	71.84%	1,937	1,278	8,316,496	65.66%
Indiana	314	249	540,851	80.33%	301	229	742,327	75.03%	679	489	4,176,917	70.77%
Iowa	268	203	242,540	75.35%	331	256	355,200	78.64%	641	453	1,985,109	69.65%
Kansas	275	213	237,294	78.08%	347	280	327,370	81.11%	674	489	1,792,022	71.94%
Kentucky	319	257	339,725	80.59%	324	243	473,910	75.27%	641	446	2,839,503	66.80%
Louisiana	312	255	367,731	81.26%	353	270	517,271	74.77%	637	467	2,913,946	72.28%
Maine	258	196	93,311	75.75%	278	225	126,789	80.17%	694	519	930,936	74.68%
Maryland	330	262	455,432	79.30%	297	229	628,947	75.83%	670	480	3,904,284	70.56%
Massachusetts	338	268	488,379	78.17%	375	273	786,469	72.66%	724	459	4,494,775	64.05%
Michigan	769	597	793,168	76.39%	730	558	1,116,715	75.04%	1,770	1,263	6,462,646	69.61%
Minnesota	309	252	425,574	81.06%	337	251	571,957	76.87%	620	464	3,546,745	74.56%
Mississippi	262	216	244,895	82.71%	272	231	339,299	85.28%	636	462	1,854,619	73.88%

(continued)

Table C.6 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2014 (continued)

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Missouri	296	239	470,232	82.31%	282	208	657,419	74.23%	640	487	3,906,282	75.09%
Montana	284	222	74,224	79.69%	323	265	111,155	80.21%	680	490	672,526	70.24%
Nebraska	306	242	149,974	79.31%	296	219	210,685	74.17%	666	477	1,175,517	72.54%
Nevada	270	224	221,973	84.05%	318	240	288,475	74.94%	691	497	1,849,457	71.04%
New Hampshire	338	258	99,122	76.99%	294	234	141,805	80.62%	656	440	903,312	65.99%
New Jersey	517	391	699,694	75.24%	533	388	893,781	72.67%	1,117	757	5,929,018	68.64%
New Mexico	308	259	165,894	85.61%	262	220	227,928	84.46%	602	480	1,318,698	78.99%
New York	1,060	817	1,433,846	75.80%	1,077	737	2,238,419	66.42%	2,698	1,730	13,043,905	62.41%
North Carolina	461	380	774,595	82.08%	495	391	1,059,045	80.37%	1,000	762	6,382,874	75.24%
North Dakota	281	228	51,216	81.17%	341	271	102,157	78.81%	618	470	452,621	76.52%
Ohio	764	608	919,721	79.36%	777	550	1,232,774	70.07%	1,796	1,257	7,554,049	68.60%
Oklahoma	265	198	310,671	69.71%	298	235	430,351	77.68%	721	504	2,415,068	66.67%
Oregon	352	284	290,940	82.48%	334	242	413,519	71.42%	632	466	2,661,037	72.14%
Pennsylvania	738	608	937,266	82.54%	760	598	1,374,219	77.83%	1,688	1,182	8,516,542	68.46%
Rhode Island	325	250	75,595	75.22%	288	218	130,594	76.26%	721	523	695,890	70.92%
South Carolina	295	239	363,511	82.24%	304	245	521,002	82.04%	709	514	3,124,207	73.31%
South Dakota	300	251	65,995	83.07%	304	237	93,613	79.14%	671	493	531,976	73.42%
Tennessee	295	238	507,431	80.67%	233	188	703,094	82.76%	676	520	4,248,682	77.82%
Texas	1,137	929	2,342,547	81.93%	1,021	791	3,034,761	78.37%	2,423	1,663	16,313,458	67.20%
Utah	280	242	285,236	87.27%	252	217	374,751	84.88%	654	513	1,639,471	78.58%
Vermont	296	232	44,175	78.65%	293	225	73,958	77.65%	671	491	425,199	72.46%
Virginia	476	391	623,660	83.06%	496	398	897,977	80.79%	1,048	750	5,348,672	70.66%
Washington	272	214	530,698	78.46%	292	224	744,057	76.84%	677	497	4,604,769	73.01%
West Virginia	342	246	129,536	72.19%	287	201	190,099	70.22%	726	486	1,251,764	66.88%
Wisconsin	358	279	447,209	79.03%	295	200	623,296	65.36%	679	466	3,762,616	69.19%
Wyoming	304	246	44,364	79.39%	284	216	63,692	76.18%	658	493	372,464	73.23%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014.

Table C.7 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2012 and 2013

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Total U.S.	441,349	368,653	314,198	85.00%	176,398	136,147	261,224,390	72.37%	61.51%
Northeast	99,075	84,018	67,655	79.23%	36,635	27,434	47,281,597	69.17%	54.80%
Midwest	120,239	101,287	87,390	86.65%	49,341	37,964	56,069,675	72.91%	63.17%
South	136,077	111,573	96,782	86.90%	53,037	41,668	96,943,079	73.77%	64.11%
West	85,958	71,775	62,371	84.88%	37,385	29,081	60,930,039	72.12%	61.22%
Alabama	6,122	4,894	4,282	87.14%	2,301	1,801	4,015,238	71.81%	62.58%
Alaska	5,601	4,216	3,686	87.42%	2,198	1,692	577,228	74.10%	64.78%
Arizona	5,784	4,467	3,919	87.78%	2,309	1,804	5,403,101	73.26%	64.31%
Arkansas	5,497	4,481	4,074	90.79%	2,405	1,821	2,429,054	71.52%	64.93%
California	19,483	17,279	14,063	81.35%	9,643	7,337	31,581,986	70.32%	57.21%
Colorado	5,861	5,015	4,217	84.13%	2,361	1,812	4,299,874	73.07%	61.47%
Connecticut	5,844	5,226	4,401	84.03%	2,459	1,857	3,039,935	71.34%	59.95%
Delaware	5,889	4,777	4,081	85.61%	2,223	1,755	770,186	76.17%	65.21%
District of Columbia	10,521	8,658	7,027	80.87%	2,267	1,869	549,981	78.06%	63.13%
Florida	26,942	21,111	17,692	82.98%	9,371	7,193	16,491,099	71.12%	59.02%
Georgia	5,025	4,260	3,632	85.39%	2,237	1,737	8,087,248	73.06%	62.38%
Hawaii	6,506	5,622	4,474	79.11%	2,525	1,862	1,133,370	67.89%	53.71%
Idaho	4,688	3,959	3,684	93.03%	2,299	1,828	1,297,052	76.96%	71.59%
Illinois	23,152	20,343	15,590	76.61%	9,806	7,175	10,697,218	68.46%	52.45%
Indiana	5,483	4,623	4,103	88.87%	2,336	1,805	5,411,173	72.26%	64.22%
Iowa	5,229	4,517	4,142	91.59%	2,301	1,800	2,558,825	73.00%	66.86%
Kansas	5,206	4,389	3,921	89.29%	2,274	1,799	2,340,109	75.50%	67.41%
Kentucky	5,937	4,963	4,543	91.49%	2,344	1,831	3,620,332	73.50%	67.25%
Louisiana	5,618	4,464	4,073	91.33%	2,260	1,804	3,759,825	75.38%	68.85%
Maine	7,490	5,566	5,029	90.29%	2,259	1,864	1,146,775	78.71%	71.07%
Maryland	5,439	4,738	3,721	78.66%	2,257	1,799	4,926,434	76.39%	60.09%
Massachusetts	6,071	5,345	4,397	82.04%	2,493	1,852	5,686,563	70.51%	57.85%
Michigan	23,521	19,145	16,136	84.20%	9,322	7,291	8,332,687	74.28%	62.54%
Minnesota	5,078	4,432	4,031	91.15%	2,218	1,808	4,490,191	79.20%	72.19%
Mississippi	4,994	4,106	3,780	92.05%	2,188	1,819	2,424,306	78.93%	72.65%

(continued)

Table C.7 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2012 and 2013 (continued)

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Missouri	6,023	4,995	4,518	90.41%	2,332	1,832	4,997,678	73.77%	66.69%
Montana	6,286	5,039	4,666	92.58%	2,286	1,786	846,239	75.85%	70.22%
Nebraska	5,608	4,675	4,297	91.86%	2,316	1,850	1,517,851	73.67%	67.68%
Nevada	5,107	4,164	3,725	89.51%	2,271	1,835	2,295,456	75.13%	67.25%
New Hampshire	6,478	5,426	4,689	86.38%	2,502	1,903	1,135,783	74.56%	64.40%
New Jersey	5,786	5,001	4,216	84.47%	2,393	1,811	7,458,969	71.25%	60.18%
New Mexico	5,639	4,306	3,927	91.19%	2,269	1,801	1,705,115	74.00%	67.48%
New York	29,704	25,539	18,358	71.58%	10,515	7,317	16,575,744	64.02%	45.83%
North Carolina	5,720	4,628	4,080	88.05%	2,220	1,797	8,060,735	75.70%	66.66%
North Dakota	7,008	5,400	5,023	92.99%	2,413	1,840	585,756	71.05%	66.07%
Ohio	23,262	19,946	17,473	87.57%	9,561	7,255	9,658,305	71.87%	62.94%
Oklahoma	5,790	4,708	4,273	90.80%	2,439	1,858	3,114,952	70.60%	64.10%
Oregon	5,317	4,708	4,172	88.54%	2,258	1,784	3,310,508	76.65%	67.87%
Pennsylvania	25,199	21,746	17,666	81.03%	9,465	7,243	10,799,456	71.88%	58.25%
Rhode Island	5,589	4,705	4,162	88.48%	2,298	1,827	896,323	74.83%	66.20%
South Carolina	6,597	5,429	4,682	86.09%	2,305	1,846	3,926,252	75.78%	65.23%
South Dakota	5,364	4,367	4,090	93.65%	2,219	1,767	680,698	76.45%	71.60%
Tennessee	5,499	4,526	4,081	90.21%	2,226	1,821	5,385,528	77.01%	69.47%
Texas	18,371	15,538	13,665	87.82%	9,355	7,229	21,037,974	72.71%	63.86%
Utah	3,825	3,329	3,152	94.88%	2,249	1,856	2,236,456	79.22%	75.17%
Vermont	6,914	5,464	4,737	86.66%	2,251	1,760	542,049	75.33%	65.28%
Virginia	5,368	4,706	4,099	86.82%	2,243	1,796	6,769,603	76.51%	66.43%
Washington	5,298	4,541	4,015	88.37%	2,393	1,828	5,766,890	71.69%	63.35%
West Virginia	6,748	5,586	4,997	89.36%	2,396	1,892	1,574,332	75.15%	67.15%
Wisconsin	5,305	4,455	4,066	91.41%	2,243	1,742	4,799,184	74.64%	68.23%
Wyoming	6,563	5,130	4,671	91.06%	2,324	1,856	476,764	78.09%	71.10%

DU = dwelling unit.

NOTE: To compute the pooled 2012-2013 weighted response rates, two samples were combined, and the individual year weights were used for the pooled sample. Thus, the response rates presented here are weighted across 2 years of data rather than being a simple average of the 2012 and 2013 individual response rates. The 2012-2013 population estimate is the average of the 2012 and the 2013 population.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013.

Table C.8 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012 and 2013

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Total U.S.	54,777	45,024	24,912,835	82.39%	57,560	45,220	34,687,727	78.30%	64,061	45,903	201,623,828	70.10%
Northeast	11,213	8,982	4,212,368	79.60%	12,029	9,185	6,151,259	75.38%	13,393	9,267	36,917,970	66.93%
Midwest	15,463	12,619	5,407,088	81.81%	16,127	12,598	7,384,188	77.93%	17,751	12,747	43,278,398	70.94%
South	16,660	13,877	9,330,852	83.02%	17,149	13,774	12,808,148	80.11%	19,228	14,017	74,804,079	71.51%
West	11,441	9,546	5,962,527	83.91%	12,255	9,663	8,344,131	77.98%	13,689	9,872	46,623,382	69.58%
Alabama	723	600	383,469	81.47%	760	616	536,933	79.81%	818	585	3,094,837	69.18%
Alaska	668	509	60,264	76.22%	728	587	82,442	80.12%	802	596	434,523	72.75%
Arizona	762	635	540,502	83.49%	756	586	720,761	75.65%	791	583	4,141,839	71.47%
Arkansas	721	567	236,508	78.18%	858	660	318,730	75.95%	826	594	1,873,816	69.89%
California	2,899	2,422	3,117,442	83.51%	3,155	2,452	4,458,805	77.62%	3,589	2,463	24,005,740	67.24%
Colorado	698	578	402,137	83.52%	789	605	565,276	76.77%	874	629	3,332,461	71.26%
Connecticut	752	604	288,704	81.26%	777	610	376,034	79.25%	930	643	2,375,197	68.98%
Delaware	710	588	68,333	82.31%	701	555	102,080	81.10%	812	612	599,773	74.72%
District of Columbia	736	656	30,856	90.16%	702	581	94,677	83.79%	829	632	424,447	75.93%
Florida	2,826	2,349	1,385,416	83.15%	3,048	2,406	1,972,330	78.53%	3,497	2,438	13,133,353	68.77%
Georgia	702	578	831,609	82.00%	744	590	1,100,053	79.50%	791	569	6,155,586	70.62%
Hawaii	745	590	97,086	78.59%	799	629	140,225	78.05%	981	643	896,059	65.33%
Idaho	726	625	140,843	86.67%	763	603	173,004	81.11%	810	600	983,206	74.62%
Illinois	2,977	2,379	1,045,769	80.56%	3,223	2,391	1,394,500	74.06%	3,606	2,405	8,256,950	66.00%
Indiana	696	563	541,016	80.14%	773	616	734,767	78.96%	867	626	4,135,390	70.17%
Iowa	730	601	241,811	80.67%	757	602	349,004	79.74%	814	597	1,968,010	70.80%
Kansas	757	639	237,185	84.32%	704	560	323,430	81.02%	813	600	1,779,494	73.33%
Kentucky	750	618	339,960	82.10%	745	598	464,737	80.80%	849	615	2,815,636	71.22%
Louisiana	700	589	367,827	83.68%	704	579	521,917	81.23%	856	636	2,870,080	73.33%
Maine	749	633	94,988	84.06%	748	631	128,694	84.38%	762	600	923,093	77.36%
Maryland	705	584	457,152	83.28%	752	612	631,368	79.76%	800	603	3,837,914	74.99%
Massachusetts	750	594	491,273	78.88%	835	623	775,063	75.12%	908	635	4,420,226	68.78%
Michigan	2,933	2,372	805,764	80.89%	3,058	2,451	1,107,310	79.91%	3,331	2,468	6,419,614	72.46%
Minnesota	698	611	424,639	88.46%	730	579	571,439	78.02%	790	618	3,494,114	78.30%
Mississippi	761	650	247,257	84.79%	666	584	337,204	87.67%	761	585	1,839,846	76.40%

(continued)

Table C.8 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012 and 2013 (continued)

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Missouri	725	614	472,889	84.31%	737	582	655,094	79.29%	870	636	3,869,695	71.57%
Montana	782	630	73,896	80.70%	747	588	108,999	77.95%	757	568	663,344	74.89%
Nebraska	712	599	148,030	83.78%	804	674	207,051	83.81%	800	577	1,162,770	70.47%
Nevada	688	600	221,167	87.57%	719	603	285,463	83.25%	864	632	1,788,826	72.37%
New Hampshire	798	609	101,207	76.06%	831	643	140,004	78.44%	873	651	894,572	73.74%
New Jersey	729	584	706,126	81.00%	782	605	884,775	77.80%	882	622	5,868,068	69.01%
New Mexico	672	587	168,112	87.37%	747	600	228,037	79.38%	850	614	1,308,966	71.35%
New York	3,249	2,496	1,456,617	76.58%	3,427	2,402	2,243,318	70.34%	3,839	2,419	12,875,810	61.47%
North Carolina	664	564	764,610	85.24%	750	627	1,041,859	82.67%	806	606	6,254,266	73.32%
North Dakota	739	606	49,581	81.26%	741	583	96,345	79.36%	933	651	439,830	68.18%
Ohio	3,170	2,517	925,827	79.23%	3,000	2,321	1,235,683	78.07%	3,391	2,417	7,496,795	69.92%
Oklahoma	808	649	306,820	80.51%	795	616	426,492	76.97%	836	593	2,381,640	68.19%
Oregon	632	533	292,050	83.94%	768	607	411,744	79.54%	858	644	2,606,713	75.45%
Pennsylvania	2,808	2,315	951,880	82.46%	3,111	2,438	1,397,926	78.78%	3,546	2,490	8,449,649	69.54%
Rhode Island	692	588	76,543	85.46%	751	618	132,076	81.81%	855	621	687,705	72.40%
South Carolina	777	636	359,524	81.22%	694	580	519,243	83.75%	834	630	3,047,485	73.75%
South Dakota	675	569	64,901	84.17%	732	586	92,359	80.75%	812	612	523,437	74.88%
Tennessee	670	578	505,317	85.57%	778	644	692,825	82.46%	778	599	4,187,386	75.12%
Texas	2,876	2,385	2,295,567	82.49%	3,059	2,402	2,964,444	78.37%	3,420	2,442	15,777,963	70.25%
Utah	690	605	275,660	88.43%	803	650	367,327	81.59%	756	601	1,593,468	76.95%
Vermont	686	559	45,030	80.94%	767	615	73,369	80.79%	798	586	423,650	73.81%
Virginia	767	653	619,956	85.16%	638	517	893,349	82.17%	838	626	5,256,298	74.38%
Washington	721	598	529,852	83.62%	771	599	738,145	77.21%	901	631	4,498,893	69.56%
West Virginia	764	633	130,671	83.20%	755	607	189,908	80.33%	877	652	1,253,753	73.53%
Wisconsin	651	549	449,677	83.42%	868	653	617,207	74.83%	724	540	3,732,300	73.51%
Wyoming	758	634	43,516	83.37%	710	554	63,905	78.47%	856	668	369,343	77.41%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

NOTE: To compute the pooled 2012-2013 weighted response rates, two samples were combined, and the individual year weights were used for the pooled sample. Thus, the response rates presented here are weighted across 2 years of data rather than being a simple average of the 2012 and 2013 individual response rates. The 2012-2013 population estimate is the average of the 2012 and the 2013 population.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013.

Table C.9 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2013 and 2014

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Total U.S.	412,088	344,600	287,930	82.92%	180,382	135,739	263,757,160	71.44%	59.24%
Northeast	91,979	77,673	61,531	77.56%	36,509	26,660	47,510,090	68.14%	52.85%
Midwest	104,386	87,601	74,569	84.64%	46,365	34,647	56,338,455	71.36%	60.39%
South	131,479	108,446	92,076	85.12%	56,950	43,563	98,178,474	72.88%	62.04%
West	84,244	70,880	59,754	81.92%	40,558	30,869	61,730,140	71.77%	58.80%
Alabama	5,750	4,605	3,871	83.48%	2,428	1,864	4,033,842	70.62%	58.95%
Alaska	6,162	4,693	3,994	85.07%	2,508	1,810	578,933	71.30%	60.65%
Arizona	5,527	4,236	3,650	86.20%	2,439	1,853	5,494,617	72.15%	62.20%
Arkansas	5,395	4,392	3,930	89.35%	2,455	1,872	2,439,409	72.94%	65.17%
California	20,233	18,168	14,294	78.27%	11,267	8,393	31,970,791	70.13%	54.89%
Colorado	5,397	4,690	3,859	82.35%	2,530	1,893	4,382,715	72.05%	59.33%
Connecticut	5,779	5,175	4,291	82.79%	2,636	1,873	3,050,288	67.55%	55.92%
Delaware	5,814	4,886	3,928	80.36%	2,377	1,813	779,378	72.94%	58.62%
District of Columbia	9,796	8,260	6,502	78.17%	2,361	1,842	559,703	74.11%	57.93%
Florida	24,443	19,278	15,999	81.93%	9,177	6,980	16,757,959	70.99%	58.16%
Georgia	6,353	5,307	4,403	82.83%	3,122	2,401	8,187,094	73.74%	61.08%
Hawaii	6,236	5,330	4,169	77.63%	2,579	1,892	1,142,582	69.15%	53.68%
Idaho	4,320	3,710	3,340	89.78%	2,430	1,894	1,315,995	75.60%	67.87%
Illinois	18,671	16,245	12,319	75.59%	8,423	5,900	10,726,071	66.62%	50.35%
Indiana	5,496	4,591	3,964	86.19%	2,459	1,861	5,445,535	71.89%	61.97%
Iowa	5,196	4,419	3,971	89.78%	2,404	1,812	2,574,919	71.43%	64.13%
Kansas	4,912	4,181	3,649	87.08%	2,461	1,869	2,350,428	73.49%	64.00%
Kentucky	5,641	4,636	4,168	89.66%	2,444	1,850	3,643,187	71.36%	63.98%
Louisiana	5,312	4,308	3,838	88.65%	2,462	1,895	3,786,568	73.39%	65.06%
Maine	6,966	5,072	4,550	89.55%	2,355	1,866	1,149,510	76.78%	68.75%
Maryland	5,242	4,681	3,676	78.18%	2,480	1,896	4,967,852	74.52%	58.26%
Massachusetts	5,955	5,233	4,257	81.16%	2,677	1,897	5,740,609	67.87%	55.08%
Michigan	18,689	15,342	12,808	83.35%	7,985	6,054	8,359,339	71.83%	59.87%
Minnesota	4,970	4,383	3,881	88.66%	2,392	1,873	4,526,990	76.40%	67.74%
Mississippi	4,640	3,733	3,327	88.96%	2,258	1,827	2,433,807	77.78%	69.19%

(continued)

Table C.9 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Individuals Aged 12 or Older: 2013 and 2014 (continued)

State	Total Selected DUs	Total Eligible DUs	Total Completed Screeners	Weighted DU Screening Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Weighted Overall Response Rate
Missouri	5,722	4,702	4,169	88.41%	2,401	1,851	5,021,862	74.42%	65.79%
Montana	5,820	4,699	4,287	91.06%	2,464	1,887	854,187	73.49%	66.92%
Nebraska	5,511	4,602	4,121	89.28%	2,414	1,848	1,530,287	73.85%	65.94%
Nevada	5,174	4,332	3,596	82.06%	2,416	1,893	2,336,081	73.68%	60.46%
New Hampshire	6,532	5,358	4,553	84.88%	2,531	1,885	1,141,071	72.29%	61.36%
New Jersey	7,567	6,519	5,232	80.70%	3,405	2,449	7,499,719	69.30%	55.92%
New Mexico	5,181	4,000	3,593	89.62%	2,340	1,881	1,710,041	77.04%	69.04%
New York	26,220	22,554	15,846	69.96%	10,083	6,921	16,667,826	63.90%	44.71%
North Carolina	7,057	5,825	5,062	86.93%	3,059	2,413	8,165,327	76.26%	66.30%
North Dakota	6,677	5,130	4,698	91.45%	2,497	1,914	599,990	72.95%	66.71%
Ohio	17,862	15,131	12,981	85.53%	8,071	5,983	9,692,251	70.40%	60.21%
Oklahoma	5,089	4,154	3,709	89.32%	2,534	1,887	3,143,373	68.68%	61.35%
Oregon	5,299	4,665	4,030	86.40%	2,411	1,853	3,346,707	74.87%	64.69%
Pennsylvania	20,393	17,518	14,088	80.26%	7,946	6,051	10,818,453	71.95%	57.75%
Rhode Island	5,650	4,766	4,064	85.14%	2,501	1,895	899,690	72.04%	61.34%
South Carolina	6,134	5,070	4,266	84.02%	2,442	1,906	3,980,592	75.79%	63.68%
South Dakota	4,891	3,983	3,738	93.89%	2,381	1,870	688,348	75.92%	71.28%
Tennessee	5,293	4,370	3,828	87.37%	2,325	1,840	5,433,594	75.87%	66.29%
Texas	16,327	13,744	11,939	86.84%	9,324	6,987	21,456,935	71.22%	61.84%
Utah	3,566	3,115	2,953	94.96%	2,336	1,902	2,279,009	77.97%	74.04%
Vermont	6,917	5,478	4,650	84.72%	2,375	1,823	542,924	75.24%	63.74%
Virginia	6,463	5,674	4,750	83.72%	3,168	2,441	6,836,908	74.75%	62.58%
Washington	5,047	4,408	3,642	82.59%	2,416	1,835	5,838,584	72.75%	60.09%
West Virginia	6,730	5,523	4,880	88.41%	2,534	1,849	1,572,945	71.93%	63.59%
Wisconsin	5,789	4,892	4,270	87.10%	2,477	1,812	4,822,436	71.62%	62.38%
Wyoming	6,282	4,834	4,347	89.73%	2,422	1,883	479,899	76.43%	68.58%

DU = dwelling unit.

NOTE: To compute the pooled 2013-2014 weighted response rates, two samples were combined, and the individual year weights were used for the pooled sample. Thus, the response rates presented here are weighted across 2 years of data rather than being a simple average of the 2013 and 2014 individual response rates. The 2013-2014 population estimate is the average of the 2013 and the 2014 population.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013 and 2014.

Table C.10 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2013 and 2014

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Total U.S.	49,022	39,578	24,883,686	80.99%	50,647	39,028	34,860,063	76.61%	80,713	57,133	204,013,411	69.39%
Northeast	9,905	7,837	4,171,861	78.55%	10,119	7,582	6,149,607	72.98%	16,485	11,241	37,188,621	66.16%
Midwest	12,719	10,139	5,384,865	79.29%	13,379	10,148	7,417,058	74.82%	20,267	14,360	43,536,532	69.79%
South	15,578	12,728	9,383,697	81.75%	15,690	12,384	12,900,076	78.95%	25,682	18,451	75,894,702	70.74%
West	10,820	8,874	5,943,263	83.02%	11,459	8,914	8,393,322	77.24%	18,279	13,081	47,393,555	69.39%
Alabama	663	553	382,134	83.41%	668	540	535,409	79.84%	1,097	771	3,116,298	67.52%
Alaska	729	529	59,900	71.89%	694	523	83,456	73.24%	1,085	758	435,577	70.87%
Arizona	666	553	543,484	83.67%	696	537	732,863	77.21%	1,077	763	4,218,271	69.76%
Arkansas	635	504	236,666	78.38%	711	561	319,372	78.89%	1,109	807	1,883,371	71.31%
California	2,863	2,378	3,080,548	83.11%	3,102	2,387	4,469,106	76.62%	5,302	3,628	24,421,137	67.30%
Colorado	644	515	408,429	80.29%	808	615	575,557	76.15%	1,078	763	3,398,728	70.34%
Connecticut	726	572	286,281	80.43%	657	490	381,473	73.50%	1,253	811	2,382,534	65.04%
Delaware	664	545	67,991	80.28%	698	542	101,239	78.97%	1,015	726	610,148	71.09%
District of Columbia	647	560	30,551	87.12%	593	472	93,509	80.69%	1,121	810	435,643	71.78%
Florida	2,467	2,025	1,390,131	82.62%	2,575	2,031	1,980,707	78.66%	4,135	2,924	13,387,121	68.71%
Georgia	821	658	838,199	80.33%	927	744	1,108,195	80.23%	1,374	999	6,240,700	71.56%
Hawaii	680	555	96,971	81.50%	715	534	140,686	73.43%	1,184	803	904,925	67.25%
Idaho	613	513	142,945	84.55%	756	587	173,361	78.38%	1,061	794	999,689	73.87%
Illinois	2,209	1,703	1,033,794	76.86%	2,463	1,762	1,394,857	71.74%	3,751	2,435	8,297,420	64.55%
Indiana	680	541	541,174	79.19%	666	517	740,165	76.12%	1,113	803	4,164,196	70.23%
Iowa	625	490	242,393	77.21%	726	571	352,842	79.35%	1,053	751	1,979,684	69.23%
Kansas	644	509	237,609	79.26%	733	575	325,999	79.43%	1,084	785	1,786,820	71.67%
Kentucky	685	557	340,101	81.45%	689	539	470,972	78.33%	1,070	754	2,832,115	68.90%
Louisiana	682	552	367,862	79.96%	693	546	519,036	77.25%	1,087	797	2,899,670	71.93%
Maine	648	524	93,811	79.34%	639	531	127,380	82.41%	1,068	811	928,319	75.81%
Maryland	705	564	455,684	80.19%	686	535	629,854	76.02%	1,089	797	3,882,314	73.58%
Massachusetts	708	553	488,765	77.37%	802	584	782,118	72.88%	1,167	760	4,469,726	65.98%
Michigan	2,257	1,791	797,647	78.27%	2,280	1,778	1,114,774	76.55%	3,448	2,485	6,446,918	70.25%
Minnesota	644	539	425,247	84.20%	728	558	571,816	76.50%	1,020	776	3,529,926	75.52%
Mississippi	639	553	245,600	85.82%	600	518	338,718	86.22%	1,019	756	1,849,489	75.13%

(continued)

Table C.10 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2013 and 2014 (continued)

State	12-17 Total Selected	12-17 Total Responded	12-17 Population Estimate	12-17 Weighted Interview Response Rate	18-25 Total Selected	18-25 Total Responded	18-25 Population Estimate	18-25 Weighted Interview Response Rate	26+ Total Selected	26+ Total Responded	26+ Population Estimate	26+ Weighted Interview Response Rate
Missouri	654	541	470,976	82.48%	663	500	656,394	75.21%	1,084	810	3,894,492	73.34%
Montana	678	536	74,121	79.66%	720	574	110,655	78.84%	1,066	777	669,411	71.82%
Nebraska	696	563	149,327	80.04%	667	528	209,508	78.45%	1,051	757	1,171,452	72.08%
Nevada	625	534	221,704	86.30%	669	554	287,435	80.89%	1,122	805	1,826,942	71.01%
New Hampshire	731	562	99,717	76.82%	708	553	141,165	79.27%	1,092	770	900,190	70.65%
New Jersey	897	684	701,644	77.06%	937	701	890,874	75.11%	1,571	1,064	5,907,201	67.49%
New Mexico	648	556	166,639	86.54%	640	517	228,647	80.87%	1,052	808	1,314,755	75.15%
New York	2,745	2,120	1,440,280	76.57%	2,726	1,873	2,239,134	67.62%	4,612	2,928	12,988,411	61.79%
North Carolina	771	646	771,607	84.54%	863	681	1,054,654	78.99%	1,425	1,086	6,339,066	74.77%
North Dakota	649	525	50,733	80.11%	743	586	100,601	78.86%	1,105	803	448,656	70.85%
Ohio	2,306	1,828	922,292	79.04%	2,302	1,723	1,235,723	74.20%	3,463	2,432	7,534,236	68.71%
Oklahoma	688	544	309,426	76.31%	710	554	429,192	77.37%	1,136	789	2,404,755	66.18%
Oregon	673	547	291,323	81.68%	695	531	413,626	75.68%	1,043	775	2,641,759	74.00%
Pennsylvania	2,121	1,754	941,238	82.66%	2,335	1,818	1,382,616	77.82%	3,490	2,479	8,494,600	69.81%
Rhode Island	697	562	75,717	79.86%	648	507	131,028	77.69%	1,156	826	692,945	70.11%
South Carolina	687	558	362,044	81.55%	649	530	521,862	82.47%	1,106	818	3,096,686	74.02%
South Dakota	659	555	65,627	83.65%	665	523	93,403	78.92%	1,057	792	529,318	74.53%
Tennessee	666	555	506,479	82.84%	592	480	700,245	82.17%	1,067	805	4,226,870	74.05%
Texas	2,541	2,068	2,327,085	81.29%	2,609	2,010	3,010,183	77.38%	4,174	2,909	16,119,667	68.63%
Utah	651	560	282,277	86.82%	671	557	372,803	83.11%	1,014	785	1,623,929	75.24%
Vermont	632	506	44,408	80.00%	667	525	73,820	79.15%	1,076	792	424,696	74.09%
Virginia	870	722	622,264	84.16%	818	645	896,567	80.03%	1,480	1,074	5,318,077	72.63%
Washington	625	511	530,795	82.05%	657	513	741,218	77.88%	1,134	811	4,566,571	70.86%
West Virginia	747	564	129,873	75.44%	609	456	190,362	74.84%	1,178	829	1,252,711	71.12%
Wisconsin	696	554	448,046	79.56%	743	527	620,976	68.68%	1,038	731	3,753,413	71.10%
Wyoming	725	587	44,128	80.13%	636	485	63,910	77.28%	1,061	811	371,861	75.86%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

NOTE: To compute the pooled 2013-2014 weighted response rates, two samples were combined, and the individual year weights were used for the pooled sample. Thus, the response rates presented here are weighted across 2 years of data rather than being a simple average of the 2013 and 2014 individual response rates. The 2013-2014 population estimate is the average of the 2013 and the 2014 population.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013 and 2014.

Table C.11 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Individuals Aged 12 to 20, by State: 2012, 2013, and 2014

State	2012 Total Selected	2012 Total Responded	2012 Population Estimate	2012 Weighted Interview Response Rate	2013 Total Selected	2013 Total Responded	2013 Population Estimate	2013 Weighted Interview Response Rate	2014 Total Selected	2014 Total Responded	2014 Population Estimate	2014 Weighted Interview Response Rate
Total U.S.	37,391	30,912	38,205,953	82.59%	37,820	30,801	38,086,579	81.70%	28,949	23,033	37,981,012	79.64%
Northeast	7,735	6,239	6,646,927	80.21%	7,770	6,238	6,379,509	79.42%	5,713	4,457	6,502,814	77.38%
Midwest	10,454	8,616	8,152,530	82.67%	10,686	8,592	8,217,933	80.04%	6,763	5,275	8,114,553	77.28%
South	11,385	9,547	14,063,463	83.57%	11,306	9,274	14,070,964	81.83%	9,646	7,800	14,076,323	81.03%
West	7,817	6,510	9,343,033	82.70%	8,058	6,697	9,418,173	84.56%	6,827	5,501	9,287,322	81.13%
Alabama	469	384	584,363	81.07%	497	421	570,714	82.97%	375	306	564,703	83.74%
Alaska	441	352	95,819	80.24%	490	383	91,357	77.84%	467	330	91,021	69.24%
Arizona	503	424	816,941	83.45%	526	428	816,730	81.20%	375	308	796,228	82.79%
Arkansas	550	439	370,165	79.62%	457	357	334,342	77.85%	405	328	352,450	79.72%
California	2,016	1,646	5,018,845	81.44%	2,070	1,767	5,008,517	85.96%	1,941	1,570	4,913,481	80.22%
Colorado	501	421	594,406	85.04%	450	367	609,754	82.09%	457	365	626,186	80.80%
Connecticut	520	427	455,720	82.40%	534	431	421,506	81.80%	449	343	438,741	77.16%
Delaware	493	407	107,644	84.15%	460	379	99,907	80.87%	444	358	108,885	80.32%
District of Columbia	498	451	64,190	91.18%	452	387	54,486	84.22%	342	295	52,520	87.27%
Florida	1,980	1,649	2,109,563	82.68%	1,929	1,574	2,127,386	81.54%	1,390	1,140	2,041,554	82.35%
Georgia	478	397	1,309,366	82.78%	502	405	1,278,777	81.65%	631	506	1,218,390	79.90%
Hawaii	500	388	145,487	78.38%	508	416	146,388	80.45%	398	317	146,275	81.78%
Idaho	515	441	206,195	85.69%	483	398	202,212	84.41%	403	329	217,741	80.74%
Illinois	2,036	1,637	1,553,772	80.89%	2,048	1,582	1,571,014	77.50%	1,016	766	1,561,804	75.84%
Indiana	480	393	813,060	81.75%	490	392	794,141	77.86%	420	327	810,033	77.67%
Iowa	485	404	353,403	82.15%	484	396	365,893	81.48%	395	305	406,568	77.47%
Kansas	508	443	380,034	86.86%	499	404	360,191	81.57%	391	307	341,647	78.63%
Kentucky	511	422	505,420	82.23%	491	400	507,396	81.31%	439	354	536,524	80.24%
Louisiana	451	395	552,954	87.18%	487	399	574,885	80.70%	457	379	597,123	82.46%
Maine	504	433	145,895	86.56%	523	448	146,805	85.44%	365	281	140,376	76.29%
Maryland	438	372	655,351	84.43%	505	403	653,828	79.02%	434	343	684,058	77.90%
Massachusetts	520	420	763,162	80.74%	499	385	723,842	76.61%	489	395	859,796	80.58%
Michigan	1,992	1,638	1,251,079	82.84%	2,054	1,654	1,239,358	80.23%	1,015	786	1,180,278	76.23%
Minnesota	471	411	629,891	86.19%	456	393	626,747	86.71%	423	341	647,983	81.36%
Mississippi	517	426	376,196	82.30%	493	437	363,901	88.44%	357	302	379,058	85.68%

(continued)

Table C.11 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Individuals Aged 12 to 20, by State: 2012, 2013, and 2014 (continued)

State	2012 Total Selected	2012 Total Responded	2012 Population Estimate	2012 Weighted Interview Response Rate	2013 Total Selected	2013 Total Responded	2013 Population Estimate	2013 Weighted Interview Response Rate	2014 Total Selected	2014 Total Responded	2014 Population Estimate	2014 Weighted Interview Response Rate
Missouri	486	407	700,548	84.33%	493	412	714,528	81.35%	379	304	694,435	81.24%
Montana	522	431	123,289	83.41%	550	440	120,530	79.55%	385	305	109,111	80.01%
Nebraska	475	413	228,674	87.51%	539	452	240,691	82.96%	405	315	217,731	77.42%
Nevada	474	403	339,091	85.10%	486	431	343,860	89.80%	386	320	336,291	83.66%
New Hampshire	599	472	181,715	80.39%	556	444	173,109	80.69%	442	335	143,093	76.34%
New Jersey	475	389	1,041,104	81.91%	506	400	1,028,297	80.63%	721	548	1,062,607	75.32%
New Mexico	459	396	247,385	86.18%	477	403	252,940	83.62%	402	340	247,286	86.06%
New York	2,182	1,674	2,352,294	76.70%	2,218	1,701	2,191,460	76.54%	1,399	1,062	2,204,778	74.39%
North Carolina	474	404	1,096,473	85.11%	438	365	1,101,838	83.46%	626	516	1,161,827	83.03%
North Dakota	495	415	90,131	84.87%	497	397	82,751	78.48%	393	319	88,056	81.64%
Ohio	2,134	1,696	1,382,707	79.58%	2,130	1,697	1,449,529	80.13%	1,026	799	1,394,953	77.07%
Oklahoma	523	407	474,162	76.65%	601	482	497,668	80.37%	356	270	451,557	73.23%
Oregon	457	391	462,560	85.86%	458	372	456,806	80.22%	462	369	449,656	81.64%
Pennsylvania	1,980	1,620	1,506,219	82.23%	1,967	1,623	1,484,560	82.08%	1,007	829	1,451,933	81.73%
Rhode Island	460	399	127,152	87.11%	508	430	139,658	85.71%	434	339	129,450	77.79%
South Carolina	496	414	537,771	83.64%	507	411	539,469	81.31%	398	323	542,758	81.86%
South Dakota	444	378	101,364	85.52%	506	425	103,606	82.80%	433	359	109,010	82.94%
Tennessee	439	378	731,381	84.81%	495	425	773,131	85.93%	371	298	768,150	81.06%
Texas	2,002	1,690	3,407,153	84.28%	1,968	1,591	3,455,065	80.21%	1,521	1,223	3,470,196	80.39%
Utah	434	386	396,005	88.78%	511	434	420,269	85.51%	376	327	433,820	87.10%
Vermont	495	405	73,666	81.68%	459	376	70,271	81.84%	407	325	72,041	80.91%
Virginia	484	416	952,855	85.21%	502	421	933,932	85.76%	657	542	947,201	83.34%
Washington	516	419	825,920	81.17%	503	417	880,808	84.01%	385	309	858,442	80.73%
West Virginia	582	496	228,456	84.92%	522	417	204,238	80.45%	443	317	199,369	71.92%
Wisconsin	448	381	667,867	84.74%	490	388	669,485	77.88%	467	347	662,055	72.36%
Wyoming	479	412	71,089	84.48%	546	441	68,002	81.58%	390	312	61,784	78.08%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012, 2013, and 2014.

Table C.12 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Individuals Aged 12 to 20, by State: 2012-2013 and 2013-2014

State	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate	2013-2014 Total Selected	2013-2014 Total Responded	2013-2014 Population Estimate	2013-2014 Weighted Interview Response Rate
Total U.S.	75,211	61,713	38,146,266	82.14%	66,769	53,834	38,033,795	80.67%
Northeast	15,505	12,477	6,513,218	79.82%	13,483	10,695	6,441,162	78.40%
Midwest	21,140	17,208	8,185,232	81.35%	17,449	13,867	8,166,243	78.66%
South	22,691	18,821	14,067,213	82.70%	20,952	17,074	14,073,644	81.43%
West	15,875	13,207	9,380,603	83.62%	14,885	12,198	9,352,747	82.84%
Alabama	966	805	577,538	82.00%	872	727	567,708	83.35%
Alaska	931	735	93,588	79.06%	957	713	91,189	73.59%
Arizona	1,029	852	816,835	82.33%	901	736	806,479	81.99%
Arkansas	1,007	796	352,254	78.75%	862	685	343,396	78.80%
California	4,086	3,413	5,013,681	83.66%	4,011	3,337	4,960,999	83.09%
Colorado	951	788	602,080	83.58%	907	732	617,970	81.42%
Connecticut	1,054	858	438,613	82.09%	983	774	430,123	79.53%
Delaware	953	786	103,775	82.52%	904	737	104,396	80.58%
District of Columbia	950	838	59,338	87.97%	794	682	53,503	85.74%
Florida	3,909	3,223	2,118,475	82.12%	3,319	2,714	2,084,470	81.94%
Georgia	980	802	1,294,072	82.22%	1,133	911	1,248,584	80.79%
Hawaii	1,008	804	145,938	79.41%	906	733	146,331	81.12%
Idaho	998	839	204,204	85.06%	886	727	209,977	82.54%
Illinois	4,084	3,219	1,562,393	79.19%	3,064	2,348	1,566,409	76.68%
Indiana	970	785	803,600	79.84%	910	719	802,087	77.76%
Iowa	969	800	359,648	81.81%	879	701	386,230	79.32%
Kansas	1,007	847	370,112	84.27%	890	711	350,919	80.10%
Kentucky	1,002	822	506,408	81.76%	930	754	521,960	80.76%
Louisiana	938	794	563,920	83.93%	944	778	586,004	81.60%
Maine	1,027	881	146,350	86.01%	888	729	143,591	80.88%
Maryland	943	775	654,590	81.68%	939	746	668,943	78.44%
Massachusetts	1,019	805	743,502	78.72%	988	780	791,819	78.67%
Michigan	4,046	3,292	1,245,219	81.54%	3,069	2,440	1,209,818	78.30%
Minnesota	927	804	628,319	86.44%	879	734	637,365	83.93%
Mississippi	1,010	863	370,048	85.31%	850	739	371,479	87.05%

(continued)

Table C.12 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Individuals Aged 12 to 20, by State: 2012-2013 and 2013-2014 (continued)

State	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate	2013-2014 Total Selected	2013-2014 Total Responded	2013-2014 Population Estimate	2013-2014 Weighted Interview Response Rate
Missouri	979	819	707,538	82.83%	872	716	704,482	81.30%
Montana	1,072	871	121,910	81.44%	935	745	114,821	79.77%
Nebraska	1,014	865	234,682	85.20%	944	767	229,211	80.23%
Nevada	960	834	341,475	87.42%	872	751	340,076	86.67%
New Hampshire	1,155	916	177,412	80.53%	998	779	158,101	78.58%
New Jersey	981	789	1,034,700	81.28%	1,227	948	1,045,452	77.94%
New Mexico	936	799	250,162	84.89%	879	743	250,113	84.84%
New York	4,400	3,375	2,271,877	76.62%	3,617	2,763	2,198,119	75.46%
North Carolina	912	769	1,099,156	84.28%	1,064	881	1,131,833	83.24%
North Dakota	992	812	86,441	81.66%	890	716	85,403	80.09%
Ohio	4,264	3,393	1,416,118	79.86%	3,156	2,496	1,422,241	78.63%
Oklahoma	1,124	889	485,915	78.58%	957	752	474,613	77.05%
Oregon	915	763	459,683	83.01%	920	741	453,231	80.91%
Pennsylvania	3,947	3,243	1,495,389	82.16%	2,974	2,452	1,468,246	81.91%
Rhode Island	968	829	133,405	86.40%	942	769	134,554	81.79%
South Carolina	1,003	825	538,620	82.45%	905	734	541,114	81.59%
South Dakota	950	803	102,485	84.13%	939	784	106,308	82.87%
Tennessee	934	803	752,256	85.38%	866	723	770,640	83.48%
Texas	3,970	3,281	3,431,109	82.24%	3,489	2,814	3,462,630	80.30%
Utah	945	820	408,137	87.10%	887	761	427,044	86.31%
Vermont	954	781	71,968	81.76%	866	701	71,156	81.37%
Virginia	986	837	943,393	85.48%	1,159	963	940,566	84.53%
Washington	1,019	836	853,364	82.64%	888	726	869,625	82.38%
West Virginia	1,104	913	216,347	82.84%	965	734	201,803	76.23%
Wisconsin	938	769	668,676	81.25%	957	735	665,770	75.06%
Wyoming	1,025	853	69,545	83.04%	936	753	64,893	79.88%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

NOTE: To compute the pooled weighted response rates, the two samples were combined, and the individual-year weights were used for the pooled sample. Thus, the response rates presented here are weighted across 2 years of data rather than being a simple average of the individual response rates. The population estimate is the average of the population across the 2 years.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012, 2013, and 2014.

Table C.13 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Adults Aged 18 or Older, by State: 2012, 2013, and 2014

State	2012 Total Selected	2012 Total Responded	2012 Population Estimate	2012 Weighted Interview Response Rate	2013 Total Selected	2013 Total Responded	2013 Population Estimate	2013 Weighted Interview Response Rate	2014 Total Selected	2014 Total Responded	2014 Population Estimate	2014 Weighted Interview Response Rate
Total U.S.	60,509	45,817	235,124,274	72.00%	61,112	45,306	237,498,837	70.61%	70,248	50,855	240,248,111	70.28%
Northeast	12,788	9,352	42,937,539	68.59%	12,634	9,100	43,200,918	67.70%	13,970	9,723	43,475,540	66.57%
Midwest	16,766	12,743	50,508,549	73.29%	17,112	12,602	50,816,624	70.61%	16,534	11,906	51,090,556	70.44%
South	17,987	13,913	87,067,845	73.21%	18,390	13,878	88,156,610	72.35%	22,982	16,957	89,432,946	71.51%
West	12,968	9,809	54,610,340	71.60%	12,976	9,726	55,324,685	70.09%	16,762	12,269	56,249,069	71.05%
Alabama	803	623	3,621,189	73.90%	775	578	3,642,350	67.91%	990	733	3,661,065	70.74%
Alaska	772	596	516,839	73.05%	758	587	517,089	74.74%	1,021	694	520,976	67.87%
Arizona	773	610	4,823,495	76.18%	774	559	4,901,704	67.86%	999	741	5,000,562	73.63%
Arkansas	818	601	2,186,878	68.89%	866	653	2,198,214	72.67%	954	715	2,207,272	72.07%
California	3,370	2,449	28,284,885	68.90%	3,374	2,466	28,644,204	68.82%	5,030	3,549	29,136,282	68.68%
Colorado	812	608	3,861,324	73.85%	851	626	3,934,150	70.24%	1,035	752	4,014,421	72.22%
Connecticut	900	676	2,744,379	71.67%	807	577	2,758,083	68.93%	1,103	724	2,769,930	63.56%
Delaware	734	586	696,760	79.66%	779	581	706,947	71.27%	934	687	715,829	73.17%
District of Columbia	763	633	513,289	79.99%	768	580	524,960	74.63%	946	702	533,345	72.06%
Florida	3,160	2,351	14,999,230	69.34%	3,385	2,493	15,212,136	70.67%	3,325	2,462	15,523,521	69.21%
Georgia	800	598	7,212,572	72.11%	735	561	7,298,705	71.87%	1,566	1,182	7,399,085	73.93%
Hawaii	908	654	1,033,888	68.36%	872	618	1,038,681	65.50%	1,027	719	1,052,542	70.56%
Idaho	747	576	1,148,607	76.93%	826	627	1,163,811	74.54%	991	754	1,182,290	74.54%
Illinois	3,354	2,438	9,628,889	69.74%	3,475	2,358	9,674,009	64.56%	2,739	1,839	9,710,545	66.51%
Indiana	841	640	4,850,837	72.01%	799	602	4,889,478	70.78%	980	718	4,919,244	71.40%
Iowa	764	586	2,309,284	73.90%	807	613	2,324,742	70.53%	972	709	2,340,310	71.09%
Kansas	721	569	2,099,601	76.67%	796	591	2,106,246	72.33%	1,021	769	2,119,391	73.37%
Kentucky	800	609	3,267,986	72.62%	794	604	3,292,759	72.57%	965	689	3,313,413	68.02%
Louisiana	770	609	3,377,799	76.40%	790	606	3,406,196	72.72%	990	737	3,431,217	72.65%
Maine	775	633	1,049,900	78.59%	735	598	1,053,674	77.84%	972	744	1,057,725	75.29%
Maryland	744	592	4,447,458	74.85%	808	623	4,491,106	76.42%	967	709	4,533,230	71.33%
Massachusetts	873	646	5,168,136	70.62%	870	612	5,222,444	68.82%	1,099	732	5,281,244	65.28%
Michigan	3,161	2,477	7,509,825	75.11%	3,228	2,442	7,544,022	72.00%	2,500	1,821	7,579,361	70.38%
Minnesota	729	578	4,046,322	80.26%	791	619	4,084,784	76.42%	957	715	4,118,701	74.87%
Mississippi	716	588	2,171,602	78.33%	711	581	2,182,497	78.14%	908	693	2,193,918	75.62%

(continued)

Table C.13 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Adults Aged 18 or Older, by State: 2012, 2013, and 2014 (continued)

State	2012 Total Selected	2012 Total Responded	2012 Population Estimate	2012 Weighted Interview Response Rate	2013 Total Selected	2013 Total Responded	2013 Population Estimate	2013 Weighted Interview Response Rate	2014 Total Selected	2014 Total Responded	2014 Population Estimate	2014 Weighted Interview Response Rate
Missouri	782	603	4,511,506	73.10%	825	615	4,538,072	72.25%	922	695	4,563,701	74.97%
Montana	721	560	768,234	76.98%	783	596	776,451	73.89%	1,003	755	783,681	71.77%
Nebraska	848	662	1,363,924	71.68%	756	589	1,375,718	73.48%	962	696	1,386,201	72.80%
Nevada	801	613	2,057,758	74.47%	782	622	2,090,821	73.20%	1,009	737	2,137,932	71.60%
New Hampshire	854	645	1,031,559	72.83%	850	649	1,037,592	75.97%	950	674	1,045,117	67.96%
New Jersey	806	607	6,732,336	72.63%	858	620	6,773,350	67.83%	1,650	1,145	6,822,800	69.14%
New Mexico	769	589	1,533,828	72.67%	828	625	1,540,178	72.40%	864	700	1,546,626	79.79%
New York	3,703	2,487	15,065,487	63.25%	3,563	2,334	15,172,768	62.31%	3,775	2,467	15,282,323	63.02%
North Carolina	763	619	7,246,727	74.56%	793	614	7,345,522	74.76%	1,495	1,153	7,441,918	76.00%
North Dakota	785	586	528,614	72.53%	889	648	543,737	67.93%	959	741	554,778	76.94%
Ohio	3,199	2,390	8,711,861	71.96%	3,192	2,348	8,753,095	70.18%	2,573	1,807	8,786,823	68.81%
Oklahoma	804	605	2,793,790	71.76%	827	604	2,822,475	67.42%	1,019	739	2,845,419	68.34%
Oregon	854	653	3,000,702	75.56%	772	598	3,036,213	76.46%	966	708	3,074,556	72.04%
Pennsylvania	3,280	2,411	9,831,482	69.58%	3,377	2,517	9,863,670	72.18%	2,448	1,780	9,890,761	69.72%
Rhode Island	811	647	818,100	76.97%	795	592	821,462	70.88%	1,009	741	826,484	71.83%
South Carolina	786	621	3,541,570	74.46%	742	589	3,591,886	75.96%	1,013	759	3,645,209	74.51%
South Dakota	797	613	611,740	75.34%	747	585	619,853	76.03%	975	730	625,589	74.25%
Tennessee	806	666	4,857,966	80.57%	750	577	4,902,455	71.95%	909	708	4,951,776	78.47%
Texas	3,140	2,379	18,573,333	72.01%	3,339	2,465	18,911,482	71.04%	3,444	2,454	19,348,218	68.93%
Utah	780	639	1,942,347	82.23%	779	612	1,979,244	73.43%	906	730	2,014,221	79.69%
Vermont	786	600	496,163	73.23%	779	601	497,875	76.52%	964	716	499,157	73.19%
Virginia	722	572	6,116,656	75.62%	754	571	6,182,639	75.56%	1,544	1,148	6,246,649	72.13%
Washington	850	627	5,207,324	70.94%	822	603	5,266,752	70.21%	969	721	5,348,826	73.56%
West Virginia	858	661	1,443,040	72.82%	774	598	1,444,283	76.05%	1,013	687	1,441,863	67.30%
Wisconsin	785	601	4,336,147	74.41%	807	592	4,362,867	72.94%	974	666	4,385,912	68.63%
Wyoming	811	635	431,108	76.66%	755	587	435,387	78.48%	942	709	436,156	73.66%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012, 2013, and 2014.

Table C.14 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Adults Aged 18 or Older, by State: 2012-2013 and 2013-2014

State	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate	2013-2014 Total Selected	2013-2014 Total Responded	2013-2014 Population Estimate	2013-2014 Weighted Interview Response Rate
Total U.S.	121,621	91,123	236,311,555	71.31%	131,360	96,161	238,873,474	70.45%
Northeast	25,422	18,452	43,069,229	68.15%	26,604	18,823	43,338,229	67.13%
Midwest	33,878	25,345	50,662,587	71.95%	33,646	24,508	50,953,590	70.52%
South	36,377	27,791	87,612,227	72.78%	41,372	30,835	88,794,778	71.93%
West	25,944	19,535	54,967,513	70.85%	29,738	21,995	55,786,877	70.58%
Alabama	1,578	1,201	3,631,769	70.77%	1,765	1,311	3,651,708	69.33%
Alaska	1,530	1,183	516,964	73.87%	1,779	1,281	519,033	71.23%
Arizona	1,547	1,169	4,862,599	72.12%	1,773	1,300	4,951,133	70.86%
Arkansas	1,684	1,254	2,192,546	70.81%	1,820	1,368	2,202,743	72.37%
California	6,744	4,915	28,464,544	68.86%	8,404	6,015	28,890,243	68.74%
Colorado	1,663	1,234	3,897,737	72.04%	1,886	1,378	3,974,285	71.21%
Connecticut	1,707	1,253	2,751,231	70.35%	1,910	1,301	2,764,007	66.24%
Delaware	1,513	1,167	701,853	75.61%	1,713	1,268	711,388	72.22%
District of Columbia	1,531	1,213	519,124	77.35%	1,714	1,282	529,152	73.34%
Florida	6,545	4,844	15,105,683	70.03%	6,710	4,955	15,367,828	69.95%
Georgia	1,535	1,159	7,255,639	72.00%	2,301	1,743	7,348,895	72.94%
Hawaii	1,780	1,272	1,036,284	66.93%	1,899	1,337	1,045,611	68.03%
Idaho	1,573	1,203	1,156,209	75.67%	1,817	1,381	1,173,050	74.54%
Illinois	6,829	4,796	9,651,449	67.15%	6,214	4,197	9,692,277	65.55%
Indiana	1,640	1,242	4,870,158	71.43%	1,779	1,320	4,904,361	71.10%
Iowa	1,571	1,199	2,317,013	72.17%	1,779	1,322	2,332,526	70.80%
Kansas	1,517	1,160	2,102,923	74.48%	1,817	1,360	2,112,819	72.85%
Kentucky	1,594	1,213	3,280,373	72.59%	1,759	1,293	3,303,086	70.27%
Louisiana	1,560	1,215	3,391,997	74.50%	1,780	1,343	3,418,706	72.68%
Maine	1,510	1,231	1,051,787	78.21%	1,707	1,342	1,055,699	76.56%
Maryland	1,552	1,215	4,469,282	75.66%	1,775	1,332	4,512,168	73.92%
Massachusetts	1,743	1,258	5,195,290	69.73%	1,969	1,344	5,251,844	67.00%
Michigan	6,389	4,919	7,526,924	73.56%	5,728	4,263	7,561,692	71.17%
Minnesota	1,520	1,197	4,065,553	78.26%	1,748	1,334	4,101,742	75.65%
Mississippi	1,427	1,169	2,177,049	78.23%	1,619	1,274	2,188,207	76.86%

(continued)

Table C.14 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Adults Aged 18 or Older, by State: 2012-2013 and 2013-2014 (continued)

State	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate	2013-2014 Total Selected	2013-2014 Total Responded	2013-2014 Population Estimate	2013-2014 Weighted Interview Response Rate
Missouri	1,607	1,218	4,524,789	72.67%	1,747	1,310	4,550,886	73.61%
Montana	1,504	1,156	772,343	75.34%	1,786	1,351	780,066	72.86%
Nebraska	1,604	1,251	1,369,821	72.53%	1,718	1,285	1,380,960	73.13%
Nevada	1,583	1,235	2,074,289	73.83%	1,791	1,359	2,114,376	72.39%
New Hampshire	1,704	1,294	1,034,575	74.40%	1,800	1,323	1,041,354	71.85%
New Jersey	1,664	1,227	6,752,843	70.22%	2,508	1,765	6,798,075	68.49%
New Mexico	1,597	1,214	1,537,003	72.53%	1,692	1,325	1,543,402	75.99%
New York	7,266	4,821	15,119,127	62.78%	7,338	4,801	15,227,546	62.66%
North Carolina	1,556	1,233	7,296,125	74.66%	2,288	1,767	7,393,720	75.38%
North Dakota	1,674	1,234	536,176	70.13%	1,848	1,389	549,258	72.29%
Ohio	6,391	4,738	8,732,478	71.07%	5,765	4,155	8,769,959	69.49%
Oklahoma	1,631	1,209	2,808,132	69.54%	1,846	1,343	2,833,947	67.87%
Oregon	1,626	1,251	3,018,457	75.99%	1,738	1,306	3,055,384	74.23%
Pennsylvania	6,657	4,928	9,847,576	70.86%	5,825	4,297	9,877,215	70.93%
Rhode Island	1,606	1,239	819,781	73.87%	1,804	1,333	823,973	71.33%
South Carolina	1,528	1,210	3,566,728	75.22%	1,755	1,348	3,618,547	75.22%
South Dakota	1,544	1,198	615,796	75.69%	1,722	1,315	622,721	75.15%
Tennessee	1,556	1,243	4,880,211	76.17%	1,659	1,285	4,927,115	75.16%
Texas	6,479	4,844	18,742,407	71.52%	6,783	4,919	19,129,850	69.98%
Utah	1,559	1,251	1,960,796	77.89%	1,685	1,342	1,996,733	76.74%
Vermont	1,565	1,201	497,019	74.82%	1,743	1,317	498,516	74.81%
Virginia	1,476	1,143	6,149,648	75.59%	2,298	1,719	6,214,644	73.77%
Washington	1,672	1,230	5,237,038	70.58%	1,791	1,324	5,307,789	71.84%
West Virginia	1,632	1,259	1,443,661	74.41%	1,787	1,285	1,443,073	71.61%
Wisconsin	1,592	1,193	4,349,507	73.71%	1,781	1,258	4,374,390	70.73%
Wyoming	1,566	1,222	433,248	77.56%	1,697	1,296	435,772	76.07%

NOTE: Computations in this table are based on a respondent's age at screening. Thus, the data in the Total Responded column(s) could differ from data in other NSDUH tables that use the respondent's age recorded during the interview.

NOTE: To compute the pooled weighted response rates, the two samples were combined, and the individual-year weights were used for the pooled sample. Thus, the response rates presented here are weighted across 2 years of data rather than being a simple average of the individual response rates. The population estimate is the average of the population across the 2 years.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012, 2013, and 2014

Table C.15 Outcomes, by Survey Year, for Which Small Area Estimates Are Available

Measure	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Illicit Drug Use in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Marijuana Use in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Marijuana Use in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Perceptions of Great Risk of Smoking Marijuana Once a Month	X	X	X	X	X	X	X	X	X	X	X	X
First Use of Marijuana (Marijuana Incidence)	X	X	X	X	X	X	X	X	X	X	X	X
Illicit Drug Use Other Than Marijuana in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Cocaine Use in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Nonmedical Use of Pain Relievers in the Past Year	--[1]	X	X	X	X	X	X	X	X	X	X	X
Alcohol Use in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Underage Past Month Use of Alcohol	--[1]	X	X	X	X	X	X	X	X	X	X	X
Binge Alcohol Use in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Underage Past Month Binge Alcohol Use	--[1]	X	X	X	X	X	X	X	X	X	X	X
Perceptions of Great Risk of Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week	X	X	X	X	X	X	X	X	X	X	X	X
Tobacco Product Use in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Cigarette Use in the Past Month	X	X	X	X	X	X	X	X	X	X	X	X
Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per Day	X	X	X	X	X	X	X	X	X	X	X	X
Alcohol Dependence or Abuse in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Alcohol Dependence in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Illicit Drug Dependence or Abuse in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Illicit Drug Dependence in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Dependence or Abuse of Illicit Drugs or Alcohol in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Needing But Not Receiving Treatment for Illicit Drug Use in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Needing But Not Receiving Treatment for Alcohol Use in the Past Year	X	X	X	X	X	X	X	X	X	X	X	X
Serious Psychological Distress (SPD) in the Past Year[2]	X	X	X	--	--	--	--	--	--	--	--	--
Had at Least One Major Depressive Episode (MDE) in the Past Year[3]	--	--	X	X	X	X	X	X	X	X	X	X
Serious Mental Illness (SMI) in the Past Year	--	--	--	--	--	--	X	X	X	X	X	X
Any Mental Illness (AMI) in the Past Year	--	--	--	--	--	--	X	X	X	X	X	X
Had Serious Thoughts of Suicide in the Past Year	--	--	--	--	--	--	X	X	X	X	X	X

X = available; -- = not available.

[1] Estimates for these outcomes were not included in the 2002-2003 state report (Wright & Sathe, 2005), but the 2002-2003 estimates are included in the 2003-2004 state report as part of the comparison tables (see Wright & Sathe, 2006). However, the Bayesian confidence intervals associated with these were not published.

[2] Estimates for SPD in the years 2002-2003 and 2003-2004 are not comparable with the 2004-2005 SPD estimates. For more details, see Section A.7 in Appendix A of the 2004-2005 state report (Wright, Sathe, & Spagnola, 2007). Note that, in 2002-2003, SPD was referred to as "serious mental illness."

[3] Questions that were used to determine an MDE were added in 2004. Note that the adult MDE estimates shown in the 2004-2005 report are not comparable with the adult MDE estimates for later years.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2014.

Table C.16 Outcomes, by Age Groups, for Which Small Area Estimates Are Available

Measure	Age Group					
	12+	12-17	12-20	18-25	26+	18+
Illicit Drug Use in the Past Month	X	X	--	X	X	X
Marijuana Use in the Past Year	X	X	--	X	X	X
Marijuana Use in the Past Month	X	X	--	X	X	X
Perceptions of Great Risk of Smoking Marijuana Once a Month	X	X	--	X	X	X
First Use of Marijuana (Marijuana Incidence)	X	X	--	X	X	X
Illicit Drug Use Other Than Marijuana in the Past Month	X	X	--	X	X	X
Cocaine Use in the Past Year	X	X	--	X	X	X
Nonmedical Use of Pain Relievers in the Past Year	X	X	--	X	X	X
Alcohol Use in the Past Month	X	X	X	X	X	X
Binge Alcohol Use in the Past Month	X	X	X	X	X	X
Perceptions of Great Risk of Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week	X	X	--	X	X	X
Tobacco Product Use in the Past Month	X	X	--	X	X	X
Cigarette Use in the Past Month	X	X	--	X	X	X
Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per Day	X	X	--	X	X	X
Alcohol Dependence or Abuse in the Past Year	X	X	--	X	X	X
Alcohol Dependence in the Past Year	X	X	--	X	X	X
Illicit Drug Dependence or Abuse in the Past Year	X	X	--	X	X	X
Illicit Drug Dependence in the Past Year	X	X	--	X	X	X
Dependence or Abuse of Illicit Drugs or Alcohol in the Past Year	X	X	--	X	X	X
Needing But Not Receiving Treatment for Illicit Drug Use in the Past Year	X	X	--	X	X	X
Needing But Not Receiving Treatment for Alcohol Use in the Past Year	X	X	--	X	X	X
Serious Psychological Distress (SPD) in the Past Year	--	--	--	X	X	X
Had at Least One Major Depressive Episode (MDE) in the Past Year[1]	--	X	--	X	X	X
Serious Mental Illness (SMI) in the Past Year	--	--	--	X	X	X
Any Mental Illness (AMI) in the Past Year	--	--	--	X	X	X
Had Serious Thoughts of Suicide in the Past Year	--	--	--	X	X	X

X = available; -- = not available.

NOTE: For details on which years small area estimates are available for these outcomes, see Table C.15.

NOTE: Tables containing 18 or older estimates were first presented with the 2005-2006 small area estimation (SAE) tables.

NOTE: Estimates for those aged 18 to 25, 26 or older, and 18 or older are available for all outcomes.

[1] There are minor wording differences in the questions for the adult and adolescent MDE modules. Therefore, data from youths aged 12 to 17 were not combined with data from adults aged 18 or older to get an overall MDE estimate (12 or older).

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2014.

Table C.17 Summary of Milestones Implemented in the SAE Production Process, 2002-2012

SAE Production Milestone	Years for Which Pooled 2-Year Small Area Estimates Were Published											
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Weights Based on Projections from 2000 Census Control Totals	✓	✓	✓	✓	✓	✓	✓	✓	✓[1]	--	--	--
Weights Based on Projections from 2010 Census Control Totals	--	--	--	--	--	--	--	--	✓[1]	✓	✓	✓
Small Area Estimates Produced Based on Variable Selection Done Using 2002-2003 Data[2]	✓	✓	✓	✓	✓	✓	✓	✓	✓[3]	--	--	--
Small Area Estimates Produced Based on Variable Selection Done Using 2010-2011 Data[4]	--	--	--	--	--	--	--	--	✓[3]	✓	✓	✓
Small Area Estimates Reproduced Using Data Omitting Falsified Data[5]	--	--	--	✓	✓	✓	✓	--	--	--	--	--
SMI and AMI Small Area Estimates Based on Updated 2013 Model[6]	--	--	--	--	--	--	✓	✓	✓	✓	✓	✓
MDE Small Area Estimates Based on Adjusted MDE Variable[7]	--	--	--	✓	✓	✓	✓	--	--	--	--	--

✓ = SAE production milestone implemented; -- = SAE production milestone not implemented; AMI = any mental illness; MDE = major depressive episode; NSDUH = National Survey on Drug Use and Health; SAE = small area estimation; SMI = serious mental illness.

[1] The weight used for 2010 was based on projections from the 2000 census control totals, and the 2011 weight was based on projections from the 2010 census control totals. For SMI and AMI, the weights used for both years were based on the 2010 census control totals.

[2] Variable selection was done using 2002-2003 NSDUH data for all outcomes with the following exception: For SMI, AMI, suicidal thoughts in the past year, and MDE, variable selection was done using 2008-2009 NSDUH data. Note that the 2005-2006, 2006-2007, and 2007-2008 MDE small area estimates were based on the variable selection done in 2008-2009.

[3] For all outcomes except SMI and AMI, the 2010-2011 small area estimates were produced based on 2002-2003 variable selection (see footnote 2 for an exception). For SMI and AMI, variable selection was done using 2010-2011 NSDUH data.

[4] When new variable selection was done using 2010-2011 NSDUH data, one source of predictor data was revised: The American Community Survey (ACS) estimates were used in place of 2000 long-form census estimates, which resulted in dropping several predictors and adding several new predictors.

[5] The 2005-2006 through 2008-2009 small area estimates were revised and republished with falsified data removed. For more information, see Section A.7 of "2011-2012 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at http://www.samhsa.gov/data/.

[6] The 2008-2009, 2009-2010, and 2010-2011 small area estimates were revised and republished based on the new SMI and AMI variables. These new variables will continue to be used to produce SMI and AMI small area estimates. For more information, see Section B.11.1 of the document mentioned in this table's footnote 5.

[7] An adjusted MDE variable was created for 2005-2008 that is comparable with the 2009-2013 MDE variables. Hence, MDE small area estimates were produced using the adjusted variable. For more information, see Section B.11.3 of the document mentioned in this table's footnote 5.

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Section E: List of Contributors

This National Survey on Drug Use and Health (NSDUH) document was prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS), and by RTI International (a registered trademark and a trade name of Research Triangle Institute), Research Triangle Park, North Carolina. Work by RTI was performed under Contract No. HHSS283201300001C.

At SAMHSA, Arthur Hughes reviewed the document and provided substantive revisions. At RTI, Neeraja S. Sathe and Kathryn Spagnola were responsible for the writing of the document, and Ralph E. Folsom and Akhil K. Vaish were responsible for the overall methodology and estimation for the model-based Bayes estimates and confidence intervals.

The following staff were responsible for generating the estimates and providing other support and analysis: Akhil K. Vaish, Neeraja S. Sathe, Kathryn Spagnola, and Brenda K. Porter. Ms. Spagnola provided oversight for production of the document. Richard S. Straw edited it; Debbie Bond formatted its text and tables; and Teresa F. Bass, Kimberly Cone, Danny Occoquan, Margaret Smith, Pamela Tuck, and Cheryl Velez prepared the web versions. Justine L. Allpress and E. Andrew Jessup prepared and processed the maps used in the associated files.