

2012-2013

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

DISCLAIMER

SAMHSA provides links to other Internet sites as a service to its users and is not responsible for the availability or content of these external sites. SAMHSA, its employees, and contractors do not endorse, warrant, or guarantee the products, services, or information described or offered at these other Internet sites. Any reference to a commercial product, process, or service is not an endorsement or recommendation by SAMHSA, its employees, or contractors. For documents available from this server, the U.S. Government does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed.

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 2012-2013 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). It collects information from individuals residing in households, noninstitutionalized group quarters (e.g., shelters, rooming houses, dormitories), and civilians living on military bases.

In 2012-2013, NSDUH collected data from 136,147 respondents aged 12 or older and was designed to obtain representative samples from the 50 States and the District of Columbia.² The survey is planned and managed by SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ). Data collection and analysis were conducted under contract with RTI International.³ Nationally in 2012-2013, 314,198 addresses were screened, and 136,147 individuals responded within the screened addresses (see [Table C.9](#)). The survey is conducted from January through December each year. The screening response rate (SRR) for 2012-2013 combined averaged 85.0 percent, and the interview response rate (IRR) averaged 72.4 percent, for an overall response rate (ORR) of 61.5 percent ([Table C.9](#)). The ORRs for 2012-2013 ranged from 45.8 percent in New York to 75.2 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 the 2011, 2012, and 2013 NSDUH's methodological resource books (MRBs) (CBHSQ, 2013, 2014, in press). For additional details on NSDUH's methodology, see Section A.2 of the 2011-2012 State small area estimation (SAE) methodology document.⁴

Section A.2 of this document lists all of the tables and files associated with the 2012-2013 State small area estimates and when and where they can be found. Information is given in Section A.3 on the confidence intervals and margins of error and how to make interpretations with respect to the small area estimates. Section A.4 discusses related substance use measures and warns users about not drawing conclusions by subtracting small area estimates from two different measures.

¹ See <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>.

² For the purposes of this document, the term "State" refers to all 50 States and the District of Columbia.

³ RTI International is a registered trademark and a trade name of Research Triangle Institute, Research Triangle Park, North Carolina.

⁴ At <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>, see "2011-2012 National Surveys on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology."

The survey-weighted hierarchical Bayes (SWHB) estimation methodology used in the production of State estimates from the 1999 to 2012 surveys also was used in the production of the 2012-2013 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 of SAE modeling and the implementation of 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 2012-2013 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 estimates⁵ 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.4.⁶ Tables of the estimated numbers of individuals associated with each measure are available online,⁷ and an explanation of how these counts and their respective Bayesian confidence intervals⁸ 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.⁹ 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 2011, 2012, 2013, pooled 2011-2012, and pooled 2012-2013 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 2013.

⁵ *National small area estimates = Population-weighted averages of State-level small area estimates.*

⁶ 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.

⁷ At <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>, see Tables 1 to 26 in "2012-2013 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia)."

⁸ 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."

⁹ For MDE, estimates for individuals 12 or older are not included. For AMI, SMI, and thoughts of suicide, estimates for youths aged 12 to 17 and individuals aged 12 or older are not included.

A.2 Presentation of Data

In addition to this methodology document, the following files are also available at <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>:

- **2012-2013 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 panel¹⁰ 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.
- **2012-2013 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 there are 51 areas to be ranked for each measure, the middle quintile was assigned 11 areas and the remaining groups 10 each. In some cases, a "quintile" could have more or fewer States than desired because two (or more) States have the same estimate (to two decimal places). When such ties occurred at the "boundary" between two quintiles, all States with the same estimate were assigned to the lower quintile. Those States with the highest estimates 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 has been included for it.

- **2012-2013 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 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.
- **2012-2013 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

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.

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.

- **2012-2013 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 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 2011-2012 and 2012-2013 Model-Based Prevalence Estimates (50 States and the District of Columbia) (Tables 1 to 26):** Tables are presented that show the 2011-2012 (previously published data) and 2012-2013 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., 2011-2012 and 2012-2013). If the population totals across the 3 years (e.g., 2011, 2012, and 2013) were the same, then the null hypothesis of no difference between the log odds of the 2011-2012 and 2012-2013 prevalence rates would be equivalent to testing the null hypothesis that the difference between the 2011-2012 and 2012-2013 prevalence rates is zero, which in turn would be equivalent to testing that the difference between the 2011 and 2013 prevalence rates is zero.
- **NSDUH: Comparison of 2002-2003 and 2012-2013 Model-Based Prevalence Estimates (50 States and the District of Columbia) (Tables 1 to 22):** Tables are presented that show the 2002-2003 and 2012-2013 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, 2012-2013) and the earliest comparable estimates (based on 2002-2003 NSDUH data).
- **2012-2013 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.3 Confidence Intervals and Margins of Error

At the top of each of the 26 State model-based estimate tables¹¹ is the design-based national estimate along with a 95 percent design-based confidence interval, all of which are based on survey weights and the reported data. The State and regional estimates are model-based statistics (using SAE methodology) that have been adjusted such that the population-weighted mean of the estimates across the 50 States and the District of Columbia equals the design-based

¹¹ At <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>, see "2012-2013 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" (Tables 1 to 26, by Age Group).

national estimate. For more details on this benchmarking, see Section B.4. 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 bias. For example, the State with the highest estimate of past month use of marijuana for young adults aged 18 to 25 was Rhode Island, with an estimate of 29.8 percent and a 95 percent confidence interval that ranged from 26.3 to 33.5 percent (Table 3 of the State model-based estimates' tables). Therefore, the probability is 0.95 that the true percentage of past month marijuana use in Rhode Island for young adults aged 18 to 25 is between 26.3 and 33.5 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 true population value (p) is within $\pm(u - \hat{p})$ or $\pm(\hat{p} - l)$ of the survey estimate (\hat{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 10.9 percent for adults aged 18 to 25 years with a 95 percent confidence interval equal to (8.7, 13.5) (see Table 3 of the State model-based estimates' tables). Therefore Utah's estimate is 2.2 (i.e., $10.9 - 8.7$) percentage points from the lower 95 percent confidence limit and 2.6 (i.e., $13.5 - 10.9$) 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. When comparing two State estimates, two overlapping 95 percent confidence intervals do not imply

that their State estimates are statistically equivalent at the 5 percent level of significance. For details on a more accurate test to compare State estimates, see Section B.6.

A.4 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 mixed¹² model (including both fixed and random effects) of the following form:

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

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 regression parameters. The age group-specific vectors of 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 $\eta_i = (\eta_{1i}, \dots, \eta_{Ai})'$ and grouped SSR-level random effects $v_{ij} = (v_{1ij}, \dots, v_{Aij})'$ are assumed to be mutually independent with $\eta_i \sim N_A(0, D_\eta)$ and $v_{ij} \sim N_A(0, D_V)$, 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_V^{-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 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 age group \times race/ethnicity \times gender cell within a block group can be obtained.

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. These 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, where the weights are obtained by minimizing the mean squared error of the small area estimate. It is also difficult if not impossible to produce valid mean squared errors for small area estimates based solely on a fixed-effect national regression model.

¹³ To increase the precision of estimated random effects at the within-State level, three SSRs were grouped together. Each of the 8 large sample States (i.e., California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) consists of 16 grouped SSRs, and the rest of the States and the District of Columbia each has 4 grouped SSRs.

These block group-level small area estimates then can be aggregated using the appropriate population count projections to form State-level small area estimates for the desired age group(s). 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 2013 NSDUH data were pooled with the 2012 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. perception of great risk of 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. perception of great risk of 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. perception of great risk of 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,

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/population-data-nsduh/reports?tab=33>.

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 2011-2012 and the 2012-2013 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/population-data-nsduh/reports?tab=33>.

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 2012-2013 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 Claritas Inc., the U.S. Census Bureau, the Federal Bureau of Investigation (FBI) (Uniform Crime Reports [UCRs]), the Bureau of Labor Statistics, the Bureau of Economic Analysis, 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 (mortality data). Note that the predictors used to produce the 2012-2013 State small area estimates are the same as the

predictors used to produce the 2011-2012 State small area estimates (however, values of the data were updated when possible). That is, no new variable selection was done for 2012-2013.

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 2012 and 2013 population estimates (the 2012 estimates were obtained by projecting back the data based on the provided 2013 population and 2018 population counts) were used for producing the 2012-2013 State estimates. For more information on these data, see Section B.4.
- *U.S. Census Bureau*. The 2010 census (demographic and geographic variables) and 2011 food stamp participation estimates were used (<http://www.census.gov/did/www/saife/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 2008-2012 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 2011 for most counties, with previous years' data substituted in a few cases.
- *Bureau of Labor Statistics (BLS)*. The 2013 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 2012 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), 2005-2010, were used. The ICD-10 death data are from the NCHS at the Centers for Disease Control and Prevention.
- *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 2012-2013 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.

<i>Nielsen Claritas Data (Description)</i>	<i>Nielsen Claritas Data (Level)</i>
% 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
% 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
<i>2010 Census Data (Description)</i>	<i>2010 Census Data (Level)</i>
% 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
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

<i>Other Categorical Data (Description)</i>	<i>Other Categorical Data (Source)</i>	<i>Other Categorical Data (Level)</i>
= 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 \geq 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

<i>Miscellaneous Data (Description)</i>	<i>Miscellaneous Data (Source)</i>	<i>Miscellaneous Data (Level)</i>
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
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 2012-2013 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 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 re-centered at the benchmarked small area estimates on the logit scale with the symmetric interval end points based on the posterior root mean squared errors. 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 "2012-2013 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, 2012 and 2013) 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 50.89 percent.¹⁶ The corresponding Bayesian confidence intervals ranged from 47.07 to 54.71 percent. The population count for 18 to 25 year olds averaged across 2012 and 2013 in Alabama was 536,933 (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 $0.5089 * 536,933$, which is 273,245.¹⁷ The associated Bayesian confidence intervals ranged from $0.4707 * 536,933$ (i.e., 252,734) to $0.5471 * 536,933$ (i.e., 293,756). Note that when estimates of the number of individuals are calculated for Tables 1 to 26 in "2012-2013 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 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 2012-2013 Small Area Estimates

This section describes a method for determining whether differences between two 2012-2013 State estimates are statistically significant. This procedure can be used for any two State estimates representing the same age group (e.g., young adults aged 18 to 25) and time period (e.g., 2012-2013).

¹⁵ This file is available at <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>.

¹⁶ See Table 9 of the "2012-2013 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" at <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>.

¹⁷ See Table 9 of "2012-2013 NSDUHs: Model-Based Estimated Totals (in Thousands) (50 States and the District of Columbia)" at <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>.

Let π_{1a} and π_{2a} denote the 2012-2013 age group- a specific prevalence rates for two different States, s_1 and s_2 , 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 $\hat{lor}_a = \ln \left[\frac{p_{2a} / (1 - p_{2a})}{p_{1a} / (1 - p_{1a})} \right]$, where p_{1a} and p_{2a} are the 2012-2013 State estimates given in the "2012-2013 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{lor}_a , that is, $v(\hat{lor}_a)$, let $\hat{\theta}_1 = \frac{p_{1a}}{1 - p_{1a}}$ and $\hat{\theta}_2 = \frac{p_{2a}}{1 - p_{2a}}$, then $v(\hat{lor}_a) = v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)] - 2 \text{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)]$, where $\text{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)]$ 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:

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

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 "2012-2013 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, s_1 and s_2 , respectively. Then

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

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 posterior probability of no difference is $p\text{ value} = 2 * P[Z \geq abs(z)]$, where Z is a standard normal random variate, $z = \frac{\hat{lor}_a}{\sqrt{v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)]}}$, and $abs(z)$ denotes the absolute value of z .

Hence, to test whether differences between two 2012-2013 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.

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 is 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). Thus, using the overlap method with 95 percent Bayesian confidence intervals implies a type-I error that is much less than the 5 percent level that is typically prescribed for such tests.

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 equivalence 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 "2012-2013 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" at <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>. 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	13.64	(11.44, 16.18)
Oklahoma	10.00	(8.33, 11.97)

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 $p_{1a} = 0.1364$, $lower_1 = 0.1144$, $upper_1 = 0.1618$, $p_{2a} = 0.1000$, $lower_2 = 0.0833$, $upper_2 = 0.1197$. Then,

$$U_1 = \ln \frac{0.1618}{1 - 0.1618} = -1.6449, L_1 = \ln \frac{0.1144}{1 - 0.1144} = -2.0466,$$

$$U_2 = \ln \frac{0.1197}{1 - 0.1197} = -1.9953, L_2 = \ln \frac{0.0833}{1 - 0.0833} = -2.3983,$$

$$\hat{lor}_a = \ln \left[\frac{p_{2a} / (1 - p_{2a})}{p_{1a} / (1 - p_{1a})} \right] = \ln \left[\frac{0.1000 / (1 - 0.1000)}{0.1364 / (1 - 0.1364)} \right] = -0.3517,$$

$$v[\ln(\hat{\theta}_1)] = \left(\frac{U_1 - L_1}{2 \times 1.96} \right)^2 = \left(\frac{-1.6449 + 2.0466}{2 \times 1.96} \right)^2 = 0.01050,$$

$$v[\ln(\hat{\theta}_2)] = \left(\frac{U_2 - L_2}{2 \times 1.96} \right)^2 = \left(\frac{-1.9953 + 2.3983}{2 \times 1.96} \right)^2 = 0.01057, \text{ and}$$

$$z = \frac{\hat{lor}_a}{\sqrt{v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)]}} = \frac{-0.3517}{\sqrt{0.01050 + 0.01057}} = -2.4229.$$

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 estimate = New Jersey estimate) is rejected. Thus, the two State estimates are statistically different. The Bayes p value or posterior probability of no difference is $p \text{ value} = 2 * P[Z \geq \text{abs}(-2.4229)] = 0.0154$.

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 Persons Aged 12 or Older: 2011

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.	216,521	179,293	156,048	86.98%	88,536	70,109	257,598,945	74.38%	64.69%
Northeast	46,446	38,803	31,569	80.08%	17,251	13,090	46,891,412	69.86%	55.94%
Midwest	58,190	48,817	42,805	88.19%	24,570	19,258	55,687,448	73.92%	65.18%
South	70,821	57,462	51,276	89.47%	28,122	22,980	95,181,797	76.88%	68.78%
West	41,064	34,211	30,398	87.20%	18,593	14,781	59,838,287	74.41%	64.88%
Alabama	4,338	3,360	3,032	89.89%	1,708	1,383	3,985,593	74.64%	67.09%
Alaska	2,459	1,911	1,700	88.87%	1,121	905	569,155	79.52%	70.67%
Arizona	2,731	2,149	1,915	89.43%	1,126	928	5,285,358	82.24%	73.55%
Arkansas	2,687	2,180	2,008	92.12%	1,160	919	2,411,125	72.47%	66.76%
California	9,464	8,223	6,869	83.58%	4,692	3,640	31,060,033	72.25%	60.39%
Colorado	3,127	2,571	2,300	88.95%	1,153	921	4,187,811	76.05%	67.64%
Connecticut	2,805	2,398	2,025	84.35%	1,200	951	3,015,283	72.47%	61.13%
Delaware	2,845	2,334	2,054	87.89%	1,109	900	756,390	76.51%	67.24%
District of Columbia	4,627	3,808	3,119	80.97%	1,067	900	534,393	83.28%	67.43%
Florida	13,954	10,951	9,602	86.92%	4,941	4,029	16,131,977	74.96%	65.16%
Georgia	2,255	1,909	1,745	91.50%	1,082	878	7,928,493	77.49%	70.91%
Hawaii	2,835	2,470	2,015	81.14%	1,260	950	1,116,660	72.08%	58.49%
Idaho	2,237	1,842	1,735	94.05%	1,124	916	1,274,823	76.97%	72.39%
Illinois	11,772	10,195	7,912	77.53%	4,929	3,655	10,652,220	68.90%	53.41%
Indiana	2,475	2,015	1,875	93.20%	1,104	896	5,365,682	73.89%	68.86%
Iowa	2,659	2,295	2,137	93.15%	1,137	933	2,537,918	78.95%	73.54%
Kansas	2,579	2,243	2,043	91.08%	1,164	915	2,323,751	75.45%	68.71%
Kentucky	2,619	2,188	2,048	93.62%	1,113	899	3,597,429	76.19%	71.33%
Louisiana	5,114	4,039	3,768	93.48%	2,126	1,746	3,719,351	77.92%	72.83%
Maine	3,568	2,517	2,313	91.74%	1,039	865	1,142,856	79.50%	72.93%
Maryland	2,587	2,290	1,842	80.47%	1,121	924	4,849,618	77.62%	62.47%
Massachusetts	3,419	2,941	2,518	85.24%	1,230	975	5,601,752	74.44%	63.45%
Michigan	11,276	9,000	7,698	85.60%	4,667	3,685	8,291,125	74.32%	63.62%
Minnesota	2,723	2,369	2,135	90.09%	1,160	940	4,434,303	79.23%	71.38%
Mississippi	3,478	2,708	2,504	92.66%	1,462	1,226	2,408,918	77.57%	71.88%

(continued)

Table C.1 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons Aged 12 or Older: 2011 (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	2,501	2,073	1,925	92.84%	1,127	912	4,967,492	73.10%	67.86%
Montana	3,075	2,483	2,340	94.29%	1,194	956	835,577	76.54%	72.17%
Nebraska	2,547	2,123	1,956	91.82%	1,178	908	1,500,994	71.98%	66.10%
Nevada	2,125	1,680	1,584	95.22%	1,125	907	2,241,024	74.26%	70.71%
New Hampshire	3,003	2,402	2,099	87.19%	1,228	945	1,127,509	72.59%	63.29%
New Jersey	2,534	2,163	1,898	87.73%	1,129	894	7,385,619	71.57%	62.79%
New Mexico	2,478	1,876	1,769	94.23%	1,134	938	1,695,728	79.87%	75.26%
New York	14,528	12,454	9,093	72.46%	5,123	3,531	16,423,062	63.90%	46.31%
North Carolina	2,843	2,319	2,112	90.63%	1,103	935	7,910,951	80.92%	73.34%
North Dakota	3,321	2,629	2,476	94.18%	1,133	904	565,372	74.23%	69.91%
Ohio	11,134	9,463	8,496	89.29%	4,697	3,695	9,616,044	74.43%	66.45%
Oklahoma	2,614	2,068	1,895	91.72%	1,128	890	3,073,328	76.09%	69.79%
Oregon	2,729	2,389	2,171	90.89%	1,190	951	3,261,406	76.65%	69.66%
Pennsylvania	10,738	9,207	7,401	79.86%	4,011	3,074	10,760,673	72.87%	58.19%
Rhode Island	2,634	2,140	1,896	88.56%	1,155	930	893,903	73.56%	65.14%
South Carolina	2,978	2,441	2,205	90.33%	1,143	927	3,853,142	74.53%	67.32%
South Dakota	2,495	2,128	2,027	95.23%	1,107	913	667,896	77.20%	73.52%
Tennessee	2,590	2,149	1,914	89.19%	1,110	911	5,312,944	77.92%	69.50%
Texas	9,328	7,741	7,096	91.51%	4,478	3,636	20,486,703	75.86%	69.43%
Utah	1,797	1,590	1,505	94.62%	1,125	918	2,176,506	77.23%	73.08%
Vermont	3,217	2,581	2,326	90.14%	1,136	925	540,755	78.83%	71.06%
Virginia	2,726	2,431	2,074	85.29%	1,105	939	6,647,559	81.71%	69.69%
Washington	2,950	2,586	2,298	88.23%	1,254	959	5,668,143	72.78%	64.22%
West Virginia	3,238	2,546	2,258	87.80%	1,166	938	1,573,884	75.61%	66.39%
Wisconsin	2,708	2,284	2,125	92.73%	1,167	902	4,764,652	75.45%	69.97%
Wyoming	3,057	2,441	2,197	89.85%	1,095	892	466,065	78.14%	70.21%

DU = dwelling unit.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2011.

Table C.2 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2011

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
Total U.S.	27,911	23,549	24,973,646	84.95%	28,589	23,083	34,301,730	80.48%	32,036	23,477	198,323,568	71.96%
Northeast	5,443	4,425	4,277,870	82.07%	5,465	4,270	6,120,583	77.18%	6,343	4,395	36,492,959	67.15%
Midwest	7,649	6,388	5,445,784	83.26%	7,982	6,373	7,340,274	80.46%	8,939	6,497	42,901,391	71.62%
South	9,087	7,870	9,256,114	87.02%	9,028	7,542	12,610,321	83.06%	10,007	7,568	73,315,362	74.47%
West	5,732	4,866	5,993,878	85.37%	6,114	4,898	8,230,553	78.93%	6,747	5,017	45,613,857	72.13%
Alabama	529	452	385,875	85.66%	577	486	536,911	83.41%	602	445	3,062,807	71.72%
Alaska	392	333	60,921	85.33%	368	284	79,374	77.63%	361	288	428,860	79.00%
Arizona	363	308	535,373	86.03%	375	308	705,171	83.29%	388	312	4,044,814	81.51%
Arkansas	351	296	234,612	84.34%	431	352	316,930	81.16%	378	271	1,859,582	69.15%
California	1,403	1,181	3,173,750	84.94%	1,562	1,230	4,401,989	78.04%	1,727	1,229	23,484,294	69.41%
Colorado	376	326	395,811	84.87%	361	290	552,881	80.31%	416	305	3,239,119	74.43%
Connecticut	361	309	292,050	86.67%	389	320	366,697	83.62%	450	322	2,356,536	68.68%
Delaware	347	292	69,137	84.31%	349	295	100,448	82.88%	413	313	586,805	74.47%
District of Columbia	343	304	31,407	88.80%	408	339	97,511	82.66%	316	257	405,475	83.00%
Florida	1,649	1,440	1,380,074	87.03%	1,466	1,222	1,947,535	82.91%	1,826	1,367	12,804,369	72.50%
Georgia	360	312	821,078	87.30%	309	254	1,073,944	81.77%	413	312	6,033,471	75.45%
Hawaii	395	303	98,668	74.86%	412	329	135,970	82.72%	453	318	882,022	70.07%
Idaho	382	331	138,364	87.43%	326	269	173,071	83.08%	416	316	963,388	74.47%
Illinois	1,547	1,254	1,063,049	81.28%	1,630	1,207	1,394,519	73.93%	1,752	1,194	8,194,652	66.32%
Indiana	336	292	540,048	86.96%	374	315	728,277	84.58%	394	289	4,097,357	70.25%
Iowa	395	332	241,080	85.04%	320	273	344,974	84.99%	422	328	1,951,863	77.28%
Kansas	338	279	235,652	82.61%	394	321	320,124	82.19%	432	315	1,767,975	73.31%
Kentucky	359	297	339,927	83.56%	355	300	457,966	84.54%	399	302	2,799,536	73.80%
Louisiana	671	588	367,017	88.27%	666	567	525,065	87.75%	789	591	2,827,268	74.55%
Maine	350	300	97,195	85.41%	348	296	129,785	84.83%	341	269	915,876	77.99%
Maryland	370	324	460,905	87.15%	368	303	624,724	82.56%	383	297	3,763,989	75.67%
Massachusetts	461	384	495,429	83.49%	410	330	765,174	79.20%	359	261	4,341,149	72.35%
Michigan	1,420	1,195	819,033	84.29%	1,569	1,261	1,094,805	80.72%	1,678	1,229	6,377,287	71.97%
Minnesota	370	315	425,134	85.39%	339	274	570,169	81.72%	451	351	3,439,001	78.13%
Mississippi	452	410	248,626	91.19%	453	390	335,084	85.87%	557	426	1,825,208	74.15%

(continued)

Table C.2 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2011 (continued)

State	12-17			12-17	18-25			18-25	26+			26+
	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate
Missouri	338	293	476,256	82.39%	359	304	654,304	84.44%	430	315	3,836,932	70.24%
Montana	352	299	74,309	83.99%	396	326	106,543	82.17%	446	331	654,725	74.87%
Nebraska	342	298	146,677	87.64%	418	315	205,271	76.00%	418	295	1,149,047	69.10%
Nevada	239	204	218,674	89.40%	446	381	280,630	88.39%	440	322	1,741,720	70.36%
New Hampshire	407	324	103,573	79.53%	404	327	138,419	81.88%	417	294	885,517	70.19%
New Jersey	350	301	712,565	87.81%	360	295	870,975	84.31%	419	298	5,802,078	67.72%
New Mexico	319	280	169,846	87.11%	393	326	226,296	80.21%	422	332	1,299,586	78.88%
New York	1,537	1,180	1,482,881	76.97%	1,702	1,176	2,238,168	68.70%	1,884	1,175	12,702,014	61.53%
North Carolina	379	339	754,179	89.13%	339	282	1,016,089	81.19%	385	314	6,140,683	79.89%
North Dakota	334	291	48,835	87.85%	398	325	89,850	81.27%	401	288	426,688	71.23%
Ohio	1,491	1,220	932,467	81.91%	1,462	1,184	1,228,851	80.53%	1,744	1,291	7,454,725	72.47%
Oklahoma	322	264	302,691	82.91%	389	311	421,806	81.30%	417	315	2,348,831	74.21%
Oregon	414	355	291,549	86.35%	373	286	409,460	76.97%	403	310	2,560,397	75.46%
Pennsylvania	1,252	1,023	969,456	83.05%	1,105	889	1,406,406	81.30%	1,654	1,162	8,384,811	70.33%
Rhode Island	356	301	78,432	84.88%	372	324	132,407	87.65%	427	305	683,065	69.48%
South Carolina	348	302	356,131	86.42%	392	331	511,928	84.82%	403	294	2,985,082	71.06%
South Dakota	363	317	64,382	86.27%	340	295	90,856	85.84%	404	301	512,659	74.58%
Tennessee	336	293	503,104	88.26%	358	297	679,027	82.54%	416	321	4,130,814	75.89%
Texas	1,516	1,314	2,251,878	87.02%	1,426	1,180	2,896,598	82.35%	1,536	1,142	15,338,228	72.77%
Utah	350	317	264,830	90.99%	350	278	362,847	77.60%	425	323	1,548,828	74.74%
Vermont	369	303	46,290	83.39%	375	313	72,552	84.62%	392	309	421,913	77.36%
Virginia	378	332	618,074	87.87%	354	307	879,583	85.65%	373	300	5,149,902	80.14%
Washington	367	309	529,144	83.87%	447	339	733,670	74.35%	440	311	4,405,329	71.11%
West Virginia	377	311	131,399	82.69%	388	326	189,172	84.72%	401	301	1,253,313	73.59%
Wisconsin	375	302	453,172	80.52%	379	299	618,275	81.47%	413	301	3,693,206	73.70%
Wyoming	380	320	42,640	84.62%	305	252	62,649	83.42%	410	320	360,775	76.42%

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, 2011.

Table C.3 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons 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.3 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons 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.4 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
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.4 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012 (continued)

State	12-17			12-17	18-25			18-25	26+			26+
	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Total Selected	Total Responded	Population Estimate	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.5 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons 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.5 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons 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.6 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2013

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
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.6 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2013 (continued)

State	12-17			12-17	18-25			18-25	26+			26+
	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Total Selected	Total Responded	Population Estimate	Weighted Interview Response Rate	Total Selected	Total Responded	Population Estimate	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.7 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons Aged 12 or Older: 2011 and 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.	430,795	357,879	309,921	86.53%	176,192	138,418	258,828,135	73.70%	63.77%
Northeast	94,209	79,213	64,437	80.01%	35,552	26,863	47,033,185	69.72%	55.78%
Midwest	116,724	98,198	85,815	87.90%	49,069	38,400	55,806,073	74.09%	65.12%
South	136,962	111,572	98,770	88.81%	54,401	43,866	95,777,470	75.54%	67.08%
West	82,900	68,896	60,899	86.64%	37,170	29,289	60,211,407	73.56%	63.73%
Alabama	7,350	5,732	5,173	90.09%	2,853	2,284	3,995,513	74.60%	67.21%
Alaska	4,883	3,780	3,342	88.34%	2,197	1,734	573,151	76.26%	67.37%
Arizona	5,502	4,292	3,843	89.78%	2,265	1,850	5,324,007	79.55%	71.42%
Arkansas	5,463	4,472	4,098	91.51%	2,372	1,832	2,417,026	71.09%	65.05%
California	18,953	16,537	13,721	82.98%	9,471	7,248	31,242,043	71.20%	59.09%
Colorado	6,198	5,150	4,501	87.22%	2,341	1,848	4,224,111	75.50%	65.85%
Connecticut	5,660	4,933	4,132	83.54%	2,461	1,915	3,024,762	72.41%	60.49%
Delaware	5,692	4,626	4,062	87.74%	2,219	1,793	761,061	78.28%	68.68%
District of Columbia	9,682	7,912	6,446	80.94%	2,192	1,862	539,510	81.91%	66.29%
Florida	26,722	21,006	18,118	85.78%	9,520	7,573	16,257,260	72.77%	62.42%
Georgia	4,620	3,951	3,541	89.79%	2,226	1,763	7,984,724	75.23%	67.55%
Hawaii	6,047	5,231	4,254	80.97%	2,545	1,888	1,123,740	70.47%	57.06%
Idaho	4,537	3,781	3,556	93.99%	2,260	1,837	1,281,547	77.64%	72.97%
Illinois	23,157	20,159	15,590	77.28%	9,800	7,327	10,666,494	69.94%	54.05%
Indiana	4,966	4,125	3,796	92.12%	2,275	1,807	5,378,527	73.40%	67.61%
Iowa	5,188	4,494	4,159	92.40%	2,274	1,833	2,544,289	76.95%	71.10%
Kansas	5,177	4,441	4,020	90.55%	2,273	1,827	2,329,899	76.66%	69.41%
Kentucky	5,471	4,595	4,250	92.49%	2,297	1,826	3,602,428	74.81%	69.19%
Louisiana	7,855	6,182	5,745	92.89%	3,226	2,647	3,732,406	77.76%	72.23%
Maine	7,434	5,375	4,898	91.15%	2,173	1,803	1,144,211	79.35%	72.33%
Maryland	5,267	4,598	3,644	79.32%	2,195	1,798	4,877,722	76.79%	60.91%
Massachusetts	6,483	5,594	4,726	84.24%	2,483	1,930	5,631,641	72.92%	61.43%
Michigan	22,717	18,207	15,524	85.33%	9,273	7,340	8,305,176	75.03%	64.02%
Minnesota	5,206	4,529	4,110	90.85%	2,252	1,842	4,452,491	80.17%	72.84%
Mississippi	6,031	4,795	4,455	93.10%	2,562	2,127	2,414,364	78.07%	72.68%

(continued)

Table C.7 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons Aged 12 or Older: 2011 and 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	5,380	4,482	4,113	91.84%	2,276	1,827	4,976,528	73.71%	67.69%
Montana	6,370	5,093	4,755	93.46%	2,303	1,832	838,793	76.96%	71.93%
Nebraska	5,103	4,298	3,974	92.27%	2,348	1,848	1,506,148	72.57%	66.96%
Nevada	4,479	3,559	3,305	94.07%	2,259	1,810	2,259,840	74.94%	70.50%
New Hampshire	5,993	4,909	4,290	87.29%	2,487	1,895	1,130,585	72.84%	63.58%
New Jersey	5,156	4,390	3,833	87.30%	2,284	1,792	7,413,306	72.59%	63.37%
New Mexico	5,249	3,928	3,658	93.26%	2,235	1,817	1,699,198	77.04%	71.84%
New York	29,075	25,001	18,208	72.18%	10,390	7,211	16,477,534	64.14%	46.29%
North Carolina	5,691	4,565	4,102	89.63%	2,220	1,852	7,959,139	78.20%	70.09%
North Dakota	6,695	5,262	4,937	93.80%	2,289	1,799	571,449	73.84%	69.26%
Ohio	22,856	19,585	17,519	89.22%	9,524	7,382	9,627,348	73.58%	65.65%
Oklahoma	5,574	4,450	4,068	91.46%	2,317	1,798	3,086,287	74.22%	67.88%
Oregon	5,276	4,639	4,190	90.22%	2,355	1,874	3,277,252	76.56%	69.07%
Pennsylvania	22,645	19,463	15,854	80.97%	8,716	6,654	10,775,353	71.76%	58.11%
Rhode Island	5,254	4,330	3,853	88.96%	2,286	1,853	894,624	75.65%	67.30%
South Carolina	6,284	5,107	4,579	89.63%	2,314	1,865	3,876,591	74.84%	67.08%
South Dakota	5,131	4,291	4,058	94.58%	2,220	1,791	672,090	76.65%	72.49%
Tennessee	5,122	4,244	3,843	90.53%	2,215	1,838	5,338,009	79.50%	71.97%
Texas	18,376	15,392	13,888	89.98%	9,090	7,261	20,669,774	74.57%	67.10%
Utah	3,590	3,148	2,979	94.65%	2,224	1,844	2,195,429	80.29%	75.99%
Vermont	6,509	5,218	4,643	89.01%	2,272	1,810	541,169	76.27%	67.88%
Virginia	5,302	4,724	4,101	86.82%	2,200	1,833	6,691,628	79.04%	68.63%
Washington	5,650	4,892	4,376	89.16%	2,472	1,887	5,702,140	72.27%	64.44%
West Virginia	6,460	5,221	4,657	88.63%	2,383	1,914	1,574,028	74.85%	66.34%
Wisconsin	5,148	4,325	4,015	92.56%	2,265	1,777	4,775,635	75.50%	69.89%
Wyoming	6,166	4,866	4,419	90.79%	2,243	1,820	470,156	77.80%	70.63%

DU = dwelling unit.

NOTE: To compute the pooled 2011-2012 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 2011 and 2012 individual response rates. The 2011-2012 population estimate is the average of the 2011 and the 2012 population.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2011 and 2012.

Table C.8 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2011 and 2012

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
Total U.S.	55,058	46,041	24,953,349	83.90%	57,228	45,845	34,445,842	79.86%	63,906	46,532	199,428,944	71.35%
Northeast	10,956	8,846	4,257,645	80.95%	11,579	8,990	6,137,038	76.86%	13,017	9,027	36,638,503	67.21%
Midwest	15,382	12,787	5,430,966	83.30%	15,873	12,643	7,351,049	80.05%	17,814	12,970	43,024,058	71.92%
South	17,379	14,843	9,280,706	85.27%	17,611	14,554	12,684,550	82.38%	19,411	14,469	73,812,214	73.09%
West	11,341	9,565	5,984,032	84.40%	12,165	9,658	8,273,206	78.06%	13,664	10,066	45,954,169	71.35%
Alabama	871	730	385,060	83.04%	960	798	536,921	82.17%	1,022	756	3,073,532	72.17%
Alaska	696	566	60,614	80.86%	716	570	80,497	79.96%	785	598	432,040	74.94%
Arizona	729	620	537,268	85.82%	746	601	709,377	79.02%	790	629	4,077,362	78.80%
Arkansas	745	608	235,330	81.32%	835	662	317,333	78.29%	792	562	1,864,363	68.41%
California	2,812	2,340	3,156,459	83.38%	3,146	2,446	4,427,350	77.27%	3,513	2,462	23,658,234	68.44%
Colorado	752	645	397,449	85.51%	751	591	556,502	79.14%	838	612	3,270,160	73.78%
Connecticut	722	597	290,956	83.31%	815	659	369,988	82.08%	924	659	2,363,818	69.61%
Delaware	723	599	69,055	83.47%	654	541	101,269	83.37%	842	653	590,737	76.88%
District of Columbia	705	633	31,373	90.29%	806	683	96,533	84.87%	681	546	411,604	80.57%
Florida	3,068	2,633	1,381,693	85.23%	3,001	2,444	1,959,129	81.01%	3,451	2,496	12,916,437	70.17%
Georgia	704	599	824,731	84.45%	669	538	1,085,263	80.65%	853	626	6,074,730	73.07%
Hawaii	772	587	97,800	75.39%	794	637	138,119	81.76%	979	664	887,821	68.20%
Idaho	771	676	139,014	88.14%	660	531	173,198	81.56%	829	630	969,335	75.31%
Illinois	3,064	2,488	1,057,464	81.61%	3,192	2,397	1,393,927	75.19%	3,544	2,442	8,215,103	67.50%
Indiana	666	563	540,292	84.57%	782	643	729,904	82.60%	827	601	4,108,332	70.45%
Iowa	768	646	241,228	83.57%	682	560	346,249	82.22%	824	627	1,956,812	75.23%
Kansas	726	622	236,049	85.41%	712	586	321,178	83.34%	835	619	1,772,671	74.30%
Kentucky	743	615	339,685	82.71%	735	602	459,703	82.38%	819	609	2,803,041	72.56%
Louisiana	1,001	880	367,339	88.51%	1,030	870	524,049	85.18%	1,195	897	2,841,017	74.90%
Maine	709	605	96,430	85.36%	735	621	129,601	84.48%	729	577	918,180	77.89%
Maryland	700	606	459,636	86.32%	731	609	628,350	82.93%	764	583	3,789,736	74.57%
Massachusetts	841	693	494,412	82.35%	818	642	768,767	78.23%	824	595	4,368,462	70.85%
Michigan	2,865	2,373	814,217	83.01%	3,077	2,492	1,098,296	81.24%	3,331	2,475	6,392,662	72.96%
Minnesota	733	639	424,745	87.45%	678	546	570,686	80.80%	841	657	3,457,060	79.18%
Mississippi	836	723	248,417	85.92%	791	687	335,677	87.06%	935	717	1,830,270	75.23%

(continued)

Table C.8 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2011 and 2012 (continued)

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
Missouri	705	605	475,157	84.15%	715	594	654,561	83.39%	856	628	3,846,810	70.85%
Montana	740	615	74,042	82.91%	746	605	107,193	80.32%	817	612	657,558	75.70%
Nebraska	664	576	147,027	87.22%	851	680	205,521	80.34%	833	592	1,153,600	69.30%
Nevada	572	494	219,786	87.94%	814	670	282,581	83.77%	873	646	1,757,473	72.05%
New Hampshire	812	629	102,838	77.50%	821	651	138,951	80.42%	854	615	888,797	71.03%
New Jersey	699	592	710,612	85.48%	738	587	876,279	81.17%	847	613	5,826,415	69.69%
New Mexico	651	570	169,342	87.16%	762	629	226,502	80.79%	822	618	1,303,353	75.06%
New York	3,101	2,373	1,474,700	76.41%	3,480	2,442	2,242,476	70.22%	3,809	2,396	12,760,358	61.64%
North Carolina	733	637	757,390	86.25%	721	619	1,024,771	84.52%	766	596	6,176,978	76.15%
North Dakota	705	600	48,873	85.72%	737	593	91,747	80.54%	847	606	430,829	71.11%
Ohio	3,119	2,517	929,629	80.81%	2,937	2,332	1,230,773	79.16%	3,468	2,533	7,466,946	71.75%
Oklahoma	707	567	304,074	80.48%	772	608	423,379	79.07%	838	623	2,358,834	72.49%
Oregon	725	625	291,972	86.68%	780	604	409,608	78.02%	850	645	2,575,672	75.24%
Pennsylvania	2,677	2,192	964,004	82.60%	2,641	2,107	1,405,623	80.50%	3,398	2,355	8,405,726	69.11%
Rhode Island	676	577	77,839	85.62%	763	653	132,549	86.08%	847	623	684,237	72.52%
South Carolina	733	619	357,301	83.98%	741	626	513,846	84.74%	840	620	3,005,444	71.92%
South Dakota	679	582	64,463	85.20%	711	595	91,190	84.33%	830	614	516,437	74.34%
Tennessee	635	554	504,106	87.13%	777	649	683,640	82.94%	803	635	4,150,263	78.02%
Texas	2,988	2,560	2,265,694	85.69%	2,897	2,363	2,919,940	81.38%	3,205	2,338	15,484,139	71.56%
Utah	669	604	268,417	90.74%	734	588	363,323	79.82%	821	652	1,563,689	78.55%
Vermont	719	588	45,855	81.98%	768	628	72,804	82.71%	785	594	422,511	74.58%
Virginia	751	654	618,558	86.47%	670	577	885,563	85.42%	779	602	5,187,508	76.94%
Washington	735	610	528,978	82.76%	853	649	735,790	74.94%	884	628	4,437,371	70.65%
West Virginia	736	626	131,265	85.18%	821	678	189,182	83.12%	826	610	1,253,581	72.62%
Wisconsin	688	576	451,821	83.56%	799	625	617,016	79.62%	778	576	3,706,797	73.78%
Wyoming	717	613	42,890	85.21%	663	537	63,165	81.03%	863	670	364,101	76.39%

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 2011-2012 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 2011 and 2012 individual response rates. The 2011-2012 population estimate is the average of the 2011 and the 2012 population.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2011 and 2012.

Table C.9 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons 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.9 Sample Sizes, Weighted Screening and Interview Response Rates, and Population Estimates, by State, for Persons 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.10 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012 and 2013

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
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.10 Sample Sizes, Weighted Interview Response Rates, and Population Estimates, by State and Three Age Groups: 2012 and 2013 (continued)

State	12-17			12-17 Weighted Interview Response Rate	18-25			18-25 Weighted Interview Response Rate	26+			26+ Weighted Interview Response Rate
	Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate		Total Selected	Total Responded	Population Estimate	
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.11 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Persons Aged 12 to 20, by State: 2011, 2012, and 2013

State	2011			2011 Weighted Interview Response Rate	2012			2012 Weighted Interview Response Rate	2013			2013 Weighted Interview Response Rate
	Total Selected	Total Responded	2011 Population Estimate		Total Selected	Total Responded	2012 Population Estimate		Total Selected	Total Responded	2013 Population Estimate	
Total U.S.	38,505	32,349	38,497,742	84.37%	37,391	30,912	38,205,953	82.59%	37,820	30,801	38,086,579	81.70%
Northeast	7,493	6,098	6,824,455	82.10%	7,735	6,239	6,646,927	80.21%	7,770	6,238	6,379,509	79.42%
Midwest	10,686	8,872	8,368,112	82.81%	10,454	8,616	8,152,530	82.67%	10,686	8,592	8,217,933	80.04%
South	12,390	10,682	14,024,266	86.28%	11,385	9,547	14,063,463	83.57%	11,306	9,274	14,070,964	81.83%
West	7,936	6,697	9,280,909	84.53%	7,817	6,510	9,343,033	82.70%	8,058	6,697	9,418,173	84.56%
Alabama	744	631	604,574	84.49%	469	384	584,363	81.07%	497	421	570,714	82.97%
Alaska	515	431	89,332	83.83%	441	352	95,819	80.24%	490	383	91,357	77.84%
Arizona	511	433	798,580	85.99%	503	424	816,941	83.45%	526	428	816,730	81.20%
Arkansas	528	442	374,992	83.30%	550	439	370,165	79.62%	457	357	334,342	77.85%
California	2,003	1,685	5,066,496	84.30%	2,016	1,646	5,018,845	81.44%	2,070	1,767	5,008,517	85.96%
Colorado	480	411	564,436	84.33%	501	421	594,406	85.04%	450	367	609,754	82.09%
Connecticut	516	441	436,152	86.19%	520	427	455,720	82.40%	534	431	421,506	81.80%
Delaware	465	393	105,240	84.25%	493	407	107,644	84.15%	460	379	99,907	80.87%
District of Columbia	487	422	65,173	83.44%	498	451	64,190	91.18%	452	387	54,486	84.22%
Florida	2,250	1,949	2,211,773	86.30%	1,980	1,649	2,109,563	82.68%	1,929	1,574	2,127,386	81.54%
Georgia	480	413	1,207,618	86.51%	478	397	1,309,366	82.78%	502	405	1,278,777	81.65%
Hawaii	541	424	149,682	78.74%	500	388	145,487	78.38%	508	416	146,388	80.45%
Idaho	493	422	205,495	85.84%	515	441	206,195	85.69%	483	398	202,212	84.41%
Illinois	2,144	1,711	1,619,137	79.79%	2,036	1,637	1,553,772	80.89%	2,048	1,582	1,571,014	77.50%
Indiana	489	424	852,672	85.97%	480	393	813,060	81.75%	490	392	794,141	77.86%
Iowa	523	443	382,062	85.81%	485	404	353,403	82.15%	484	396	365,893	81.48%
Kansas	484	398	344,035	82.51%	508	443	380,034	86.86%	499	404	360,191	81.57%
Kentucky	481	400	501,556	83.75%	511	422	505,420	82.23%	491	400	507,396	81.31%
Louisiana	918	804	573,374	88.93%	451	395	552,954	87.18%	487	399	574,885	80.70%
Maine	495	424	153,910	85.35%	504	433	145,895	86.56%	523	448	146,805	85.44%
Maryland	487	422	657,919	85.91%	438	372	655,351	84.43%	505	403	653,828	79.02%
Massachusetts	620	520	822,796	83.78%	520	420	763,162	80.74%	499	385	723,842	76.61%
Michigan	2,034	1,702	1,293,907	83.70%	1,992	1,638	1,251,079	82.84%	2,054	1,654	1,239,358	80.23%
Minnesota	488	411	622,236	84.21%	471	411	629,891	86.19%	456	393	626,747	86.71%
Mississippi	597	539	365,463	90.08%	517	426	376,196	82.30%	493	437	363,901	88.44%

(continued)

Table C.11 Sample Sizes, Wighted Interview Response Rates, and Population Estimates among Persons Aged 12 to 20, by State: 2011, 2012, and 2013 (continued)

State	2011			2011 Weighted Interview Response Rate	2012			2012 Weighted Interview Response Rate	2013			2013 Weighted Interview Response Rate
	Total Selected	Total Responded	2011 Population Estimate		Total Selected	Total Responded	2012 Population Estimate		Total Selected	Total Responded	2013 Population Estimate	
Missouri	465	398	714,937	82.47%	486	407	700,548	84.33%	493	412	714,528	81.35%
Montana	491	411	112,790	82.79%	522	431	123,289	83.41%	550	440	120,530	79.55%
Nebraska	514	427	225,527	83.87%	475	413	228,674	87.51%	539	452	240,691	82.96%
Nevada	440	385	370,767	90.91%	474	403	339,091	85.10%	486	431	343,860	89.80%
New Hampshire	589	479	177,762	82.39%	599	472	181,715	80.39%	556	444	173,109	80.69%
New Jersey	494	424	1,119,943	88.15%	475	389	1,041,104	81.91%	506	400	1,028,297	80.63%
New Mexico	469	404	258,176	84.99%	459	396	247,385	86.18%	477	403	252,940	83.62%
New York	2,120	1,607	2,330,810	76.15%	2,182	1,674	2,352,294	76.70%	2,218	1,701	2,191,460	76.54%
North Carolina	487	433	1,114,423	88.06%	474	404	1,096,473	85.11%	438	365	1,101,838	83.46%
North Dakota	476	414	80,431	86.41%	495	415	90,131	84.87%	497	397	82,751	78.48%
Ohio	2,081	1,715	1,474,645	82.49%	2,134	1,696	1,382,707	79.58%	2,130	1,697	1,449,529	80.13%
Oklahoma	454	373	462,928	83.45%	523	407	474,162	76.65%	601	482	497,668	80.37%
Oregon	534	450	424,881	83.95%	457	391	462,560	85.86%	458	372	456,806	80.22%
Pennsylvania	1,677	1,377	1,583,008	83.76%	1,980	1,620	1,506,219	82.23%	1,967	1,623	1,484,560	82.08%
Rhode Island	483	413	126,155	85.65%	460	399	127,152	87.11%	508	430	139,658	85.71%
South Carolina	482	414	521,289	85.95%	496	414	537,771	83.64%	507	411	539,469	81.31%
South Dakota	470	411	87,535	86.40%	444	378	101,364	85.52%	506	425	103,606	82.80%
Tennessee	462	401	768,020	86.68%	439	378	731,381	84.81%	495	425	773,131	85.93%
Texas	2,010	1,738	3,303,733	86.40%	2,002	1,690	3,407,153	84.28%	1,968	1,591	3,455,065	80.21%
Utah	463	406	364,611	85.21%	434	386	396,005	88.78%	511	434	420,269	85.51%
Vermont	499	413	73,919	84.39%	495	405	73,666	81.68%	459	376	70,271	81.84%
Virginia	516	452	966,316	86.34%	484	416	952,855	85.21%	502	421	933,932	85.76%
Washington	510	424	809,041	82.70%	516	419	825,920	81.17%	503	417	880,808	84.01%
West Virginia	542	456	219,874	85.17%	582	496	228,456	84.92%	522	417	204,238	80.45%
Wisconsin	518	418	670,989	81.33%	448	381	667,867	84.74%	490	388	669,485	77.88%
Wyoming	486	411	66,621	85.07%	479	412	71,089	84.48%	546	441	68,002	81.58%

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, 2011, 2012, and 2013.

Table C.12 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Persons Aged 12 to 20, by State: 2011-2012 and 2012-2013

State	2011-2012 Total Selected	2011-2012 Total Responded	2011-2012 Population Estimate	2011-2012 Weighted Interview Response Rate	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate
Total U.S.	75,896	63,261	38,351,848	83.48%	75,211	61,713	38,146,266	82.14%
Northeast	15,228	12,337	6,735,691	81.17%	15,505	12,477	6,513,218	79.82%
Midwest	21,140	17,488	8,260,321	82.74%	21,140	17,208	8,185,232	81.35%
South	23,775	20,229	14,043,864	84.93%	22,691	18,821	14,067,213	82.70%
West	15,753	13,207	9,311,971	83.61%	15,875	13,207	9,380,603	83.62%
Alabama	1,213	1,015	594,469	82.82%	966	805	577,538	82.00%
Alaska	956	783	92,576	82.01%	931	735	93,588	79.06%
Arizona	1,014	857	807,761	84.71%	1,029	852	816,835	82.33%
Arkansas	1,078	881	372,578	81.52%	1,007	796	352,254	78.75%
California	4,019	3,331	5,042,671	82.86%	4,086	3,413	5,013,681	83.66%
Colorado	981	832	579,421	84.71%	951	788	602,080	83.58%
Connecticut	1,036	868	445,936	84.34%	1,054	858	438,613	82.09%
Delaware	958	800	106,442	84.20%	953	786	103,775	82.52%
District of Columbia	985	873	64,681	87.24%	950	838	59,338	87.97%
Florida	4,230	3,598	2,160,668	84.51%	3,909	3,223	2,118,475	82.12%
Georgia	958	810	1,258,492	84.59%	980	802	1,294,072	82.22%
Hawaii	1,041	812	147,585	78.56%	1,008	804	145,938	79.41%
Idaho	1,008	863	205,845	85.76%	998	839	204,204	85.06%
Illinois	4,180	3,348	1,586,454	80.33%	4,084	3,219	1,562,393	79.19%
Indiana	969	817	832,866	83.88%	970	785	803,600	79.84%
Iowa	1,008	847	367,732	84.07%	969	800	359,648	81.81%
Kansas	992	841	362,035	84.71%	1,007	847	370,112	84.27%
Kentucky	992	822	503,488	83.00%	1,002	822	506,408	81.76%
Louisiana	1,369	1,199	563,164	88.07%	938	794	563,920	83.93%
Maine	999	857	149,902	85.94%	1,027	881	146,350	86.01%
Maryland	925	794	656,635	85.18%	943	775	654,590	81.68%
Massachusetts	1,140	940	792,979	82.34%	1,019	805	743,502	78.72%
Michigan	4,026	3,340	1,272,493	83.28%	4,046	3,292	1,245,219	81.54%
Minnesota	959	822	626,064	85.18%	927	804	628,319	86.44%
Mississippi	1,114	965	370,830	86.07%	1,010	863	370,048	85.31%

(continued)

Table C.12 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Persons Aged 12 to 20, by State: 2011-2012 and 2012-2013 (continued)

State	2011-2012 Total Selected	2011-2012 Total Responded	2011-2012 Population Estimate	2011-2012 Weighted Interview Response Rate	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate
Missouri	951	805	707,743	83.39%	979	819	707,538	82.83%
Montana	1,013	842	118,039	83.11%	1,072	871	121,910	81.44%
Nebraska	989	840	227,100	85.62%	1,014	865	234,682	85.20%
Nevada	914	788	354,929	88.06%	960	834	341,475	87.42%
New Hampshire	1,188	951	179,739	81.37%	1,155	916	177,412	80.53%
New Jersey	969	813	1,080,523	85.12%	981	789	1,034,700	81.28%
New Mexico	928	800	252,781	85.58%	936	799	250,162	84.89%
New York	4,302	3,281	2,341,552	76.42%	4,400	3,375	2,271,877	76.62%
North Carolina	961	837	1,105,448	86.55%	912	769	1,099,156	84.28%
North Dakota	971	829	85,281	85.62%	992	812	86,441	81.66%
Ohio	4,215	3,411	1,428,676	81.08%	4,264	3,393	1,416,118	79.86%
Oklahoma	977	780	468,545	80.03%	1,124	889	485,915	78.58%
Oregon	991	841	443,721	84.92%	915	763	459,683	83.01%
Pennsylvania	3,657	2,997	1,544,613	83.01%	3,947	3,243	1,495,389	82.16%
Rhode Island	943	812	126,654	86.38%	968	829	133,405	86.40%
South Carolina	978	828	529,530	84.79%	1,003	825	538,620	82.45%
South Dakota	914	789	94,450	85.95%	950	803	102,485	84.13%
Tennessee	901	779	749,701	85.76%	934	803	752,256	85.38%
Texas	4,012	3,428	3,355,443	85.34%	3,970	3,281	3,431,109	82.24%
Utah	897	792	380,308	87.03%	945	820	408,137	87.10%
Vermont	994	818	73,792	83.04%	954	781	71,968	81.76%
Virginia	1,000	868	959,586	85.79%	986	837	943,393	85.48%
Washington	1,026	843	817,480	81.94%	1,019	836	853,364	82.64%
West Virginia	1,124	952	224,165	85.05%	1,104	913	216,347	82.84%
Wisconsin	966	799	669,428	83.00%	938	769	668,676	81.25%
Wyoming	965	823	68,855	84.76%	1,025	853	69,545	83.04%

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, 2011, 2012, and 2013.

Table C.13 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Persons Aged 18 or Older, by State: 2011, 2012, and 2013

State	2011			2011 Weighted Interview Response Rate	2012			2012 Weighted Interview Response Rate	2013			2013 Weighted Interview Response Rate
	Total Selected	Total Responded	2011 Population Estimate		Total Selected	Total Responded	2012 Population Estimate		Total Selected	Total Responded	2013 Population Estimate	
Total U.S.	60,625	46,560	232,625,299	73.22%	60,509	45,817	235,124,274	72.00%	61,112	45,306	237,498,837	70.61%
Northeast	11,808	8,665	42,613,542	68.62%	12,788	9,352	42,937,539	68.59%	12,634	9,100	43,200,918	67.70%
Midwest	16,921	12,870	50,241,664	72.89%	16,766	12,743	50,508,549	73.29%	17,112	12,602	50,816,624	70.61%
South	19,035	15,110	85,925,683	75.76%	17,987	13,913	87,067,845	73.21%	18,390	13,878	88,156,610	72.35%
West	12,861	9,915	53,844,410	73.17%	12,968	9,809	54,610,340	71.60%	12,976	9,726	55,324,685	70.09%
Alabama	1,179	931	3,599,718	73.44%	803	623	3,621,189	73.90%	775	578	3,642,350	67.91%
Alaska	729	572	508,235	78.77%	772	596	516,839	73.05%	758	587	517,089	74.74%
Arizona	763	620	4,749,984	81.79%	773	610	4,823,495	76.18%	774	559	4,901,704	67.86%
Arkansas	809	623	2,176,513	71.07%	818	601	2,186,878	68.89%	866	653	2,198,214	72.67%
California	3,289	2,459	27,886,283	70.78%	3,370	2,449	28,284,885	68.90%	3,374	2,466	28,644,204	68.82%
Colorado	777	595	3,792,000	75.18%	812	608	3,861,324	73.85%	851	626	3,934,150	70.24%
Connecticut	839	642	2,723,233	70.84%	900	676	2,744,379	71.67%	807	577	2,758,083	68.93%
Delaware	762	608	687,253	75.70%	734	586	696,760	79.66%	779	581	706,947	71.27%
District of Columbia	724	596	502,986	82.93%	763	633	513,289	79.99%	768	580	524,960	74.63%
Florida	3,292	2,589	14,751,904	73.85%	3,160	2,351	14,999,230	69.34%	3,385	2,493	15,212,136	70.67%
Georgia	722	566	7,107,414	76.39%	800	598	7,212,572	72.11%	735	561	7,298,705	71.87%
Hawaii	865	647	1,017,992	71.81%	908	654	1,033,888	68.36%	872	618	1,038,681	65.50%
Idaho	742	585	1,136,459	75.69%	747	576	1,148,607	76.93%	826	627	1,163,811	74.54%
Illinois	3,382	2,401	9,589,171	67.45%	3,354	2,438	9,628,889	69.74%	3,475	2,358	9,674,009	64.56%
Indiana	768	604	4,825,634	72.44%	841	640	4,850,837	72.01%	799	602	4,889,478	70.78%
Iowa	742	601	2,296,838	78.35%	764	586	2,309,284	73.90%	807	613	2,324,742	70.53%
Kansas	826	636	2,088,098	74.63%	721	569	2,099,601	76.67%	796	591	2,106,246	72.33%
Kentucky	754	602	3,257,502	75.37%	800	609	3,267,986	72.62%	794	604	3,292,759	72.57%
Louisiana	1,455	1,158	3,352,333	76.72%	770	609	3,377,799	76.40%	790	606	3,406,196	72.72%
Maine	689	565	1,045,661	78.89%	775	633	1,049,900	78.59%	735	598	1,053,674	77.84%
Maryland	751	600	4,388,713	76.64%	744	592	4,447,458	74.85%	808	623	4,491,106	76.42%
Massachusetts	769	591	5,106,323	73.51%	873	646	5,168,136	70.62%	870	612	5,222,444	68.82%
Michigan	3,247	2,490	7,472,092	73.25%	3,161	2,477	7,509,825	75.11%	3,228	2,442	7,544,022	72.00%
Minnesota	790	625	4,009,170	78.60%	729	578	4,046,322	80.26%	791	619	4,084,784	76.42%
Mississippi	1,010	816	2,160,292	75.97%	716	588	2,171,602	78.33%	711	581	2,182,497	78.14%

(continued)

Table C.13 Sample Sizes, Wighted Interview Response Rates, and Population Estimates among Persons Aged 18 or Older, by State: 2011, 2012, and 2013 (continued)

State	2011			2011 Weighted Interview Response Rate	2012			2012 Weighted Interview Response Rate	2013			2013 Weighted Interview Response Rate
	Total Selected	Total Responded	2011 Population Estimate		Total Selected	Total Responded	2012 Population Estimate		Total Selected	Total Responded	2013 Population Estimate	
Missouri	789	619	4,491,236	72.16%	782	603	4,511,506	73.10%	825	615	4,538,072	72.25%
Montana	842	657	761,268	75.83%	721	560	768,234	76.98%	783	596	776,451	73.89%
Nebraska	836	610	1,354,318	70.17%	848	662	1,363,924	71.68%	756	589	1,375,718	73.48%
Nevada	886	703	2,022,350	72.78%	801	613	2,057,758	74.47%	782	622	2,090,821	73.20%
New Hampshire	821	621	1,023,936	71.86%	854	645	1,031,559	72.83%	850	649	1,037,592	75.97%
New Jersey	779	593	6,673,054	69.81%	806	607	6,732,336	72.63%	858	620	6,773,350	67.83%
New Mexico	815	658	1,525,882	79.08%	769	589	1,533,828	72.67%	828	625	1,540,178	72.40%
New York	3,586	2,351	14,940,181	62.61%	3,703	2,487	15,065,487	63.25%	3,563	2,334	15,172,768	62.31%
North Carolina	724	596	7,156,772	80.07%	763	619	7,246,727	74.56%	793	614	7,345,522	74.76%
North Dakota	799	613	516,537	72.93%	785	586	528,614	72.53%	889	648	543,737	67.93%
Ohio	3,206	2,475	8,683,577	73.60%	3,199	2,390	8,711,861	71.96%	3,192	2,348	8,753,095	70.18%
Oklahoma	806	626	2,770,637	75.32%	804	605	2,793,790	71.76%	827	604	2,822,475	67.42%
Oregon	776	596	2,969,857	75.67%	854	653	3,000,702	75.56%	772	598	3,036,213	76.46%
Pennsylvania	2,759	2,051	9,791,217	71.86%	3,280	2,411	9,831,482	69.58%	3,377	2,517	9,863,670	72.18%
Rhode Island	799	629	815,472	72.44%	811	647	818,100	76.97%	795	592	821,462	70.88%
South Carolina	795	625	3,497,010	73.23%	786	621	3,541,570	74.46%	742	589	3,591,886	75.96%
South Dakota	744	596	603,514	76.24%	797	613	611,740	75.34%	747	585	619,853	76.03%
Tennessee	774	618	4,809,840	76.82%	806	666	4,857,966	80.57%	750	577	4,902,455	71.95%
Texas	2,962	2,322	18,234,826	74.41%	3,140	2,379	18,573,333	72.01%	3,339	2,465	18,911,482	71.04%
Utah	775	601	1,911,676	75.26%	780	639	1,942,347	82.23%	779	612	1,979,244	73.43%
Vermont	767	622	494,466	78.40%	786	600	496,163	73.23%	779	601	497,875	76.52%
Virginia	727	607	6,029,485	81.02%	722	572	6,116,656	75.62%	754	571	6,182,639	75.56%
Washington	887	650	5,138,999	71.57%	850	627	5,207,324	70.94%	822	603	5,266,752	70.21%
West Virginia	789	627	1,442,485	75.00%	858	661	1,443,040	72.82%	774	598	1,444,283	76.05%
Wisconsin	792	600	4,311,481	74.87%	785	601	4,336,147	74.41%	807	592	4,362,867	72.94%
Wyoming	715	572	423,425	77.45%	811	635	431,108	76.66%	755	587	435,387	78.48%

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, 2011, 2012, and 2013.

Table C.14 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Persons Aged 18 or Older, by State: 2011-2012 and 2012-2013

State	2011-2012 Total Selected	2011-2012 Total Responded	2011-2012 Population Estimate	2011-2012 Weighted Interview Response Rate	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate
Total U.S.	121,134	92,377	233,874,786	72.60%	121,621	91,123	236,311,555	71.31%
Northeast	24,596	18,017	42,775,541	68.60%	25,422	18,452	43,069,229	68.15%
Midwest	33,687	25,613	50,375,107	73.09%	33,878	25,345	50,662,587	71.95%
South	37,022	29,023	86,496,764	74.47%	36,377	27,791	87,612,227	72.78%
West	25,829	19,724	54,227,375	72.36%	25,944	19,535	54,967,513	70.85%
Alabama	1,982	1,554	3,610,453	73.67%	1,578	1,201	3,631,769	70.77%
Alaska	1,501	1,168	512,537	75.73%	1,530	1,183	516,964	73.87%
Arizona	1,536	1,230	4,786,739	78.83%	1,547	1,169	4,862,599	72.12%
Arkansas	1,627	1,224	2,181,695	69.95%	1,684	1,254	2,192,546	70.81%
California	6,659	4,908	28,085,584	69.82%	6,744	4,915	28,464,544	68.86%
Colorado	1,589	1,203	3,826,662	74.51%	1,663	1,234	3,897,737	72.04%
Connecticut	1,739	1,318	2,733,806	71.28%	1,707	1,253	2,751,231	70.35%
Delaware	1,496	1,194	692,007	77.78%	1,513	1,167	701,853	75.61%
District of Columbia	1,487	1,229	508,138	81.39%	1,531	1,213	519,124	77.35%
Florida	6,452	4,940	14,875,567	71.60%	6,545	4,844	15,105,683	70.03%
Georgia	1,522	1,164	7,159,993	74.20%	1,535	1,159	7,255,639	72.00%
Hawaii	1,773	1,301	1,025,940	70.01%	1,780	1,272	1,036,284	66.93%
Idaho	1,489	1,161	1,142,533	76.27%	1,573	1,203	1,156,209	75.67%
Illinois	6,736	4,839	9,609,030	68.62%	6,829	4,796	9,651,449	67.15%
Indiana	1,609	1,244	4,838,235	72.21%	1,640	1,242	4,870,158	71.43%
Iowa	1,506	1,187	2,303,061	76.26%	1,571	1,199	2,317,013	72.17%
Kansas	1,547	1,205	2,093,849	75.65%	1,517	1,160	2,102,923	74.48%
Kentucky	1,554	1,211	3,262,744	73.96%	1,594	1,213	3,280,373	72.59%
Louisiana	2,225	1,767	3,365,066	76.56%	1,560	1,215	3,391,997	74.50%
Maine	1,464	1,198	1,047,780	78.74%	1,510	1,231	1,051,787	78.21%
Maryland	1,495	1,192	4,418,086	75.78%	1,552	1,215	4,469,282	75.66%
Massachusetts	1,642	1,237	5,137,229	72.01%	1,743	1,258	5,195,290	69.73%
Michigan	6,408	4,967	7,490,959	74.17%	6,389	4,919	7,526,924	73.56%
Minnesota	1,519	1,203	4,027,746	79.41%	1,520	1,197	4,065,553	78.26%
Mississippi	1,726	1,404	2,165,947	77.12%	1,427	1,169	2,177,049	78.23%

(continued)

Table C.14 Sample Sizes, Weighted Interview Response Rates, and Population Estimates among Persons Aged 18 or Older, by State: 2011-2012 and 2012-2013 (continued)

State	2011-2012 Total Selected	2011-2012 Total Responded	2011-2012 Population Estimate	2011-2012 Weighted Interview Response Rate	2012-2013 Total Selected	2012-2013 Total Responded	2012-2013 Population Estimate	2012-2013 Weighted Interview Response Rate
Missouri	1,571	1,222	4,501,371	72.61%	1,607	1,218	4,524,789	72.67%
Montana	1,563	1,217	764,751	76.36%	1,504	1,156	772,343	75.34%
Nebraska	1,684	1,272	1,359,121	70.94%	1,604	1,251	1,369,821	72.53%
Nevada	1,687	1,316	2,040,054	73.62%	1,583	1,235	2,074,289	73.83%
New Hampshire	1,675	1,266	1,027,747	72.35%	1,704	1,294	1,034,575	74.40%
New Jersey	1,585	1,200	6,702,695	71.21%	1,664	1,227	6,752,843	70.22%
New Mexico	1,584	1,247	1,529,855	75.90%	1,597	1,214	1,537,003	72.53%
New York	7,289	4,838	15,002,834	62.93%	7,266	4,821	15,119,127	62.78%
North Carolina	1,487	1,215	7,201,750	77.34%	1,556	1,233	7,296,125	74.66%
North Dakota	1,584	1,199	522,576	72.73%	1,674	1,234	536,176	70.13%
Ohio	6,405	4,865	8,697,719	72.78%	6,391	4,738	8,732,478	71.07%
Oklahoma	1,610	1,231	2,782,213	73.52%	1,631	1,209	2,808,132	69.54%
Oregon	1,630	1,249	2,985,280	75.61%	1,626	1,251	3,018,457	75.99%
Pennsylvania	6,039	4,462	9,811,349	70.71%	6,657	4,928	9,847,576	70.86%
Rhode Island	1,610	1,276	816,786	74.71%	1,606	1,239	819,781	73.87%
South Carolina	1,581	1,246	3,519,290	73.86%	1,528	1,210	3,566,728	75.22%
South Dakota	1,541	1,209	607,627	75.78%	1,544	1,198	615,796	75.69%
Tennessee	1,580	1,284	4,833,903	78.71%	1,556	1,243	4,880,211	76.17%
Texas	6,102	4,701	18,404,079	73.17%	6,479	4,844	18,742,407	71.52%
Utah	1,555	1,240	1,927,012	78.79%	1,559	1,251	1,960,796	77.89%
Vermont	1,553	1,222	495,314	75.75%	1,565	1,201	497,019	74.82%
Virginia	1,449	1,179	6,073,071	78.24%	1,476	1,143	6,149,648	75.59%
Washington	1,737	1,277	5,173,161	71.23%	1,672	1,230	5,237,038	70.58%
West Virginia	1,647	1,288	1,442,762	73.94%	1,632	1,259	1,443,661	74.41%
Wisconsin	1,577	1,201	4,323,814	74.63%	1,592	1,193	4,349,507	73.71%
Wyoming	1,526	1,207	427,266	77.04%	1,566	1,222	433,248	77.56%

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, 2011, 2012, and 2013.

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
Illicit Drug Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marijuana Use in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marijuana Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Perceptions of Great Risk of Smoking Marijuana Once a Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
First Use of Marijuana (Marijuana Incidence)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Illicit Drug Use Other Than Marijuana in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cocaine Use in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nonmedical Use of Pain Relievers in the Past Year	No ¹	Yes									
Alcohol Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underage Past Month Use of Alcohol	No ¹	Yes									
Binge Alcohol Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underage Past Month Binge Alcohol Use	No ¹	Yes									
Perceptions of Great Risk of Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tobacco Product Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cigarette Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per Day	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alcohol Dependence or Abuse in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alcohol Dependence in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Illicit Drug Dependence or Abuse in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Illicit Drug Dependence in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dependence or Abuse of Illicit Drugs or Alcohol in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Needing But Not Receiving Treatment for Illicit Drug Use in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Needing But Not Receiving Treatment for Alcohol Use in the Past Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Serious Psychological Distress (SPD) in the Past Year ²	Yes	Yes	Yes	No							
Had at Least One Major Depressive Episode (MDE) in the Past Year ³	No	No	Yes								
Serious Mental Illness (SMI) in the Past Year	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Any Mental Illness (AMI) in the Past Year	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Had Serious Thoughts of Suicide in the Past Year	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

¹ Estimates for these outcomes were not included in the 2002-2003 State report (Wright & Sathé, 2005), but the 2002-2003 estimates are included in the 2003-2004 State report as part of the comparison tables (see Wright & Sathé, 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 et al., 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.

Yes = available, No = not available.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013.

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	Yes	Yes	No	Yes	Yes	Yes
Marijuana Use in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Marijuana Use in the Past Month	Yes	Yes	No	Yes	Yes	Yes
Perceptions of Great Risk of Smoking Marijuana Once a Month	Yes	Yes	No	Yes	Yes	Yes
First Use of Marijuana (Marijuana Incidence)	Yes	Yes	No	Yes	Yes	Yes
Illicit Drug Use Other Than Marijuana in the Past Month	Yes	Yes	No	Yes	Yes	Yes
Cocaine Use in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Nonmedical Use of Pain Relievers in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Alcohol Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes
Binge Alcohol Use in the Past Month	Yes	Yes	Yes	Yes	Yes	Yes
Perceptions of Great Risk of Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week	Yes	Yes	No	Yes	Yes	Yes
Tobacco Product Use in the Past Month	Yes	Yes	No	Yes	Yes	Yes
Cigarette Use in the Past Month	Yes	Yes	No	Yes	Yes	Yes
Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per Day	Yes	Yes	No	Yes	Yes	Yes
Alcohol Dependence or Abuse in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Alcohol Dependence in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Illicit Drug Dependence or Abuse in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Illicit Drug Dependence in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Dependence or Abuse of Illicit Drugs or Alcohol in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Needing But Not Receiving Treatment for Illicit Drug Use in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Needing But Not Receiving Treatment for Alcohol Use in the Past Year	Yes	Yes	No	Yes	Yes	Yes
Serious Psychological Distress (SPD) in the Past Year	No	No	No	Yes	Yes	Yes
Had at Least One Major Depressive Episode (MDE) in the Past Year ¹	No	Yes	No	Yes	Yes	Yes
Serious Mental Illness (SMI) in the Past Year	No	No	No	Yes	Yes	Yes
Any Mental Illness (AMI) in the Past Year	No	No	No	Yes	Yes	Yes
Had Serious Thoughts of Suicide in the Past Year	No	No	No	Yes	Yes	Yes

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.

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).

Yes = available, No = not available.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013.

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

SAE Production Items	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
Weights Based on Projections from 2000 Census Control Totals	X	X	X	X	X	X	X	X	X ¹		
Weights Based on Projections from 2010 Census Control Totals									X ¹	X	X
Small Area Estimates Produced Based on Variable Selection Done Using 2002-2003 Data ²	X	X	X	X	X	X	X	X	X ³		
Small Area Estimates Produced Based on Variable Selection Done Using 2010-2011 Data ⁴									X ³	X	X
Small Area Estimates Reproduced Using Data Omitting Falsified Data ⁵				X	X	X	X				
SMI and AMI Small Area Estimates Based on Updated 2013 Model ⁶							X	X	X	X	X
MDE Small Area Estimates Based on Adjusted MDE Variable ⁷				X	X	X	X				

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 note 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/population-data-nsduh/reports?tab=33>.

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.

Section D: References

Center for Behavioral Health Statistics and Quality. (2007). *2005 National Survey on Drug Use and Health: Methodological Resource Book (Section 20, Methamphetamine analysis report)*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Behavioral Health Statistics and Quality. (2013). *2011 National Survey on Drug Use and Health: Methodological Resource Book*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Behavioral Health Statistics and Quality. (2014). *2012 National Survey on Drug Use and Health: Methodological Resource Book*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Behavioral Health Statistics and Quality. (in press). *2013 National Survey on Drug Use and Health: Methodological Resource Book*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Folsom, R. E., Shah, B., & Vaish, A. (1999). Substance abuse in states: A methodological report on model based estimates from the 1994-1996 National Household Surveys on Drug Abuse. In *Proceedings of the 1999 Joint Statistical Meetings, American Statistical Association, Survey Research Methods Section, Baltimore, MD* (pp. 371-375). Alexandria, VA: American Statistical Association.

Ghosh, M. (1992). Constrained Bayes estimation with applications. *Journal of the American Statistical Association*, *87*, 533-540.

Payton, M. E., Greenstone, M. H., & Schenker, N. (2003). Overlapping confidence intervals or standard error intervals: What do they mean in terms of statistical significance? *Journal of Insect Science*, *3*, 34.

Raftery, A. E., & Lewis, S. (1992). How many iterations in the Gibbs sampler? In J. M. Bernardo, J. O. Berger, A. P. Dawid, & A. F. M. Smith (Eds.), *Bayesian statistics 4* (pp. 763-774). London, England: Oxford University Press.

Schenker, N., & Gentleman, J. F. (2001). On judging the significance of differences by examining the overlap between confidence intervals. *American Statistician*, *55*(3), 182-186.

Scheuren, F. (2004, June). *What is a survey* (2nd ed.). Retrieved September 17, 2014, from <https://www.whatisasurvey.info/overview.htm>

Shah, B. V., Barnwell, B. G., Folsom, R., & Vaish, A. (2000). Design consistent small area estimates using Gibbs algorithm for logistic models. In *Proceedings of the 2000 Joint Statistical Meetings, American Statistical Association, Survey Research Methods Section, Indianapolis, IN* (pp. 105-111). Alexandria, VA: American Statistical Association.

Singh, A. C., & Folsom, R. E. (2001, April 11-14). *Hierarchical Bayes calibrated domain estimation via Metropolis-Hastings Step in MCMC with application to small areas*. Presented at the International Conference on Small Area Estimation and Related Topics, Potomac, MD.

Wright, D. (2003a). *State estimates of substance use from the 2001 National Household Survey on Drug Abuse: Volume I. Findings* (HHS Publication No. SMA 03-3775, NHSDA Series H-19). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

Wright, D. (2003b). *State estimates of substance use from the 2001 National Household Survey on Drug Abuse: Volume II. Individual state tables and technical appendices* (HHS Publication No. SMA 03-3826, NHSDA Series H-20). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

Wright, D., & Sathe, N. (2005). *State estimates of substance use from the 2002-2003 National Surveys on Drug Use and Health* (HHS Publication No. SMA 05-3989, NSDUH Series H-26). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

Wright, D., & Sathe, N. (2006). *State estimates of substance use from the 2003-2004 National Surveys on Drug Use and Health* (HHS Publication No. SMA 06-4142, NSDUH Series H-29). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

Wright, D., Sathe, N., & Spagnola, K. (2007). *State estimates of substance use from the 2004-2005 National Surveys on Drug Use and Health* (HHS Publication No. SMA 07-4235, NSDUH Series H-31). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

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. HHSS283201000003C.

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 and Valerie Garner 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.

