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Worker Substance Use and Workplace Policies and Programs

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Highlights

This report presents findings on substance use among workers and on workplace drug policy and programs from the 2002, 2003, and 2004 National Surveys on Drug Use and Health (NSDUHs). NSDUH is an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years or older. The survey is sponsored by the Substance Abuse and Mental Health Administration (SAMHSA) to provide data on substance use and related issues among the U.S. population.

NSDUH collects information on employment status, type of business, specific occupations and industries, and information on drug-testing policies and programs from U.S. workers. This report analyzes the worker information in conjunction with the substance use data collected in the survey to investigate substance use among full-time employed U.S. workers aged 18 to 64 during the period 2002 to 2004.

Substance Use among Workers, by Demographic and Geographic Characteristics

- The prevalences of substance use behaviors and substance use disorders are higher among unemployed persons than among full-time workers, part-time workers, and those with other employment status. However, because full-time workers constitute about two thirds of the population aged 18 to 64 (or 114.7 million persons), most substance users and most of those with substance use disorders are employed full time.

- The prevalence of past month illicit drug use among full-time workers aged 18 to 64 was estimated to be 8.2 percent in 2002, 2003, and 2004. Nearly one out of five (19.0 percent) workers aged 18 to 25 used illicit drugs during the past month. This was a higher percentage than among the 26-to-34 (10.3 percent), 35-to-49 (7.0 percent), and 50-to-64 (2.6 percent) age groups.

- Males were more likely than females to report past month illicit drug use (9.7 vs. 6.2 percent). Males accounted for about two thirds (6.4 million) of the workers who reported past month illicit drug use.

- Workers with a college education had a lower prevalence of past month illicit drug use compared with those without a college education. The prevalence of past month use of illicit drugs was lower among those with higher levels of education than those with less education (college graduate [5.7 percent] vs. less than high school [11.2 percent]).

- The prevalence of past month illicit drug use was lower among workers with higher family incomes than among workers with lower family incomes. An estimated 13.2 percent of workers who reported family income that was less than $20,000 had used illicit drugs during the past month. In contrast, 6.0 percent of workers who reported income in the highest category—$75,000 or more—had used illicit drugs during the past month.

- An estimated 8.8 percent, or 10.1 million, of full-time workers reported past month heavy alcohol use. Among younger workers (18 to 25 years old), 16.3 percent reported past month heavy alcohol use compared with 10.4 percent of 26- to 34-year-olds, 8.1 percent of 35- to 49-year-olds, and 4.7 percent of 50- to 64-year-olds.

Substance Use among Workers, by Occupation, Industry, and Establishment Size

- Of the major occupational groups, food service workers (17.4 percent) and construction workers (15.1 percent) exhibited a higher prevalence of past month illicit drug use than other occupational groups. Those working in education, training, and library occupations (4.1 percent), community and social services occupations (4.0 percent), and protective service occupations (3.4 percent) had the lowest prevalence of past month illicit drug use among the major occupational groups.

- The major occupational groups with the highest prevalence of past month heavy alcohol use were construction and extraction occupations (17.8 percent) and installation, maintenance, and repair occupations (14.7 percent). Community and social services occupations (2.8 percent) had the lowest prevalence of past month heavy alcohol use of the major occupations.

- The major industry groups with the highest prevalence of past month illicit drug use were accommodations and food services (16.9 percent) and construction (13.7 percent). Public administration (4.1 percent), educational services (4.0 percent), and utilities (3.8 percent) had the lowest prevalence of past month illicit drug use.

- The industry groups with the highest prevalence of past month heavy alcohol use were construction (15.9 percent); arts, entertainment, and recreation (13.6 percent); and mining (13.3 percent) industries. However, health care and social assistance (4.3 percent) and educational services (4.0 percent) had the lowest prevalence of past month heavy alcohol use compared with the other major industries.

- Prevalence of past month illicit drug use was lower as establishment size increased. The prevalence among workers in establishments with 25 to 99 employees was 8.2 percent, compared with 6.7 percent among workers in establishments with 100 to 499 employees and 5.7 percent among workers in establishments with 500 or more employees. A similar pattern was found for past month heavy alcohol use.

Workplace Information Policies and Programs concerning Drug and Alcohol Use

- Among the nearly 115 million full-time workers aged 18 to 64 years in the United States, 47.7 million (43.8 percent) reported that they had access to educational information about drug and alcohol use in the workplace, 87.0 million (78.7 percent) reported that they were aware of a written policy about drug and alcohol use in the workplace, and 60.9 million (58.4 percent) reported that their employer offered an employee assistance program (EAP).

- The youngest adult workers were least likely to report access to educational information about drug and alcohol use in the workplace. Among 18- to 25-year-old workers, 33.2 percent reported that they had educational information available. This was significantly lower than among workers aged 26 to 34 years (39.6 percent), 35 to 49 years (46.3 percent), and 50 to 64 years (48.9 percent). Young adult workers between the ages of 18 and 25 were significantly less likely to report EAPs available in the workplace compared with all other age groups (39.7 vs. 56.4 to 62.6 percent).

- Nearly 3 million (32.1 percent) full-time workers between the ages of 18 and 64 who had used an illicit drug in the past month reported that they worked for an employer who offered educational information about alcohol and drug use. An EAP was reported available to 3.9 million (45.4 percent) workers who were past month users of an illicit drug, while 6.5 million (71.0 percent) reported working for employers who had a written policy about drug and alcohol use.

- Generally, past month illicit drug users were less likely to report working for employers who offered workplace drug or alcohol programs or policies, compared with those who did not use an illicit drug in the past month. An estimated 45.4 percent of past month illicit drug users reported that there was an EAP at their place of employment compared with 59.6 percent of workers who had not used an illicit drug in the past month.

Workplace Testing

- Among the Nation's full-time workers, 42.9 percent reported that tests for illicit drug or alcohol use occurred at their place of employment during the hiring process, or "prehire" testing. This equates to more than 47 million adults who worked in settings where testing for illicit drug or alcohol use occurred during the hiring process.

- The youngest and oldest adult workers (18 to 25 and 50 to 64 years) were less likely to report working for employers with prehire drug testing than workers aged 26 to 49 years. An estimated 40.8 percent of 50- to 64-year-olds and 39.0 percent of 18- to 25-year-olds reported prehire testing, compared with 44.3 percent of workers aged 26 to 34 years and 44.7 percent of workers aged 35 to 49 years.

- For each age group, past month illicit drug users were less likely than nonusers to report working for employers who conducted prehire drug or alcohol tests (29.4 vs. 41.3 percent of 18- to 25-year-olds, 32.0 vs. 45.8 percent of 26- to 34-year-olds, 34.2 vs. 45.5 percent of 35- to 49-year-olds, and 31.3 vs. 41.0 percent of 50- to 64-year-olds).

- A total of 29.6 percent, or 32 million, of full-time workers in the United States reported random drug testing in their current employment setting during the study period. The youngest workers (18 to 25 years) were less likely than all other age groups to report working for an employer who conducted random drug testing (27.3 vs. 29.6 percent of 26- to 34-year-olds, 30.6 percent of 35- to 49-year-olds, and 29.1 percent of 50- to 64-year-olds).

- Past month illicit drug users were less likely to report working for employers who conducted random drug or alcohol tests than were nondrug users. For 18- to 25-year-olds, 19.7 percent of illicit drug users reported that they worked in a random-testing environment compared with 29.1 percent of nonusers. The relationship was consistent for all age groups: 20.0 versus 30.8 percent of 26- to 34-year-olds, 22.6 versus 31.2 percent of 35- to 49-year-olds, and 20.4 versus 29.3 percent of 50- to 64-year-olds.

Workplace Behaviors and Attitudes toward Drug Testing

- Among full-time workers who reported past month illicit drug use, 12.3 percent reported working for three or more employers in the past year, compared with 5.1 percent of workers without past month drug use. They also were more likely to report missing 2 or more workdays in the past month due to illness or injury when compared with workers without past month use (16.4 vs. 11.0 percent). Finally, 16.3 percent of workers who used illicit drugs in the past month reported skipping 1 or more days of work in the past month (vs. 8.2 percent of workers who did not use an illicit drug during the past month).

- Among full-time workers in the United States, 52.5 million (46.0 percent) workers indicated that they would be more likely to work for an employer who tests before hiring, and an additional 56.2 million (49.1 percent) workers reported that prehire testing would not influence their decision to work for an employer. Only 5.6 million (4.9 percent) workers indicated that they would be less likely to work for an employer who conducts prehire drug testing.

- More than half of U.S. workers reported that it would make no difference to them if an employer tests employees randomly after hire for drug or alcohol use. An estimated 45.5 million (39.8 percent) workers reported that they would be more likely to work for such an employer, while 10.0 million (8.7 percent) workers reported that they would be less likely to work for an employer who tests randomly for drug or alcohol use. An estimated 58.8 million (51.4 percent) workers indicated that random testing would not influence their decision to work for an employer.

- An estimated 29.1 percent of workers with past month illicit drug use reported that they would be less likely to work for employers who conduct drug testing randomly, while only 6.9 percent of workers who did not report past month illicit drug use selected this response category. This relationship was consistent in the multivariate models while controlling for age, gender, race/ethnicity, educational attainment, family income, region, and county type (metropolitan statistical area).

1. Introduction

This report presents findings on substance use among workers and workplace drug policy and programs from the 2002, 2003, and 2004 National Surveys on Drug Use and Health (NSDUHs). NSDUH is an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years or older. It is the primary source of statistical information on the use of illegal drugs by the U.S. population. The purpose of this report is to describe the nature of illicit drug and alcohol use in the adult working population and the prevalence of workplace programs designed to reduce drug and alcohol use. In addition, this report provides an assessment of the association of these programs with the prevalence of worker substance use.

In 1994, the Substance Abuse and Mental Health Services Administration (SAMHSA), in cooperation with the U.S. Department of Labor and the U.S. Small Business Administration, developed and implemented a module in NSDUH designed to gather specific information on employment status, type of business, and specific occupations and industries among persons aged 15 or older. In addition, this module also was designed to collect worker reports of drug-testing policies and programs. SAMHSA continues to include a workplace module in NSDUH. The workplace data collected in this module can be used in conjunction with drug use data collected in the survey to investigate drug use among U.S. workers.

Previous NSDUH reports related to employment status and workplace drug policies have focused on workers aged 18 to 49 years old (Hoffmann, Brittingham, & Larison, 1996; Hoffmann, Larison, & Sanderson, 1997; Office of Applied Studies [OAS], 1999; Zhang, Huang, & Brittingham, 1999). The current report expands the age range to include full-time workers aged 18 to 64 years old. In 1994, 44 percent of full-time workers aged 18 to 49 in the United States reported a drug- and/or alcohol-testing program in their place of employment. This increased to 49 percent by 1997. Although there was an increase in drug testing in the workplace, current illicit drug use by full-time workers remained essentially unchanged, with a rate of 7.6 percent reporting drug use in 1994 and 7.7 percent reporting use in 1997 (Zhang et al., 1999).

The analysis presented in this report demonstrates that worker substance use is a serious problem, with an estimated 9.4 million full-time workers aged 18 to 64 reporting illicit drug use in the past month. About 43.8 percent of full-time workers reported access to educational information about drug and alcohol use through work, 58.4 percent reported access to an employee assistance program (EAP), and 78.7 percent reported access to a written workplace policy about drug and alcohol use. In general, past month illicit drug users were less likely to work for employers who provided these programs. Finally, testing programs were fairly prevalent, with 48.8 percent of full-time workers reporting that their employer conducted testing for drug use. Multivariate analysis suggests that illicit drug users are less likely to work for employers who have a drug-testing program.

1.1. Summary of NSDUH

NSDUH is the primary source of statistical information on the use of illegal drugs by the U.S. civilian, noninstitutionalized population aged 12 or older. Conducted by the Federal Government since 1971, the survey collects data by administering questionnaires to a

representative sample of the population through face-to-face interviews at their places of residence. The survey, which has been repeated annually since 1990, is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. Department of Health and Human Services, and is planned and managed by SAMHSA's Office of Applied Studies (OAS). Data collection is conducted under contract with RTI International, Research Triangle Park, North Carolina.[1] This section briefly describes the survey methodology; a more complete description is provided in Appendices A and B.

Prior to 2002, the survey was called the National Household Survey on Drug Abuse (NHSDA). Because of improvements to the survey in 2002, the 2002 data constitute a new baseline for tracking trends in substance use and other measures. For this reason, findings in this report are based on data only from the 2002, 2003, and 2004 NSDUHs. Estimates from these 3 survey years should not be compared with estimates from the 2001 or earlier versions of the survey. A discussion of survey methodology and results from the 2002 NSDUH are presented in OAS (2003). A more detailed discussion of the impact of changes in NSDUH methods on the survey results can be found in Appendix C in the 2004 national findings report (OAS, 2005).

NSDUH collects information from residents of households, noninstitutional group quarters (e.g., shelters, rooming houses, dormitories), and civilians living on military bases. The survey does not include homeless persons who do not use shelters, military personnel on active duty, and residents of institutional group quarters, such as jails and hospitals.

Since 1999, the NSDUH interview has been carried out using computer-assisted interviewing (CAI). Most of the questions are administered with audio computer-assisted self-interviewing (ACASI). ACASI is designed to provide the respondent with a highly private and confidential means of responding to questions to increase the level of honest reporting of illicit drug use and other sensitive behaviors. Less sensitive items are administered by interviewers using computer-assisted personal interviewing (CAPI). Overall, approximately 61 percent of the time that respondents spend answering questions is for items administered by ACASI.

The 2002, 2003, and 2004 NSDUHs employed a 50-State sample design with an independent, multistage area probability sample for each of the 50 States and the District of Columbia. The eight States with the largest population (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas), which together account for 48 percent of the total U.S. population aged 12 or older, were designated as large sample States. For these States, the design provided an annual sample sufficient to support direct State estimates. For the remaining 42 States and the District of Columbia, smaller, but adequate, samples were selected to support State estimates using small area estimation (SAE) techniques. The NSDUH design also oversampled youths and young adults, so that each State's sample was approximately equally distributed among three major age groups: 12 to 17 years, 18 to 25 years, and 26 years or older.

Each year's survey was conducted from January through December of that calendar year (e.g., January through December 2004 for the 2004 NSDUH). Sampled dwelling units were screened to identify eligible residents aged 12 or older. Up to two persons per dwelling unit were

[1] RTI International is a trade name of Research Triangle Institute.

selected to be interviewed. In each year, respondents were given an incentive payment of $30 for completing the interview.

The weighted response rate for household screening was 90.8 percent between 2002 and 2004. The weighted response rate for interviewing among persons aged 18 to 64 was 77.9 percent. Sample sizes for persons aged 18 to 64 were 42,215 in 2002, 42,708 in 2003, and 43,053 in 2004, for a total of 127,976 completed interviews in this age group across the 3 years.

A number of key measures of substance use and dependence or abuse are reported from the NSDUH data. A complete listing and explanation of the key definitions used in NSDUH can be found in Appendix C. Occupational and industry classifications are provided in Appendix D. NSDUH defines "full-time" as respondents who usually work 35 or more hours per week and who worked in the past week or had a job despite not working in the past week. Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically. "Heavy" alcohol use is defined as drinking five or more drinks on the same occasion on 5 or more days in the past 30 days. Analyses focus primarily on past month use, which also is referred to as "current use." NSDUH includes a series of questions to assess the prevalence of substance use disorders (i.e., dependence on or abuse of a substance) in the past year. These questions are used to classify persons as dependent or abusing specific substances based on criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (*DSM-IV*; American Psychiatric Association [APA], 1994). The questions on dependence ask about health and emotional problems associated with substance use, unsuccessful attempts to cut down on use, tolerance, withdrawal, reducing other activities to use substances, spending a lot of time engaging in activities related to substance use, or using the substance in greater quantities or for a longer time than intended. The questions on abuse ask about problems at work, home, and school; problems with family or friends; physical danger; and trouble with the law due to substance use. Dependence is considered to be a more severe substance use problem than abuse. Although individuals may meet the criteria specified for both dependence and abuse, persons are classified with abuse of a particular substance only if they are not classified as dependent on that substance. Measures of dependence on or abuse of alcohol and dependence on or abuse of illicit drugs are used in this report.

1.2. Format of Report and Explanation of Tables

Tables, text, and figures present prevalence measures for the population in terms of both the number of persons and the percentage of the population. Estimates presented in this report are based on averages for the 2002, 2003, and 2004 surveys. Combining data from these 3 survey years increases the sample size to support estimates among more detailed demographic and geographic domains, including the various occupational and industry characteristics described in this report.

Statistical tests have been conducted for all statements appearing in the text of the report that compare estimates between subgroups of the population. Unless explicitly stated that a difference is not statistically significant, all statements that describe differences are significant at the .05 level. Statistically significant differences are described using terms such as "higher" or "lower." Statements that use terms such as "similar," "no difference," or "same" to describe the

relationship between estimates denote that a difference is not statistically significant. In addition, a set of estimates for population subgroups may be presented without a statement of comparison, in which case a statistically significant difference between these estimates is not implied and testing was not conducted.

All estimates presented in this report have met the criteria for statistical reliability (see Section B.2.2 of Appendix B). Estimates that do not meet these criteria are suppressed and do not appear in tables, figures, or text. Also, subgroups with suppressed estimates are not included in statistical tests of comparisons. For example, a statement that "whites had the highest prevalence" means that the rate among whites was higher than the rate among all racial/ethnic subgroups for which estimates were reliable, but not necessarily higher than the rate among a subgroup for which the estimate was suppressed.

Data are presented for racial/ethnic groups, based on current standards for collecting and reporting race and ethnicity data (Office of Management and Budget [OMB], 1997). Because respondents were allowed to choose more than one racial group, a "two or more races" category is presented that includes persons who reported more than one category among the seven basic groups listed in the survey question (white, black or African American, American Indian or Alaska Native, Native Hawaiian, Other Pacific Islander, Asian, Other). It should be noted that, except for the "Hispanic or Latino" group, the racial/ethnic groups discussed in this report include only non-Hispanics. The category "Hispanic or Latino" includes Hispanics of any race. Also, more detailed categories describing specific subgroups were obtained from survey respondents if they reported either Asian race or Hispanic ethnicity. Data on Native Hawaiians and Other Pacific Islanders are combined in this report.

Data also are presented for four U.S. geographic regions. These regions and divisions within these regions, defined by the U.S. Census Bureau, consist of the following groups of States:

Northeast Region - *New England Division:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; *Middle Atlantic Division:* New Jersey, New York, Pennsylvania.

Midwest Region - *East North Central Division:* Illinois, Indiana, Michigan, Ohio, Wisconsin; *West North Central Division:* Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

South Region - *South Atlantic Division:* Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia; *East South Central Division:* Alabama, Kentucky, Mississippi, Tennessee; *West South Central Division:* Arkansas, Louisiana, Oklahoma, Texas.

West Region - *Mountain Division:* Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; *Pacific Division:* Alaska, California, Hawaii, Oregon, Washington.

Geographic comparisons also are made based on urban influence county type, which reflects different levels of population size, urbanization, and access to larger communities based

on county-level Urban Influence Codes (UIC) created by the Economic Research Service (ERS) of the U.S. Department of Agriculture. The codes group metropolitan and nonmetropolitan counties according to the official county-level metro status issued by the OMB in June 2003 (OMB, 2003). Each county is either inside or outside a metropolitan statistical area (MSA), as defined by the OMB. The definitions of urban influence county type are different than county-type definitions used in other NSDUH reports. The definitions for this report are based on UIC, whereas the 2004 national findings (OAS, 2005) definitions are based on Rural-Urban Continuum Codes (RUCC).

Large MSAs have a population of 1 million or more. Small MSAs have a population of fewer than 1 million. Nonmetropolitan areas are areas outside MSAs that have been categorized into four groups based on UIC. The first group consists of micropolitan statistical areas (MiSAs), which include a county with an urban cluster of at least 10,000 persons or more and any additional counties where commuting to the central county is 25 percent or higher, or where 25 percent of the employment in an outlying county is made up of commuters from the central county. The remaining three groups of nonmetropolitan areas consist of noncore counties and are divided based on their adjacency to larger areas and whether or not they have their "own town" of at least 2,500 residents. The "noncore adjacent with town" group includes those areas that are adjacent to a large MSA, adjacent to a small MSA and have their own town, or adjacent to a MiSA and have their own town. Noncore areas that have no town of their own but are adjacent to a small MSA or MiSA compose the "noncore adjacent, no town" group. The "noncore rural, not adjacent" group consists of counties that are not adjacent to any MSA or MiSA and have no town of their own.

1.3. Content and Organization of This Report

Subsequent chapters contain detailed information about several issues related to worker substance use and workplace drug and alcohol policies and programs. Chapter 2 provides estimates of substance use among full-time workers in the United States by demographic and geographic characteristics, including age, gender, race/ethnicity, education, family income, and place of residence. This provides some insight about the magnitude of worker substance use across different settings and population subgroups. Chapter 3 examines the characteristics of employers by providing estimates of the prevalence of substance use behaviors and substance use disorders by occupation, industry, and establishment size. Chapter 4 explores worker reports of drug information programs and policies in their employment settings. Chapter 5 provides detailed estimates about the prevalence of drug testing in the workplace. Chapter 6 discusses workplace behaviors and attitudes toward drug testing. In addition to the selected data tables included in these chapters and in Appendix E of this report, supplemental tables of estimates and their associated standard errors are available on the Internet at http://www.oas.samhsa.gov/work.htm. Standard error tables are presented for the tables in Appendix E as well as for the supplemental Web tables. The supplemental tables of estimates, which are denoted by "S" after the table number, are numbered to correspond to chapters and to consecutively follow Appendix E tables (e.g., Table 2.6S follows Table 2.5 in Appendix E and contains data related to analyses presented in Chapter 2). The standard error tables, which are denoted by "SE" after the table number, are numbered to correspond to the tables in Appendix E and to the supplemental Web tables (e.g., Table 2.1SE is the standard error table for Table 2.1 in Appendix E). Appendix F contains the reference list for this report.

2. Substance Use among Workers, by Demographic and Geographic Characteristics

This chapter summarizes the substance use patterns of the population of full-time workers aged 18 to 64 in the United States between 2002 and 2004. The chapter also examines the differences in substance use for different demographic and geographic groups within that population. (See Tables 2.1 through 2.5 in Appendix E.) Demographic and geographic characteristics examined include age, gender, race/ethnicity, education, family income, and place of residence. Understanding which subpopulations in the workforce have the greatest prevalence of substance use behaviors and substance use disorders may allow policy makers to target workplace programs to specific settings and subpopulations.

The prevalences of substance use behaviors and substance use disorders are higher among unemployed persons than other employment statuses (Figure 2.1). However, because full-time workers constitute about two thirds of the population aged 18 to 64 (or 114.7 million persons), most substance users and most of those with substance use disorders are employed full time (Figure 2.2). Specifically, among those aged 18 to 64, 57.5 percent of past month illicit drug users, 58.0 percent of past month marijuana users, 67.3 percent of heavy alcohol users, 52.8 percent of those with dependence on or abuse of illicit drugs, and 65.1 percent of those with alcohol dependence or abuse were employed full time from 2002 to 2004 (Table 2.1).

Figure 2.1 Past Month Substance Use and Past Year Substance Dependence or Abuse among Persons Aged 18 to 64, by Employment Status: 2002-2004 Combined

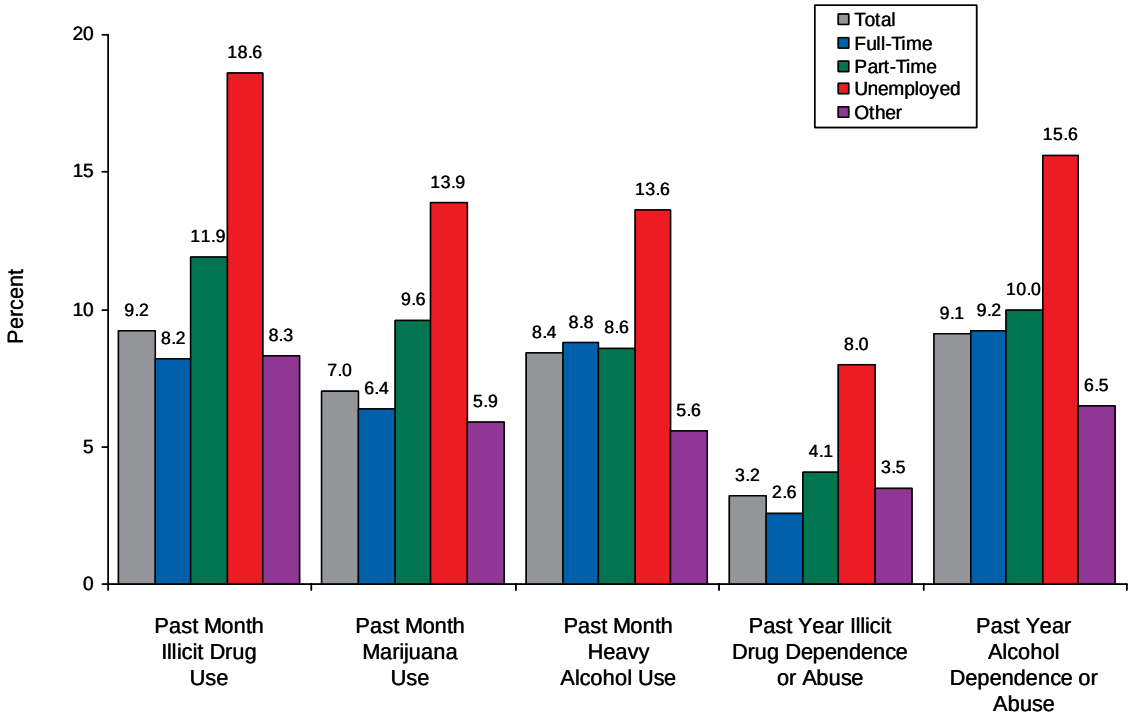
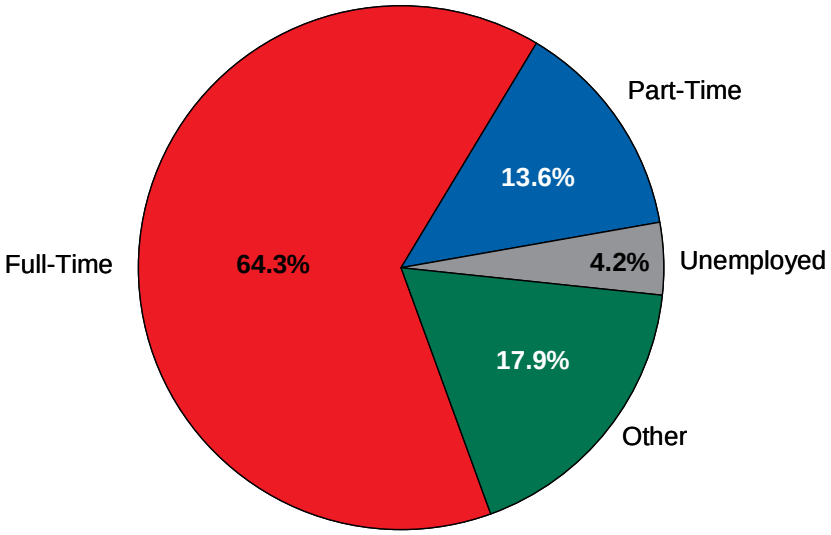


Figure 2.2 Percentage Distribution of Persons Aged 18 to 64, by Employment Status: 2002-2004 Combined



2.1. Illicit Drug Use among Full-Time Workers

- The prevalence of past month illicit drug use among adult full-time workers was 8.2 percent (Figure 2.3 and Tables 2.2 and 2.3).

- Nearly one out of five (19.0 percent) workers aged 18 to 25 used illicit drugs during the past month. This was a higher percentage than among the 26-to-34 (10.3 percent), 35-to-49 (7.0 percent), and 50-to-64 (2.6 percent) age groups (Figure 2.3 and Table 2.2).

- Males were more likely than females to report past month illicit drug use (9.7 vs. 6.2 percent). Males accounted for about two thirds (6.4 million) of the workers who reported past month illicit drug use (Figure 2.4 and Table 2.2).

- The prevalence of past month illicit drug use for white adults was 8.8 percent, higher than the prevalence for Asian (2.2 percent) or Hispanic (6.7 percent) adults, and lower than that reported for adults who reported two or more races (13.5 percent). The prevalence of past month illicit drug use by Asians was lower than that reported by all other racial/ethnic groups reported here (Figure 2.5 and Table 2.2).

- Workers with a college education had a lower prevalence of current illicit drug use compared with those without a college education. The prevalence of past month use of illicit drugs was lower among those with higher levels of education than those with less education (college graduate [5.7 percent] vs. less than high school [11.2 percent]) (Figure 2.6 and Table 2.3).

Figure 2.3 Past Month Substance Use and Past Year Substance Dependence or Abuse among Full-Time Workers, by Age Group: 2002-2004 Combined

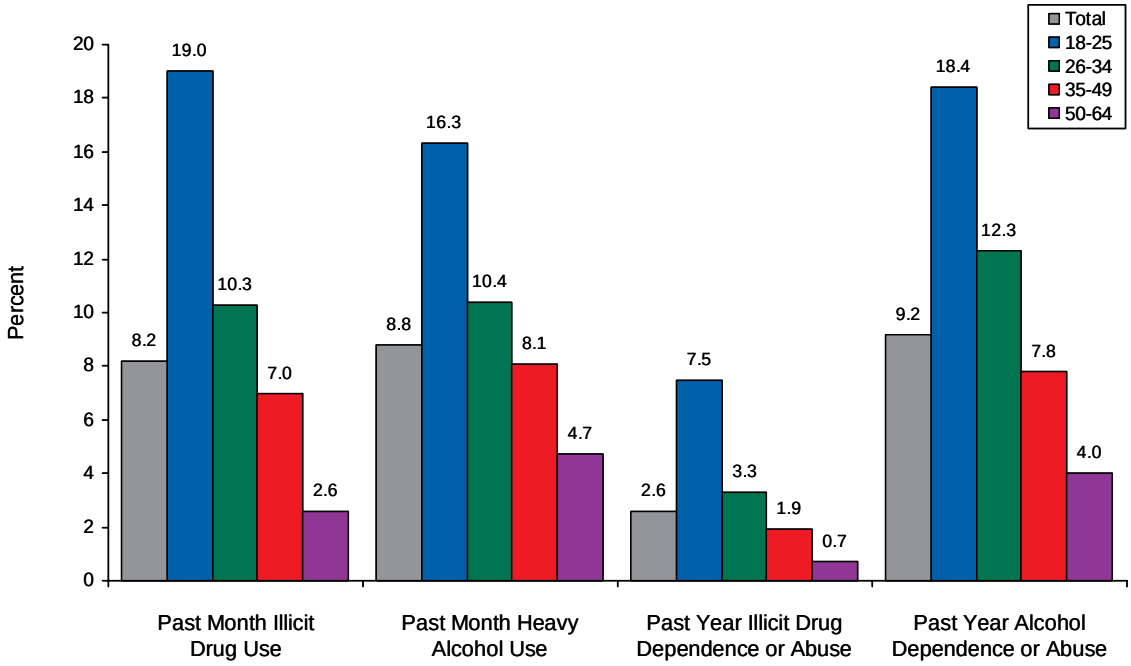


Figure 2.4 Past Month Substance Use and Past Year Substance Dependence or Abuse among Full-Time Workers Aged 18 to 64, by Gender: 2002-2004 Combined

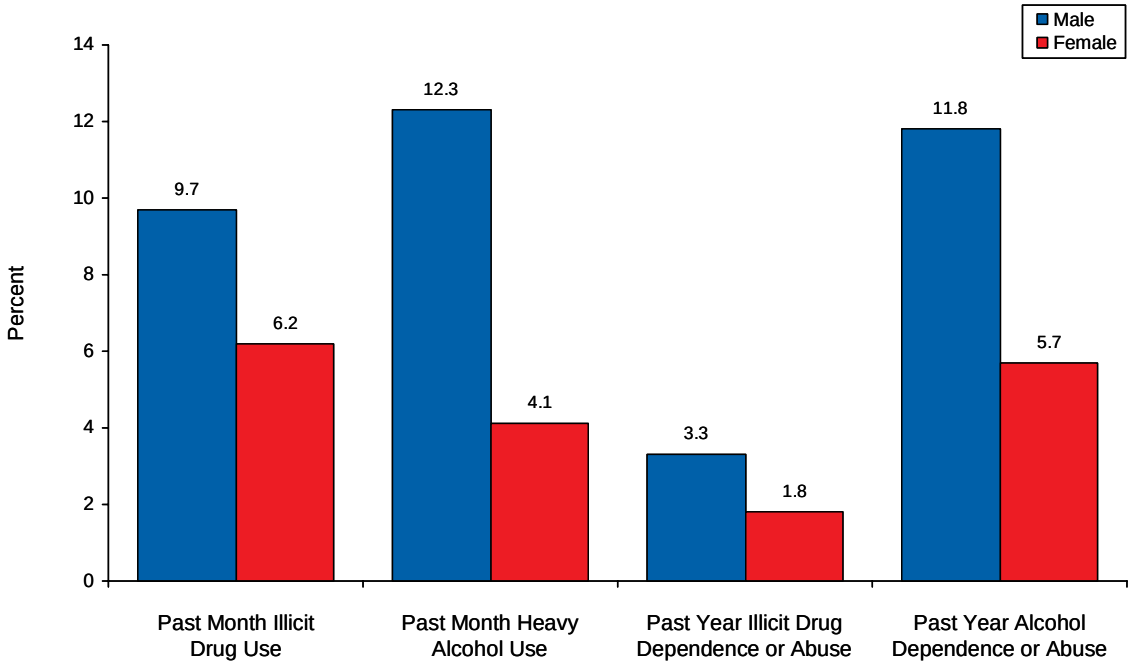


Figure 2.5 Past Month Substance Use among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race: 2002-2004 Combined

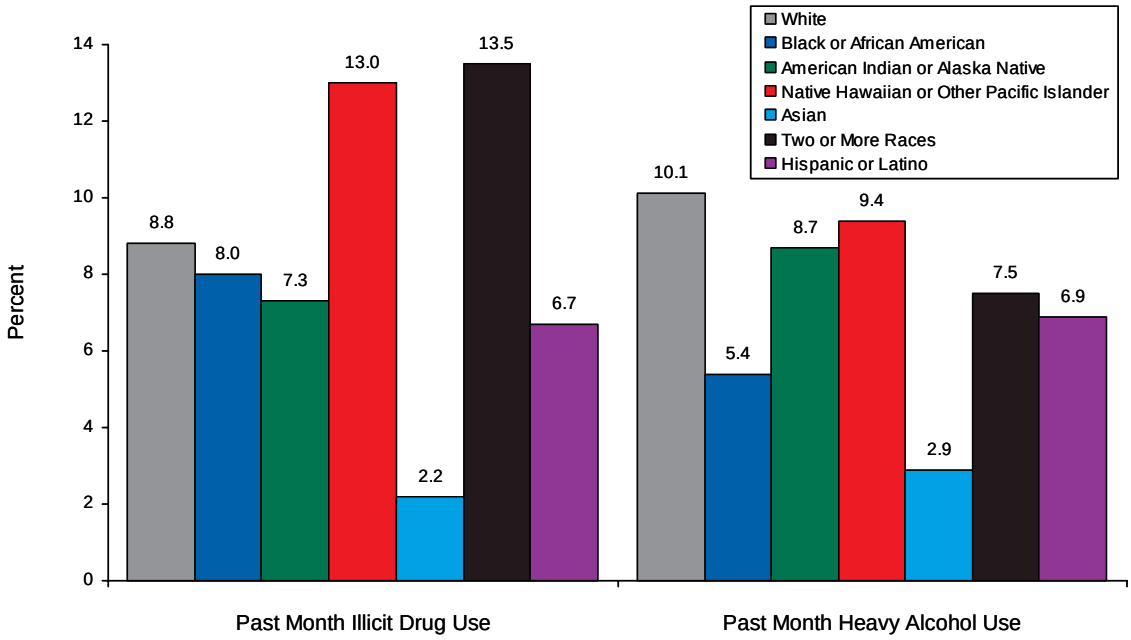
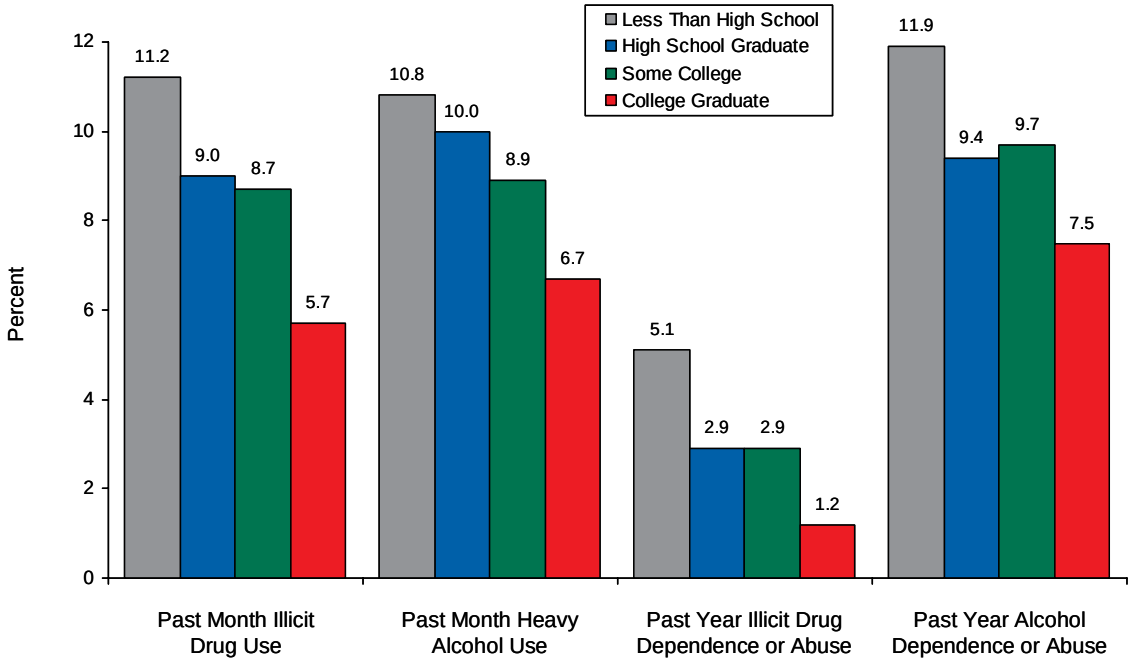


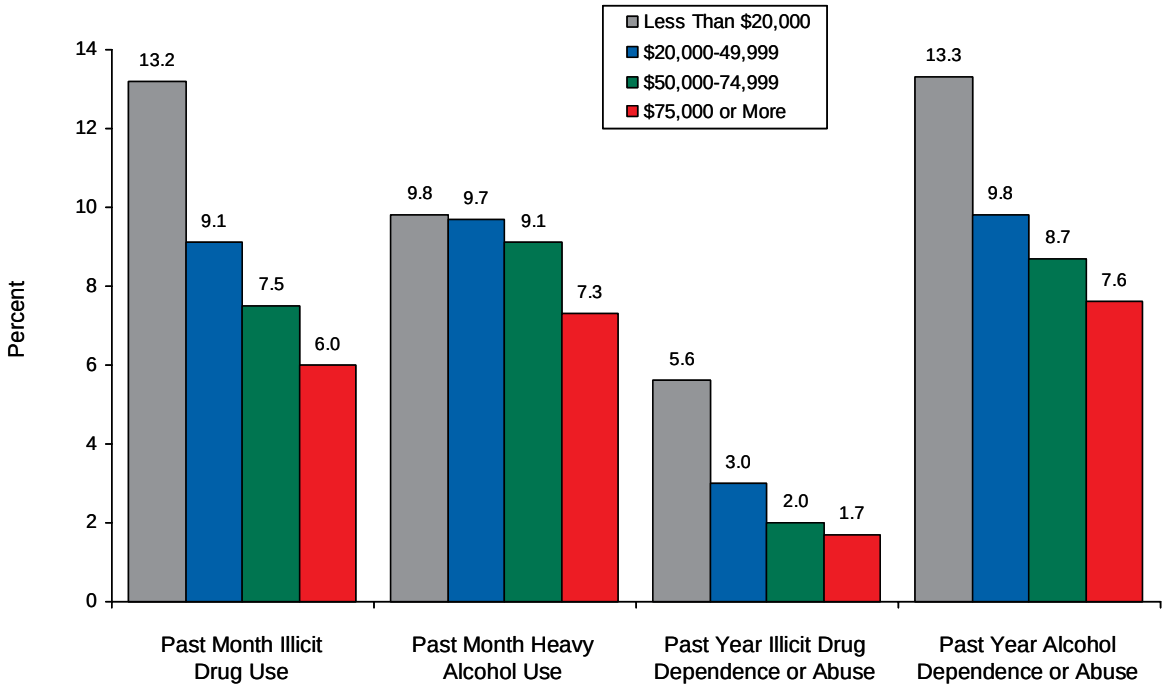
Figure 2.6 Past Month Substance Use and Past Year Substance Dependence or Abuse among Full-Time Workers Aged 18 to 64, by Education: 2002-2004 Combined



- The prevalence of current illicit drug use was lower among workers with higher family incomes than among workers with lower family incomes. An estimated 13.2 percent of workers who reported family income that was less than $20,000 had used illicit drugs during the past month. In contrast, 6.0 percent of workers who reported income in the highest category—$75,000 or more—had used illicit drugs during the past month (Figure 2.7 and Table 2.3).

- Residents of noncore counties had a lower prevalence of current illicit drug use (4.5 to 6.2 percent) compared with residents of micropolitan statistical area (7.1 percent), small metropolitan statistical area (MSA; 8.8 percent), and large MSA (8.3 percent) counties (Table 2.3).

Figure 2.7 Past Month Substance Use and Past Year Substance Dependence or Abuse among Full-Time Workers Aged 18 to 64, by Family Income: 2002-2004 Combined



2.2. Past Month Marijuana Use among Full-Time Workers

- An estimated 6.4 percent, or 7.3 million, of full-time workers reported use of marijuana during the past month (Tables 2.2 and 2.3).

- Adults aged 26 to 34 were only about half as likely as 18- to 25-year-olds to be past month marijuana users (8.0 vs. 15.9 percent). Past month use of marijuana was lower with increasing age (Table 2.2).

- The prevalence of past month marijuana use was higher for males than females (7.9 vs. 4.3 percent, respectively) (Table 2.2).

- An estimated 11.0 percent of workers reporting two or more races used marijuana during the past month. This was higher than among non-Hispanic white adults (6.9 percent). Fewer Hispanic adults (4.6 percent) reported past month marijuana use than non-Hispanic white adults who reported two or more races (Table 2.2).

- Higher educational attainment and higher family income were associated with a lower prevalence of current marijuana use (Table 2.3).

2.3. Past Month Heavy Alcohol Use among Full-Time Workers

- An estimated 8.8 percent, or 10.1 million, of full-time workers reported past month heavy alcohol use (Figure 2.3 and Tables 2.2 and 2.3).

- Past month heavy alcohol use was related to age. Among younger workers (18 to 25 years old), 16.3 percent reported past month heavy alcohol use compared with 10.4 percent of 26- to 34-year-olds, 8.1 percent of 35- to 49-year-olds, and 4.7 percent of 50- to 64-year-olds (Figure 2.3 and Table 2.2).

- Males were three times as likely as females to be past month heavy alcohol users (12.3 vs. 4.1 percent) (Figure 2.4 and Table 2.2).

- An estimated 10.1 percent of white adults reported heavy alcohol use in the past month. This was higher than the percentage among black adults (5.4 percent), Asian adults (2.9 percent), Hispanic adults (6.9 percent), and adults reporting two or more races (7.5 percent) (Figure 2.5 and Table 2.2).

- Residents of noncore rural counties had a lower prevalence of past month heavy alcohol use (7.5 percent) compared with residents of micropolitan statistical area (9.2 percent), small MSA (9.8 percent), and large MSA (8.1 percent) counties (Table 2.3).

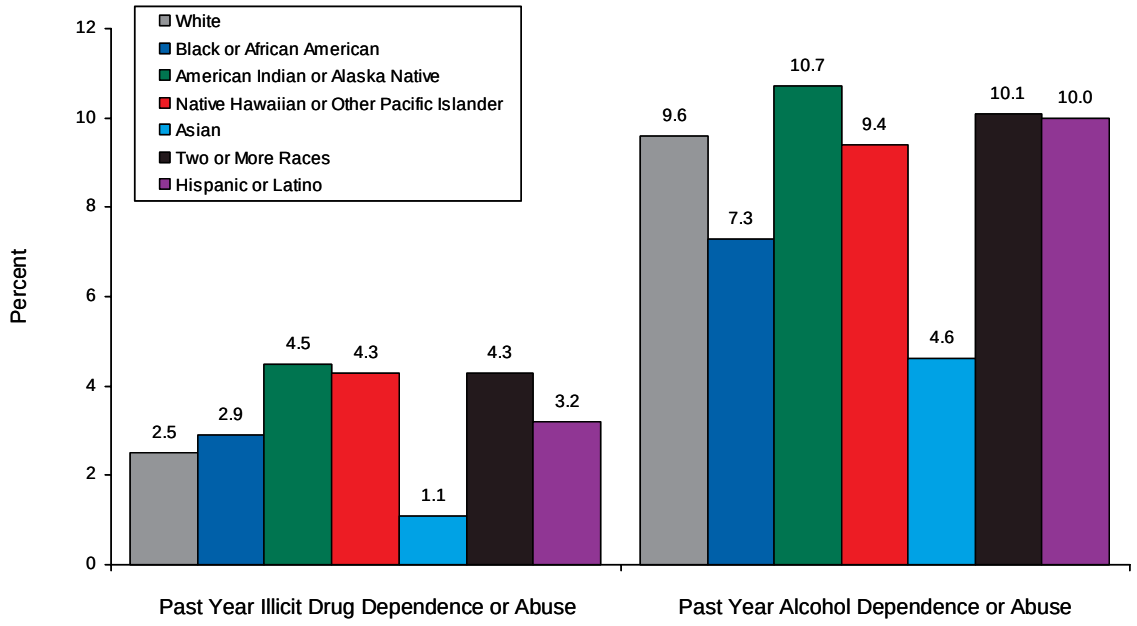
- Workers with a college education had a lower prevalence of past month heavy alcohol use compared with those without a college education. Past month heavy alcohol use was lower among those with higher levels of education than those with less education (college graduate [6.7 percent] vs. less than high school [10.8 percent]) (Figure 2.6 and Table 2.3).

- Workers in the Midwest had the highest prevalence of past year heavy alcohol use (10.6 vs. 8.4 percent in the Northeast, 8.5 percent in the South, and 7.8 percent in the West) (Table 2.3).

2.4. Past Year Illicit Drug Dependence or Abuse among Full-Time Workers

- Approximately 3 million full-time workers (2.6 percent) aged 18 to 64 met the criteria for past year illicit drug dependence or abuse (Figure 2.3 and Table 2.4).
- Approximately 7.5 percent of 18- to 25-year-old workers had past year illicit drug dependence or abuse. This was higher than among all other age groups studied (26- to 34-year-olds [3.3 percent], 35- to 49-year-olds [1.9 percent], and 50- to 64-year-olds [0.7 percent]) (Figure 2.3 and Table 2.4).
- Males were nearly twice as likely as females to meet the criteria for past year illicit drug dependence or abuse (3.3 vs. 1.8 percent) (Figure 2.4 and Table 2.4).
- Hispanics (3.2 percent) had a higher prevalence of past year illicit drug dependence or abuse than non-Hispanics (2.6 percent) (Figure 2.8 and Table 2.4).
- Within non-Hispanic subgroups, Asians had the lowest prevalence of past year illicit drug dependence or abuse (1.1 percent). This was lower than non-Hispanic white adults (2.5 percent), black (2.9 percent) adults, American Indian or Alaska Native (4.5 percent) adults, and adults reporting two or more races (4.3 percent) (Figure 2.8 and Table 2.4).

Figure 2.8 Past Year Substance Dependence or Abuse among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race: 2002-2004 Combined



- Educational attainment was linked to past year illicit drug dependence or abuse. An estimated 1.2 percent of college graduates met the criteria for dependence or abuse compared with 5.1 percent of those with less than high school education, 2.9 percent of high school graduates, and 2.9 percent of workers with some college (Figure 2.6 and Table 2.5).

- Among higher income groups ($75,000 or more and $50,000-74,999), 1.7 and 2.0 percent had past year illicit drug dependence or abuse, respectively. These two groups had a lower prevalence than among lower income groups (3.0 to 5.6 percent) (Figure 2.7 and Table 2.5).

2.5. Past Year Alcohol Dependence or Abuse among Full-Time Workers

- Approximately 10.6 million full-time workers aged 18 to 64 (9.2 percent) met the criteria for past year alcohol dependence or abuse (Figure 2.3 and Tables 2.4 and 2.5).

- The prevalence of past year alcohol dependence was highest among those aged 18 to 25 (18.4 percent) compared with those aged 26 to 34 (12.3 percent), 35 to 49 (7.8 percent), and 50 to 64 (4.0 percent) (Figure 2.3 and Table 2.4).

- Males were about twice as likely as females to have past year alcohol dependence or abuse (11.8 vs. 5.7 percent) (Figure 2.4 and Table 2.4).

- The prevalence of past year alcohol dependence or abuse was lower among non-Hispanic Asian and non-Hispanic black adults than among other non-Hispanic groups (4.6 and 7.3 percent, respectively). Hispanic and non-Hispanic adults did not differ in the prevalence of alcohol disorders (10.0 vs. 9.1 percent) (Figure 2.8 and Table 2.4).

- An estimated 11.9 percent of those with less than a high school diploma reported past year alcohol dependence or abuse compared with 9.4 percent of high school graduates, 9.7 percent of those with some college, and 7.5 percent of those who graduated from college (Figure 2.6 and Table 2.5).

- Workers in the Midwest had the highest prevalence of past year alcohol dependence or abuse (10.5 vs. 8.3 percent in the Northeast, 8.5 percent in the South, and 9.9 percent in the West) (Table 2.5).

- The prevalence of alcohol dependence or abuse was higher among workers with family incomes that were less than $20,000 (13.3 percent) compared with workers with family incomes that were higher than $75,000 (7.6 percent) (Figure 2.7 and Table 2.5).

2.6. Summary

The results presented in this chapter demonstrate a consistent relationship between several demographic and geographic characteristics and substance use and dependence or abuse. Age was consistently associated with substance use behaviors and substance use disorders. Young adults aged 18 to 25 were more likely than other age groups to report past month illicit drug or heavy alcohol use or to meet the criteria for substance dependence or abuse during the past year. Adult males who worked full time had a higher prevalence on all substance use and dependence or abuse measures compared with females who worked full time. Lower educational attainment and lower family income also were consistently associated with a higher prevalence of substance use behaviors and substance use disorders. There were some race/ethnicity-related differences, and Asians generally had a lower prevalence of use and dependence on or abuse of illicit drugs and alcohol. Findings were less consistent across measures of substance use behaviors and substance use disorders for county type. Past month illicit drug use was highest in the Northeast, while past year alcohol dependence or abuse was highest in the Midwest.

3. Substance Use among Workers, by Occupation, Industry, and Establishment Size

This chapter reports the prevalence of substance use among full-time workers within occupations, industries, and across different sizes of workplace establishments. Prevalence is reported for measures of past month illicit drug use, past month heavy alcohol use, past month marijuana use, and past year dependence on or abuse of illicit drugs or alcohol. Major occupational groups are identified using the standard occupational classifications (SOCs) of the U.S. Department of Labor (see Appendices C and D) and selected broader and more detailed occupational groups. Industry groupings are identified using the North American Industry Classification System (NAICS) developed by the U.S. Census Bureau. Data are presented for NAICS sectors and selected subsectors and industry groups. The chapter also examines the relationship between demographic correlates of substance use within industry and occupational categories in order to assess if the observed rates of substance use are a function of the characteristics of the workers in those categories. Finally, this chapter examines the relationship between substance use among workers and establishment size, which ranges from small (fewer than 10 employees) to large (500 or more employees).

Previous research has demonstrated that substance use and dependence or abuse may vary by workplace environment. In 1996, the Substance Abuse and Mental Health Services Administration (SAMHSA) released a report detailing the prevalence of illicit drug use among workers in specific occupation and industry categories (Hoffmann, Brittingham, & Larison, 1996). *Occupations* involved in construction and food preparation were found to have the highest prevalence of illicit drug use and heavy alcohol use. Illicit drug use was lowest among public safety occupations, including police, teachers, child care workers, and data clerks. Heavy alcohol use was lowest among data clerks, personnel specialists, and secretaries. *Industries* associated with the highest prevalence of illicit drug use included eating and drinking establishments, certain retail sales categories, and the entertainment industry. The computer and data processing industry had the highest rates of heavy alcohol use. The lowest rates of illicit drug use were found among workers in child care, professional medical offices, and schools.

The 1996 SAMHSA report also demonstrated that the relationship between substance use, age, gender, and marital status within industries and occupations was consistent with the pattern for all full-time workers. This suggests that substance use patterns across industries and occupations may partly be a function of the demographic characteristics of the workers. That is, demographic groups with relatively higher prevalence of substance use may be more likely to be employed in certain industries or occupations for reasons unrelated to substance use. For example, young workers tend to work in food preparation occupations because these positions require less experience, education, and training than other occupations. To account for these variations in the demographic makeup of different occupation and industry categories, it is useful to consider the data shown in Tables 3.1 and 3.2 in Appendix E when comparing substance use

rates across occupation and industry groups. Tables 3.1 and 3.2 show the average age and percentage of male workers in each group.

Substance use, dependence, or abuse also may vary by the size of the work establishment. Establishment size becomes an important factor if either substance use or the prevalence of reduction programs is disproportionately distributed to large or small employment settings. Previous findings suggest that workplace drug testing is less likely to occur in small workplace settings (Zhang, Huang, & Brittingham, 1999; Hartwell, Steele, French, & Rodman, 1996; Hartwell, Steele, & Rodman, 1998).

3.1. Standard Occupational and Industry Classifications

The occupations are coded into groups using the 2000 Standard Occupational Classification (SOC) released by the U.S. Department of Labor, Bureau of Labor Statistics (2000), which categorizes all occupations into 21 major groups. Within these major groups are 96 minor groups, 449 broad occupations, and 821 detailed occupations. Occupations with similar skills or work activities are grouped at each of the four levels of hierarchy to facilitate comparisons. The NAICS, which replaced the Standard Industry Classification (SIC), categorizes all industries into 19 major groups and is used to classify industries in this report. Industries are organized within the NAICS by the processes used to produce goods or services. This report focuses on these major groups, but a more detailed analysis of industry and occupational classifications can be found in Appendix D. Tables 3.1 and 3.2 show the population totals for industry and occupation categories.

3.2. Illicit Drug Use among Full-Time Workers, by Occupation

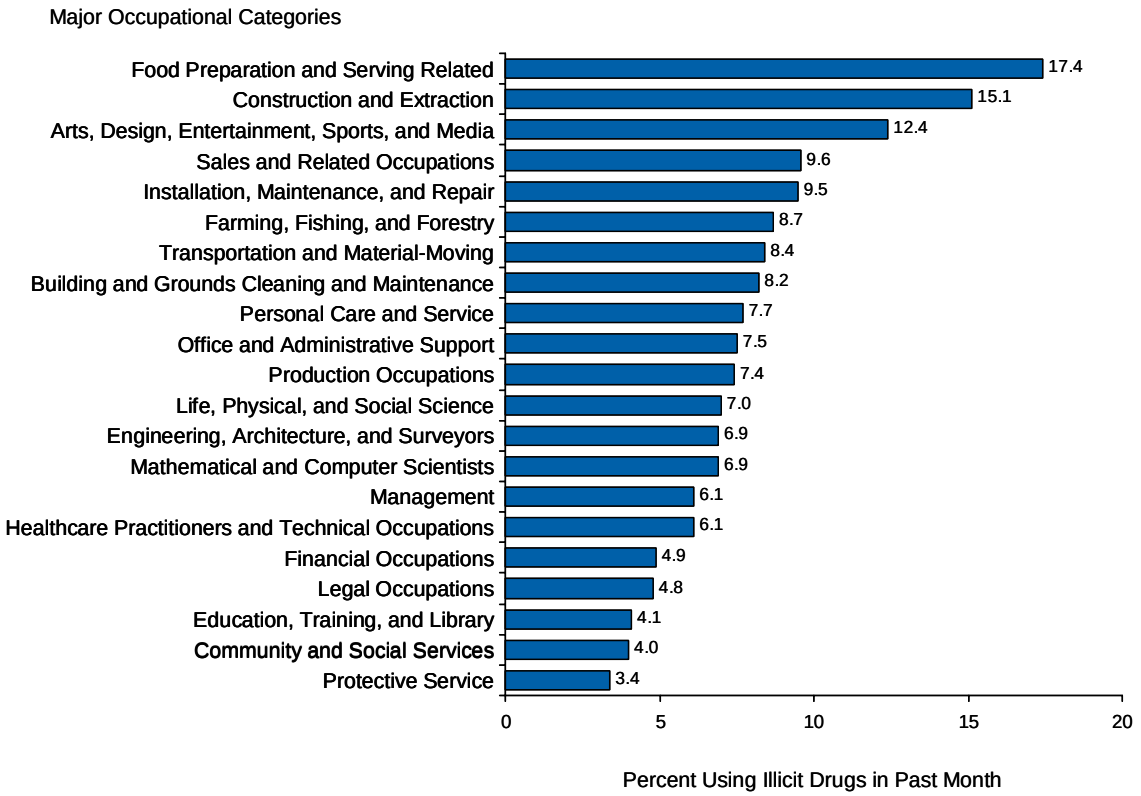
It is notable, particularly in light of demographic characteristics presented earlier in this report, that among the five occupations with the highest prevalence of current illicit drug use, three were overwhelmingly dominated by male workers. An estimated 97.4 percent of construction workers were male, while 96.2 percent of installation maintenance and repair and 87.2 percent of transportation and material-moving occupations were male. Moreover, the full-time workers in this "top five" list were among the youngest workers in the population (Table 3.1).

Figure 3.1 lists the 21 major occupational groups ordered highest to lowest in percentage of full-time workers within the occupation who reported past month use of illicit drugs.

- Looking at the major occupational groups for 2002 through 2004, food service workers (17.4 percent) and construction workers (15.1 percent) exhibited a higher prevalence of past month illicit drug use than other occupational groups (Figure 3.1 and Table 3.3).

- Those working in education, training, and library occupations (4.1 percent), community and social services occupations (4.0 percent), and protective service occupations (3.4 percent) had the lowest prevalence of past month illicit drug use among the major occupational groups (Figure 3.1 and Table 3.3).

Figure 3.1 Past Month Illicit Drug Use among Full-Time Workers Aged 18 to 64, by Major Occupational Categories: 2002-2004 Combined



3.3. Heavy Alcohol Use among Full-Time Workers, by Occupation

- The major occupational groups with the highest prevalence of past month heavy alcohol use were construction and extraction occupations (17.8 percent) and installation, maintenance, and repair occupations (14.7 percent) (Figure 3.2 and Table 3.3).

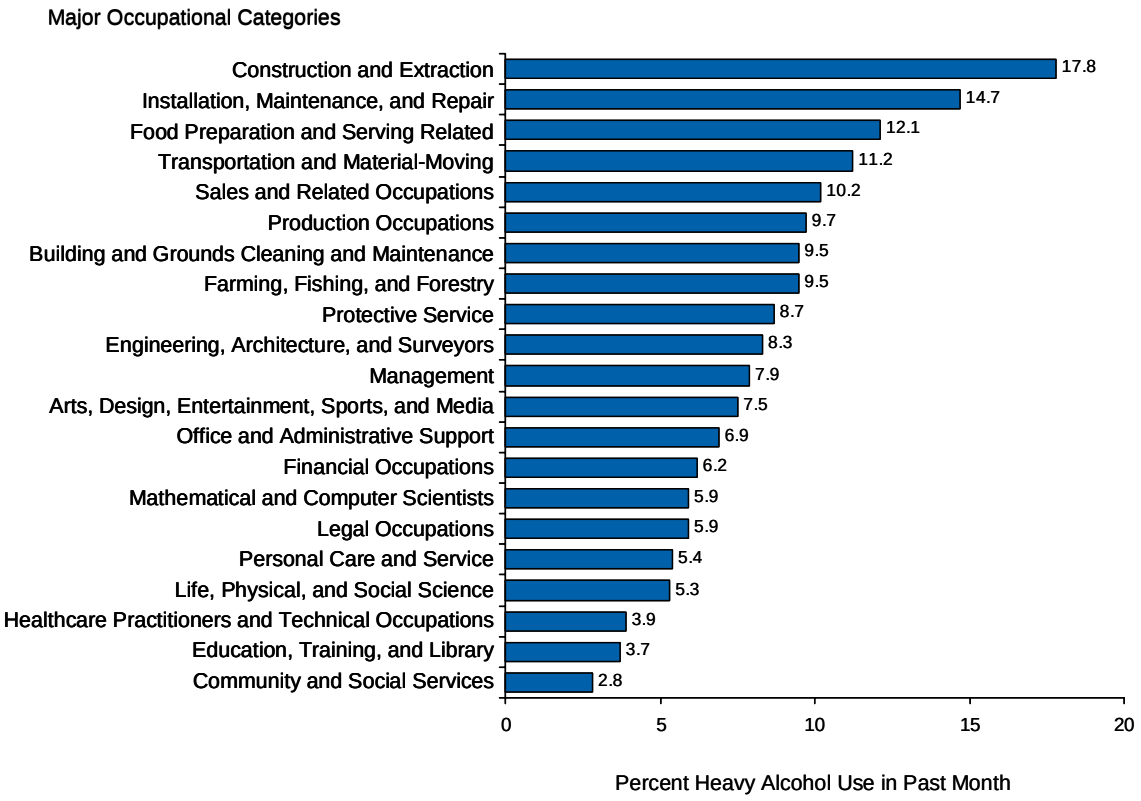
- Community and social services occupations (2.8 percent) had the lowest prevalence of past month heavy alcohol use of the major occupations (Figure 3.2 and Table 3.3).

3.4. Dependence and Abuse among Full-Time Workers, by Occupation

- The major occupational groups with the highest prevalence of illicit drug dependence or abuse in the past year were food preparation and serving related occupations (6.5 percent) and construction and extraction occupations (6.2 percent) (Table 3.4).

- Construction and extraction occupations (16.9 percent) and food preparation and serving related occupations (14.7 percent) had the highest prevalence of alcohol dependence or abuse in the past year in the major occupational groups (Table 3.4).

Figure 3.2 Past Month Heavy Alcohol Use among Full-Time Workers Aged 18 to 64, by Major Occupational Categories: 2002-2004 Combined



3.5. Illicit Drug Use among Full-Time Workers, by Industry

- The major industry groups with the highest prevalence of past month illicit drug use were accommodations and food services (16.9 percent) and construction (13.7 percent). Public administration (4.1 percent), educational services (4.0 percent), and utilities (3.8 percent) had the lowest prevalence of past month illicit drug use (Figure 3.3 and Table 3.5).

3.6. Heavy Alcohol Use among Full-Time Workers, by Industry

- The industry groups with the highest prevalence of past month heavy alcohol use were construction (15.9 percent); arts, entertainment, and recreation (13.6 percent); and mining (13.3 percent) industries. However, health care and social assistance (4.3 percent) and educational services (4.0 percent) had the lowest prevalence of past month heavy alcohol use compared with other major industries (Figure 3.4 and Table 3.5).

Figure 3.3 Past Month Illicit Drug Use among Full-Time Workers Aged 18 to 64, by Industry Categories: 2002-2004 Combined

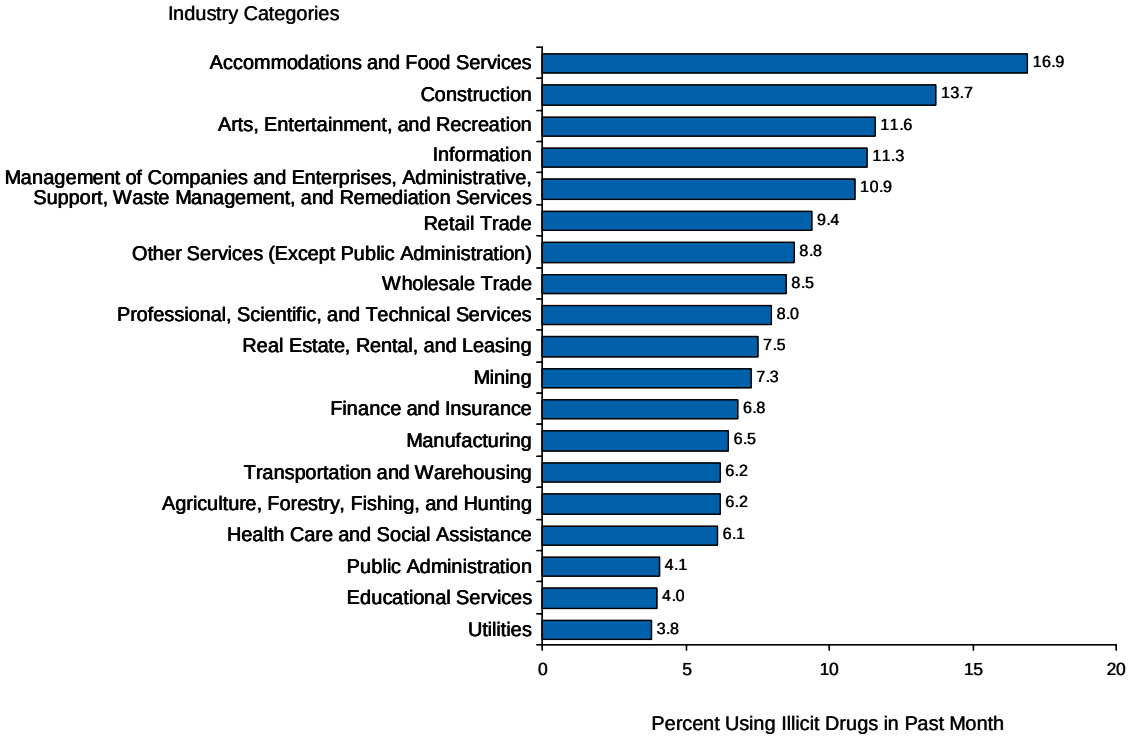
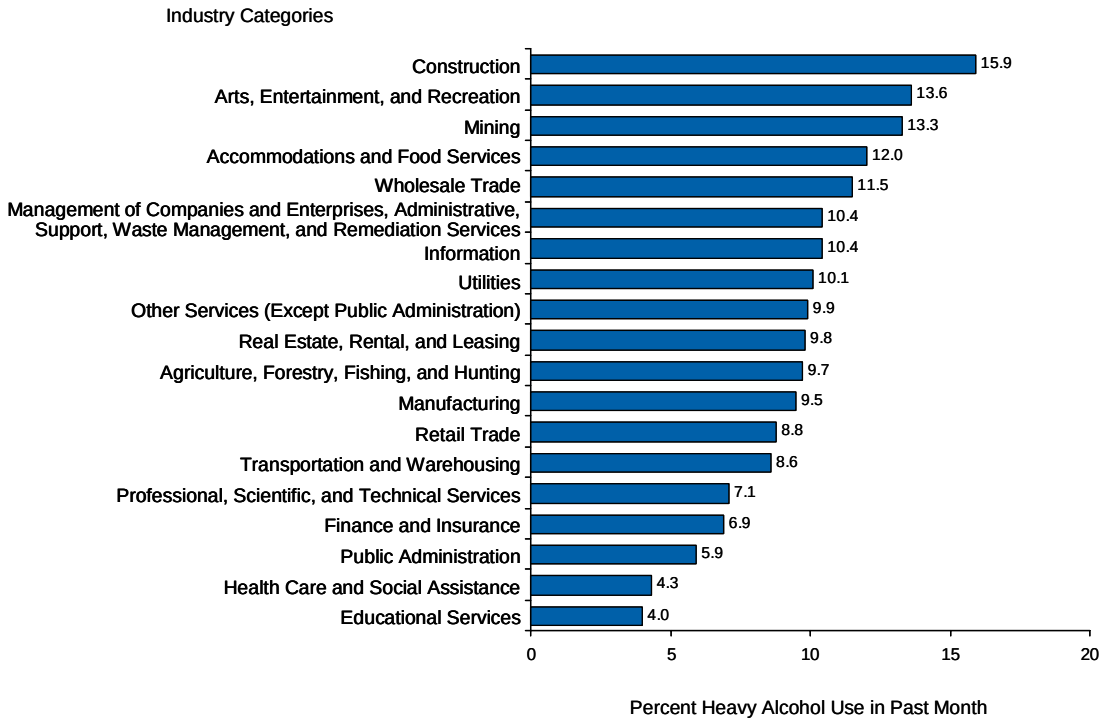


Figure 3.4 Past Month Heavy Alcohol Use among Full-Time Workers Aged 18 to 64, by Industry Categories: 2002-2004 Combined



3.7. Dependence and Abuse among Full-Time Workers, by Industry

- The major industry groups with the highest prevalence of illicit drug dependence or abuse in the past year were accommodations and food services (6.0 percent) and construction (5.1 percent) (Table 3.6).

- Construction (15.6 percent) and accommodations and food services (15.4 percent) had the highest prevalence of alcohol dependence or abuse in the past year in the major industry groups (Table 3.6).

3.8. Past Month Illicit Drug Use among Full-Time Workers, by Establishment Size

- Among the 9.4 million full-time workers who reported past month illicit drug use, 2.9 million were employed in establishments with fewer than 10 employees. The prevalence of past month illicit drug use for workers in establishments with fewer than 10 employees was 9.9 percent (Table 3.7).

- An estimated 1.9 million workers who reported past month illicit drug use worked in settings with 10 to 24 employees. The past month illicit drug use prevalence among workers in these establishments was 9.7 percent, which was similar to the prevalence estimate (9.9 percent) for smaller establishments (fewer than 10 employees) (Table 3.7).

- Prevalence of past month illicit drug use was lower as establishment size increased. The prevalence among workers in establishments with 25 to 99 employees was 8.2 percent, compared with 6.7 percent among workers in establishments with 100 to 499 employees and 5.7 percent among workers in establishments with 500 or more employees (Table 3.7).

3.9. Past Month Marijuana Use among Full-Time Workers, by Establishment Size

- Among full-time workers in establishments with fewer than 10 employees, 7.9 percent had used marijuana in the past month. Similarly, 7.8 percent of workers in slightly larger establishments with 10 to 24 employees and 6.4 percent of workers in establishments with 25 to 99 employees reported past month marijuana use (Table 3.7).

- Prevalence of past month marijuana use was lower among workers in larger establishments of 100 to 499 employees and 500 or more employees (4.9 and 4.1 percent, respectively) than among workers in smaller establishments (Table 3.7).

3.10. Past Month Heavy Alcohol Use among Full-Time Workers, by Establishment Size

- The prevalence of past month heavy alcohol use among full-time workers in the smallest establishments (fewer than 10 employees) was 10.1 percent. This was higher than the prevalence reported for similar workers in the largest establishments (6.8 percent in establishments with 500 or more employees) (Table 3.7).

3.11. Past Year Illicit Drug Dependence or Abuse among Full-Time Workers, by Establishment Size

- An estimated 3.0 million full-time workers in the United States met the criteria for past year illicit drug dependence or abuse. More than half of these workers (1.6 million) were employed in small establishments with fewer than 25 employees (Table 3.8).

- Among workers in small establishments with fewer than 10 employees, 3.1 percent reported symptoms consistent with past year illicit drug dependence or abuse. This was higher than the prevalence of illicit drug dependence or abuse among workers in large establishments with 500 or more employees (1.6 percent). There was a steady decline in prevalence with increases in establishment size (Table 3.8).

3.12. Past Year Alcohol Dependence or Abuse among Full-Time Workers, by Establishment Size

- Full-time workers in the largest establishments (500 or more employees) reported the lowest prevalence of past year alcohol dependence or abuse (7.5 vs. 9.0 to 9.9 percent in smaller establishments) (Table 3.8).

3.13. Summary

The prevalence of substance use, dependence, and abuse varied across occupations and industries. For example, highest rates of illicit drug use were found among food preparation, construction and extraction, and arts occupations and among food services, construction, and arts industries. These findings were likely influenced by characteristics of the workers in occupations and industries. Certain occupations and industries have higher percentages of males and/or younger workers, characteristics associated with higher rates of substance use. Indeed, the five occupations with the highest prevalence of illicit drug use were dominated by male workers. Cultural shifts that increase the rate of females working in positions previously dominated by males should be monitored to assess the impact of these changes on substance use prevalence within occupational and industrial groups.

4. Workplace Information Policies and Programs concerning Drug and Alcohol Use

This chapter examines the prevalence of workplace policies and programs designed to reduce substance use and the relationship between worker substance use and those workplace efforts. The three types of workplace policies and programs examined are (1) the availability of educational materials about the effects of substance use, (2) the use of a written policy about substance use, and (3) the presence of an employee assistance program (EAP). Employers may offer any, all, or none of these programs and policies to employees, and these programs may be available only to full-time employees in some workplaces.

There is little prior evidence to suggest that these efforts alone are effective deterrents, unless they are combined with drug-testing programs. Some research has demonstrated that EAPs provide workers a venue for seeking help, but only when the employees are aware of the services, have a generally positive attitude toward the EAP, and believe that job security is not threatened as a result of seeking assistance with a substance use problem (Delaney, Grube, & Ames, 1998; Reynolds & Lehman, 2003).

4.1. Demographic Characteristics of Workers Reporting Workplace Drug Policies and Programs

- Among the nearly 115 million full-time workers aged 18 to 64 years old in the United States, 47.7 million (43.8 percent) reported that they had access to educational information about drug and alcohol use in the workplace, 87.0 million (78.7 percent) reported that they were aware of a written policy about drug and alcohol use in the workplace, and 60.9 million (58.4 percent) reported that their employer offered an EAP (Tables 4.1 and 4.2 in Appendix E).

- The youngest adult workers were least likely to report access to educational information about drug and alcohol use in the workplace. Among 18- to 25-year-old workers, 33.2 percent reported that they had educational information available. This was significantly lower than among workers aged 26 to 34 years (39.6 percent), 35 to 49 years (46.3 percent), and 50 to 64 years (48.9 percent) (Figure 4.1 and Table 4.1).

- Young adult workers between the ages of 18 and 25 were significantly less likely to report EAPs available in the workplace compared with all other age groups (39.7 vs. 56.4 to 62.6 percent) (Figure 4.1 and Table 4.1).

- Females were slightly more likely to report working for an employer who provided a written drug and alcohol use policy in the workplace (81.8 vs. 76.4 percent) and who had an EAP available (61.0 vs. 56.5 percent) in comparison with males (Figure 4.2 and Table 4.1).

Figure 4.1 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Age Group: 2002-2004 Combined

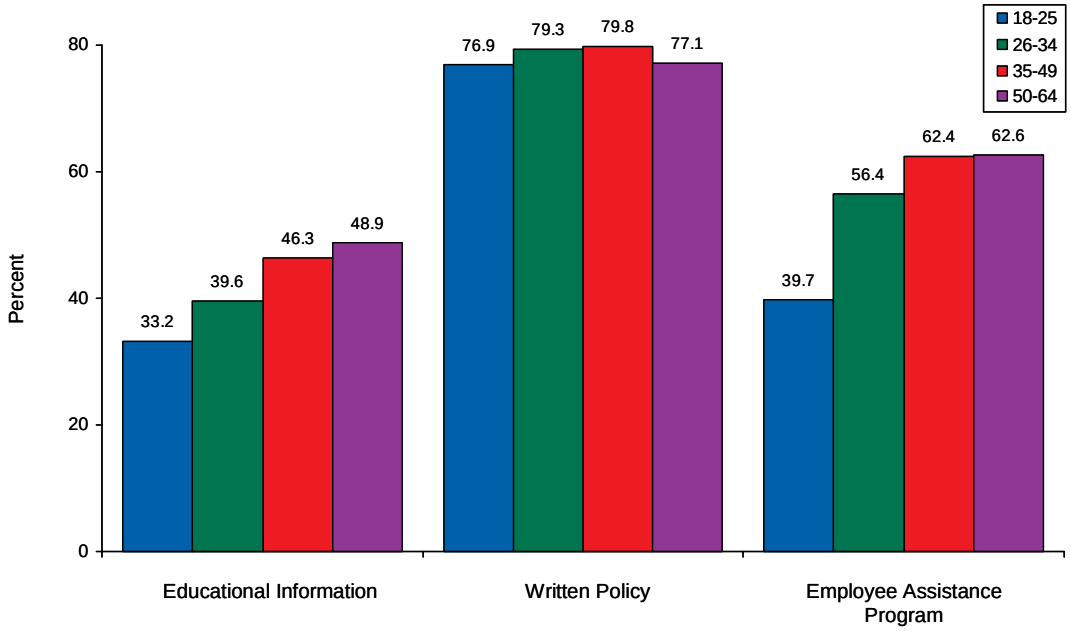
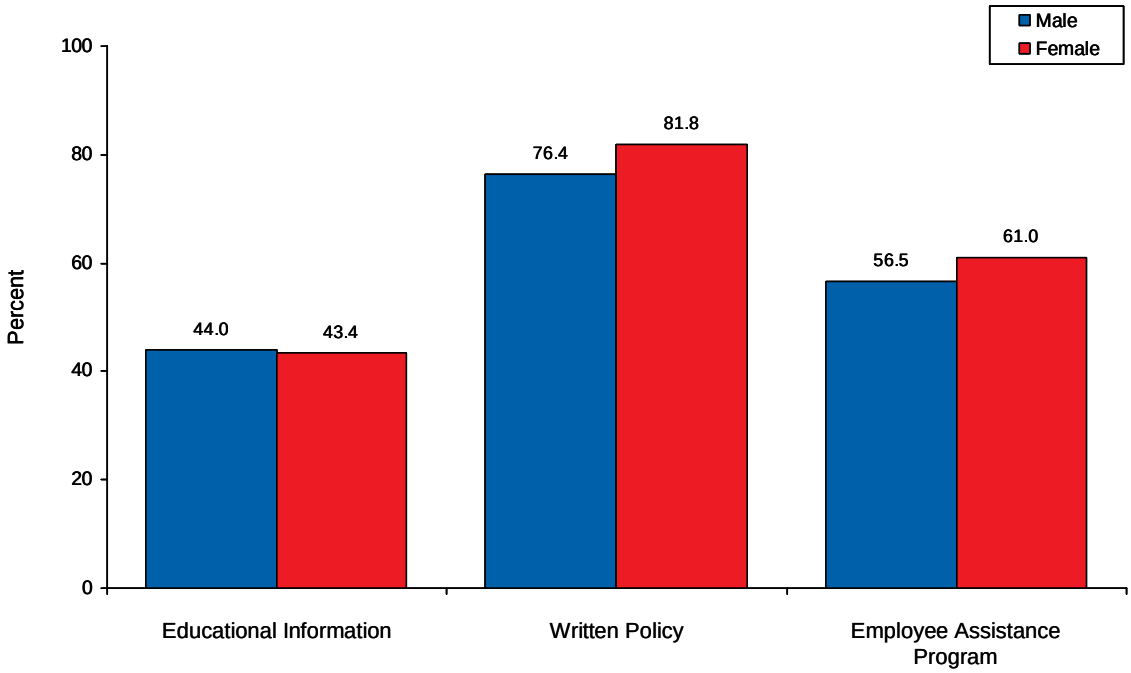


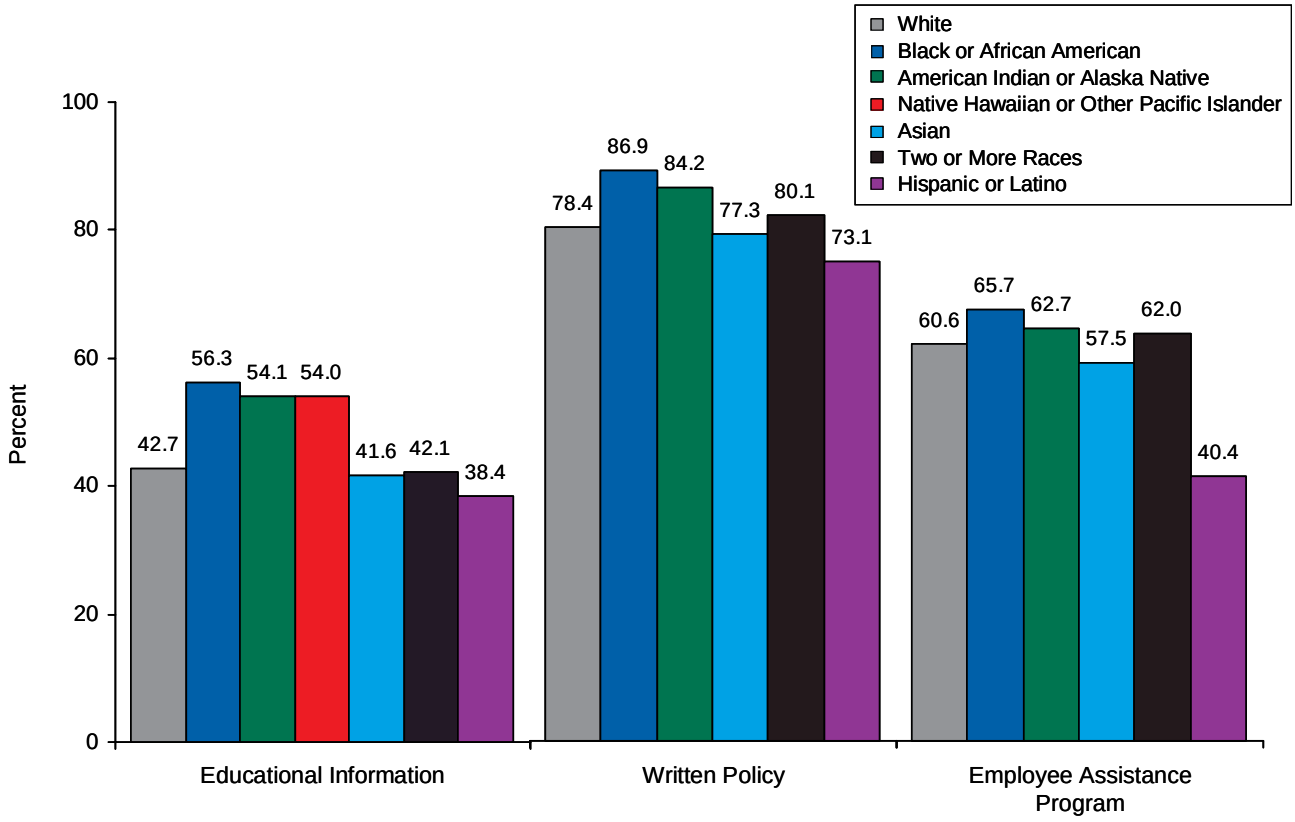
Figure 4.2 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Gender: 2002-2004 Combined



- Non-Hispanic black (56.3 percent), American Indian or Alaska Native (54.1 percent), and Native Hawaiian or Other Pacific Islander (54.0 percent) adults were more likely to report that they had access to educational information in the workplace than non-Hispanic white (42.7 percent) and Hispanic adults (38.4 percent) (Figure 4.3 and Table 4.1).

- Workers who were non-Hispanic Asian (41.6 percent) or who were Hispanic (38.4 percent) had the lowest prevalence of all racial/ethnic groups to report working for employers who had a written policy about drug and alcohol use (Figure 4.3 and Table 4.1).

Figure 4.3 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race: 2002-2004 Combined



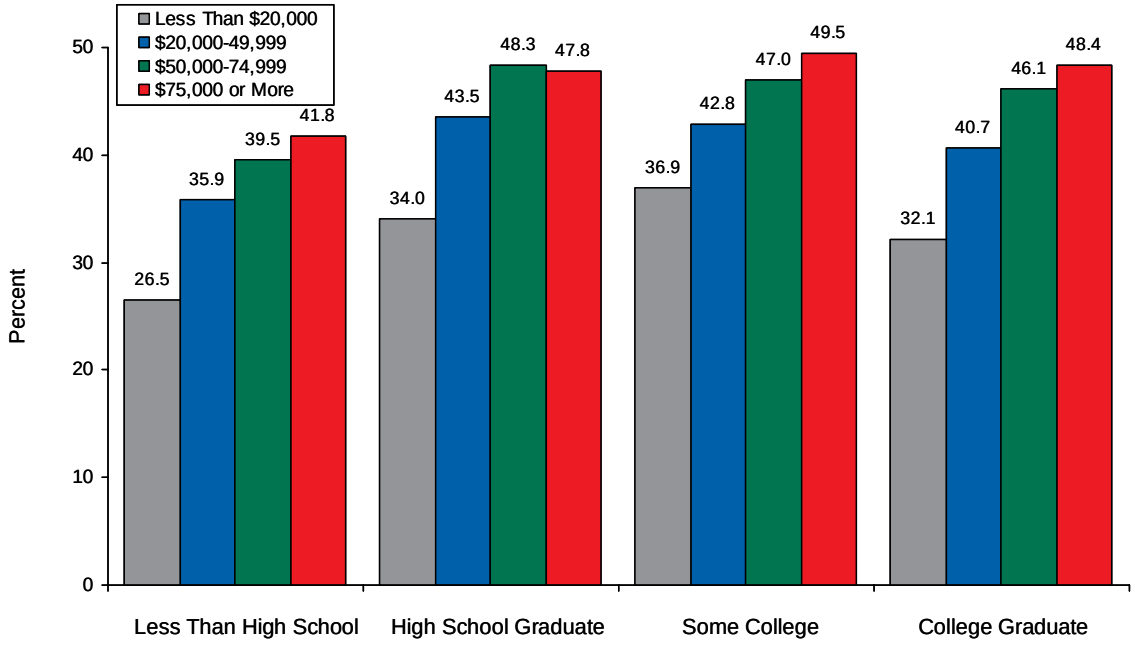
Note: Due to low precision, estimates of workplace that provides a written policy or maintains an employee assistance program concerning drug or alcohol use among Native Hawaiian or Other Pacific Islander full-time workers are not shown.

- Educational attainment was consistently associated with higher access to information resources. Those with higher levels of education were more likely than those with a high school education or less to report access to drug and alcohol information (Figure 4.4).

- The availability of an EAP also was associated with education. An estimated 32.1 percent of adults with less than a high school diploma reported an EAP available in the workplace, while 55.4 percent of high school graduates, 61.7 percent of adults with some college, and 69.3 percent of college graduates reported access to an EAP (Table 4.2).

- For all levels of education, workers with family income less than $20,000 were less likely than those with higher family incomes to report availability of educational information about drug and alcohol use, availability of an EAP, and the presence of a written policy about drug and alcohol use through the employment setting (Figures 4.4 through 4.6).

Figure 4.4 Workplace Provides Educational Information concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Education and Family Income: 2002-2004 Combined



- Workers who lived in the most rural settings (noncore adjacent, no town and noncore rural, not adjacent) were less likely than workers in other settings to report working for employers with a written policy about drug and alcohol use (Table 4.2).

- About 47 percent of workers who resided in rural settings reported that they had an EAP at their place of employment (47.2 percent for noncore rural, not adjacent and 47.5 percent for noncore adjacent, no town), while more than 59 percent of metropolitan-residing workers (59.3 percent in large metropolitan statistical areas [MSAs] and 59.6 percent in small MSAs) reported that they had this benefit (Table 4.2).

Figure 4.5 Workplace Prepares a Written Policy concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Education and Family Income: 2002-2004 Combined

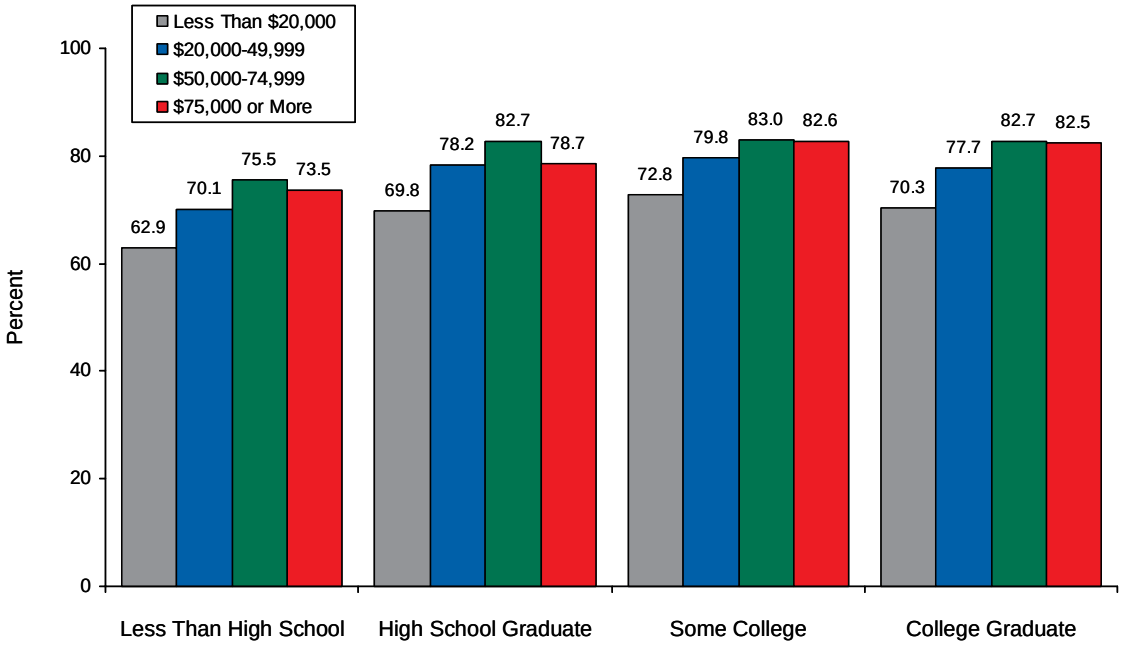
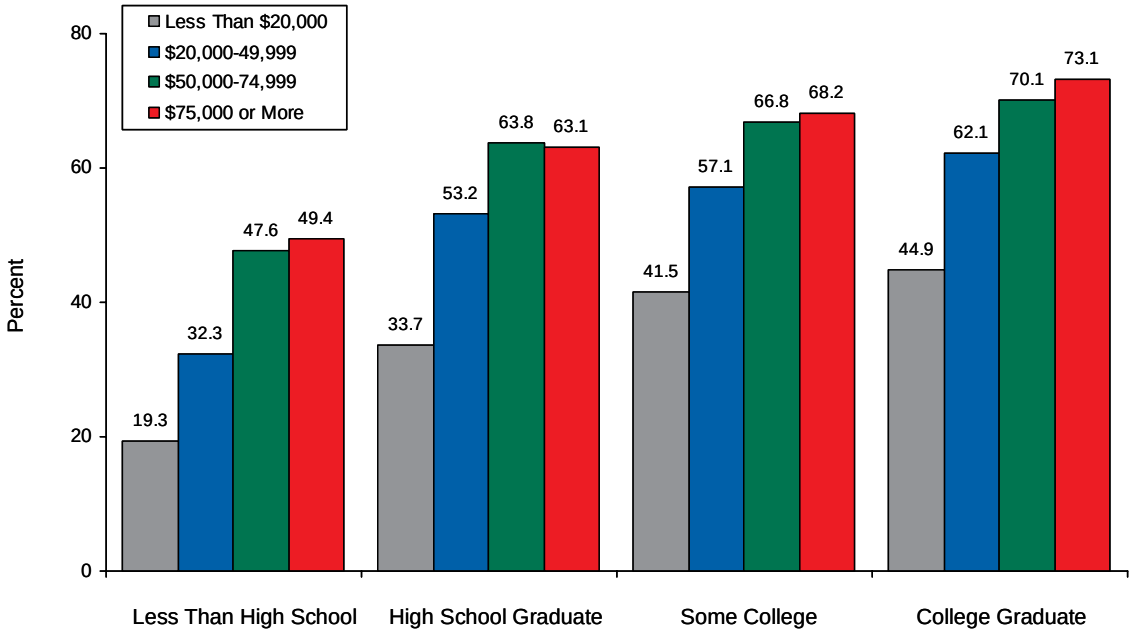


Figure 4.6 Workplace Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Education and Family Income: 2002-2004 Combined

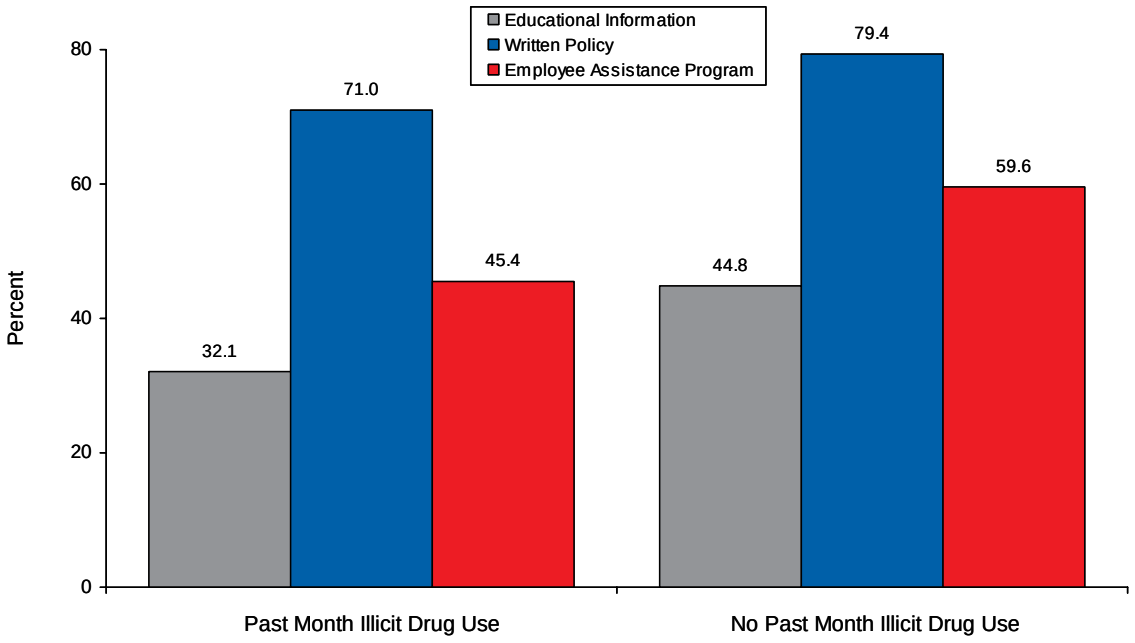


4.2. Working for Employers with Drug and Alcohol Policies and Programs, by Current Illicit Drug Use

- Nearly 3 million (32.1 percent) full-time workers between the ages of 18 and 64 who had used an illicit drug in the past month reported that they worked for an employer who offered educational information about alcohol and drug use. An EAP was reported available to 3.9 million (45.4 percent) workers who were past month users of an illicit drug, while 6.5 million (71.0 percent) reported working for employers who had a written policy about drug and alcohol use (Figure 4.7 and Tables 4.3 and 4.4).

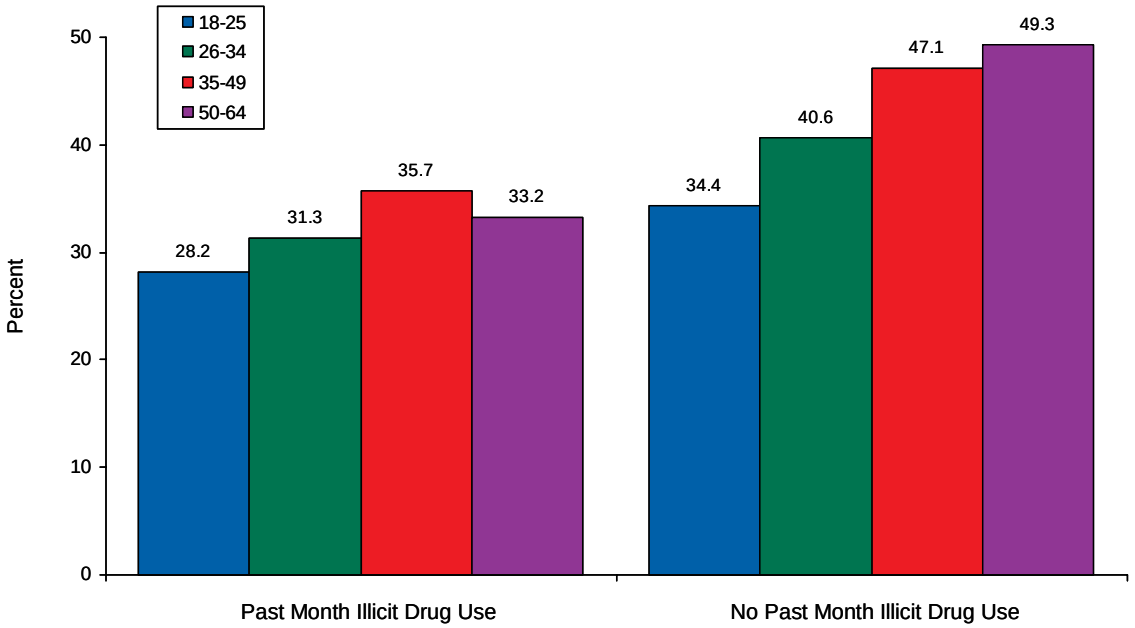
- Generally, past month illicit drug users were less likely to report working for employers who offered workplace drug or alcohol programs or policies, compared with those who did not use an illicit drug in the past month. An estimated 45.4 percent of current illicit drug users reported access to an EAP at their place of employment compared with 59.6 percent of workers who had not used an illicit drug in the past month. This finding occurred across demographic comparisons with few exceptions (Figure 4.7 and Tables 4.3 and 4.4).

Figure 4.7 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Past Month Illicit Drug Use: 2002-2004 Combined



- Among 18- to 25-year-old workers, 28.2 percent of current illicit drug users reported that they worked for an employer who provided educational information about drug and alcohol use, while 34.4 percent of same-age nondrug users reported that they worked for employers with educational programs. This finding was similar across other age group comparisons: 26 to 34 (31.3 vs. 40.6 percent), 35 to 49 (35.7 vs. 47.1 percent), and 50 to 64 (33.2 vs. 49.3 percent) (Figure 4.8 and Table 4.3).

Figure 4.8 Workplace Provides Educational Information concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Age Group and Past Month Illicit Drug Use: 2002-2004 Combined



- A reported written policy regarding drug and alcohol use in the employment setting was unrelated to current drug use among workers aged 50 to 64. An estimated 76.3 percent of current drug users in this age group reported that they worked for employers with a written policy, while 77.1 percent of workers in this cohort who had not used drugs in the past month reported that they were aware of a written policy at work (Figure 4.9 and Table 4.3).

- Among all age groups, past month drug users were less likely than nondrug users to report access to an EAP (34.3, 44.4, 51.9, and 58.2 vs. 41.0, 57.9, 63.2, and 62.7 percent, respectively) (Figure 4.10).

- Males were more likely than females to have used illicit drugs in the past month, but among past month drug users, females were more likely than males to report working for employers who offered EAPs or who had a written drug and alcohol policy (EAP: 49.4 vs. 43.5 percent; written policy: 76.3 vs. 68.5 percent) (Table 4.3).

- Among white adults, black adults, and adults who reported two or more races, past month drug users were more likely than nondrug users to report access to an EAP (47.0, 43.1, and 31.2 vs. 61.9, 67.7, and 66.8 percent, respectively). However, reporting access to an EAP did not differ among Hispanic drug users and nondrug users (37.1 vs. 40.7 percent). This may be related to the generally low availability of EAPs as a benefit for the Hispanic population (Figure 4.11 and Table 4.3).

Figure 4.9 Workplace Prepares a Written Policy concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Age Group and Past Month Illicit Drug Use: 2002-2004 Combined

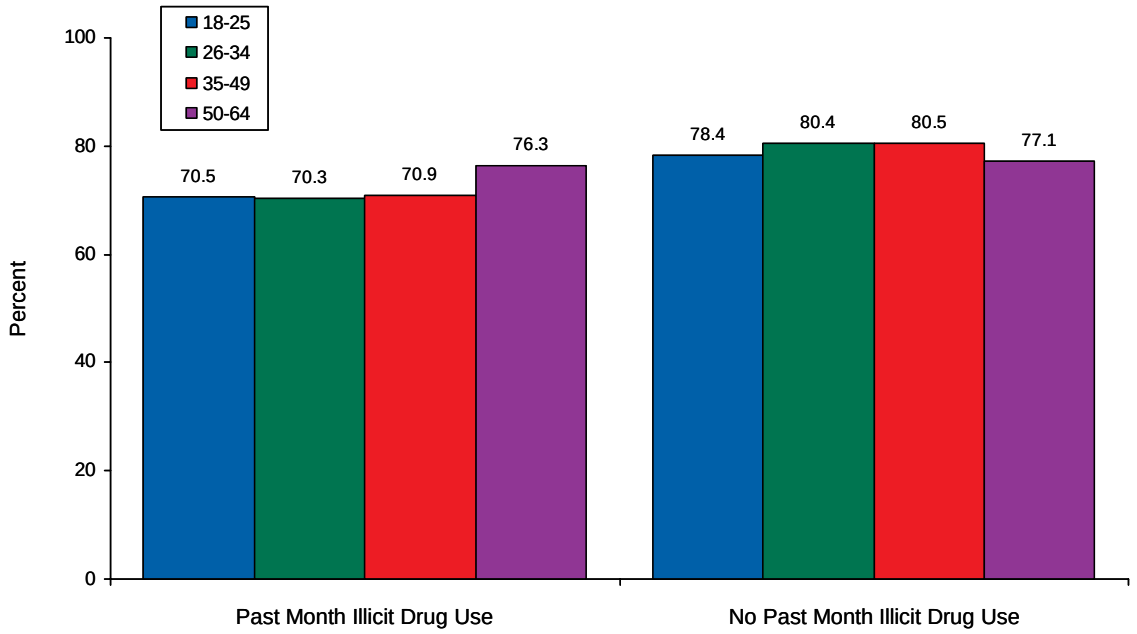


Figure 4.10 Workplace Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Age Group and Past Month Illicit Drug Use: 2002-2004 Combined

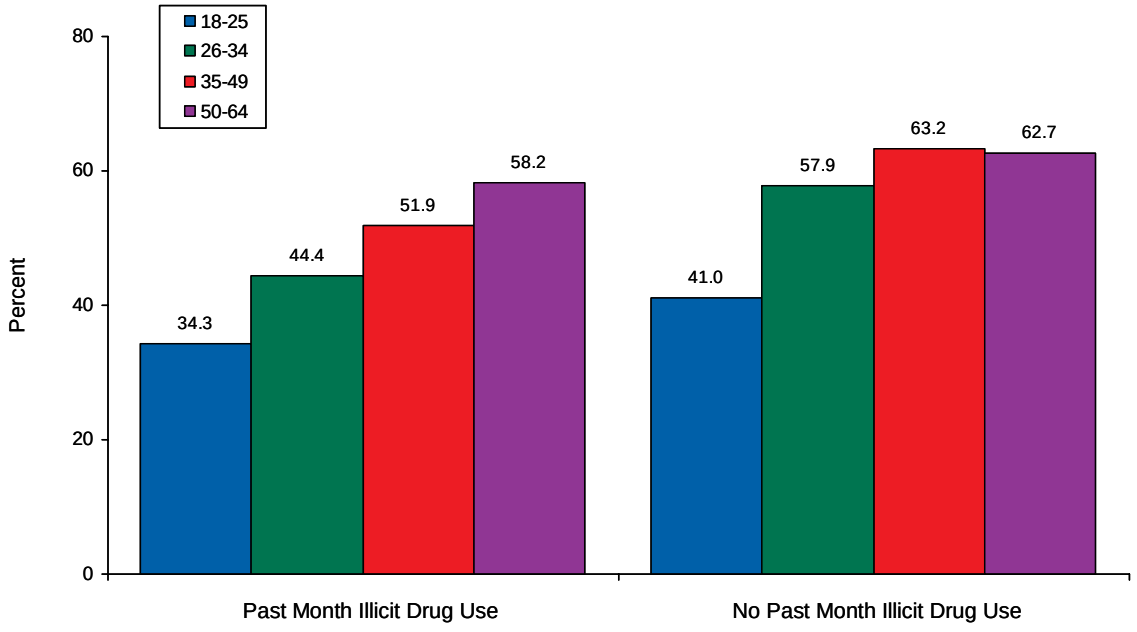
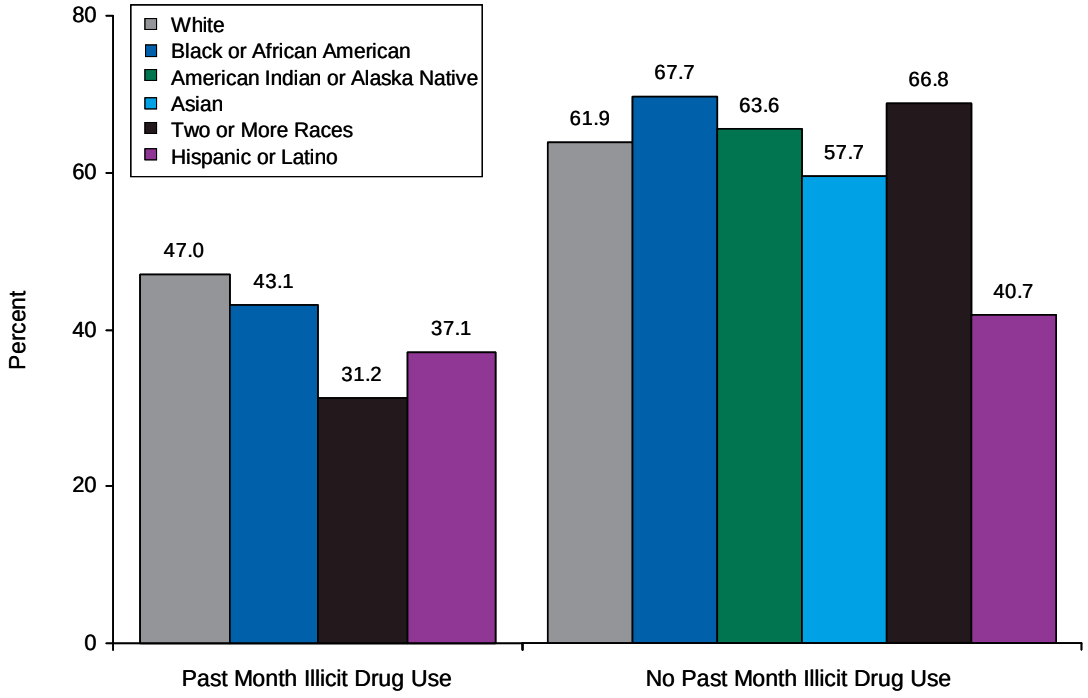


Figure 4.11 Workplace Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race and Past Month Illicit Drug Use: 2002-2004 Combined



Note: Due to low precision, estimates for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and Asian full-time workers with past month illicit drug use are not shown. Estimates for Native Hawaiian or Other Pacific Islander full-time workers with no past month illicit drug use also are not shown.

- Among workers with less than a high school diploma, nondrug users were more likely than past month drug users to report that their employers provided educational information regarding alcohol and drug use (34.8 and 29.5 percent, respectively). The differences for reporting written policies (66.2 percent of past month users vs. 69.4 percent of nonusers) and an EAP (28.5 percent of past month users vs. 32.5 percent of nonusers) were not found to be significant among workers with less than a high school diploma (Table 4.4).

- There was some regional variation among past month drug users who reported working for an employer with substance abuse policies and programs. Workers who resided in the South and who used an illicit drug in the past month were less likely to report working for an employer with an EAP than similar workers from other regions (39.5 vs. 48.0 to 48.5 percent). There were no differences among the other regions (Table 4.4).

4.3. Working for Employers with Educational Programs, Written Policies, or EAPs, by Current Heavy Alcohol Use

- The relationship between current heavy alcohol use and working for an employer with drug and alcohol programs was generally weaker than the relationship between current illicit drug use and the availability of employer-sponsored programs (Tables 4.5 and 4.8).

- More than 3.6 million full-time workers in the United States who were past month heavy alcohol users reported that they were provided educational information about drug and alcohol use by their employer. An estimated 7.2 million workers who were past month heavy alcohol users reported that they worked for employers with written policies about drug and alcohol use, and 4.7 million reported that they had access to an EAP at their place of employment (Tables 4.5 and 4.7).

- An estimated 71.5 percent of 18- to 25-year-old workers who were heavy alcohol users during the past month reported that they worked in employment settings with a written policy about alcohol and drug use. This was slightly less than the 77.9 percent of same-age workers who were not current heavy alcohol users but reported that they had a written policy in the workplace (Table 4.6).

- Heavy alcohol use was not significantly associated with the reported availability of an EAP among 26- to 34-year-olds. However, among 18- to 25-year-olds, past month heavy alcohol use was associated with a lower likelihood of working in a setting that offered an EAP, compared with those who had no past month heavy alcohol use in the same age group (38.1 vs. 40.1 percent). This was true in the 35-49 and 50-to-64 age categories as well (56.5 vs. 62.9 percent and 53.4 vs. 63.1 percent, respectively) (Table 4.6).

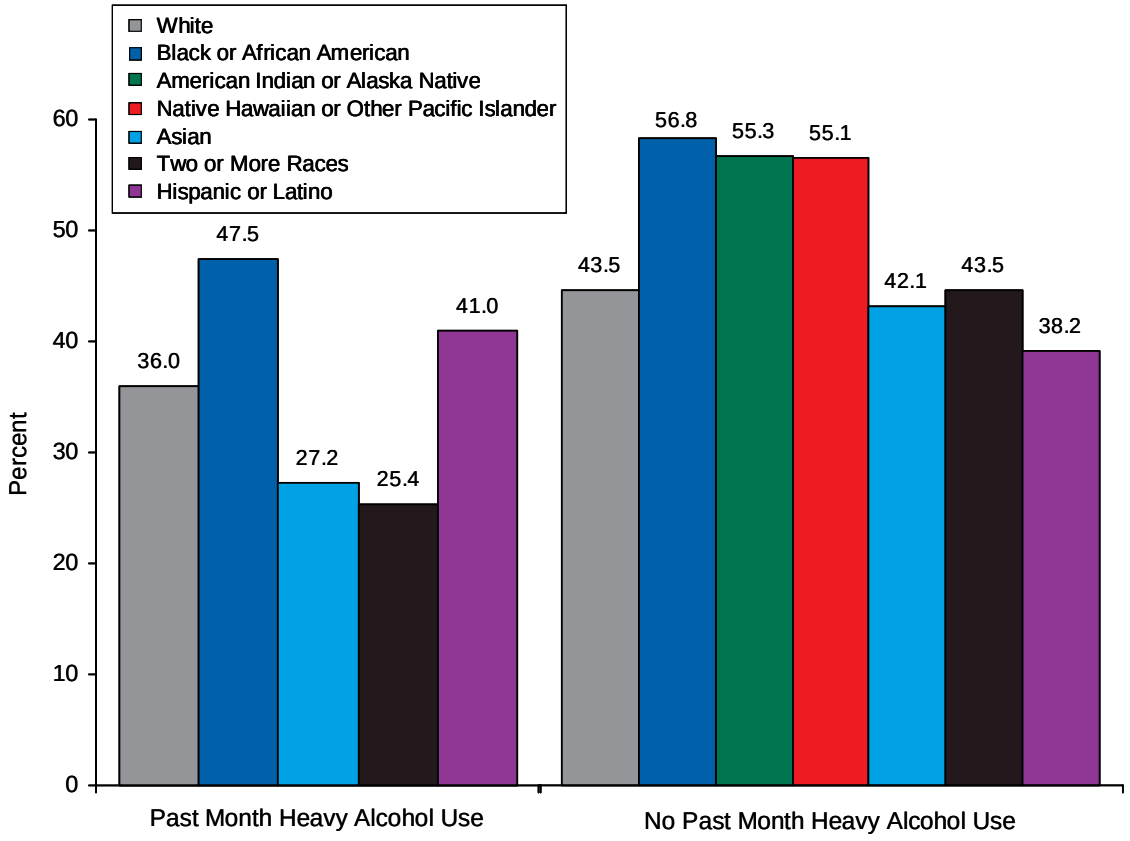
- Non-Hispanic white current heavy alcohol users were less likely to report working in a setting with an EAP available than their non-heavy alcohol user counterparts (52.4 vs. 61.5 percent). However, among Hispanic workers, 41.4 percent of past month heavy alcohol users reported access to an EAP, and 40.4 percent of non-heavy alcohol users reported access to an EAP. Recall that Hispanic workers were generally less likely than other racial/ethnic groups to report access to an EAP (Figures 4.12 through 4.14 and Table 4.6).

- Heavy alcohol use during the past month was significantly associated with the reported availability of an EAP among more highly educated workers. An estimated 32.9 percent of past month heavy alcohol users with less than a high school diploma reported that they worked in an environment where an EAP was available, while 61.2 percent of college graduates with past month heavy alcohol use reported that they had access to an EAP in their workplace (Figure 4.15 and Table 4.8).

- There was a significant difference between past month heavy alcohol users and non-heavy alcohol users in the reported availability of a written drug policy or drug education at higher levels of education, but not at lower levels of education. Among college graduates, 35.5 percent of those with past month heavy alcohol use reported drug and alcohol education in their workplace compared with 46.5 percent of non-heavy alcohol users. Similarly, 75.3 percent of past month heavy alcohol users reported that their employer had a written policy about drug and alcohol use, compared with 81.5 percent of non-past month heavy alcohol users among college graduates. Similar patterns were observed for EAPs (Table 4.8).

- There were no significant differences between geographic regions or county types in the relationship between heavy alcohol use and the reported availability of employer-offered educational information about drug and alcohol use (Tables 4.7 and 4.8).

Figure 4.12 Workplace Provides Educational Information concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race and Past Month Heavy Alcohol Use: 2002-2004 Combined

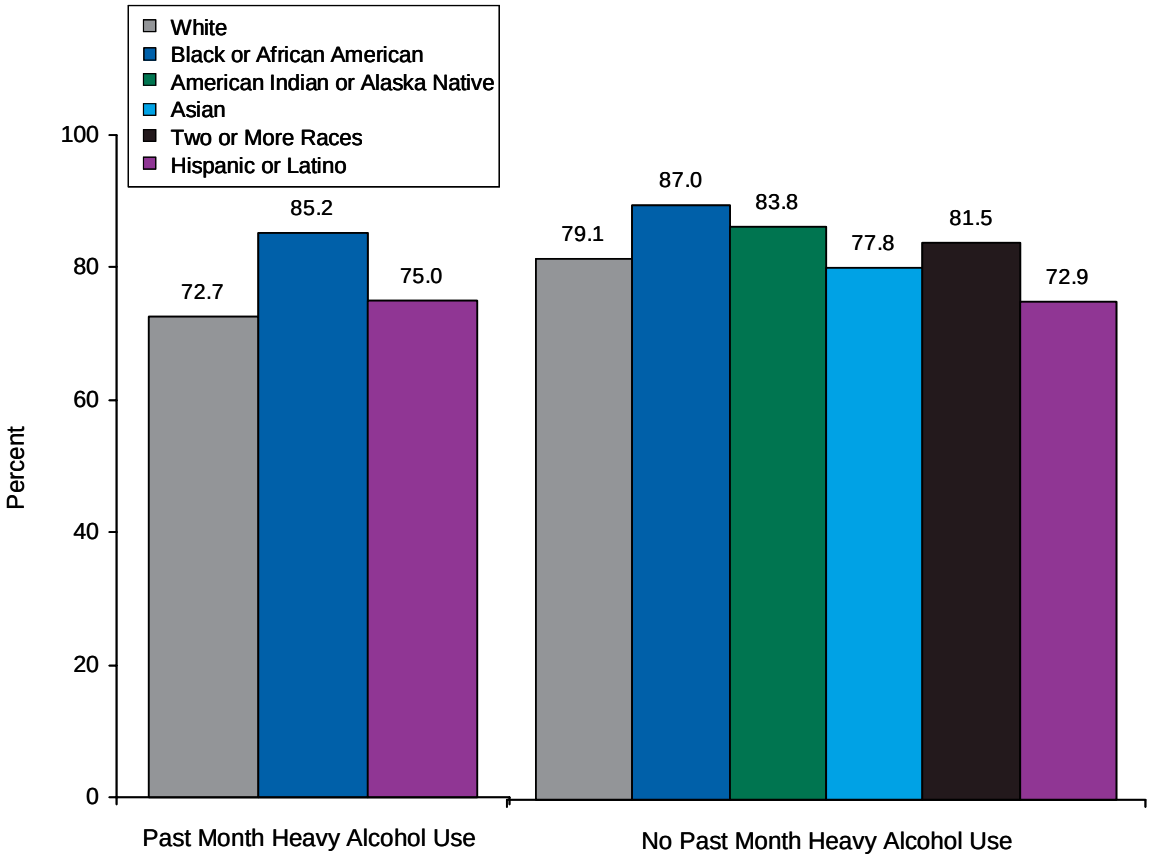


Note: Due to low precision, estimates for American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander full-time workers with past month heavy alcohol use are not shown.

4.4. Working for Employers with Educational Programs, Written Policies, or EAPs, by Illicit Drug or Alcohol Dependence or Abuse during the Past Year

Dependence or abuse during the past year represents a more complex, chronic, and serious form of substance use compared with past month use alone. Dependent and abusing individuals may be the most likely to be affected (and subsequently helped) by drug and alcohol programs in their places of employment. If these programs are effective deterrents, then dependent or abusing individuals would be less likely to work (or continue to work) in an environment with strict drug policies. Previous research suggests that those with dependence on or abuse of illicit drugs or alcohol are more likely to miss workdays due to their substance abuse issues, are more likely to have work-related accidents, and are more likely to experience health-related consequences due to their substance problems (Normand, Lempert & O'Brien, 1994; Mangione et al., 1999).

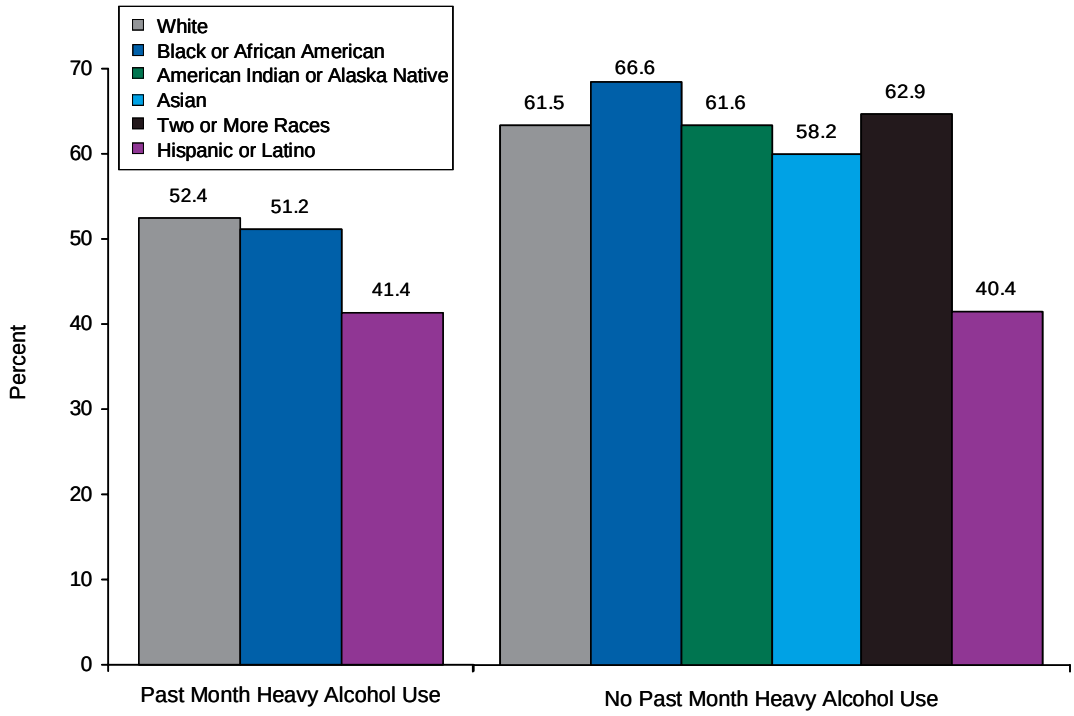
Figure 4.13 Workplace Prepares a Written Policy concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race and Past Month Heavy Alcohol Use: 2002-2004 Combined



Note: Due to low precision, estimates for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Asian, and Two or More Races full-time workers with past month heavy alcohol use are not shown. Estimates for Native Hawaiian or Other Pacific Islander full-time workers with no past month heavy alcohol use also are not shown.

- Among those who had a past year illicit drug dependence or abuse disorder, there were few differences between age categories in the likelihood of having access to employer-sponsored programs. For example, 26.6 percent of 18- to 25-year-olds, 29.8 percent of 26- to 34-year-olds, and 34.3 percent of 35- to 49-year-olds with a past year disorder reported the availability of educational information about drug and alcohol use in their workplace. These percentages among age groups were not significantly different (Table 4.9).

Figure 4.14 Workplace Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race and Past Month Heavy Alcohol Use: 2002-2004 Combined

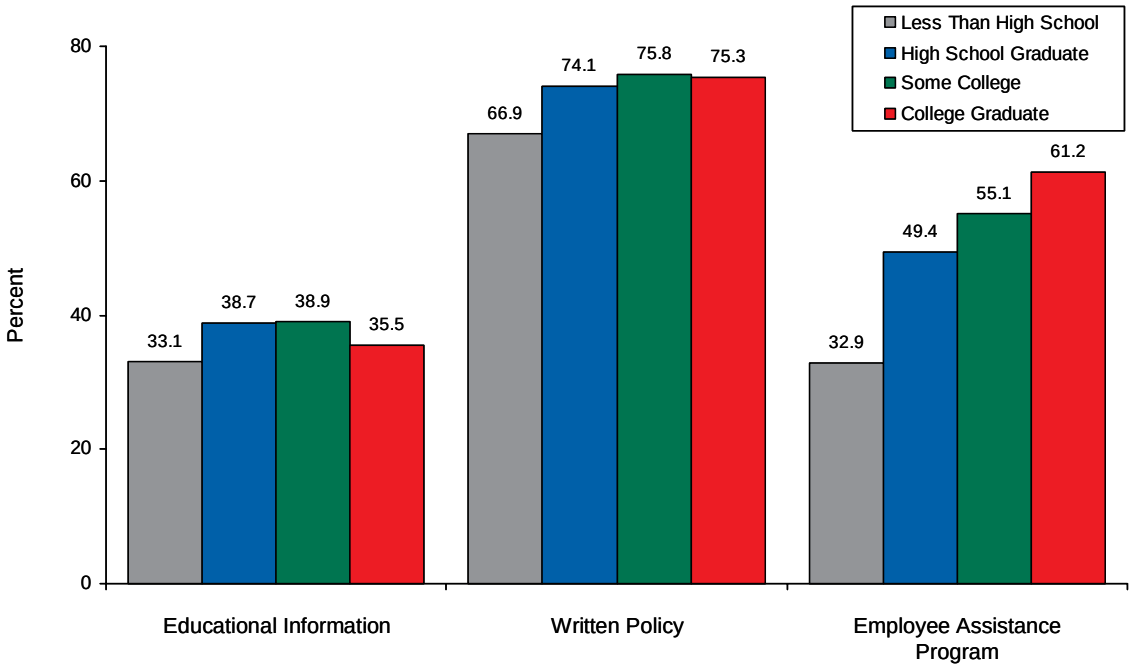


Note: Due to low precision, estimates for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Asian, and Two or More Races full-time workers with past month heavy alcohol use are not shown. Estimates for Native Hawaiian or Other Pacific Islander full-time workers with no past month heavy alcohol use also are not shown.

- However, across most demographic comparisons, those who met criteria for dependence or abuse were less likely than those who did not meet the criteria to report working for an employer who had educational programs, EAPs, and written policies about drug and alcohol use. Among non-Hispanic white adult workers who had past year illicit drug dependence or abuse, 27.9 percent reported working for an employer who had educational information, 39.3 percent reported working for an employer who offered an EAP, and 68.4 percent reported working for an employer with a written drug or alcohol education program. Among non-Hispanic white adults who did not meet criteria for past year illicit drug dependence, 43.1 percent reported access to educational information at their workplace, 61.1 percent reported that their employer had an EAP, and 78.7 percent reported working for an employer with a written drug and alcohol policy (Table 4.9).

- Among those with past year illicit drug dependence or abuse, 70.6 percent reported working for an employer with a written policy (Table 4.9), compared with 71.0 percent of current users who reported working for employers with a written policy about drug and alcohol use (Tables 4.3 and 4.4).

Figure 4.15 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an Employee Assistance Program concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64 with Past Month Heavy Alcohol Use, by Education: 2002-2004 Combined



- Alcohol dependence or abuse has a similar association with reported availability of employer-provided information and programs regarding drug and alcohol use when compared with illicit drug dependence or abuse. An estimated 37.2 percent of those who had past year alcohol dependence or abuse reported access to educational information about drug and alcohol use at their workplace, 51.0 percent reported access to an EAP at their workplace, and 74.9 percent reported that they had a written drug and alcohol use policy at their workplace (vs. 44.4 percent, 59.2 percent, and 79.1 percent, respectively, among those with no alcohol dependence or abuse during the past year) (Tables 4.10 and 4.11).

4.5. A Final Note about EAPs

EAP programs are generally established to provide short-term counseling and problem solving and may provide a greater deterrent to illicit drug and alcohol use than educational information and written policies. EAPs may be considered by some employers to be too costly to offer, but they may serve as a first line of access to the health care system with relatively few barriers when appropriately implemented. There is generally no cost for the employee, appointments may be by phone or in person, and the EAP may serve as a referral source for longer term needs. However, there does appear to be unequal access to EAPs across demographic groups. Specifically, adult workers aged 18 to 25 were less likely than older adult workers to report access to an EAP. Younger workers had an increased risk for substance use disorders and yet were least likely to report access to an EAP. Further research will be necessary to assess the contribution that EAPs make to the reduction of substance use disorders, as well as

the development of appropriate policy and programming to develop programs targeted at specific demographic groups. Hispanics also were distinctive in reporting less access to EAPs. This may be indicative of other underlying differences among racial/ethnic groups such as educational attainment, occupation and industry opportunities, and age distribution. Further analysis should be conducted to clarify this finding and to improve access for these underserved groups.

4.6. Summary

Workplace drug and alcohol policies and programs serve to communicate a "no-drugs-allowed" attitude that may deter current users from applying and working for employers with this position and also may encourage current users to leave the organization.

Educational attainment was consistently associated with higher access to information resources, and those with higher levels of education were more likely than those with a high school education or less to report access to drug and alcohol information or an EAP. Males were more likely than females to report having used illicit drugs in the past month, but females were more likely than males to report working for employers who offered EAPs or had a written drug and alcohol policy. Non-Hispanic white past month heavy alcohol users were less likely to report working in a setting with an EAP available than their non-heavy alcohol user counterparts. Across most demographic comparisons, those who met criteria for dependence or abuse were less likely than those who did not meet the criteria to report working for an employer who had educational programs, EAPs, and written policies about drug and alcohol use.

The workplace programs were all, to a greater or lesser degree, associated with a lower likelihood that current illicit drug users would work in settings with any of the programs. However, the effect of these programs on potential new hires and existing staff cannot be evaluated with cross-sectional data.

5. Workplace Testing

This chapter examines the relationship between worker substance use and testing programs while controlling for age, race/ethnicity, gender, education, income, geographic setting, occupational group, and establishment size. Workplace drug testing was implemented as an effort to deter substance abuse and its effects on productivity, health, and safety in the Nation's workforce. To date there is limited evidence about the effectiveness of this deterrent effect (Normand, Lempert, & O'Brien, 1994; Hoffmann, Larison, & Sanderson, 1997; Office of Applied Studies [OAS], 1999; French, Roebuck, & Alexandre, 2004). In the National Survey on Drug Use and Health (NSDUH), respondents were asked to indicate whether their employer ever tested employees for alcohol use and/or illicit drug use. Those who indicated at least one of these testing parameter policies then were asked to identify whether testing occurred during the hiring process and/or for employees on a random basis. It is important to note that NSDUH does not collect data related to job tenure and is not a longitudinal survey. Thus, it is not possible to draw conclusions about the causal direction of the relationship between testing and substance use. However, prehire- and random-testing programs in establishments are likely to reduce the prevalence of worker substance use through exclusionary screening and early termination of users.

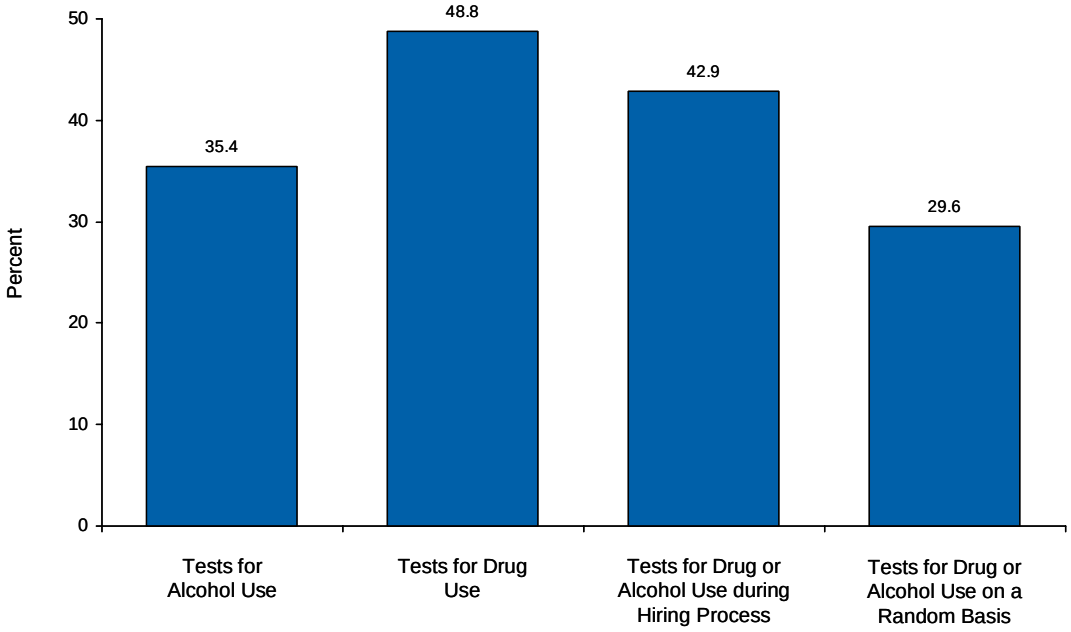
An estimated 38.7 million full-time workers reported that their employer ever conducted testing for alcohol use. Reported testing for alcohol use was more common among workers aged 35 to 49 than workers aged 18 to 25, 26 to 34, and 50 to 64 (37.5 vs. 30.5, 34.2, and 35.3 percent, respectively), among males than females (37.7 vs. 32.1 percent), and among those living in the South than among those living in the Northeast, Midwest, or West (39.6 vs. 26.8, 36.7, and 34.3 percent, respectively) (Figure 5.1 below and Tables 5.1 and 5.2 in Appendix E).

Testing for illicit drug use was reported more often than testing for alcohol use. An estimated 54 million full-time workers reported that their employer ever tested for illicit drug use. Reported testing for illicit drug use was more common among workers aged 35 to 49 than workers aged 18 to 25, 26 to 34, and 50 to 64 (50.4 vs. 46.7, 49.9, and 46.0 percent, respectively), among males than females (51.4 vs. 45.1 percent), and among workers who were black than among those who were white, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, or Asian, or reported two or more races (63.1 vs. 46.9, 59.9, 56.5, 44.5, and 49.1 percent, respectively) (Figure 5.1 and Tables 5.1 and 5.2).

5.1. Prehire-Testing Programs among Full-Time Workers

- Among the Nation's full-time workers, 42.9 percent reported that tests for illicit drug or alcohol use occurred at their place of employment during the hiring process, or "prehire" testing. This equates to more than 47 million adults who worked in settings where testing for illicit drug or alcohol use occurred during the hiring process (Figure 5.1 and Table 5.1).

Figure 5.1 Workplace Drug or Alcohol Use Testing Practices among Full-Time Workers Aged 18 to 64: 2002-2004 Combined



- The youngest and oldest adult workers (18 to 25 and 50 to 64 years) were less likely to report working for employers with prehire drug testing than workers aged 26 to 49 years. An estimated 40.8 percent of 50- to 64-year-olds and 39.0 percent of 18- to 25-year-olds reported prehire testing, compared with 44.3 percent of workers aged 26 to 34 years and 44.7 percent of workers aged 35 to 49 years (Table 5.1).

- Males reported prehire testing in their place of employment more often than females (45.8 vs. 39.1 percent) (Table 5.1).

- The prevalence of prehire testing varied by race/ethnicity. Black (58.1 percent), Native Hawaiian or Other Pacific Islander (53.5 percent), and American Indian or Alaska Native (50.8 percent) adults reported greater rates of prehire testing than Hispanic whites (40.5 percent), Asians (41.8 percent), or adults who reported two or more races (42.8 percent) (Table 5.1).

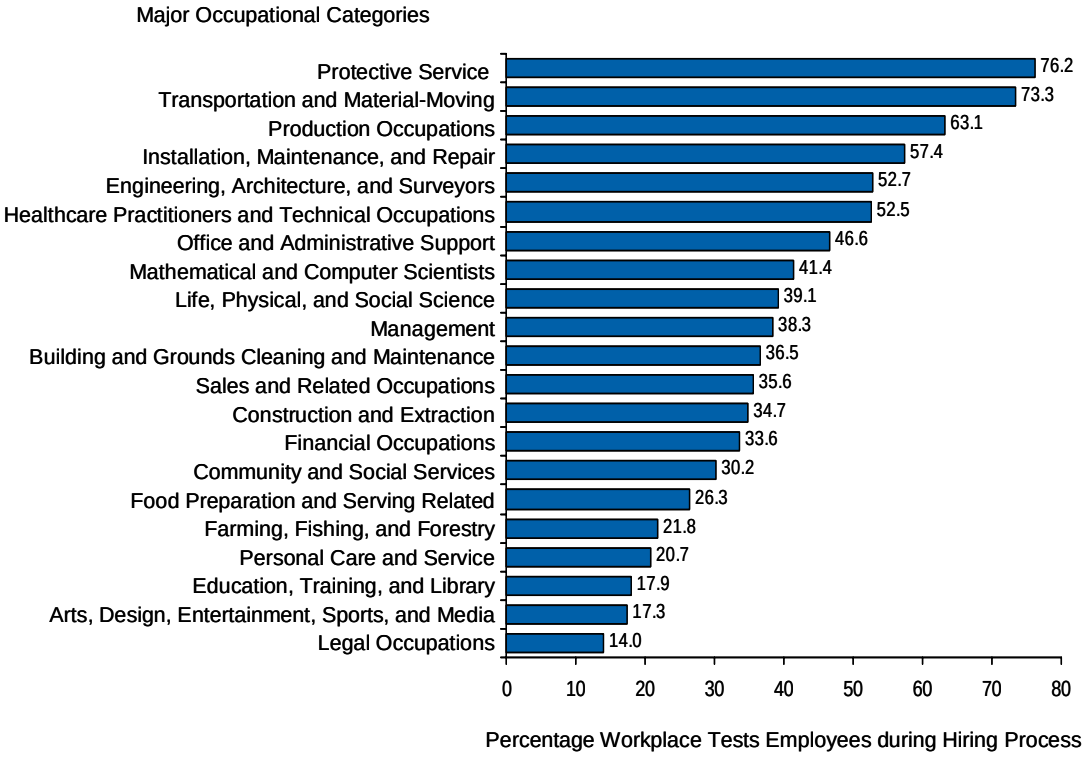
- College graduates were least likely to report working for employers with prehire testing compared with all other levels of educational attainment (35.0 percent of college graduates vs. 42.5 percent of those with less than a high school diploma, 48.5 percent of high school graduates, and 45.7 percent of those with some college) (Table 5.2).

- The lowest family income category had the lowest prevalence of prehire drug testing. An estimated 36.3 percent of workers with family incomes that were less than $20,000 reported prehire testing (vs. 44.0 percent of incomes of $20,000 to $49,999, 45.9 percent of incomes of $50,000 to $74,999, and 41.9 percent of incomes of $75,000 or more) (Table 5.2).

- An estimated 37.7 percent of residents of noncore rural counties and 41.7 percent of workers in large metropolitan statistical areas (MSAs) reported working full time at places of employment with prehire drug testing. These are significantly smaller proportions than those reported in small MSAs (45.1 percent) or micropolitan statistical areas (MiSA; 44.7 percent) (Table 5.2).

- Workers in protective service (76.2 percent) and transportation and material-moving (73.3 percent) occupational categories had the highest prevalence of reported workplace testing for illicit drug or alcohol use during the hiring process. Workers in legal occupations (14.0) were the least likely category to report workplace testing for illicit drug or alcohol use during the hiring process (Figure 5.2).

Figure 5.2 Workplace Tests Employees for Drug or Alcohol Use during Hiring Process among Full-Time Workers Aged 18 to 64, by Major Occupational Categories: 2002-2004 Combined



- The likelihood of working in a prehire-testing environment was steadily higher as the size of an establishment increased. An estimated 19.0 percent of employees who worked in an establishment with fewer than 10 employees reported a prehire drug-testing program. This is a significantly smaller proportion of workers who reported testing than was observed in other establishment sizes. Among employees who worked for the largest establishments of 500 or more employees, 70.6 percent reported prehire testing (Table 5.12).

5.2. Prehire Testing among Full-Time Workers, by Substance Use and Dependence and Abuse

- For age groups, current illicit drug users were less likely than nonusers to report working for employers who conducted prehire drug or alcohol tests (29.4 vs. 41.3 percent of 18- to 25-year-olds, 32.0 vs. 45.8 percent of 26- to 34-year-olds, 34.2 vs. 45.5 percent of 35- to 49-year-olds, and 31.3 vs. 41.0 percent of 50- to 64-year-olds) (Figure 5.3 and Table 5.3).

- For each racial/ethnic category, current illicit drug users were less likely than nonusers to report working for employers who conducted prehire drug or alcohol tests (Figure 5.4).

- For both males and females, current illicit drug users were less likely than nonusers to report working for employers who conducted prehire drug or alcohol tests (32.7 and 30.2 vs. 47.2 and 39.7 percent, respectively) (Figure 5.5 and Table 5.3).

- For all education categories, current illicit drug users were less likely than those who did not use current illicit drugs to report working for employers who conducted prehire drug or alcohol tests (less than high school: 31.5 vs. 43.9 percent; high school graduate: 35.8 vs. 49.8 percent; some college: 33.7 vs. 46.8 percent; and college graduate: 23.7 vs. 35.7 percent) (Figure 5.6 and Table 5.4).

- For all income categories, current illicit drug users were less likely than nonusers to report working for employers who conducted prehire drug or alcohol tests: 26.2 versus 37.9 percent for workers with family incomes that were less than $20,000, 33.3 versus 45.1 percent for workers with family incomes between $20,000 and $49,999, 34.5 versus 46.9 percent for workers with family incomes between $50,000 and 74,999, and 31.5 versus 42.6 percent for workers with family incomes of $75,000 or more (Table 5.4).

- For all geographic settings, current illicit drug users were less likely to report working for employers who conducted prehire drug or alcohol tests than those with no current illicit drug use: 23.8 versus 35.4 percent for workers in the Northeast, 35.9 versus 45.3 percent for workers in the Midwest, 35.3 versus 49.3 for workers in the South, and 30.5 versus 40.9 percent for workers in the West (Table 5.4).

- For all county types, current illicit drug users were less likely than those who did not use current illicit drugs to report working for employers who conducted prehire drug or alcohol tests (Figure 5.7).

- The likelihood of working for an employer who conducted prehire drug testing was higher among older age groups than younger age groups who were past month heavy alcohol users. The pattern differed among those who were not past month heavy alcohol users. Among heavy alcohol users, 34.4 percent of 18- to 25-year-olds reported prehire testing in their employment setting, compared with 46.4 percent of 50- to 64-year-olds. Among those who did not report past month heavy alcohol use, the oldest and youngest full-time workers (18 to 25 and 50 to 64 years) were less likely to report prehire drug testing by their employer compared with 26- to 34-year-olds and 35- to 49-year-olds (Figure 5.8 and Table 5.6).

Figure 5.3 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by Age Group and Past Month Illicit Drug Use: 2002-2004 Combined

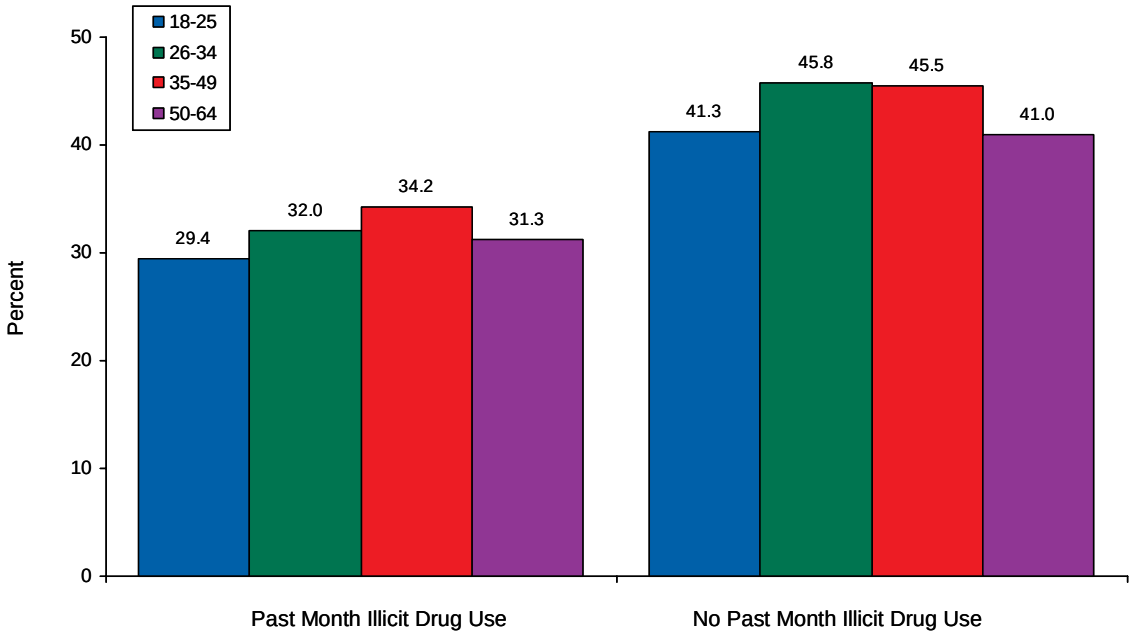
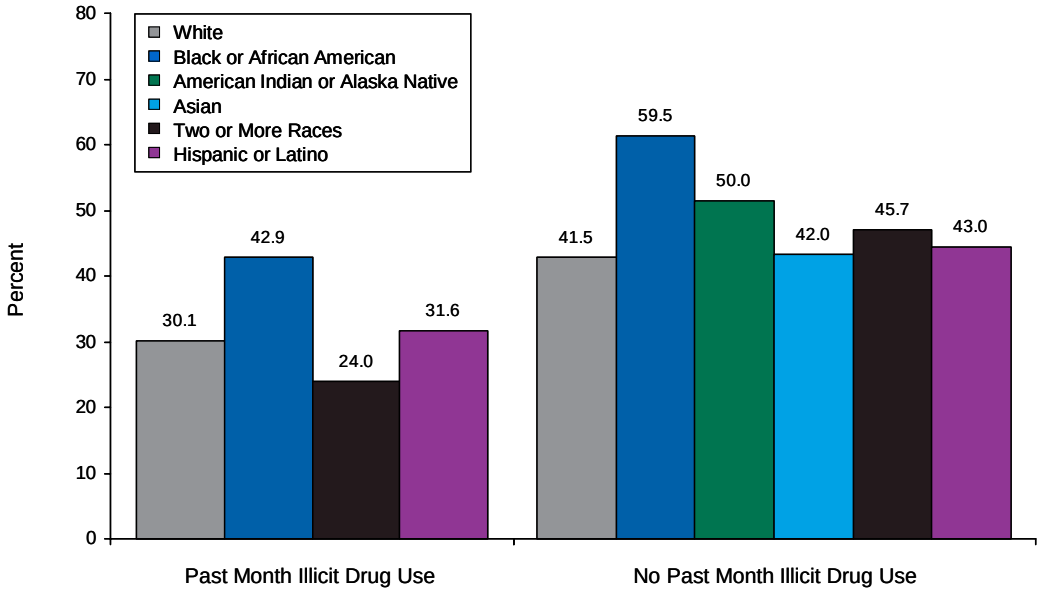


Figure 5.4 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race and Past Month Illicit Drug Use: 2002-2004 Combined



Note: Due to low precision, estimates for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and Asian full-time workers with past month illicit drug use are not shown. Estimates for Native Hawaiian or Other Pacific Islander full-time workers with no past month illicit drug use also are not shown.

Figure 5.5 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by Gender and Past Month Illicit Drug Use: 2002-2004 Combined

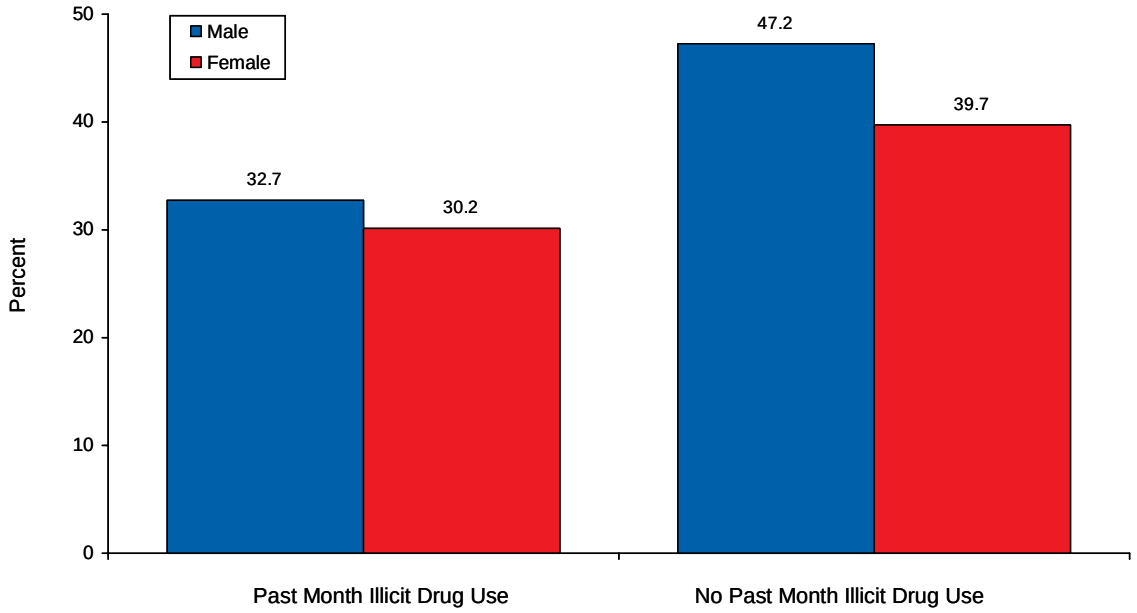


Figure 5.6 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by Education and Past Month Illicit Drug Use: 2002-2004 Combined

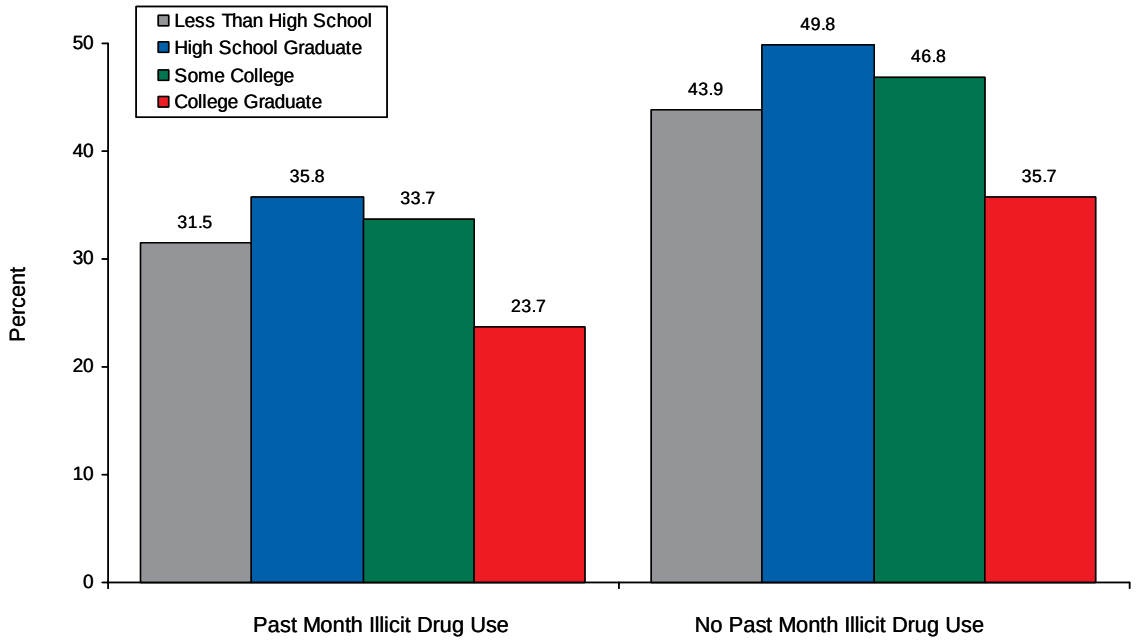
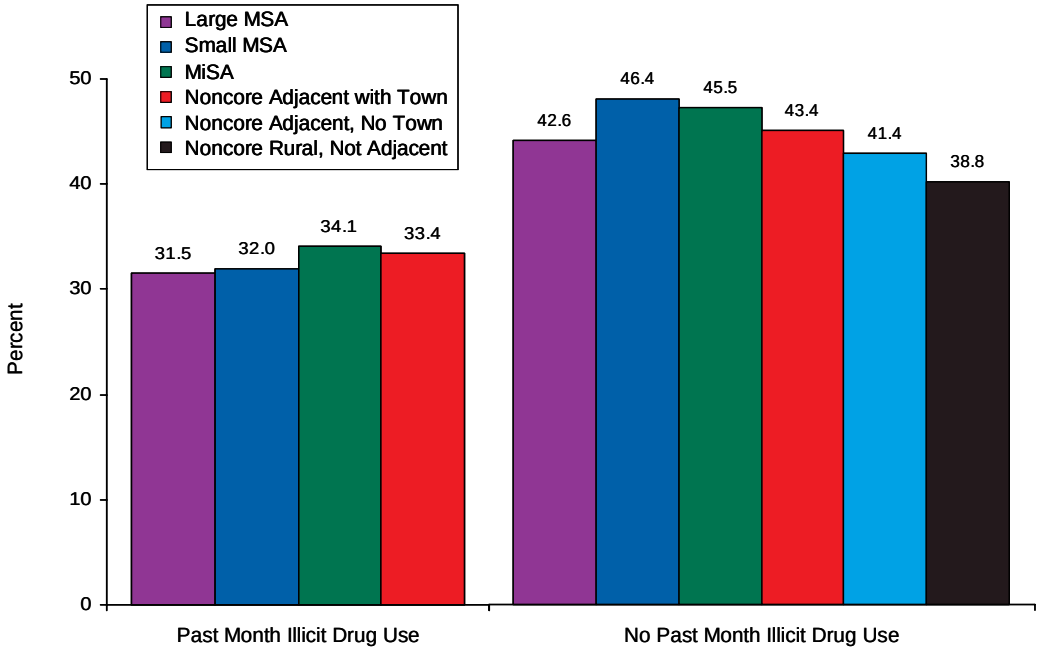
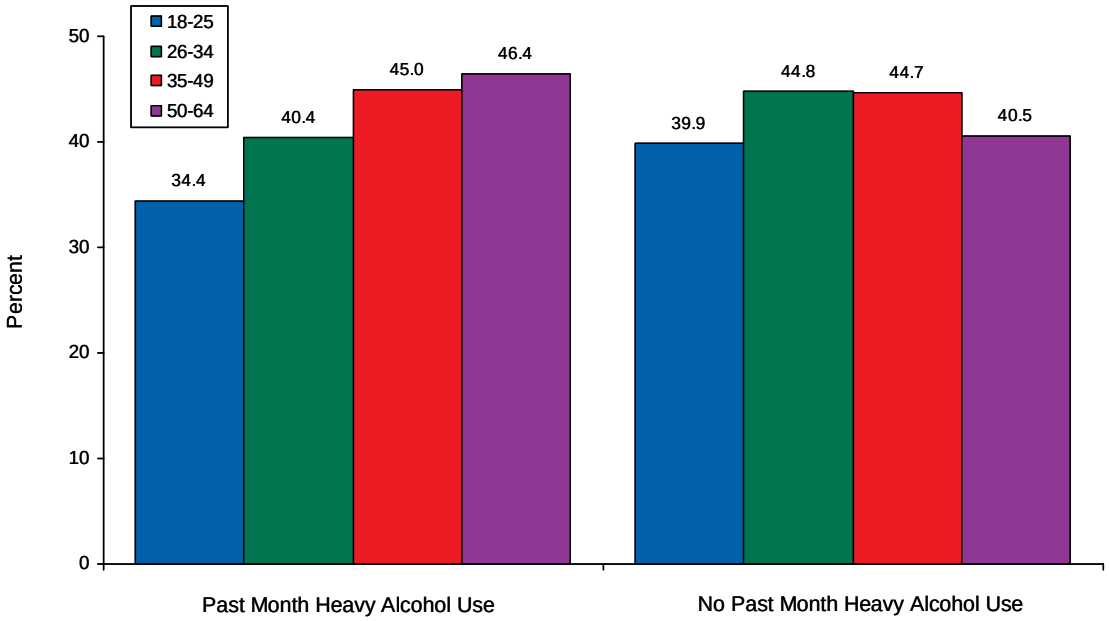


Figure 5.7 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by County Type and Past Month Illicit Drug Use: 2002-2004 Combined



Note: Due to low precision, estimates for Noncore Adjacent, No Town and Noncore Rural, Not Adjacent among full-time workers with past month illicit drug use are not shown.

Figure 5.8 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by Age Group and Past Month Heavy Alcohol Use: 2002-2004 Combined



- Among workers aged 18 to 34, past month heavy alcohol use was associated with a lower likelihood of working for an employer who conducted prehire drug or alcohol testing in comparison with their same-age peers who did not report past month heavy alcohol use (Figure 5.8).

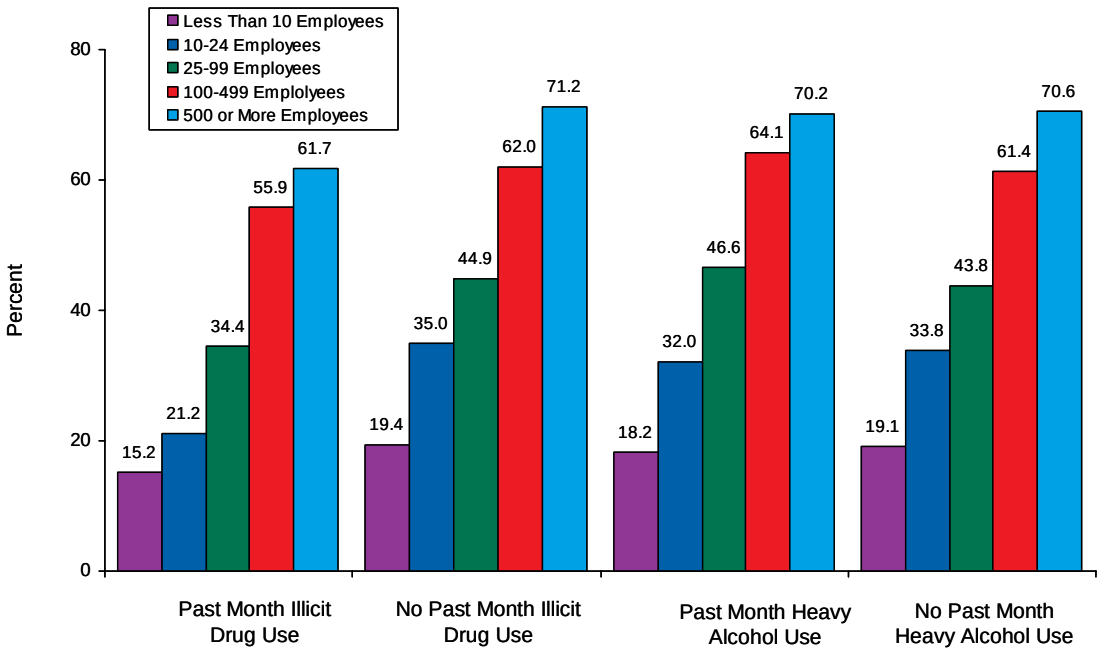
- Females were less likely than males to report working in an employment setting that conducted prehire drug or alcohol testing for both heavy alcohol users and non-heavy alcohol users. An estimated 33.1 percent of females who reported past month heavy alcohol use reported working in a prehire drug and/or alcohol testing environment, compared with nearly half of males who did so (43.5 percent). The pattern was similar among males and females who did not report past month heavy alcohol use (Table 5.6).

- There were no significant differences by race/ethnicity in the likelihood of working in a prehire-testing employment environment between those who reported past month heavy alcohol use and those who did not (Tables 5.5 and 5.6).

- Individuals with the lowest family incomes of $20,000 or less, individuals with incomes of $20,000 to $49,999, and individuals with the highest family incomes of $75,000 or more who were current heavy alcohol users were less likely to report working in a prehire-testing environment than nonusers in the same income brackets (30.8 vs. 36.9 percent of lowest family incomes, 42.5 vs. 44.1 of incomes of $20,000 to $49,999, and 40.7 vs. 42.0 percent of highest family incomes) (Table 5.7).

- For all categories of establishment size, current illicit drug users were less likely than nonusers to report working for employers who conducted prehire drug or alcohol tests: 15.2 versus 19.4 percent for establishments with fewer than 10 employees, 21.2 versus 35.0 percent for 10 to 24 employees, 34.4 versus 44.9 percent for 25 to 99 employees, 55.9 versus 62.0 percent for 100 to 499 employees, and 61.7 versus 71.2 percent for 500 or more employees. However, there was no difference for current heavy alcohol users (Figure 5.9).

Figure 5.9 Workplace Tests during Hiring Process among Full-Time Workers Aged 18 to 64, by Establishment Size and Past Month Illicit Drug or Alcohol Use: 2002-2004 Combined



5.3. Random-Testing Programs among Full-Time Workers

- A total of 29.6 percent, or 32 million, of full-time workers in the United States, reported random drug testing in their current employment setting during the study period. The youngest workers (18 to 25 years) were less likely than all other age groups to report working for an employer who conducted random drug testing (27.3 vs. 29.6 percent of 26- to 34-year-olds, 30.6 percent of 35- to 49-year-olds, and 29.1 percent of 50- to 64-year-olds) (Table 5.1).

- Nearly 21 million male workers reported that they were aware of random drug testing for illicit drugs or alcohol in their workplace, while 11.3 million females reported that they knew of random drug testing. Proportionately, more males reported random drug testing than females (33.0 vs. 24.9 percent) (Table 5.1).

- There were differences in the prevalence of random drug testing reported by race/ethnicity. Among white adults, 28.3 percent reported random drug testing in the workplace. While this was comparable with the proportion of Hispanic workers reporting random testing (28.7 percent), it was significantly less than the proportion of black and American Indian or Alaska Native workers (41.9 and 48.0 percent, respectively). Only 17.4 percent of Asian workers reported random drug testing in their current place of employment (Table 5.1).

- An estimated 32.9 percent of workers with less than a high school diploma reported random testing in their current place of employment, while 35.0 percent of high school graduates and 32.1 percent of those with some college reported working for employers who tested for illicit drugs or alcohol on a random basis. College graduates were the least likely to report random drug testing compared with all other levels of educational attainment (20.4 percent) (Table 5.2).

- Among workers, residents of the South were most likely to report working in an employment setting with random testing for illicit drug or alcohol use: 36.7 percent compared with 20.4 percent in the Northeast, 27.9 percent in the Midwest, and 27.3 percent in the West (Table 5.2).

- Workers in the transportation and material-moving (62.9 percent) and protective service (61.8 percent) occupational categories were the most likely to report working for employers who conducted random testing. Workers in legal occupations and arts, design, entertainment, sports, and media occupational categories were the least likely to report working in settings in which employees were tested for illicit drug or alcohol use on a random basis (Figure 5.10).

- There were significant county type differences in the likelihood of reporting a "random-testing" work environment. Residents of large MSAs were the least likely to report random testing (26.5 percent). The proportion of workers who reported random drug testing in their place of employment ranged from 26.5 to 37.7 percent. An estimated 36.8 percent of the most rural workers (noncore, nonadjacent residents) reported random drug testing in their work setting (Figure 5.11).

Figure 5.10 Workplace Tests Employees for Drug or Alcohol Use on a Random Basis among Full-Time Workers Aged 18 to 64, by Major Occupational Categories: 2002-2004 Combined

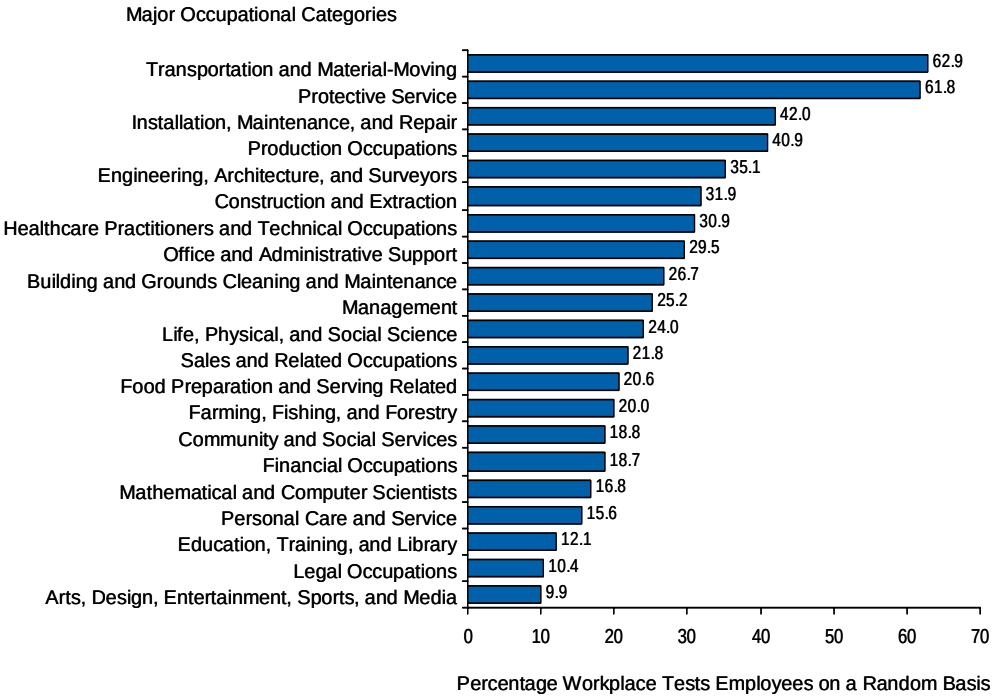
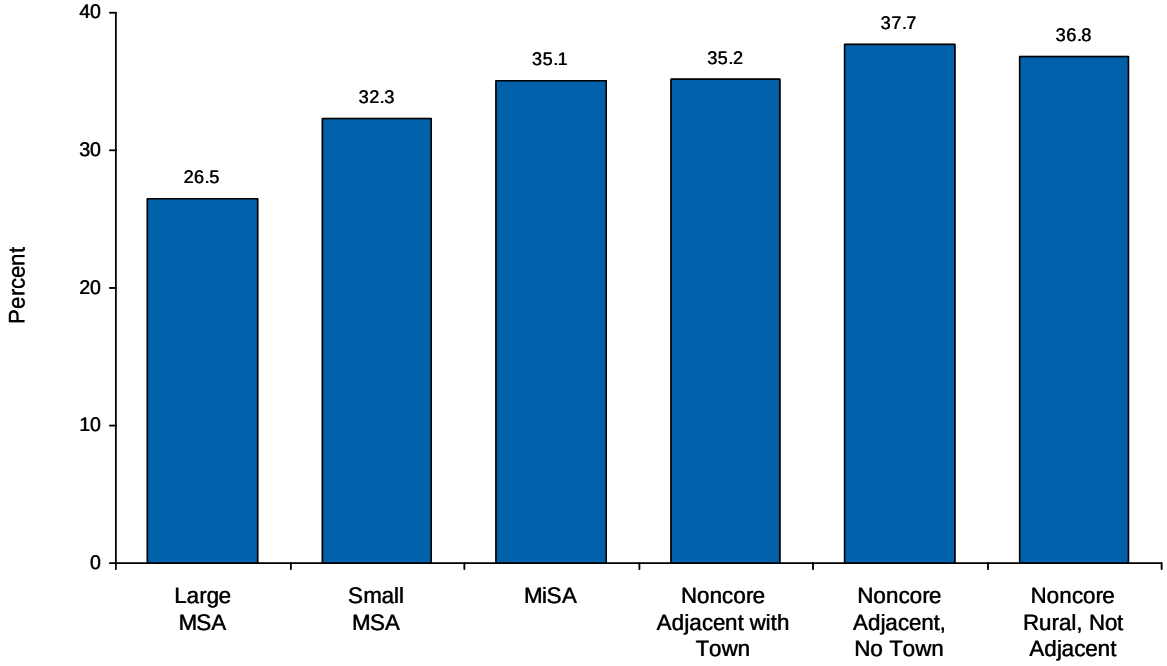


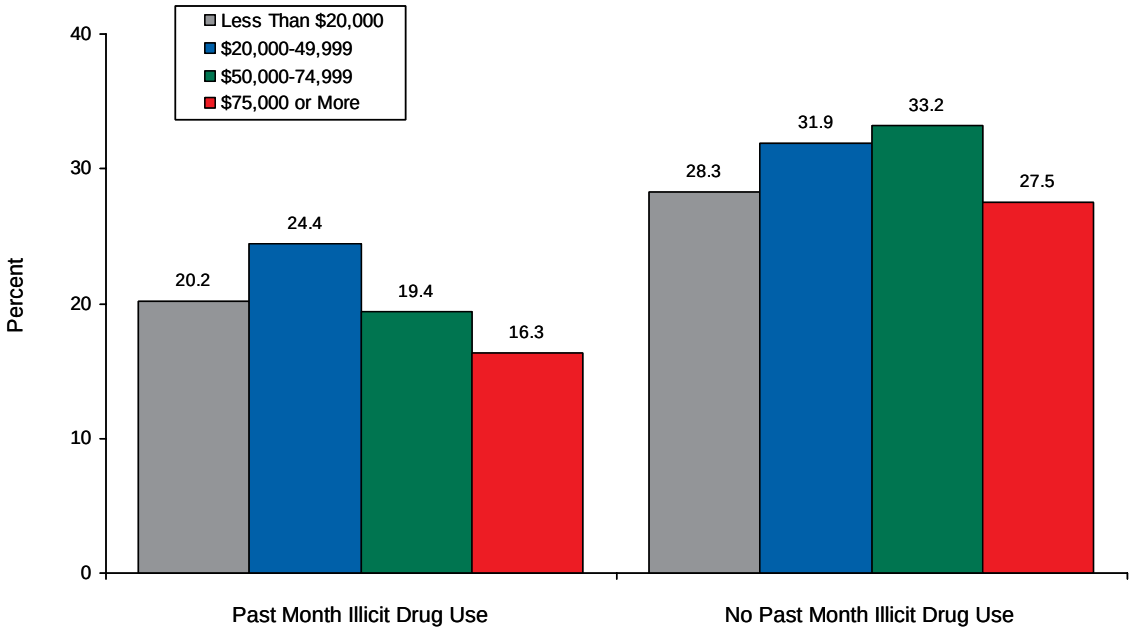
Figure 5.11 Workplace Tests on a Random Basis among Full-Time Workers Aged 18 to 64, by County Type: 2002-2004 Combined



- Among workers, the relationship between family income and reported employment with an employer who tested for illicit drug or alcohol use among workers with no current illicit drug use on a random basis was not linear. The highest category of family income, $75,000 or more, was associated with a lower risk of working for an employer who conducted random drug testing (27.5 percent), compared with family incomes of $20,000 to $49,999 (31.9 percent) and $50,000 to $74,999 (33.2 percent). Workers with family incomes that were less than $20,000 were somewhat less likely to report random testing (28.3 percent) than higher income groups (Figure 5.12 and Table 5.4).

- There was a steady increase in the likelihood of working in a random-testing environment as the size of an establishment increased. An estimated 14.5 percent of employees who worked in an establishment with fewer than 10 employees reported that their employer conducted random drug and alcohol testing. This is a significantly smaller proportion of workers who reported testing than was observed in other establishment sizes. Among employees who worked for the largest establishments of 500 or more employees, 42.6 percent reported random drug testing (Table 5.12).

Figure 5.12 Workplace Tests on a Random Basis among Full-Time Workers Aged 18 to 64, by Family Income and Past Month Illicit Drug Use: 2002-2004 Combined

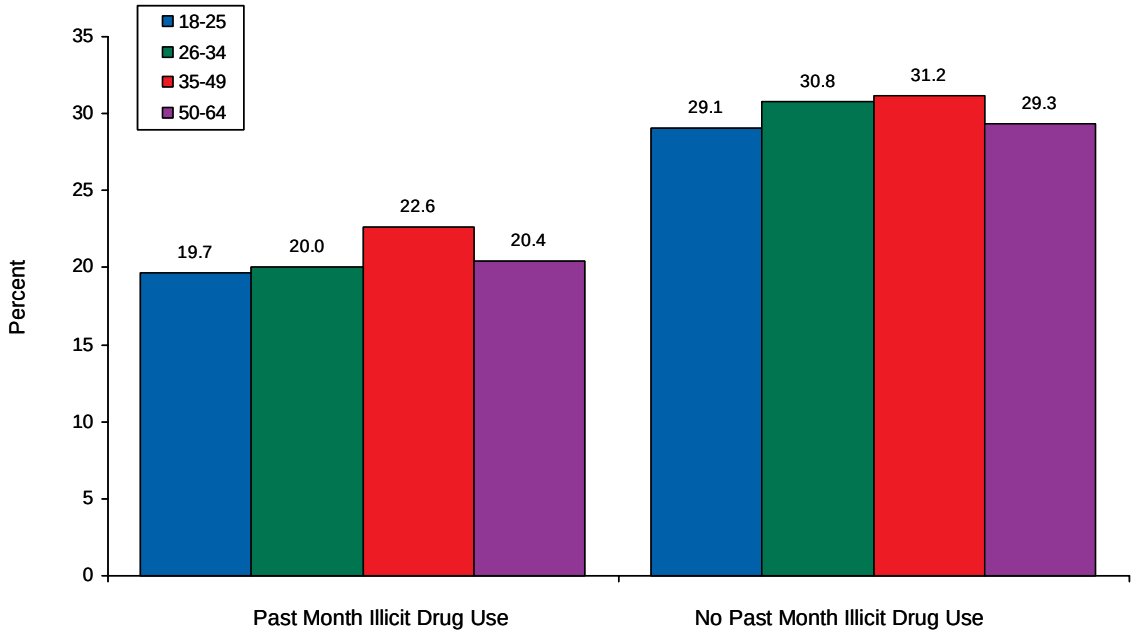


5.4. Random Testing among Full-Time Workers, by Substance Use and Dependence and Abuse

- Current illicit drug users were less likely to report working for employers who conducted random drug or alcohol tests than were nondrug users. For 18- to 25-year-olds, 19.7 percent of illicit drug users reported that they worked in a random-testing environment compared with 29.1 percent of nonusers. The relationship was consistent for all age groups:

20.0 versus 30.8 percent of 26- to 34-year-olds, 22.6 versus 31.2 percent of 35- to 49-year-olds, and 20.4 versus 29.3 percent of 50- to 64-year-olds (Figure 5.13 and Table 5.3).

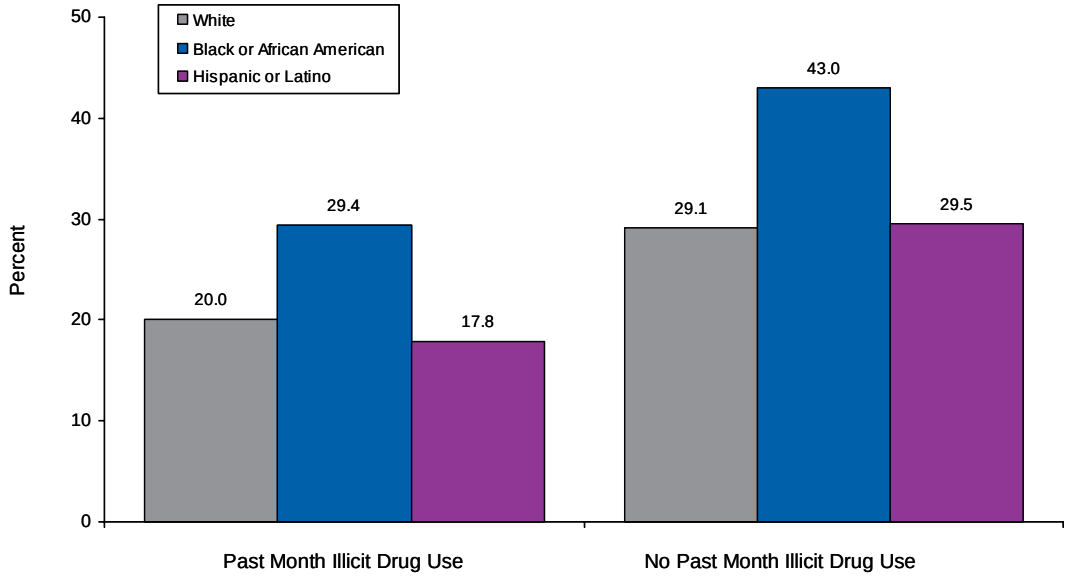
Figure 5.13 Workplace Tests on a Random Basis among Full-Time Workers Aged 18 to 64, by Age Group and Past Month Illicit Drug Use: 2002-2004 Combined



- Among both male and female full-time workers, past month illicit drug users were less likely to report working for an employer with a random drug-testing program compared with those who had not used illicit drugs in the past month. An estimated 18.7 percent of females and 21.9 percent of males with past month illicit drug use reported working in a random-testing employment setting, compared with 25.3 percent of females and 34.2 percent of males who were not past month users of illicit drugs (Table 5.3).

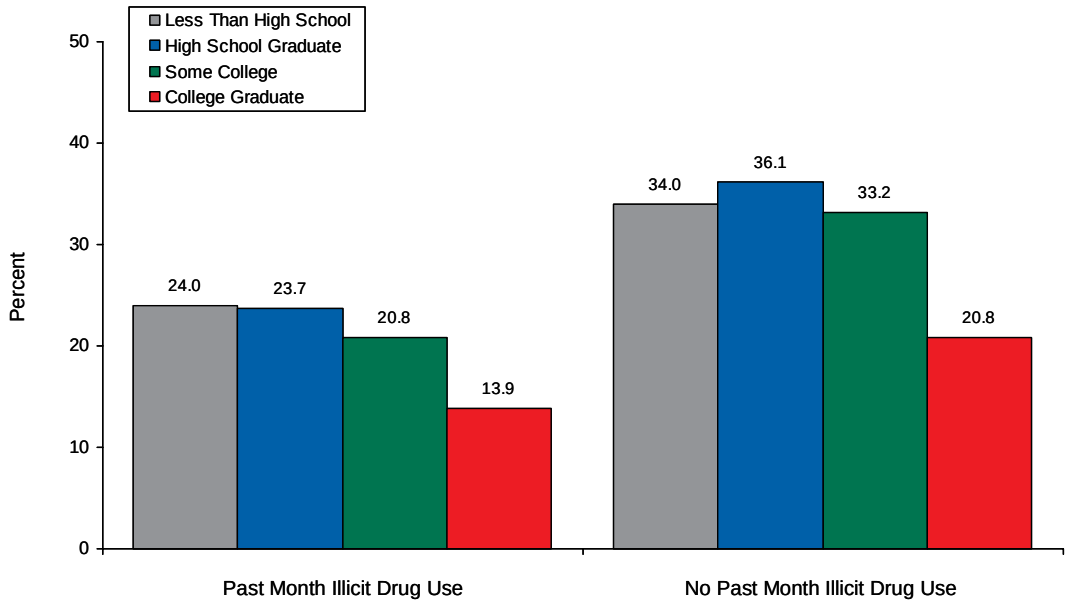
- Similarly, past month illicit drug use was associated with a reduced likelihood of working for an employer with a random-testing policy across racial/ethnic groups. An estimated 17.8 percent of Hispanic workers and 21.2 percent of non-Hispanic workers who were past month illicit drug users reported working for an employer who conducted random testing, while 29.5 percent of Hispanic and 30.6 percent of non-Hispanic workers who did not use illicit drugs in the past month reported working for an employer who tested randomly. Black workers with past month illicit drug use were significantly more likely to report working in a setting with random testing than white past month illicit drug users (29.4 vs. 20.0 percent, respectively). A similar difference existed between black and white workers who reported no past month illicit drug use (43.0 vs. 29.1 percent, respectively) (Figure 5.14 and Table 5.3).

Figure 5.14 Workplace Tests on a Random Basis among Full-Time Workers Aged 18 to 64, by Hispanic or Latino Origin and Race and Past Month Illicit Drug Use: 2002-2004 Combined



- For all levels of education, current illicit drug users were less likely than nonusers to report working for employers who conducted drug or alcohol tests on a random basis: 24.0 versus 34.0 percent for those with less than a high school diploma, 23.7 versus 36.1 percent for high school graduates, 20.8 versus 33.2 percent for those with some college, and 13.9 versus 20.8 percent for college graduates (Figure 5.15 and Table 5.4).

Figure 5.15 Workplace Tests on a Random Basis among Full-Time Workers Aged 18 to 64, by Education and Past Month Illicit Drug Use: 2002-2004 Combined

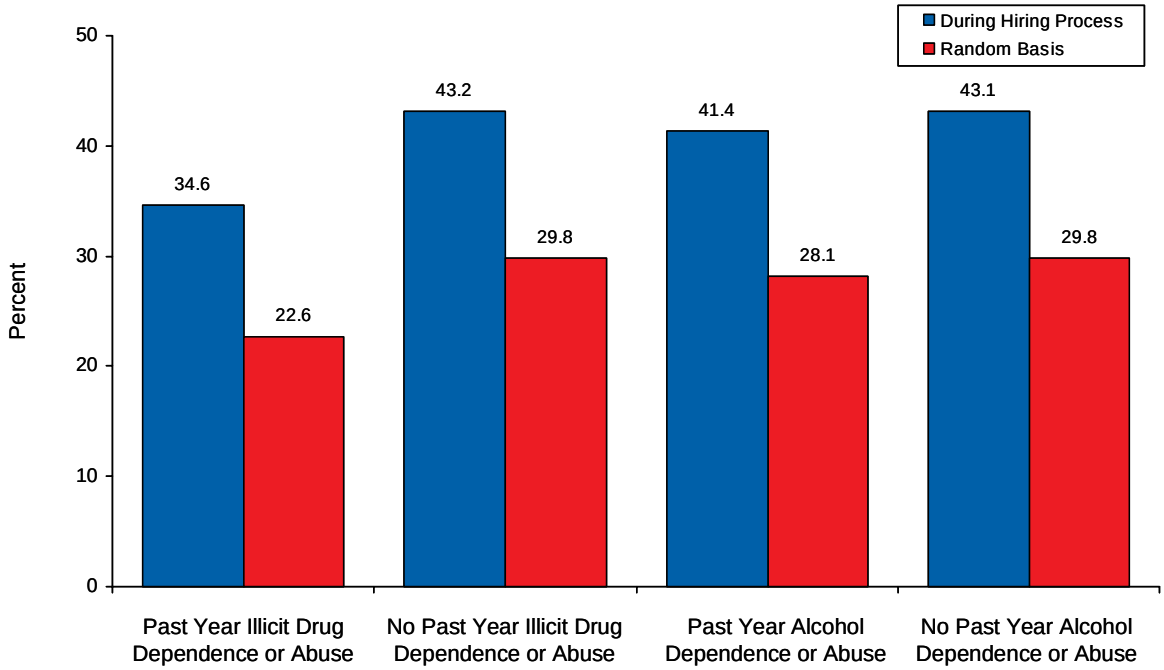


- The association between reported employment in a setting that tests for illicit drug or alcohol use on a random basis and past month marijuana use among full-time workers mirrored findings reported for past month illicit drug use. Within each demographic group, a smaller proportion of individuals with past month marijuana use reported working for employers who conducted random testing compared with workers who did not report current use of marijuana (Tables 5.8 through 5.11). There was no relationship between heavy alcohol use and the likelihood of working for a random-testing employer.

- Findings associated with illicit drug or alcohol dependence or abuse were consistent with those observed for current illicit drug and heavy alcohol use. Individuals who met criteria for illicit drug dependence or abuse were less likely to report working for an employer with a random drug-testing policy compared with individuals who did not meet dependence or abuse criteria (Figure 5.16).

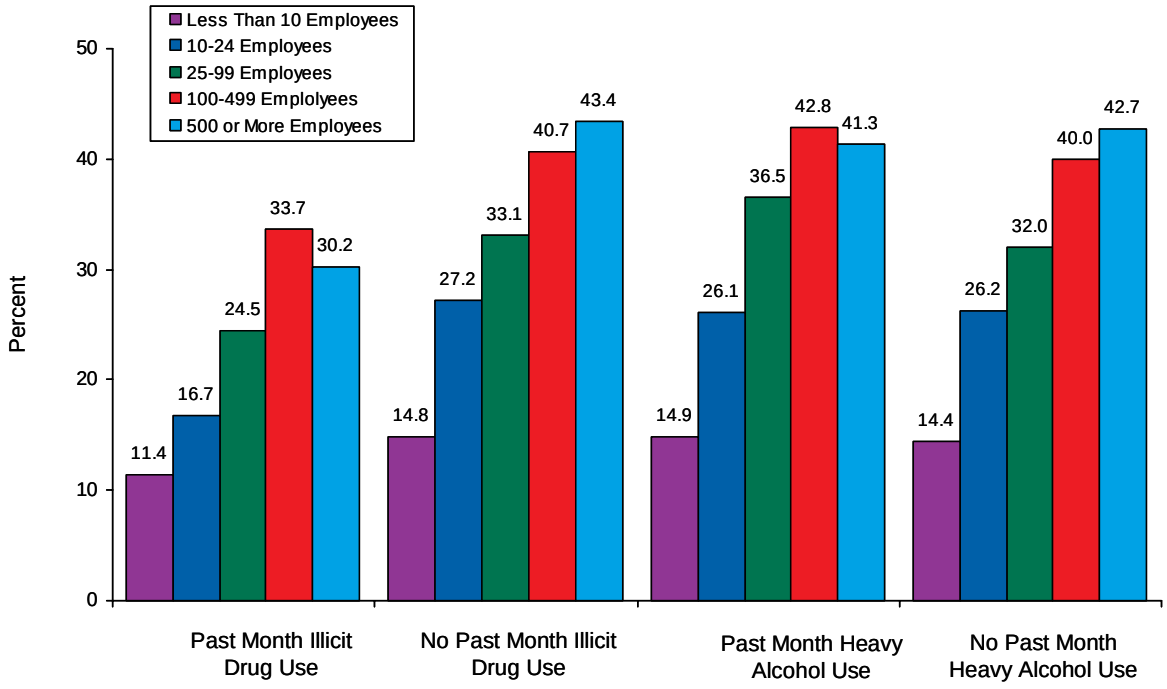
- Alcohol disorders were associated with a lower likelihood of working in a random-testing environment among the youngest adult workers—those who did not complete high school and those who resided in large MSAs (Figure 5.16).

Figure 5.16 Workplace Tests during Hiring Process or on a Random Basis among Full-Time Workers Aged 18 to 64, by Past Year Illicit Drug or Alcohol Dependence or Abuse: 2002-2004 Combined



- For all categories of establishment size, current illicit drug users were less likely than nonusers to report working for employers who conducted random drug or alcohol tests (less than 10 employees: 11.4 vs. 14.8 percent; 10 to 24 employees: 16.7 vs. 27.2 percent; 25 to 99 employees: 24.5 vs. 33.1 percent; 100 to 499 employees: 33.7 vs. 40.7 percent; and 500 or more employees: 30.2 vs. 43.4 percent). However, there was no difference for current heavy alcohol users (Figure 5.17).

Figure 5.17 Workplace Tests on a Random Basis among Full-Time Workers Aged 18 to 64, by Establishment Size and Past Month Illicit Drug or Alcohol Use: 2002-2004 Combined



5.5. Summary

This chapter addresses the question "Are current substance users less likely to work for employers who conduct prehire or random drug testing?" It is important to understand that these data cannot inform a discussion about the cause-and-effect nature of drug testing in the workplace. Respondents are interviewed at one point in time and are not asked to provide information about testing in relation to job tenure, their own personal testing experience, or testing in previous employment settings. It also is possible that respondents may not be clear about differences in testing programs. For example, there may be some confusion about random testing in contrast to cause-based testing in response to a specific event or employee behavior. While there is strong evidence here that individuals with current or long-term illicit substance use problems are less likely to report working in an employment setting with either prehire or random drug testing, it cannot be said that drug testing caused the worker to work in one environment or another or that testing reduced the use patterns of an existing employee.

The relationship of drug testing to substance use was impacted in some of these analyses by characteristics of the respondent or the respondent's reported employment setting. Specifically, race/ethnicity appeared to influence the relationship between use status and working in a setting with a drug-testing program. Among current illicit drug users, non-Hispanic black workers were more likely to report working in a prehire- or random-testing environment when compared with non-Hispanic white workers. This may be an effect of other characteristics such as differences in occupational or educational opportunities. There also were differences among

county types. This may reflect differences in employment options in cities compared with towns and rural places.

Policy makers and those who work in substance abuse programs will benefit from ongoing research in this area. It will be important to clarify an understanding about whether these programs keep substance users out of the workplace or whether these programs serve as a tool to route those who use illicit substances into healthier and more productive work lives. It also will be important to understand more clearly how demographic characteristics impact the effect of testing programs. As was noted in the earlier report by the Institute of Medicine (Normand, Lempert, & O'Brien, 1994), more could be learned by combining survey data, such as the NSDUH data used in this report, with drug test results collected in work settings.

6. Workplace Behaviors and Attitudes toward Drug Testing

This chapter examines the work-related behaviors and attitudes toward drug testing of full-time workers in order to describe the potential impact of substance use on worker productivity and the role of drug testing in the workplace. Previous chapters in this report have provided estimates of the prevalence of illicit drug use, heavy alcohol use, and illicit drug and alcohol dependence or abuse among full-time workers aged 18 to 64 in the United States. The report also has detailed the proportion of workers in the United States reporting the presence of programs designed to identify and assist workers with substance use issues. In this final chapter, several related matters are presented:

- Workplace behaviors in association with substance use
- Attitudes held by full-time workers about their willingness to work for an employer with a drug-testing program
- Multivariate analysis of employer drug-testing and the willingness of adults to work for an employer with a drug-testing program, by substance use, dependence, and abuse

6.1. Workplace Behaviors among Full-Time Workers

The National Survey on Drug Use and Health (NSDUH) does not collect direct measures of worker productivity or on-the-job safety. However, three work-related measures that are related to productivity and safety are available:

- Worked for three or more employers in the past year
- Missed 2 or more days in the past month due to illness or injury
- Skipped 1 or more days of work in the past month

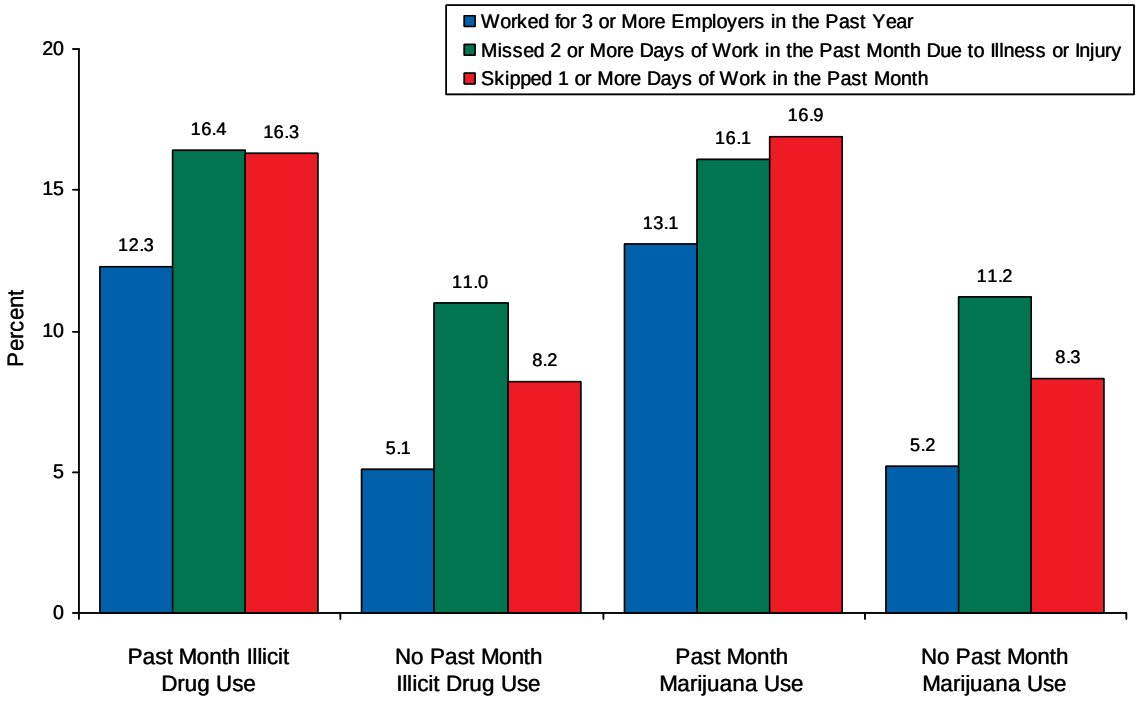
All of these indicators were significantly associated with current illicit drug use, past year illicit drug dependence or abuse, and past year alcohol dependence or abuse. Two of the three indicators (working for three or more employers in the past year and skipping 1 or more days of work in the past month) also were positively and significantly associated with past month heavy alcohol use.

- Among full-time workers who reported past month illicit drug use, 12.3 percent reported working for three or more employers in the past year, compared with 5.1 percent of workers without past month drug use (Figure 6.1).
- Workers with past month illicit drug use were more likely to report missing 2 or more workdays in the past month due to illness or injury when compared with workers without current use (16.4 vs. 11.0 percent) (Figure 6.1).

- An estimated 16.3 percent of workers who used illicit drugs in the past month reported skipping 1 or more days of work in the past month (vs. 8.2 percent of workers who did not use an illicit drug during the past month) (Figure 6.1).

- The pattern for past month marijuana use mirrored that found among all past month illicit drug users (Figure 6.1).

Figure 6.1 Workplace Behaviors among Full-Time Workers Aged 18 to 64, by Past Month Substance Use: 2002-2004 Combined



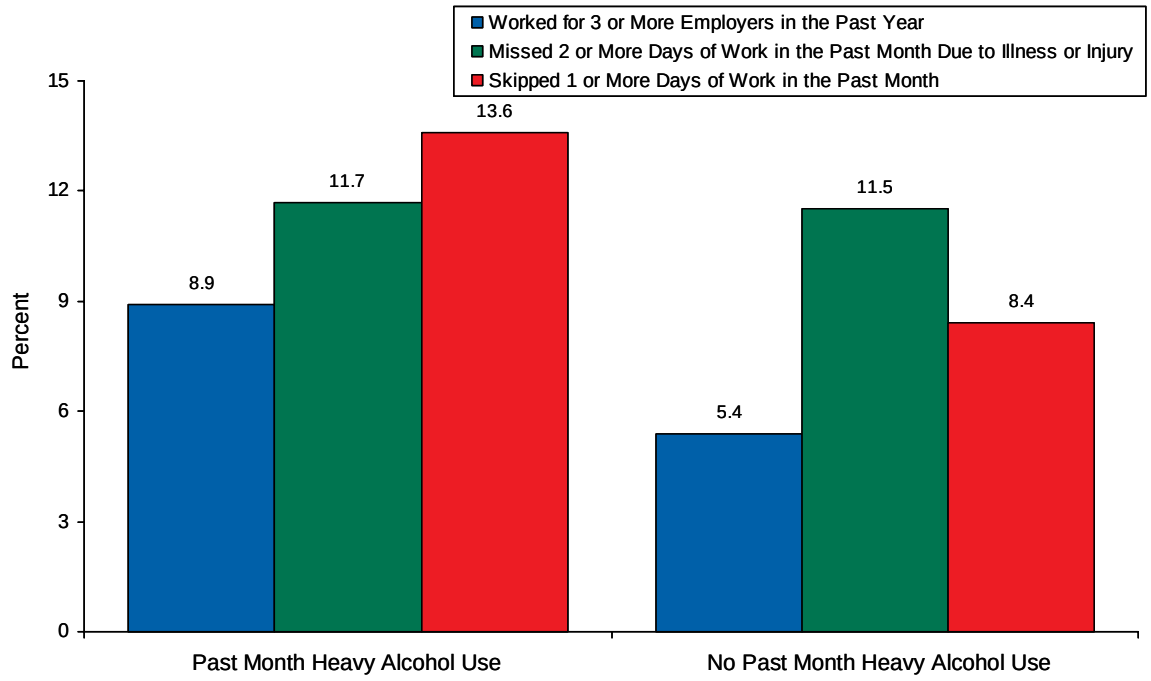
- Among workers who reported past month heavy alcohol use, 8.9 percent reported working for three or more employers during the past year versus 5.4 percent of those who did not report past month heavy alcohol use (Figure 6.2).

- An estimated 13.6 percent of past month heavy alcohol users employed full time reported skipping work 1 or more days during the past month (vs. 8.4 percent of workers with no past month heavy alcohol use) (Figure 6.2).

- Past month heavy alcohol use was not significantly linked to missing 2 or more days of work in the past month due to illness or injury (Figure 6.2).

- The patterns of work outcomes related to dependence on or abuse of illicit drugs or alcohol were generally similar to those found among current users, although the magnitude of the relationship was greater for dependence or abuse. All three outcomes were significantly related to dependence or abuse. Thus, the more chronic conditions were associated with a greater risk for absenteeism and frequent job changes during the past year than for substance use per se.

Figure 6.2 Workplace Behaviors among Full-Time Workers Aged 18 to 64, by Past Month Heavy Alcohol Use: 2002-2004 Combined



6.2. Workplace Attitudes toward Drug or Alcohol Testing among Full-Time Workers

NSDUH respondents who were employed at the time of the interview were asked the following questions:

- Would you be more or less likely to work for an employer who tests its employees for drug use as part of the hiring process? Would you say more likely, less likely, or it would make no difference to you?

- Would you be more or less likely to work for an employer who tests its employees for drug or alcohol use on a random basis? Would you say more likely, less likely, or it would make no difference to you?

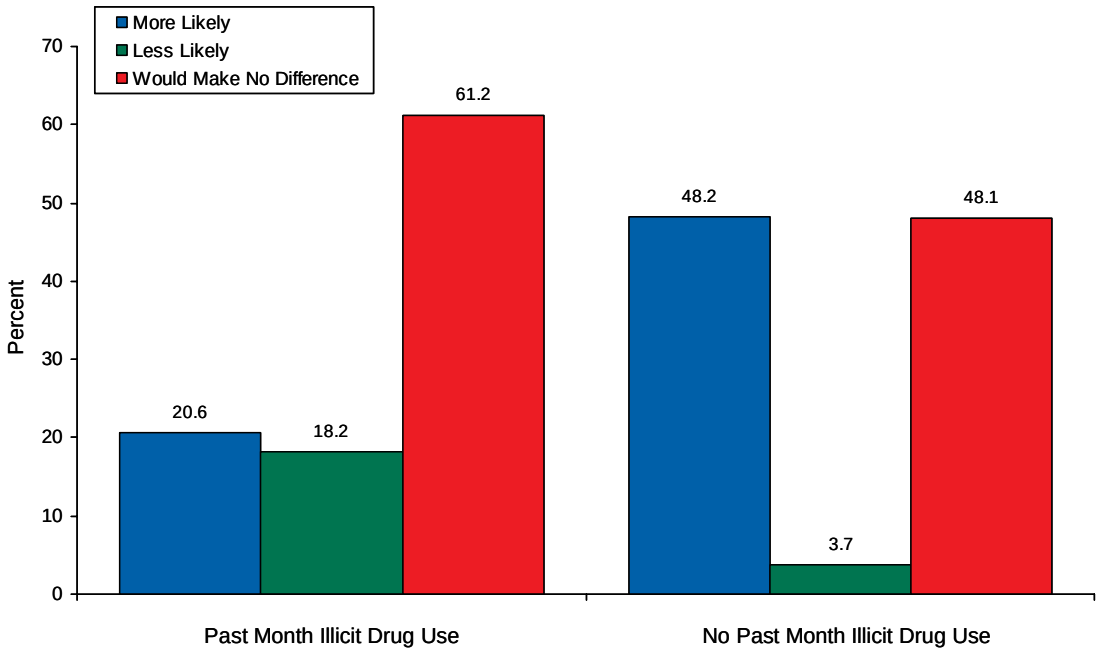
The responses to these questions were examined for full-time workers aged 18 to 64 to determine if the presence of a prehire or random drug-testing program would deter users from seeking employment at that establishment.

- Among workers in the United States, 52.5 million (46.0 percent) indicated that they would be more likely to work for an employer who tests before hiring, and an additional 56.2 million (49.1 percent) workers reported that prehire testing would not influence their decision to work for an employer. Only 5.6 million (4.9 percent) workers indicated that they would be less likely to work for an employer who conducts prehire drug testing (Tables 6.1 and 6.2 in Appendix E).

- An estimated 45.5 million (39.8 percent) workers reported that they would be more likely to work for an employer who tests randomly for drug or alcohol use, while 10.0 million (8.7 percent) workers reported that they would be less likely. An estimated 58.8 million (51.4 percent) workers indicated that random testing would not influence their decision to work for an employer (Tables 6.1 and 6.2).

- Workers reporting current illicit drug use indicated that they would be less likely to work for employers who conduct prehire and random testing than those workers who did not report current illicit drug use (Figure 6.3 and Tables 6.3 through 6.14).

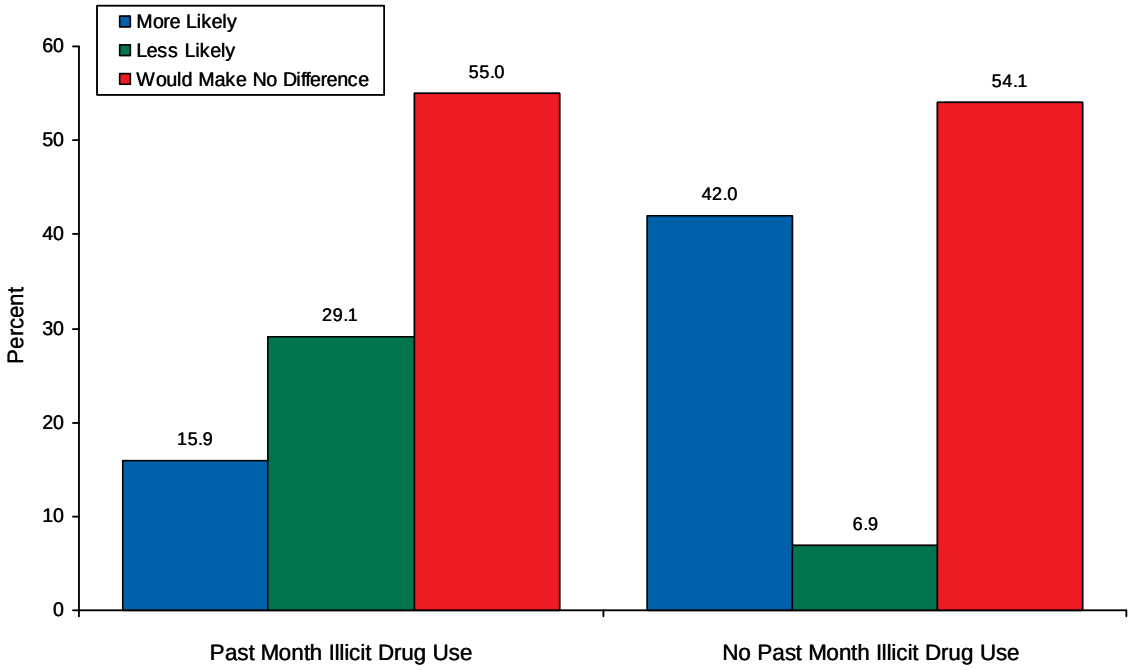
Figure 6.3 Employees' Feelings toward Working for Employers Who Test during Hiring Process among Full-Time Workers Aged 18 to 64, by Past Month Illicit Drug Use: 2002-2004 Combined



- Workers who reported past month illicit drug use indicated that they would be less likely to work for employers who conduct random testing. An estimated 29.1 percent of workers with past month illicit drug use reported that they would be less likely to work for employers who conduct drug testing randomly, while only 6.9 percent of workers who did not report past month illicit drug use selected this response category (Figure 6.4).

- These findings also held for workers who were heavy alcohol users or who were dependent on or abused illicit drugs or alcohol (Table 6.9).

Figure 6.4 Employees' Feelings toward Working for Employers Who Test on a Random Basis among Full-Time Workers Aged 18 to 64, by Past Month Illicit Drug Use: 2002-2004 Combined



6.3. Multivariate Analysis of Drug Testing in Current Employment Setting and Willingness to Work for an Employer Who Tests for Drugs

It is not possible from the analyses presented in this report to determine whether drug testing deters those who would be illicit drug users from using drugs. However, evidence presented in previous chapters confirms that those who use illicit drugs are less likely to report working for employers who have a drug-testing program compared with workers who do not use illicit drugs. In an effort to clarify some of the relationships reported in previous chapters, multivariate analyses were conducted.

Multinomial logit models were used to estimate the odds that workers would report that they were "more likely" or "less likely" to work for an employer with a prehire or random drug-testing program compared with the reference category of "it would make no difference." In the multivariate models presented here, full-time workers were categorized into four recency of illicit drug use categories:

- Never used an illicit drug
- Used illicit drug in lifetime but not in the past year

- Used illicit drug in lifetime and in the past year but not in the past month
- Used illicit drug in the past month

Workers in the last three categories were compared with those individuals who never used an illicit drug. It was expected that there would be an increased probability of responding "less likely" and a decreased probability of responding "more likely" because drug use was more recent in time relative to the survey. These models were adjusted for age, gender, race/ethnicity, educational attainment, family income, region, and county type (metropolitan statistical area). All workers with information on their willingness to work for employers with testing practices were included in these analyses.

In the multinomial logit analysis for prehire drug testing, there was a significantly higher probability of membership in the "less likely" group in comparison with the "makes no difference" group for all categories of drug user compared with those who had never used, and the odds of reporting "less likely" were higher among "more recent" than "less recent" drug users. Similarly, for "more recent" versus "less recent" drug users, there was a reduced probability of membership in the "more likely" group compared with the "would make no difference" group. A similar pattern was observed in models for random drug or alcohol testing (Tables 6-A, 6.15, and 6.16).

The potential effect of drug testing was further evaluated using three logistic regression analyses. The dependent variables for the three models were (1) working for an employer with a drug- or alcohol-testing program, (2) working for an employer with a prehire-testing program, and (3) working for an employer with a random drug- or alcohol-testing program. The independent variables were the same as the multinomial models. The first model, presence of a drug- or alcohol-testing program, included all full-time workers with valid responses to the questions:

- Does your workplace ever test its employees for alcohol use?
- Does your workplace ever test its employees for drug use?

For inclusion in the other two logistic models, individuals also must have given valid responses to two follow-up questions in the following order:

- Does your workplace test its employees for drug or alcohol use as part of the hiring process?
- Does your workplace test its employees for drug or alcohol use on a random basis?

Table 6-A Results of Multinomial Logit Model of Willingness to Work for Employers Who Test for Drug or Alcohol Use during Hiring Process or on a Random Basis among Full-Time Workers Aged 18 to 64: 2002-2004

Characteristic	Willingness to Work for Employer Who Tests for Drug or Alcohol Use during Hiring Process			
	More Likely vs. Would Make No Difference		Less Likely vs. Would Make No Difference	
	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)
Illicit Drug Use[1]				
No Lifetime Use	--	--	--	--
Lifetime Use, No Past Year Use	0.73[b]	0.69-0.77	1.24[a]	1.05-1.47
Past Year Use, No Past Month Use	0.45[b]	0.41-0.49	1.91[b]	1.51-2.40
Past Month Use	0.28[b]	0.26-0.31	5.18[b]	4.40-6.11
Characteristic	**Willingness to Work for Employer Who Tests for Drug or Alcohol Use on a Random Basis**			
	More Likely vs. Would Make No Difference		Less Likely vs. Would Make No Difference	
	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)
Illicit Drug Use[1]				
No Lifetime Use	--	--	--	--
Lifetime Use, No Past Year Use	0.71[b]	0.67-0.75	1.32[b]	1.19-1.48
Past Year Use, No Past Month Use	0.44[b]	0.40-0.49	2.30[b]	1.95-2.72
Past Month Use	0.29[b]	0.26-0.32	5.61[b]	4.96-6.34

CI = confidence interval.

-- Reference level.

NOTE: In addition to recency of illicit drug use, measures of age group, gender, Hispanic origin and race, education, family income, geographic region, and county type were included in these models as covariates. Resulting odds ratios and confidence intervals for these additional controls can be found in Tables 6.15 and 6.16 in Appendix E.

[a] Statistically significant at the 0.05 level.

[b] Statistically significant at the 0.01 level.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

In each model, there was a decreased probability of working for an employer with a testing program among those who had used in the past year or past month compared with those who had never used illicit drugs. Compared with workers with no lifetime use of illicit drugs, there was a decreased likelihood of working for an employer who tested for drug or alcohol use. There was not a significant difference between no lifetime use and lifetime but no past year use. Compared with workers with no lifetime use, there was a significant decrease in the probability of working for an employer with a prehire-testing program among past year–no past month and past month illicit drug users. Findings were similar for random drug testing (Tables 6-B and 6.17).

Table 6-B Results of Logistic Models of Employers Who Test for Drug or Alcohol Use among Full-Time Workers Aged 18 to 64: 2002-2004

Characteristic	Employer Tests for Drug or Alcohol Use		Employer Tests for Drug or Alcohol Use during Hiring Process		Employer Tests for Drug or Alcohol Use on a Random Basis	
	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)
Illicit Drug Use[1]						
No Lifetime Use	--	--	--	--	--	--
Lifetime Use, No Past Year Use	1.02	0.97-1.08	0.98	0.93-1.04	1.00	0.94-1.06
Past Year Use, No Past Month Use	0.81[b]	0.74-0.89	0.77[b]	0.70-0.85	0.80[b]	0.71-0.89
Past Month Use	0.62[b]	0.57-0.68	0.55[b]	0.51-0.60	0.55[b]	0.50-0.60

CI = confidence interval.

-- Reference level.

NOTE: In addition to recency of illicit drug use, measures of age group, gender, Hispanic origin and race, education, family income, geographic region, and county type were included in these models as covariates. Resulting odds ratios and confidence intervals for these additional controls can be found in Table 6.17 in Appendix E.

[a] Statistically significant at the 0.05 level.

[b] Statistically significant at the 0.01 level.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Generally, these models provide evidence that suggests that drug testing serves as a deterrent to employment in a drug-testing environment by those who are past month or past year illicit drug users. These findings demonstrate that fewer self-reported current and/or past year illicit drug users work in settings with a workplace drug-testing program. However, due to limitations of the data, it cannot be determined if the programs function to either:

- deter illicit drug users from applying for work in employment settings with a testing program and instead choosing to work in settings with no drug-testing program, or
- deter illicit drug users from continuing to use drugs once hired in a drug-testing employment setting.

6.4. Summary

Analysis of 2002–2004 NSDUH data provides evidence that workplace drug- and alcohol-testing programs are associated with a lower prevalence of current illicit drug use, heavy alcohol use, and dependence or abuse among workers. The evidence suggests that U.S. workers are generally willing to work in employment settings that have a drug-testing program in place. Random testing is clearly related to lower substance use than prehire-testing programs. The magnitude of this effect is not as large for alcohol use as it is for illicit drug use.

Further research should be conducted to examine the mechanism for this deterrent effect. Additional data will need to be collected to assess whether those who use illicit drugs and engage in heavy alcohol use simply avoid applying for work and working in environments with a drug-testing program or whether those same workers stop use when faced with the potential for drug testing. This is an important question to answer when considering the overall prevalence of substance use in the workplace. Policy makers also should turn their attention to mechanisms for assessing the workforce impact of encouraging drug-testing programs in smaller establishments.

At this time, it appears that smaller employers may provide a "safe haven" for workers attempting to avoid drug testing.

The evidence presented in this report confirms that current use of illicit drugs, current heavy alcohol use, past year dependence on or abuse of illicit drugs, and past year dependence on or abuse of alcohol are associated with negative work behaviors such as absenteeism and frequent job changes, although the magnitude of the association with alcohol is smaller than that found with illicit drugs. Additional data also should be collected to assess the direct effect of substance use on the job, particularly the risk for workplace illness and injury.

Employers in certain industries also may be worthy of additional attention. Workers in food service settings and certain construction workers reported the highest prevalence of substance use issues. These workers also were among the least likely to report working in a setting with drug testing either randomly or during the prehire phase. Among food and beverage servers, for example, more than one in five workers reported past month use of an illicit drug. Further research will be required to gauge the utility of this industry- or occupation-specific approach.

Appendix A: Description of the Survey

A.1 Sample Design

The sample designs for the 2002, 2003, and 2004 National Surveys on Drug Use and Health (NSDUHs)[1] reflect a coordinated design for providing estimates for all 50 States plus the District of Columbia. The respondent universe is the civilian, noninstitutionalized population aged 12 years old or older residing within the United States and the District of Columbia. Persons excluded from the universe include active-duty military personnel, persons with no fixed household address (e.g., homeless and/or transient persons not in shelters), and residents of institutional group quarters, such as jails and hospitals.

The coordinated design for 1999 through 2003 facilitated 50 percent overlap in first-stage units (area segments) between each 2 successive years. The 2004 NSDUH continued the 50 percent overlap by retaining approximately half of the first-stage sampling units from the 2003 survey. The remainder of the sample was drawn from the 1999 through 2003 reserve sample (i.e., area segments not used in previous years). Before selection, composite size measures[2] were adjusted to the 2000 census data.[3] The application of a special probability sampling procedure initially developed by Keyfitz (1951) ensured that most of the overlap segments from 2003 were included in the 2004 sample.

For the 50-State design, 8 States were designated as large sample States (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) with samples large enough to support direct State estimates. In 2004, sample sizes in these States ranged from 3,575 to 3,725. For the remaining 42 States and the District of Columbia, smaller, but adequate, samples were selected to support State estimates using small area estimation (SAE) techniques.[4] Sample sizes in these States ranged from 828 to 934 in 2004.

States were first stratified into a total of 900 field interviewer (FI) regions (48 regions in each large sample State and 12 regions in each small sample State). These regions were contiguous geographic areas designed to yield the same number of interviews on average. Within FI regions, adjacent census blocks were combined to form the first-stage sampling units, called area segments. A total of 96 segments per FI region were selected with probability proportional to population size to support the 5-year sample and any supplemental studies that the Substance Abuse and Mental Health Services Administration (SAMHSA) may choose to field.[5] Of these segments, 24 were designated for the coordinated 5-year sample, while the other 72 were

[1] Prior to 2002, the survey was known as the National Household Survey on Drug Abuse (NHSDA).

[2] The composite size measure is an estimate of the population weighted by the sampling fraction in each age group.

[3] Composite size measures were originally formed using 1990 census data and adjusted to population counts from Claritas Incorporated (http://www.claritas.com).

[4] Small area estimation (SAE) is a hierarchical Bayes modeling technique used to make State-level estimates for approximately 20 substance-use-related measures. See the *State Estimates of Substance Use from the 2002-2003 National Surveys on Drug Use and Health* (Wright & Sathe, 2004) for more details.

[5] For more details on the 5-year sample, see the sample design report in the *2003 NSDUH Methodological Resource Book* (Bowman, Chromy, Hunter, Martin, & Odom, 2005b).

designated as "reserve" segments. It is from this reserve sample and the 2003 overlap sample that the 2004 NSDUH sample segments were selected. Eight sample segments per FI region were fielded during the 2004 survey year.

These sampled segments were allocated equally into four separate samples, one for each 3-month period (calendar quarter) during the year, so that the survey was essentially continuous in the field. In each of these area segments, a listing of all addresses was made, from which a sample of 169,514 addresses was selected. Of the selected addresses, 142,612 were determined to be eligible sample units. In these sample units (which can be either households or units within group quarters), sample persons were randomly selected using an automated screening procedure programmed in a handheld computer carried by the interviewers. The number of sample units completing the screening was 130,130. Youths aged 12 to 17 years and young adults aged 18 to 25 years were oversampled at this stage. Because of the large sample size, there was no need to oversample racial/ethnic groups, as was done on surveys prior to 1999. A total of 81,973 persons were selected nationwide. Consistent with previous surveys in this series, the final respondent sample of 67,760 persons was representative of the U.S. general population (since 1991, the civilian, noninstitutionalized population) aged 12 or older. In addition, State samples were representative of their respective State populations. More detailed information on the disposition of the national screening and interview sample can be found in Appendix B. Definitions of key terms are provided in Appendix C.

The survey covers residents of households (living in houses/townhouses, apartments, condominiums, etc.), persons in noninstitutional group quarters (e.g., shelters, rooming/boarding houses, college dormitories, migratory workers' camps, halfway houses), and civilians living on military bases. Although the survey covers these types of units (they are given a nonzero probability of selection), sample sizes of most specific groups are too small to provide separate estimates. Persons excluded from the survey include homeless people who do not use shelters, active military personnel, and residents of institutional group quarters, such as correctional facilities, nursing homes, mental institutions, and long-term hospitals. More information on the sample design can be found in a 2004 NSDUH report by Bowman, Chromy, Hunter, and Martin (2005a) on the OAS website (http://www.oas.samhsa.gov/nhsda/methods.cfm#2k4).

An additional stage of sampling occurred within the 2004 computer-assisted interviewing (CAI) questionnaire. Approximately 50 percent of adult respondents aged 18 or older were randomly assigned to receive the full module of serious psychological distress (SPD) questions. The remaining adults received a reduced number of SPD questions and a new set of questions on depression. These complementary samples are together referred to as the SPD "split sample," the full SPD module is referred to as "sample A," and the reduced SPD module is referred to as "sample B."

The split sample was originally set up so that 20 percent of the adult respondents received the full module and 80 percent received the reduced module. When a preliminary analysis indicated that there may be a difference between the two samples, the selection algorithm was modified such that 60 percent received the full module and 40 percent received the reduced module in Quarters 2, 3, and 4. As a result, the sample was split half and half for the year.

A.2 Data Collection Methodology

The data collection method used in NSDUH involves in-person interviews with sample persons, incorporating procedures that would be likely to increase respondents' cooperation and willingness to report honestly about their illicit drug use behavior. Confidentiality is stressed in all written and oral communications with potential respondents. Respondents' names are not collected with the data, and CAI methods, including audio computer-assisted self-interviewing (ACASI), are used to provide a private and confidential setting to complete the interview.

Introductory letters are sent to sampled addresses, followed by an interviewer visit. A 5-minute screening procedure using a handheld computer involves listing all household members along with their basic demographic data. The computer uses the demographic data in a preprogrammed selection algorithm to select zero to two sample person(s), depending on the composition of the household. This selection process is designed to provide the necessary sample sizes for the specified population age groupings.

Interviewers immediately attempt to conduct the NSDUH interview with each selected person in the household. The interviewer requests the selected respondent to identify a private area in the home to conduct the interview away from other household members. The interview averages about an hour and includes a combination of CAPI (computer-assisted personal interviewing) and ACASI. The interview begins in CAPI mode with the FI reading the questions from the computer screen and entering the respondent's replies into the computer. The interview then transitions to the ACASI mode for the sensitive questions. In this mode, the respondent can read the questions silently on the computer screen and/or listen to the questions read through headphones and enter his or her responses directly into the computer. At the conclusion of the ACASI section, the interview returns to the CAPI mode with the interviewer completing the questionnaire. All respondents who complete a full interview are given a $30.00 cash payment as a token of appreciation for their time.

No personal identifying information is captured in the CAI record for the respondent. At the end of the day when an interviewer has completed one or more interviews, he or she transmits the data to RTI in Research Triangle Park, North Carolina, via home telephone lines.

A.3 Data Processing

Interviewers initiate nightly data transmissions of interview data and call records on days when they work. Computers at RTI direct the information to a raw data file that consists of one record for each completed interview. Even though editing and consistency checks are done by the CAI program during the interview, additional, more complex, edits and consistency checks are completed at RTI. Cases are retained only if respondents provided data on lifetime use of cigarettes and at least nine other substances. An important aspect of subsequent editing routines involves assignment of codes when respondents legitimately were skipped out of questions that definitely did not apply to them (e.g., if respondents never used a drug of interest). For key drug use measures, the editing procedures identify inconsistencies between related variables. Inconsistencies in variables pertaining to the most recent period that respondents used a drug are edited by assigning an "indefinite" period of use (e.g., use at some point in the lifetime, which could mean use in the past 30 days or past 12 months). Inconsistencies in other key drug use

variables are edited by assigning missing data codes. These inconsistencies then are resolved through statistical imputation procedures, as discussed below.

A.3.1 Statistical Imputation

For some key variables that still have missing or ambiguous values after editing, statistical imputation is used to replace these values with appropriate response codes. For example, the response is ambiguous if the editing procedures assigned a respondent's most recent use of a drug to "use at some point in the lifetime," with no definite period within the lifetime. In this case, the imputation procedures assign a definite value for when the respondent last used the drug (e.g., in the past 30 days, more than 30 days ago but within the past 12 months, more than 12 months ago). Similarly, if the response is completely missing, the imputation procedures replace missing values with nonmissing ones.

In most cases, missing or ambiguous values are imputed using a methodology called predictive mean neighborhoods (PMN), which was developed specifically for the 1999 survey and used in all subsequent survey years. PMN is a combination of a model-assisted imputation methodology and a random nearest neighbor hot-deck procedure. The hot-deck procedure is set up in such a way that imputed values are made consistent with preexisting nonmissing values for other variables. Whenever feasible, the imputation of variables using PMN is multivariate, in which imputation is accomplished on several response variables at once. Variables requiring imputation using PMN were the core demographic variables, core drug use variables (recency of use, frequency of use, and age at first use), income, health insurance, and noncore demographic variables for work status, immigrant status, and the household roster. A weighted regression imputation was used to impute some of the missing values in the nicotine dependence variables.

In the modeling stage of PMN, the model chosen depends on the nature of the response variable *Y*. In the 2004 NSDUH, the models included binomial logistic regression, multinomial logistic regression, Poisson regression, and ordinary linear regression, where the models incorporated the design weights.

In general, hot-deck imputation replaces a missing or ambiguous value taken from a "similar" respondent who has complete data. For random nearest neighbor hot-deck imputation, the missing or ambiguous value is replaced by a responding value from a donor randomly selected from a set of potential donors. Potential donors are those defined to be "close" to the unit with the missing or ambiguous value, according to a predefined function, called a distance metric. In the hot-deck stage of PMN, the set of candidate donors (the "neighborhood") consists of respondents with complete data who have a predicted mean close to that of the item nonrespondent. In particular, the neighborhood consists of either the set of the closest 30 respondents or the set of respondents with a predicted mean (or means) within 5 percent of the predicted mean(s) of the item nonrespondent, whichever set is smaller. If no respondents are available who have a predicted mean (or means) within 5 percent of the item nonrespondent, the respondent with the predicted mean(s) closest to that of the item nonrespondent is selected as the donor.

In the univariate case, the neighborhood of potential donors is determined by calculating the relative distance between the predicted mean for an item nonrespondent and the predicted

mean for each potential donor, then choosing those means defined by the distance metric. The pool of donors is further restricted to satisfy logical constraints whenever necessary (e.g., age at first crack use must not be younger than age at first cocaine use).

Whenever possible, missing or ambiguous values for more than one response variable are considered at a time. In this (multivariate) case, the distance metric is a Mahalanobis distance (Manly, 1986) rather than a relative Euclidean distance. Whether the imputation is univariate or multivariate, only missing or ambiguous values are replaced, and donors are restricted to be logically consistent with the response variables that are not missing. Furthermore, donors are restricted to satisfy "likeness constraints" whenever possible. That is, donors are required to have the same values for variables highly correlated with the response. If no donors are available who meet these conditions, these likeness constraints can be loosened. For example, donors for the age at first use variable are required to be of the same age as recipients, if at all possible. Further details on the PMN methodology are provided in RTI International (2005) and Singh, Grau, and Folsom (2001, 2002).

Although statistical imputation could not proceed separately within each State due to insufficient pools of donors, information about each respondent's State of residence was incorporated in the modeling and hot-deck steps. For most drugs, respondents were separated into three "State usage" categories as follows: respondents from States with high usage of a given drug were placed in one category, respondents from States with medium usage into another, and the remainder into a third category. This categorical "State rank" variable was used as one set of covariates in the imputation models. In addition, eligible donors for each item nonrespondent were restricted to be of the same State usage category (i.e., the same "State rank") as the nonrespondent.

A.3.2 Development of Analysis Weights

The general approach to developing and calibrating analysis weights involved developing design-based weights, d_k, as the inverse of the selection probabilities of the households and persons. Adjustment factors, $a_k(\lambda)$, then were applied to the design-based weights to adjust for nonresponse, to poststratify to known population control totals, and to control for extreme weights when necessary. In view of the importance of State-level estimates with the 50-State design, it was necessary to control for a much larger number of known population totals. Several other modifications to the general weight adjustment strategy that had been used in past surveys also were implemented for the first time beginning with the 1999 CAI sample.

Weight adjustments were based on a generalization of Deville and Särndal's (1992) logit model. This generalized exponential model (GEM) (Folsom & Singh, 2000) incorporates unit-specific bounds (ℓ_k, u_k), $k \in s$, for the adjustment factor $a_k(\lambda)$ as follows:

$$a_k(\lambda) = \frac{\ell_k(u_k - c_k) + u_k(c_k - \ell_k)\exp(A_k x_k'\lambda)}{(u_k - c_k) + (c_k - \ell_k)\exp(A_k x_k'\lambda)} ,$$

where c_k are prespecified centering constants, such that $\ell_k < c_k < u_k$ and $A_k = (u_k - \ell_k) / (u_k - c_k)(c_k - \ell_k)$. The variables ℓ_k, c_k, and u_k are user-specified bounds, and λ is the column vector of p model parameters corresponding to the p covariates x. The λ-parameters are estimated by solving

$$\sum_s x_k d_k a_k(\lambda) - \tilde{T}_x = 0,$$

where $\tilde{T}_x$ denotes control totals that could be either nonrandom, as is generally the case with poststratification, or random, as is generally the case for nonresponse adjustment.

The final weights $w_k = d_k a_k(\lambda)$ minimize the distance function $\Delta(w,d)$ defined as

$$\Delta(w,d) = \sum_{k \in s} \frac{d_k}{A_k} \left\{ (a_k - \ell_k) \log \frac{a_k - \ell_k}{c_k - \ell_k} + (u_k - a_k) \log \frac{u_k - a_k}{u_k - c_k} \right\} .$$

This general approach was used at several stages of the weight adjustment process, including (1) adjustment of household weights for nonresponse at the screener level, (2) poststratification of household weights to meet population controls for various demographic groups by State, (3) adjustment of household weights for extremes, (4) poststratification of selected person weights, (5) adjustment of responding person weights for nonresponse at the questionnaire level, (6) poststratification of responding person weights, and (7) adjustment of responding person weights for extremes.

Every effort was made to include as many relevant State-specific covariates (typically defined by demographic domains within States) as possible in the multivariate models used to calibrate the weights (nonresponse adjustment and poststratification steps). Because further subdivision of State samples by demographic covariates often produced small cell sample sizes, it was not possible to retain all State-specific covariates (even after meaningful collapsing of covariate categories) and still estimate the necessary model parameters with reasonable precision. Therefore, a hierarchical structure was used in grouping States with covariates defined at the national level, at the census division level within the Nation, at the State group within the census division, and, whenever possible, at the State level. In every case, the controls for total population within State and the five age groups (12 to 17, 18 to 25, 26 to 34, 35 to 49, 50 or older) within State were maintained except that, in the last step of poststratification of person weights, six age groups (12 to 17, 18 to 25, 26 to 34, 35 to 49, 50 to 64, 65 or older) were used. Census control totals by age, race, gender, and Hispanicity were required for the civilian, noninstitutionalized population of each State. Beginning with the 2002 NSDUH, the Population Estimates Branch of the U.S. Bureau of the Census produced the necessary population estimates in response to a special request based on the 2000 census.

Consistent with the surveys from 1999 onward, control of extreme weights through separate bounds for adjustment factors was incorporated into the GEM calibration processes for both nonresponse and poststratification. This is unlike the traditional method of winsorization in which extreme weights are truncated at prespecified levels and the trimmed portions of weights are distributed to the nontruncated cases. In GEM, it is possible to set bounds around the prespecified levels for extreme weights, and then the calibration process provides an objective way of deciding the extent of adjustment (or truncation) within the specified bounds. A step was added to poststratify the household-level weights to obtain census-consistent estimates based on the household rosters from all screened households; these household roster-based estimates then provided the control totals needed to calibrate the respondent pair weights for subsequent planned analyses. An additional step poststratified the selected person sample to conform to the

adjusted roster estimates. This additional step takes advantage of the inherent two-phase nature of the NSDUH design. The final step poststratified the respondent person sample to external census data (defined within the State whenever possible, as discussed above). For more detailed information, see the *2003 NSDUH Methodological Resource Book* (RTI International, 2005).

Appendix B: Statistical Methods and Measurement

B.1 Target Population

An important limitation of estimates of drug use prevalence from the National Survey on Drug Use and Health (NSDUH) is that they are only designed to describe the target population of the survey—the civilian, noninstitutionalized population aged 12 or older. Although this population includes almost 98 percent of the total U.S. population aged 12 or older, it excludes some important and unique subpopulations who may have very different drug use patterns. For example, the survey excludes active military personnel, who have been shown to have significantly lower rates of illicit drug use. Also, persons living in institutional group quarters, such as prisons and residential drug use treatment centers, are not included in NSDUH, yet they have been shown in other surveys to have higher rates of illicit drug use. Also excluded are homeless persons not living in a shelter on the survey date; they are another population shown to have higher than average rates of illicit drug use. Since this report is largely focused on the U.S population aged 18 to 64 who were employed full time in the past year, the exclusion of the aforementioned subpopulations has minimal impact. Members of these subgroups are typically not present in the general U.S. workforce.

B.2 Sampling Error and Statistical Significance

The national estimates, along with the associated variance components, were computed using a multiprocedure package, SUDAAN® Software for Statistical Analysis of Correlated Data. SUDAAN was designed for the statistical analysis of data collected using stratified, multistage cluster sampling designs, as well as other observational and experimental studies involving repeated measures or studies subject to cluster correlation effects (RTI International, 2004). The final, nonresponse-adjusted, and poststratified analysis weights were used in SUDAAN to compute unbiased design-based drug use estimates.

The sampling error (i.e., the standard error [SE]) of an estimate is the error caused by the selection of a sample instead of conducting a census of the population. The sampling error may be reduced by selecting a large sample and/or by using efficient sample design and estimation strategies, such as stratification, optimal allocation, and ratio estimation.

With the use of probability sampling methods in NSDUH, it is possible to develop estimates of sampling error from the survey data. These estimates have been calculated in SUDAAN for all estimates presented in this report using a Taylor series linearization approach that takes into account the effects of the complex NSDUH design features. The sampling errors are used to identify unreliable estimates and to test for the statistical significance of differences between estimates.

B.2.1 Variance Estimation for Totals

Estimates of means or proportions, $\hat{p}_d$, such as drug use prevalence estimates for a domain *d*, can be expressed as a ratio estimate

$$\hat{p}_d = \frac{\hat{Y}_d}{\hat{N}_d},$$

where $\hat{Y}_d$ is a linear statistic estimating number of substance users in the domain and $\hat{N}_d$ is a linear statistic estimating the total number of persons in domain *d* (both users and nonusers). The SUDAAN software used to develop estimates and their SEs produces direct estimates of $\hat{Y}_d$ and $\hat{N}_d$ and their SEs. The SUDAAN application also uses a Taylor series approximation method to estimate the SEs of the ratio estimate $\hat{p}_d$.

When the domain size, $\hat{N}_d$, is free of sampling error, an appropriate estimate of the SE for the total number of users is

$$\mathrm{SE}(\hat{Y}_d) = \hat{N}_d \mathrm{SE}(\hat{p}_d).$$

This approach is theoretically correct when the domain size estimates, $\hat{N}_d$, are among those forced to match their respective U.S. Bureau of the Census population projections through the weight calibration process (Chen et al., 2005). In these cases, $\hat{N}_d$ is not subject to sampling error. For a more detailed explanation of the weight calibration process, see Section A.3.2 in Appendix A.

For estimated domain totals, $\hat{Y}_d$, where $\hat{N}_d$ is not fixed (i.e., where domain size estimates are not forced to match the U.S. Bureau of the Census population projections), this formulation may still provide a good approximation if it can be assumed that the sampling variation in $\hat{N}_d$ is negligible relative to the sampling variation in $\hat{p}_d$. This is a reasonable assumption for most cases in this study.

For a subset of the estimates produced from the 2002, 2003, and 2004 data, the above approach yielded an underestimate of the variance of a total because $\hat{N}_d$ was subject to considerable variation. In these cases, the SEs for the total estimates calculated directly within SUDAAN are reported. Using the SEs from the total estimates directly from SUDAAN does not affect the SE estimates for the corresponding proportions presented in the same sets of tables.

B.2.2 Suppression Criteria for Unreliable Estimates

As has been done in past NSDUH reports, direct survey estimates produced for this study that are considered to be unreliable due to unacceptably large sampling errors are not shown in this report and are noted by asterisks (*) in the tables containing such estimates. The criteria used

for suppressing all direct survey estimates were based on the relative standard error (RSE) (defined as the ratio of the SE over the estimate) on nominal sample size and on effective sample size.

Proportion estimates ($\hat{p}$) within the range [$0 < \hat{p} < 1$], rates, and corresponding estimated number of users were suppressed if

$$\text{RSE}[-\ln(\hat{p})] > 0.175 \text{ when } \hat{p} \leq 0.5$$

or

$$\text{RSE}[-\ln(1 - \hat{p})] > 0.175 \text{ when } \hat{p} > 0.5.$$

Using a first-order Taylor series approximation to estimate RSE[$-\ln(\hat{p})$] and RSE[$-\ln(1 - \hat{p})$], the following was obtained and used for computational purposes:

$$\frac{\text{SE}(\hat{p})/\hat{p}}{-\ln(\hat{p})} > 0.175 \text{ when } \hat{p} \leq 0.5$$

or

$$\frac{\text{SE}(\hat{p})/(1-\hat{p})}{-\ln(1-\hat{p})} > 0.175 \text{ when } \hat{p} > 0.5.$$

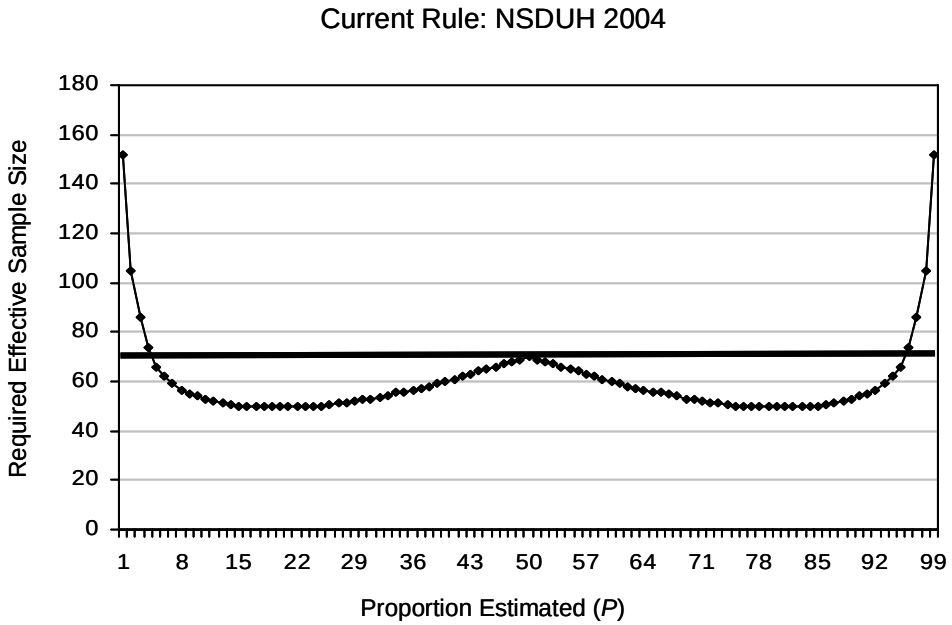
The separate formulas for $\hat{p} \leq 0.5$ and $\hat{p} > 0.5$ produce a symmetric suppression rule (i.e., if $\hat{p}$ is suppressed, then $1 - \hat{p}$ will be as well). This ad hoc rule requires an effective sample size in excess of 50. When $0.05 < \hat{p} < 0.95$, the symmetric property of the rule produces a local maximum effective sample size of 68 at $\hat{p} = 0.5$. Thus, estimates with these values of $\hat{p}$ along with effective sample sizes falling below 68 are suppressed. See Figure B.1 for a graphical representation of the required minimum effective sample sizes as a function of the proportion estimated.

A minimum nominal sample size suppression criterion ($n = 100$) that protects against unreliable estimates caused by small design effects and small nominal sample sizes was employed. Prevalence estimates also were suppressed if they were close to 0 or 100 percent (i.e., if $\hat{p} < 0.00005$ or if $\hat{p} \geq 0.99995$).

Estimates of other totals (e.g., number of initiates) along with means and rates that are not bounded between 0 and 1 (e.g., mean age at first use and incidence rates) were suppressed if the RSEs of the estimates were larger than 0.5. Additionally, estimates of the mean age at first use were suppressed if the sample size was smaller than 10 respondents. Also, the estimated incidence rate and number of initiates were suppressed if they rounded to 0.

The suppression criteria for various NSDUH estimates are summarized in Table B.1 at the end of this appendix.

Figure B.1 Required Effective Sample as a Function of the Proportion Estimated



B.2.3 Statistical Significance of Differences

This section describes the methods used to compare prevalence estimates in this report. Customarily, the observed difference between estimates is evaluated in terms of its statistical significance. Statistical significance is based on the *p* value of the test statistic and refers to the probability that a difference as large as that observed would occur due to random variability in the estimates if there were no difference in the prevalence estimates for the population groups being compared. The significance of observed differences in this report is generally reported at the 0.05 and 0.01 levels. When comparing prevalence estimates, the null hypothesis (no difference between prevalence estimates) was tested against the alternative hypothesis (there is a difference in prevalence estimates) using the standard difference in proportions test expressed as

$$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\text{var}(\hat{p}_1) + \text{var}(\hat{p}_2) - 2\text{cov}(\hat{p}_1, \hat{p}_2)}} \ ,$$

where $\hat{p}_1$ = first prevalence estimate, $\hat{p}_2$ = second prevalence estimate, $\text{var}(\hat{p}_1)$ = variance of first prevalence estimate, $\text{var}(\hat{p}_2)$ = variance of second prevalence estimate, and $\text{cov}(\hat{p}_1, \hat{p}_2)$ = covariance between $\hat{p}_1$ and $\hat{p}_2$. In cases where significance tests between years were performed, the 2003 prevalence estimate becomes the first prevalence estimate and the 2004 estimate becomes the second prevalence estimate.

Under the null hypothesis, *Z* is asymptotically distributed as a normal random variable. Therefore, calculated values of *Z* can be referred to the unit normal distribution to determine the

corresponding probability level (i.e., *p* value). Because the covariance term is not necessarily zero, SUDAAN was used to compute estimates of *Z* along with the associated *p* values using the analysis weights and accounting for the sample design as described in Appendix A. A similar procedure and formula for *Z* were used for estimated totals.

When comparing population subgroups defined by three or more levels of a categorical variable, log-linear Chi-square tests of independence of the subgroups and the prevalence variables were conducted first to control the error level for multiple comparisons. If the Chi-square test indicated overall significant differences, the significance of each particular pairwise comparison of interest was tested using SUDAAN analytic procedures to properly account for the sample design. Using the published estimates and SEs to perform independent *t* tests for the difference of proportions usually will provide the same results as tests performed in SUDAAN. However, where the significance level is borderline, results may differ for two reasons: (1) the covariance term is included in SUDAAN tests whereas it is not included in independent *t* tests, and (2) the reduced number of significant digits shown in the published estimates may cause rounding errors in the independent *t* tests.

B.3 Other Information on Data Accuracy

Errors can occur from nonresponse, coding errors, computer processing errors, errors in the sampling frame, reporting errors, and other errors not due to sampling. These types of errors are reduced through data editing, statistical adjustments for nonresponse, close monitoring and periodic retraining of interviewers, and improvement in various quality control procedures.

Although these types of errors often can be much larger than sampling errors, measurement of most of these errors is difficult. However, some indication of the effects of some types of these errors can be obtained through proxy measures, such as response rates and from other research studies.

B.3.1 Screening and Interview Response Rate Patterns

In 2002, 2003, and 2004, respondents received a $30 incentive in an effort to improve response rates over years prior to 2002. Of the 142,612 eligible households sampled for the 2004 NSDUH, for example, 130,130 were successfully screened for a weighted screening response rate of 90.9 percent (Table B.2). In these screened households, a total of 53,331 persons aged 18 to 64 were selected, and completed interviews were obtained from 43,053 of these sample persons, for a weighted interview response rate of 77.2 percent (Table B.3). Weighted screening response rates for 2002 and 2003 were 90.7 percent in each survey year (Table B.2). Weighted interview response rates were 78.9 percent in 2002 and 77.5 percent in 2003 (Table B.3).

The overall weighted response rate, defined as the product of the weighted screening response rate and weighted interview response rate, was 70.2 percent in 2004. Nonresponse bias can be expressed as the product of the nonresponse rate (1-*R*) and the difference between the characteristic of interest between respondents and nonrespondents in the population (P_r - P_{nr}). Thus, assuming the quantity (P_r - P_{nr}) is fixed over time, the improvement in response rates in 2002 through 2004 over prior years will result in estimates with lower nonresponse bias.

B.3.2 Inconsistent Responses and Item Nonresponse

Among survey participants, item response rates were above 99 percent for most drug use items. However, inconsistent responses for some items were common. Estimates of substance use from NSDUH are based on responses to multiple questions by respondents, so that the maximum amount of information is used in determining whether a respondent is classified as a drug user. Inconsistencies in responses are resolved through a logical editing process that involves some judgment on the part of survey analysts. Additionally, missing or inconsistent responses are imputed using statistical methodology. Editing and imputation of missing responses are potential sources of error.

In addition to reporting substance use prevalence among the full-time employed population as a whole, this population was further divided into subgroups based on responses to workplace questions presented in the noncore employment section of the NSDUH questionnaire. These finer categories included self-reported characteristics of their employer's substance testing policies and treatment programs, as well as respondent's opinions on working for employers who test for substance use at random and during the hiring process. Respondents were further classified into occupational and industry groups using the 2000 Standard Occupational Classification (SOC) and the North American Industry Classification System. For all these workplace measures, item nonresponse was present. Respondents had unknown information as a result of refusing to answer certain questions or being unable to answer. While standard NSDUH logical editing procedures were implemented, unknown responses to these noncore questions were not imputed. For this report, all reported estimates pertaining to a workplace-related characteristic are based on only those respondents who had complete data for all of the workplace items. That is, respondents with unknown information for a given workplace measure or categorization were excluded from any and all analysis regarding that workplace topic.

B.3.3 Validity of Self-Reported Use

Most drug use prevalence estimates, including those produced for NSDUH, are based on self-reports of use. Although studies have generally supported the validity of self-report data, it is well documented that these data often are biased (underreported or overreported) by several factors, including the mode of administration, the population under investigation, and the type of drug (Bradburn & Sudman, 1983; Hser & Anglin, 1993). Higher levels of bias also are observed among younger respondents and those with higher levels of drug use (Biglan, Gilpin, Rorhbach, & Pierce, 2004). Methodological procedures, such as biological specimens (e.g., urine, hair, saliva), proxy reports (e.g., family member, peer), and repeated measures (e.g., recanting), have been used to validate self-report data (Fendrich, Johnson, Sudman, Wislar, & Spiehler, 1999). However, these procedures often are impractical or too costly for community-based epidemiological studies (SRNT Subcommittee on Biochemical Verification, 2002). NSDUH utilizes widely accepted methodological practices for ensuring validity, such as encouraging privacy through audio computer-assisted self-interviewing (ACASI). Comparisons using these methods within NSDUH have been shown to reduce reporting bias (Aquilino, 1994; Turner, Lessler, & Gfroerer, 1992).

B.4 Measurement Issues

A measurement issue associated with the 2004 NSDUH that may be of interest and is discussed in this section includes the methods for measuring substance dependence and abuse.

B.4.1 Illicit Drug and Alcohol Dependence and Abuse

The 2004 NSDUH CAI instrumentation included questions that were designed to measure dependence on and abuse of illicit drugs and alcohol. For these substances,[1] dependence and abuse questions were based on the criteria in the DSM-IV (APA, 1994).

Specifically, for marijuana, hallucinogens, inhalants, and tranquilizers, a respondent was defined as having dependence if he or she met three or more of the following six dependence criteria:

1. Spent a great deal of time over a period of a month getting, using, or getting over the effects of the substance.
2. Used the substance more often than intended or was unable to keep set limits on the substance use.
3. Needed to use the substance more than before to get desired effects or noticed that same amount of substance use had less effect than before.
4. Inability to cut down or stop using the substance every time tried or wanted to.
5. Continued to use the substance even though it was causing problems with emotions, nerves, mental health, or physical problems.
6. The substance use reduced or eliminated involvement or participation in important activities.

For alcohol, cocaine, heroin, pain relievers, sedatives, and stimulants, a respondent was defined as having dependence if he or she met three or more of seven dependence criteria, including the six standard criteria listed above plus a seventh withdrawal symptom criterion. The seventh withdrawal criterion is defined by a respondent reporting having experienced a certain number of withdrawal symptoms that vary by substance (e.g., having trouble sleeping, cramps, hands tremble).

For each illicit drug and alcohol, a respondent was defined as having abused that substance if he or she met one or more of the following four abuse criteria and was determined not to be dependent on the respective substance in the past year.

1. Serious problems at home, work, or school caused by the substance, such as neglecting your children, missing work or school, doing a poor job at work or school, or losing a job or dropping out of school.

[1] Substances include alcohol, marijuana, cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, and sedatives.

2. Used the substance regularly and then did something that might have put you in physical danger.
3. Use of the substance caused you to do things that repeatedly got you in trouble with the law.
4. Had problems with family or friends that were probably caused by using the substance and continued to use the substance even though you thought the substance use caused these problems.

Criteria used to determine whether a respondent was asked the dependence and abuse questions included responses from core substance use and frequency of substance use questions, as well as noncore substance use questions. Unknown responses in the core substance use and frequency of substance use questions were imputed. However, the imputation process did not take into account reported data in the noncore (i.e., substance dependence and abuse) CAI modules. Responses to the dependence and abuse questions that were inconsistent with the imputed substance use or frequency of substance use could have existed. Because different criteria and different combinations of criteria were used as skip logic for each substance, different types of inconsistencies may have occurred for certain substances between responses to the dependence and abuse questions and the imputed substance use and frequency of substance use as described below.

For alcohol and marijuana, respondents were asked the dependence and abuse questions if they reported substance use in the past year but did not report their frequency of substance use in the past year. Therefore, inconsistencies could have occurred where the imputed frequency of use response indicated less frequent use than required for respondents to be asked the dependence and abuse questions originally.

For cocaine, heroin, and stimulants, respondents were asked the dependence and abuse questions if they reported past year use in a core drug module or past year use in the noncore special drugs module. Thus, inconsistencies could have occurred when the response to a core substance use question indicated no use in the past year, but responses to dependence and abuse questions indicated substance dependence or abuse for the respective substance.

A respondent might have provided ambiguous information about past year use of any individual substance, in which case these respondents were not asked the dependence and abuse questions for that substance. Subsequently, these respondents could have been imputed to be past year users of the respective substance. In this situation, the dependence and abuse data were unknown; thus, these respondents were classified as not dependent on or abusing the respective substance. However, the respondent was never actually asked the dependence and abuse questions.

Table B.1 Summary of 2004 NSDUH Suppression Rules

Estimate	Suppress if:
Prevalence rate, $\hat{p}$, with nominal sample size, *n*, and design effect, *deff*	(1) The estimated prevalence rate, $\hat{p}$, is < 0.00005 or ≥ 0.99995, or (2) $\frac{\text{SE}(\hat{p}) \ / \ \hat{p}}{-\ln(\hat{p})} > 0.175$ when $\hat{p} \le 0.5$, or $\frac{\text{SE}(\hat{p}) \ / \ (1 - \hat{p})}{-\ln(1 - \hat{p})} > 0.175$ when $\hat{p} > 0.5$, or (3) Effective $n < 68$, where Effective $n = \frac{n}{deff}$ or (4) $n < 100$. Note: The rounding portion of this suppression rule for prevalence rates will produce some estimates that round at one decimal place to 0.0 or 100.0 percent but are not suppressed from the tables.
Estimated number (numerator of $\hat{p}$)	The estimated prevalence rate, $\hat{p}$, is suppressed. Note: In some instances when $\hat{p}$ is not suppressed, the estimated number may appear as a 0 in the tables. This means that the estimate is greater than 0 but less than 500 (estimated numbers are shown in thousands).
Mean age at first use, $\bar{x}$, with nominal sample size, *n*	(1) $\text{RSE}(\bar{x}) > 0.5$, or (2) $n < 10$.
Incidence rate, $\hat{r}$	(1) The incidence rate, $\hat{r}$, rounds to < 0.1 per 1,000 person-years of exposure, or (2) $\text{RSE}(\hat{r}) > 0.5$.
Number of initiates, $\hat{t}$	(1) The number of initiates, $\hat{t}$, rounds to < 1,000 initiates, or (2) $\text{RSE}(\hat{t}) > 0.5$.

SE = standard error; RSE = relative standard error; deff = design effect.
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2004.

Table B.2 Weighted Percentages and Sample Sizes for 2002, 2003, and 2004 NSDUHs, by Screening Result Code

	Sample Size			Weighted Percentage		
	2002	2003	2004	2002	2003	2004
Total Sample	178,013	170,762	169,514	100.00	100.00	100.00
Ineligible cases	27,851	27,277	26,902	15.27	15.84	15.76
Eligible cases	150,162	143,485	142,612	84.73	84.16	84.24
Ineligibles	27,851	27,277	26,902	15.27	15.84	15.76
Vacant	14,417	14,588	15,204	51.55	52.56	56.24
Not a primary residence	4,580	4,377	4,122	17.36	17.07	15.54
Not a dwelling unit	2,403	2,349	2,062	8.16	8.08	7.51
All military personnel	289	356	282	1.08	1.39	1.07
Other, ineligible	6,162	5,607	5,232	21.86	20.90	19.65
Eligible Cases	150,162	143,485	142,612	84.73	84.16	84.24
Screening complete	136,349	130,605	130,130	90.72	90.72	90.92
No one selected	80,557	74,310	73,732	53.14	51.04	50.86
One selected	30,738	30,702	30,499	20.58	21.46	21.53
Two selected	25,054	25,593	25,899	17.00	18.22	18.53
Screening not complete	13,813	12,880	12,482	9.28	9.28	9.08
No one home	3,031	2,446	2,207	2.02	1.68	1.55
Respondent unavailable	411	280	259	0.26	0.18	0.18
Physically or mentally incompetent	307	290	265	0.20	0.18	0.17
Language barrier—Hispanic	66	42	51	0.05	0.03	0.04
Language barrier—Other	461	450	391	0.35	0.39	0.32
Refusal	8,556	8,414	8,588	5.86	5.98	6.10
Other, access denied	471	923	660	0.30	0.81	0.67
Other, eligible	12	12	10	0.01	0.01	0.01
Resident < 1/2 of quarter	0	0	0	0.00	0.00	0.00
Segment not accessible	0	0	0	0.00	0.00	0.00
Screener not returned	15	16	15	0.01	0.01	0.01
Fraudulent case	479	6	14	0.21	0.00	0.02
Electronic screening problem	4	1	22	0.00	0.00	0.02

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table B.3 Response Rates and Sample Sizes for Persons Aged 18 to 64 in the 2002, 2003, and 2004 NSDUHs, by Demographic Characteristics

	Selected Persons			Completed Interviews			Weighted Response Rate		
	2002	2003	2004	2002	2003	2004	2002	2003	2004
Total	51,129	52,726	53,331	42,215	42,708	43,053	78.85%	77.53%	77.23%
Age in Years									
18-25	27,216	27,259	27,408	23,271	22,941	23,075	85.16%	83.47%	83.87%
26-34	7,672	8,060	8,052	6,191	6,371	6,366	79.41%	78.69%	78.61%
35-49	12,076	12,604	12,907	9,616	9,829	9,927	78.95%	77.20%	75.96%
50-64	4,165	4,803	4,964	3,137	3,567	3,685	73.89%	73.12%	73.61%
Gender									
Male	24,676	25,432	25,838	19,721	19,943	20,279	76.17%	74.98%	74.83%
Female	26,453	27,294	27,493	22,494	22,765	22,774	81.47%	79.97%	79.53%
Race/Ethnicity									
Hispanic	6,582	7,061	7,273	5,345	5,687	5,869	79.62%	79.07%	78.25%
White	35,387	36,437	36,364	29,189	29,515	29,209	78.85%	77.59%	77.13%
Black	5,702	5,769	5,888	4,884	4,824	5,010	82.60%	79.71%	82.68%
All other races	3,458	3,459	3,806	2,797	2,682	2,965	70.46%	69.36%	66.73%
Region									
Northeast	10,521	10,837	10,884	8,544	8,625	8,626	76.44%	76.06%	75.47%
Midwest	14,283	14,666	14,794	11,861	12,028	11,899	80.39%	78.47%	77.73%
South	15,514	15,857	16,133	12,927	12,915	13,246	80.25%	78.48%	79.06%
West	10,811	11,366	11,520	8,883	9,140	9,282	77.13%	76.31%	75.30%
County Type									
Large metro	20,637	23,866	24,382	16,637	18,804	19,188	77.06%	75.42%	75.74%
Small metro	18,145	18,083	18,017	15,141	15,018	14,819	79.90%	80.16%	78.48%
Nonmetro	12,347	10,777	10,932	10,437	8,886	9,046	81.92%	79.96%	80.07%

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003 and 2004.

Appendix C: Key Definitions, 2002-2004

This appendix provides definitions for many of the measures and terms used in this report on the National Survey on Drug Use and Health (NSDUH). Where relevant, cross-references also are provided. For some key terms, specific question wording, including "feeder questions" that precede the question(s), is provided for clarity.

Abuse

A respondent was defined with abuse of a substance if he or she met one or more of the four criteria for abuse included in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (American Psychiatric Association [APA], 1994) and did not meet the definition for dependence for that substance. Additional criteria for alcohol and marijuana abuse are that if respondents reported a specific number of days that they used these drugs in the past 12 months, they must have used these drugs on 6 or more days in that period. These questions have been included in the survey since 2000.

SEE: "Prevalence."

Age

Age of the respondent was defined as "age at time of interview." The interview program calculated the respondent's age from the date of birth and interview date. The interview program prompts the interviewer to confirm the respondent's age after it has been calculated.

Alcohol Use

Measures of use of alcohol in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last drank an alcoholic beverage?"

Feeder question: "The next questions are about alcoholic beverages, such as, beer, wine, brandy, and mixed drinks. Listed on the next screen are examples of the types of beverages we are interested in. Please review this list carefully before you answer these questions. These questions are about drinks of alcoholic beverages. Throughout these questions, by a 'drink,' we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. We are not asking about times when you only had a sip or two from a drink. Have you ever, even once, had a drink of an alcoholic beverage? Please do not include times when you only had a sip or two from a drink."

SEE: "Binge Use of Alcohol," "Current Use," "Heavy Use of Alcohol," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

American Indian or Alaska Native

American Indian or Alaska Native only, not of Hispanic, Latino, or Spanish origin (including North American, Central American, or South American Indian); does not include respondents reporting two or more races. (Respondents reporting that they were American Indians or Alaska Natives and of Hispanic, Latino, or Spanish origin were classified as Hispanic.)

SEE: "Hispanic" and "Race/Ethnicity."

Asian

Asian only, not of Hispanic, Latino, or Spanish origin; does not include respondents reporting two or more races. (Respondents reporting that they were Asian and of Hispanic, Latino, or Spanish origin were classified as Hispanic.) Specific Asian groups that were asked about were Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and "Other Asian."

SEE: "Hispanic" and "Race/Ethnicity."

Black

Black/African American only, not of Hispanic, Latino, or Spanish origin; does not include respondents reporting two or more races. (Respondents reporting that they were black or African American and of Hispanic, Latino, or Spanish origin were classified as Hispanic.)

SEE: "Hispanic" and "Race/Ethnicity."

College Enrollment Status

Respondents aged 18 to 22 were classified as full-time undergraduate students or as some other status (including part-time students, students in other grades, or nonstudents). Respondents were classified as full-time students if they reported that they were attending (or will be attending) their first through fourth year of college or university and that they were (or will be) a full-time student. Respondents whose current enrollment status was unknown were excluded from the analysis.

County Type

Geographic comparisons also are made based on urban influence county type, which reflects different levels of population size, urbanization, and access to larger communities based on county-level Urban Influence Codes (UIC) created by the Economic Research Service (ERS) of the U.S. Department of Agriculture

(USDA). The codes group metropolitan and nonmetropolitan counties according to the official county-level metro status issued by the Office of Management and Budget (OMB) in June 2003 (OMB, 2003). Each county is either inside or outside a metropolitan statistical area (MSA), as defined by the OMB. The definitions of urban influence county type are different than county-type definitions used in other NSDUH reports. The definitions for this report are based on UIC, whereas the 2004 national findings (OAS, 2005) definitions are based on Rural-Urban Continuum Codes (RUCC).

Large MSAs have a population of 1 million or more. Small MSAs have a population of fewer than 1 million. Nonmetropolitan areas are areas outside MSAs that have been categorized into four groups based on UIC. The first group consists of micropolitan statistical areas (MiSAs), which include a county with an urban cluster of at least 10,000 persons or more and any additional counties where commuting to the central county is 25 percent or higher, or where 25 percent of the employment in an outlying county is made up of commuters from the central county. The remaining three groups of nonmetropolitan areas consist of noncore counties and are divided based on their adjacency to larger areas and whether or not they have their "own town" of at least 2,500 residents. The "noncore adjacent with town" group includes those areas that are adjacent to a large MSA, adjacent to a small MSA and have their own town, or adjacent to a MiSA and have their own town. Noncore areas that have no town of their own but are adjacent to a small MSA or MiSA compose the "noncore adjacent, no town" group. The "noncore rural, not adjacent" group consists of counties that are not adjacent to any MSA or MiSA and have no town of their own.

Current Use

Any reported use of a specific drug in the past 30 days.

SEE: "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Dependence

A respondent was defined with dependence on illicit drugs or alcohol if he or she met three out of seven dependence criteria (for substances that included questions to measure a withdrawal criterion) or three out of six criteria (for substances that did not include withdrawal questions) for that substance, based on criteria included in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (APA, 1994). Additional criteria for alcohol and marijuana dependence since 2000 are that if respondents reported a specific number of days that they used these drugs in the past 12 months, they must have used these drugs on 6 or more days

in that period. This definition did not apply to Nicotine (Cigarette) Dependence.

SEE: "Prevalence."

Education

This is the measure of educational attainment among respondents who are aged 18 or older. It is based on respondents' reports of their highest grade or year of school that they completed. Response alternatives were presented in terms of single years of education, ranging from 0 if respondents never attended school to 17 if respondents completed 5 or more years at the college or university level. Respondents were classified into four categories based on their answers: less than high school, high school graduate, some college, and college graduate. Persons who completed postgraduate work were classified as college graduates.

Employment

Respondents were asked to report whether they worked in the week prior to the interview, and if not, whether they had a job despite not working in the past week. Respondents who worked in the past week or who reported having a job despite not working were asked whether they usually work 35 or more hours per week. Respondents who did not work in the past week but had a job were asked to look at a card that described why they did not work in the past week despite having a job. Respondents who did not have a job in the past week were asked to look at a different card that described why they did not have a job in the past week.

Full-time "Full-time" in the tables includes respondents who usually work 35 or more hours per week and who worked in the past week or had a job despite not working in the past week.

Part-time "Part-time" in the tables includes respondents who usually work fewer than 35 hours per week and who worked in the past week or had a job despite not working in the past week.

Unemployed "Unemployed" in the tables refers to respondents who did not have a job, were on layoff, and were looking for work. For consistency with the Current Population Survey definition of unemployment, respondents who reported that they did not have a job but were looking for work needed to report making specific efforts to find work in the past 30 days.

Other "Other" includes all other responses, including being a student, someone who is keeping house or caring for children full time, retired, disabled, or other miscellaneous work statuses. Respondents who reported that they did not have a job, were on layoff, and were not looking for work were classified as not being in the labor force. Similarly, respondents who reported not having a job and looking for work also were classified as not being in the labor force if they did not report making specific efforts to find work in the past 30 days.

Establishment Size Data are presented for the number of persons who work for an employer and include less than 10 employees, 10 to 24 employees, 25 to 99 employees, 100 to 499 employees, and 500 or more employees.

Ethnicity SEE: "Race/Ethnicity."

Ever Use SEE: "Lifetime Use."

Family Income Family income was ascertained by asking respondents: "Of these income groups, which category best represents (your/SAMPLE MEMBER's) total combined family income during [the previous calendar year]? (Income data are important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.)"

NOTE: For respondents who were unable to respond to the insurance or income questions, proxy responses were accepted from a household member identified as being better able to give the correct information about insurance and income.

Geographic Division Data are presented for nine geographic divisions within the four geographic regions. Within the ***Northeast Region*** are the *New England Division* (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) and the *Middle Atlantic Division* (New Jersey, New York, Pennsylvania). Within the ***Midwest Region*** are the *East North Central Division* (Illinois, Indiana, Michigan, Ohio, Wisconsin) and the *West North Central Division* (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota). Within the ***South Region*** are the *South Atlantic Division* (Delaware, District of Columbia, Florida,

Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia), the *East South Central Division* (Alabama, Kentucky, Mississippi, Tennessee), and the *West South Central Division* (Arkansas, Louisiana, Oklahoma, Texas). Within the ***West Region*** are the *Mountain Division* (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming) and the *Pacific Division* (Alaska, California, Hawaii, Oregon, Washington).

SEE: "Region."

Heavy Use of Alcohol

Heavy use of alcohol was defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on 5 or more days in the past 30 days. Heavy alcohol users also were defined as binge users of alcohol.

Feeder question: "How long has it been since you last drank an alcoholic beverage?"

SEE: "Alcohol Use" and "Binge Use of Alcohol."

Hispanic

Hispanic was defined as anyone of Hispanic, Latino, or Spanish origin. Respondents were classified as Hispanic in the race/ethnicity measure regardless of race.

SEE: "American Indian or Alaska Native," "Asian," "Black," "Race/Ethnicity," "Two or More Races," and "White."

Illicit Drugs

Illicit drugs include marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP], lysergic acid diethylamide [LSD], and Ecstasy [MDMA]), heroin, or prescription-type psychotherapeutics used nonmedically, which include stimulants, sedatives, tranquilizers, and pain relievers. Illicit drug use refers to use of any of these drugs.

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," "Psychotherapeutic Drugs," and "Recency of Use."

Income

SEE: "Family Income."

Industry

Data are provided for the business or industry in which a person currently works. The North American Industry Classification System (NAICS) is used to classify industries in the report. The NAICS replaced the Standard Industry Classification (SIC) and categorizes all industries into 19 major groups. Industries are organized within the NAICS by the processes used to produce

goods or services. This report focuses on these major groups, but a more detailed analysis of industry classifications can be found in Appendix D.

Large MSA

SEE: "County Type."

Lifetime Use

Lifetime use indicates use of a specific drug at least once in the respondent's lifetime. This measure includes respondents who also reported last using the drug in the past 30 days or past 12 months.

SEE: "Current Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Low Precision

Prevalence estimates based on only a few respondents or with relatively large standard errors were not shown in the tables, but have been replaced with an asterisk (*) and noted as "low precision." These estimates have been omitted because one cannot place a high degree of confidence in their accuracy. See Table B.1 in Appendix B for a complete list of the rules used to determine low precision.

Marijuana Use

Measures of use of marijuana in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used marijuana or hashish?" Responses to questions about use of cigars with marijuana in them (blunts) were not included in these measures.

Feeder question: "The next questions are about marijuana and hashish. Marijuana is also called pot or grass. Marijuana is usually smoked—either in cigarettes called joints, or in a pipe. It is sometimes cooked in food. Hashish is a form of marijuana that is also called *hash*. It is usually smoked in a pipe. Another form of hashish is hash oil. Have you ever, even once, used marijuana or hash?"

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," "Prevalence," and "Recency of Use."

Midwest Region

The States included are those in the East North Central Division—Illinois, Indiana, Michigan, Ohio and Wisconsin—and the West North Central Division—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

SEE: "Geographic Division" and "Region."

MiSA

SEE: "County Type."

Native Hawaiian or Other Pacific Islander

Native Hawaiian or Other Pacific Islander, not of Hispanic, Latino, or Spanish origin; does not include respondents reporting two or more races. (Respondents reporting that they were Native Hawaiian or Other Pacific Islander and of Hispanic, Latino, or Spanish origin were classified as Hispanic.)

SEE: "Hispanic" and "Race/Ethnicity."

Nonmetro

SEE: "County Type."

Northeast Region

The States included are those in the New England Division—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont—and the Middle Atlantic Division—New Jersey, New York, and Pennsylvania.

SEE: "Geographic Division" and "Region."

Occupation

Data are provided for the kind of work or occupation in which a person currently works. The occupations are coded into groups using the 2000 Standard Occupational Classification (SOC) released by the U.S. Department of Labor, Bureau of Labor Statistics, which categorizes all occupations into 21 major groups. Within these major groups are 96 minor groups, 449 broad occupations, and 821 detailed occupations. Occupations with similar skills or work activities are grouped at each of the four levels of hierarchy to facilitate comparisons. This report focuses on these major groups, but a more detailed analysis of occupational classifications can be found in the Appendix D.

Past Month Use

This measure indicates use of a specific drug in the 30 days prior to the interview. Respondents who indicated past month use of a specific drug also were classified as lifetime and past year users.

SEE: "Current Use," "Lifetime Use," "Past Year Use," "Prevalence," and "Recency of Use."

Past Year Use

This measure indicates use of a specific drug in the 12 months prior to the interview. This definition includes those respondents who last used the drug in the 30 days prior to the interview. Respondents who indicated past year use of a specific drug also were classified as lifetime users.

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Prevalence," and "Recency of Use."

Percentages

In this report, all of the 2004 tables contain percentages based on weighted data.

SEE: "Rounding."

Prevalence

General term used to describe the estimates for lifetime, past year, and past month substance use, dependence or abuse, or other behaviors of interest within a given period (e.g., the past 12 months). The latter include delinquent behavior, driving under the influence of alcohol or drugs, perceived help from treatment for mental health problems, perceived need for alcohol or illicit drug use treatment, serious psychological distress, treatment for mental health problems, treatment for a substance use problem, and unmet need for treatment for mental health problems.

SEE: "Abuse," "Current Use," "Dependence," and "Recency of Use."

Race/Ethnicity

Race/ethnicity is used to refer to the respondent's self-classification as to racial and ethnic origin and identification. For Hispanic origin, respondents were asked, "Are you of Hispanic, Latino, or Spanish origin or descent?" For race, respondents were asked, "Which of these groups best describes you?" Response alternatives were (1) white, (2) black/African American, (3) American Indian or Alaska Native, (4) Native Hawaiian, (5) Other Pacific Islander, (6) Asian, and (7) Other. Categories for race/ethnicity included Hispanic; non-Hispanic groups where respondents indicated only one race (white, black, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Asian); and non-Hispanic groups where respondents reported two or more races. These categories are based on classifications developed by the U.S. Bureau of the Census.

SEE: "American Indian or Alaska Native," "Asian," "Black," "Hispanic," "Native Hawaiian or Other Pacific Islander," "Two or More Races," and "White."

Recency of Use

The recency question for each drug was the source for the lifetime, past year, and past month prevalence estimates.

The question was essentially the same for all classes of drugs. The question was: "How long has it been since you last used [drug name]?" For the four classes of psychotherapeutics, the phrase

"that was not prescribed for you or only for the experience or feeling it caused" was added after the name of the drug.

For tobacco products (cigarettes, snuff, chewing tobacco, or cigars), the response alternatives were (1) within the past 30 days; (2) more than 30 days ago but within the past 12 months; (3) more than 12 months ago but within the past 3 years; and (4) more than 3 years ago. For the remaining drugs, the response alternatives were (1) within the past 30 days; (2) more than 30 days ago but within the past 12 months; and (3) more than 12 months ago.

SEE: "Current Use," "Lifetime Use," "Past Month Use," "Past Year Use," and "Prevalence."

Region

There were four regions to consider: Northeast, Midwest, South, and West. These regions are based on classifications developed by the U.S. Bureau of the Census.

SEE: "Geographic Division," "Midwest Region," "Northeast Region," "South Region," and "West Region."

Rounding

The decision rules for the rounding of percentages were as follows. If the second number to the right of the decimal point was greater than or equal to 5, the first number to the right of the decimal point was rounded up to the next higher number. If the second number to the right of the decimal point was less than 5, the first number to the right of the decimal point remained the same. Thus, a prevalence estimate of 16.55 percent would be rounded to 16.6 percent, while an estimate of 16.44 percent would be rounded to 16.4 percent. Although the percentages in the 2004 tables generally total 100 percent, the use of rounding sometimes produces a total of slightly less than or more than 100 percent.

SEE: "Percentages."

Significance

In tables in which trends are shown, the levels of significance for the changes between the two most recent survey years are noted as follows: 0.05 and 0.01. A significance level of 0.05 is used in comparing two estimates in the text for demographic subgroups of the most recent survey sample.

Small MSA

SEE: "County Type."

South Region

The States included are those in the South Atlantic Division—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the East

South Central Division—Alabama, Kentucky, Mississippi, and Tennessee; and the West South Central Division—Arkansas, Louisiana, Oklahoma, and Texas.

SEE: "Geographic Division" and "Region."

Two or More Races

Respondents were asked to report which racial group describes them. Response alternatives were (1) white, (2) black/African American, (3) American Indian or Alaska Native, (4) Native Hawaiian, (5) Other Pacific Islander, (6) Asian, and (7) Other. Respondents were allowed to choose more than one of these groups. Persons who chose both the "Native Hawaiian" and "Other Pacific Islander" categories (and no additional categories) were classified in a single category: Native Hawaiian or Other Pacific Islander. Otherwise, persons reporting two or more of the above groups and that they were not of Hispanic, Latino, or Spanish origin were included in a "Two or More Races" category. This category does not include respondents who reported more than one Asian subgroup but who reported "Asian" as their only race. Respondents reporting two or more races and reporting that they were of Hispanic, Latino, or Spanish origin were classified as Hispanic.

SEE: "Hispanic" and "Race/Ethnicity."

West Region

The States included are those in the Mountain Division—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; and the Pacific Division—Alaska, California, Hawaii, Oregon, and Washington.

SEE: "Geographic Division" and "Region."

White

White, not of Hispanic, Spanish, or Latino origin; does not include respondents reporting two or more races. (Respondents reporting that they were white and of Hispanic, Latino, or Spanish origin were classified as Hispanic.)

SEE: "Hispanic" and "Race/Ethnicity."

Workplace Testing

Respondents were asked if they would be more likely or less likely to want to work for an employer who tests for drug or alcohol use before hiring or on a random basis.

Appendix D: Occupational and Industry Classifications

D.1 Occupational Classification System

2000 Census code	Occupation category
	Executive, Administrative, and Managerial Occupations
0010	Chief Executives
0020	General and Operations Managers
0030	Legislators
0040	Advertising and Promotions Managers
0050	Marketing and Sales Managers
0060	Public Relations Managers
0100	Administrative Services Managers
0110	Computer and Information Systems Managers
0120	Financial Managers
0130	Human Resources Managers
0140	Industrial Production Managers
0150	Purchasing Managers
0160	Transportation, Storage, and Distribution Managers
0200	Farm, Ranch, and Other Agricultural Managers
0210	Farmers and Ranchers
0220	Construction Managers
0230	Education Administrators
0300	Engineering Managers
0310	Food Service Managers
0320	Funeral Directors
0330	Gaming Managers
0340	Lodging Managers
0350	Medical and Health Services Managers
0360	Natural Sciences Managers
0400	Postmasters and Mail Superintendents
0410	Property, Real Estate, and Community Association Managers
0420	Social and Community Service Managers
0430	Managers, All Other
	Management Related Occupations
0500	Agents and Business Managers of Artists, Performers, and Athletes
0510	Purchasing Agents and Buyers, Farm Products
0520	Wholesale and Retail Buyers, Except Farm Products
0530	Purchasing Agents, Except Wholesale, Retail, and Farm Products
0540	Claims Adjusters, Appraisers, Examiners, and Investigators
0560	Compliance Officers, Except Agriculture, Construction, Health And Safety, And Transportation
0600	Cost Estimators
0620	Human Resources, Training, and Labor Relations Specialists
0700	Logisticians
0710	Management Analysts
0720	Meeting and Convention Planners
0730	Other Business Operations Specialists
	Financial Related Occupations
0800	Accountants and Auditors
0810	Appraisers and Assessors of Real Estate
0820	Budget Analysts
0830	Credit Analysts
0840	Financial Analysts
0850	Personal Financial Advisors

2000 Census code	Occupation category
	Financial Related Occupations-Con
0860	Insurance Underwriters
0900	Financial Examiners
0910	Loan Counselors and Officers
0930	Tax Examiners, Collectors, and Revenue Agents
0940	Tax Preparers
0950	Financial Specialists, All Other
	Mathematical and Computer Scientists
1000	Computer Scientists and Systems Analysts
1010	Computer Programmers
1020	Computer Software Engineers
1040	Computer Support Specialists
1060	Database Administrators
1100	Network and Computer Systems Administrators
1110	Network Systems and Data Communications Analysts
1200	Actuaries
1210	Mathematicians
1220	Operations Research Analysts
1230	Statisticians
1240	Miscellaneous Mathematical Occupations
	Engineers, Architects, and Surveyors
1300	Architects, Except Naval
1310	Surveyors, Cartographers, and Photogrammetrists
1320	Aerospace Engineers
1330	Agricultural Engineers
1340	Biomedical Engineers
1350	Chemical Engineers
1360	Civil Engineers
1400	Computer Hardware Engineers
1410	Electrical and Electronics Engineers
1420	Environmental Engineers
1430	Industrial Engineers, Including Health and Safety
1440	Marine Engineers and Naval Architects
1450	Materials Engineers
1460	Mechanical Engineers
	Engineers, Including Mining Safety Engineers
1510	Nuclear Engineers
1520	Petroleum Engineers
1530	Engineers, All Other
	Engineering and Related Technicians
1540	Drafters
1550	Engineering Technicians, Except Drafters
1560	Surveying and Mapping Technicians
	Physical Scientists
1600	Agricultural and Food Scientists
1610	Biological Scientists
1640	Conservation Scientists and Foresters
1650	Medical Scientists
1700	Astronomers and Physicists
1710	Atmospheric and Space Scientists
1720	Chemists and Materials Scientists
1740	Environmental Scientists and Geoscientists
1760	Physical Scientists, All Other

2000 Census code	Occupation category
	Social Scientists and Related Workers
1800	Economists
1810	Market and Survey Researchers
1820	Psychologists
1830	Sociologists
1840	Urban and Regional Planners
1860	Miscellaneous Social Scientists and Related Workers
	Life, Physical, and Social Science Technicians
1900	Agricultural and Food Science Technicians
1910	Biological Technicians
1920	Chemical Technicians
1930	Geological and Petroleum Technicians
1940	Nuclear Technicians
1960	Other Life, Physical, and Social Science Technicians
	Counselors, Social, and Religious Workers
2000	Counselors
2010	Social Workers
2020	Miscellaneous Community and Social Service Specialists
2040	Clergy
2050	Directors, Religious Activities and Education
2060	Religious Workers, All Other
	Lawyers, Judges, and Legal Support Workers
2100	Lawyers
2110	Judges, Magistrates, and Other Judicial Workers
2140	Paralegals and Legal Assistants
2150	Miscellaneous Legal Support Workers
	Teachers
2200	Postsecondary Teachers
2300	Preschool and Kindergarten Teachers
2310	Elementary and Middle School Teachers
2320	Secondary School Teachers
2330	Special Education Teachers
2340	Other Teachers and Instructors
	Education, Training and Library Workers
2400	Archivists, Curators, and Museum Technicians
2430	Librarians
2440	Library Technicians
2540	Teacher Assistants
2550	Other Education, Training, and Library Workers
	Entertainers and Performers, Sports and Related Workers
2600	Artists and Related Workers
2630	Designers
2700	Actors
2710	Producers and Directors
2720	Athletes, Coaches, Umpires, and Related Workers
2740	Dancers and Choreographers
2750	Musicians, Singers, and Related Workers
2760	Entertainers and Performers, Sports and Related Workers, All Other

2000 Census code	Occupation category
	Media and Communication Workers
2800	Announcers
2810	News Analysts, Reporters and Correspondents
2820	Public Relations Specialists
2830	Editors
2840	Technical Writers
2850	Writers and Authors
2860	Miscellaneous Media and Communication Workers
2900	Broadcast and Sound Engineering Technicians and Radio Operators
2910	Photographers
2920	Television, Video, and Motion Picture Camera Operators and Editors
2960	Media and Communication Equipment Workers, All Other
	Health Diagnosing and Treating Practitioners
3000	Chiropractors
3010	Dentists
3030	Dietitians and Nutritionists
3040	Optometrists
3050	Pharmacists
3060	Physicians and Surgeons
	Health Diagnosing and Treating Practitioners
3110	Physician Assistants
3120	Podiatrists
3130	Registered Nurses
3140	Audiologists
3150	Occupational Therapists
3160	Physical Therapists
3200	Radiation Therapists
3210	Recreational Therapists
3220	Respiratory Therapists
3230	Speech-Language Pathologists
3240	Therapists, All Other
3250	Veterinarians
3260	Health Diagnosing and Treating Practitioners, All Other
	Health Care Technical and Support Occupations
3300	Clinical Laboratory Technologists and Technicians
3310	Dental Hygienists
3320	Diagnostic Related Technologists and Technicians
3400	Emergency Medical Technicians and Paramedics
3410	Health Diagnosing and Treating Practitioner Support Technicians
3500	Licensed Practical and Licensed Vocational Nurses
3510	Medical Records and Health Information Technicians
3520	Opticians, Dispensing
3530	Miscellaneous Health Technologists and Technicians
3540	Other Healthcare Practitioners and Technical Occupations

2000 Census code	Occupation category
	Health Care Technical and Support Occupations-con
3600	Nursing, Psychiatric, and Home Health Aides
3610	Occupational Therapist Assistants and Aides
3620	Physical Therapist Assistants and Aides
3630	Massage Therapists
3640	Dental Assistants
3650	Medical Assistants and Other Healthcare Support Occupations
	Protective Service Occupations
3700	First-Line Supervisors/Managers of Correctional Officers
3710	First-Line Supervisors/Managers of Police and Detectives
3720	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers
3730	Supervisors, Protective Service Workers, All Other
3740	Fire Fighters
3750	Fire Inspectors
3800	Bailiffs, Correctional Officers, and Jailers
3820	Detectives and Criminal Investigators
3830	Fish and Game Wardens
3840	Parking Enforcement Workers
3850	Police and Sheriff's Patrol Officers
3860	Transit and Railroad Police
3900	Animal Control Workers
3910	Private Detectives and Investigators
3950	Lifeguards and Other Protective Service Workers
	Food Preparation and Serving Related Occupations
4000	Chefs and Head Cooks
4010	First-Line Supervisors/Managers of Food
4020	Cooks
4030	Food Preparation Workers
4040	Bartenders
4120	Food Servers, Nonrestaurant
4130	Dining Room and Cafeteria Attendants and Bartender Helpers
4140	Dishwashers
4150	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
4160	Food Preparation and Serving Related Workers, All Other
	Cleaning and Building Service Occupations
4200	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers
4210	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers
4220	Janitors and Building Cleaners
4230	Maids and Housekeeping Cleaners
4240	Pest Control Workers
4250	Grounds Maintenance Workers
	Entertainment Attendants and Related Workers
4300	First-Line Supervisors/Managers of Gaming Workers
4320	First-Line Supervisors/Managers of Personal Service Workers

2000 Census code	Occupation category
	Entertainment Attendants and Related Workers-con
4340	Animal Trainers
4350	Nonfarm Animal Caretakers
4400	Gaming Services Workers
4410	Motion Picture Projectionists
4420	Ushers, Lobby Attendants, and Ticket Takers
4430	Miscellaneous Entertainment Attendants and Related Workers
	Funeral Related Occupations
4460	Funeral Service Workers
	Personal Care and Service Workers
4500	Barbers
4510	Hairdressers, Hairstylists, and Cosmetologists
4520	Miscellaneous Personal Appearance Workers
4530	Baggage Porters, Bellhops, and Concierges
4540	Tour and Travel Guides
4550	Transportation Attendants
4600	Child Care Workers
4610	Personal and Home Care Aides
4620	Recreation and Fitness Workers
4640	Residential Advisors
4650	Personal Care and Service Workers, All Other
	Sales and Related Workers
4700	First-Line Supervisors/Managers of Retail Sales Workers
4710	First-Line Supervisors/Managers of Non-Retail Sales Workers
4720	Cashiers
4740	Counter and Rental Clerks
4750	Parts Salespersons
4760	Retail Salespersons
4800	Advertising Sales Agents
4810	Insurance Sales Agents
4820	Securities, Commodities, and Financial Services Sales Agents
4830	Travel Agents
4840	Sales Representatives, Services, All Other
4850	Sales Representatives, Wholesale and Manufacturing
4900	Models, Demonstrators, and Product Promoters
4920	Real Estate Brokers and Sales Agents
4930	Sales Engineers
4940	Telemarketers
4950	Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
4960	Sales and Related Workers, All Other
	Office and Administrative Support Workers
5000	First-Line Supervisors/Managers of Office and Administrative Support Workers
5010	Switchboard Operators, Including Answering Service
5020	Telephone Operators
5030	Communications Equipment Operators, All Other

2000 Census code	Occupation category
	Office and Administrative Support Workers-con
5100	Bill and Account Collectors
5110	Billing and Posting Clerks and Machine Operators
5120	Bookkeeping, Accounting, and Auditing Clerks
5130	Gaming Cage Workers
5140	Payroll and Timekeeping Clerks
	Office and Administrative Support Workers
5150	Procurement Clerks
5160	Tellers
5200	Brokerage Clerks
5210	Correspondence Clerks
5220	Court, Municipal, and License Clerks
5230	Credit Authorizers, Checkers, and Clerks
5240	Customer Service Representatives
5250	Eligibility Interviewers, Government Programs
5260	File Clerks
5300	Hotel, Motel, and Resort Desk Clerks
5310	Interviewers, Except Eligibility and Loan
5320	Library Assistants, Clerical
5330	Loan Interviewers and Clerks
5340	New Accounts Clerks
5350	Order Clerks
5360	Human Resources Assistants, Except Payroll and Timekeeping
5400	Receptionists and Information Clerks
5410	Reservation and Transportation Ticket Agents and Travel Clerks
5420	Information and Record Clerks, All Other
5500	Cargo and Freight Agents
5510	Couriers and Messengers
5520	Dispatchers
5530	Meter Readers, Utilities
5540	Postal Service Clerks
5550	Postal Service Mail Carriers
5560	Postal Service Mail Sorters, Processors, and Processing Machine Operators
5600	Production, Planning, and Expediting Clerks
5610	Shipping, Receiving, and Traffic Clerks
5620	Stock Clerks and Order Fillers
5630	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
5700	Secretaries and Administrative Assistants
5800	Computer Operators
5810	Data Entry Keyers
5820	Word Processors and Typists
5830	Desktop Publishers
5840	Insurance Claims and Policy Processing Clerks
5850	Mail Clerks and Mail Machine Operators, Except Postal Service
5860	Office Clerks, General
5900	Office Machine Operators, Except Computer
5910	Proofreaders and Copy Markers
5920	Statistical Assistants
5930	Office and Administrative Support Workers, All Other
	Farming, Fishing, and Forestry Occupations
6000	First-Line Supervisors/Managers/Contractors of Farming, Fishing, and Forestry Workers
6010	Agricultural Inspector

2000 Census code	Occupation category
	Farming, Fishing, and Forestry Occupations-con
6020	Animal Breeders
6040	Graders and Sorters, Agricultural Products
6050	Other Agricultural Workers
6100	Fishers and Related Fishing Workers
6110	Hunters and Trappers
6120	Forest and Conservation Workers
6130	Logging Workers
	Construction Trades and Extraction Workers
6200	First-Line Supervisors/Managers of Construction Trades and Extraction Workers
6210	Boilermakers
6220	Brickmasons, Blockmasons, and Stonemasons
6230	Carpenters
6240	Carpet, Floor, and Tile Installers and Finishers
6250	Cement Masons, Concrete Finishers, and Terrazzo Workers
6260	Construction Laborers
6300	Paving, Surfacing, and Tamping Equipment Operators
6310	Pile-Driver Operators
6320	Operating Engineers and Other Construction Equipment Operators
6330	Drywall Installers, Ceiling Tile Installers, and Tapers
6350	Electricians
6360	Glaziers
6400	Insulation Workers
6420	Painters, Construction and Maintenance
6430	Paperhangers
6440	Pipelayers, Plumbers, Pipefitters, and Steamfitters
6460	Plasterers and Stucco Masons
6500	Reinforcing Iron and Rebar Workers
6510	Roofers
6520	Sheet Metal Workers
6530	Structural Iron and Steel Workers
6600	Helpers, Construction Trades
6660	Construction and Building Inspectors
6700	Elevator Installers and Repairers
6710	Fence Erectors
6720	Hazardous Materials Removal Workers
6730	Highway Maintenance Workers
6740	Rail-Track Laying and Maintenance Equipment Operators
6750	Septic Tank Servicers and Sewer Pipe Cleaners
6760	Miscellaneous Construction and Related Workers
6800	Derrick, Rotary Drill, and Service Unit Operators, Oil, Gas, and Mining
6820	Earth Drillers, Except Oil and Gas
6830	Explosives Workers, Ordnance Handling Experts, and Blasters
6840	Mining Machine Operators
6910	Roof Bolters, Mining
6920	Roustabouts, Oil and Gas
6930	Helpers--Extraction Workers
6940	Other Extraction Workers
	Installation, Maintenance, and Repairs Workers
7000	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

2000 Census code	Occupation category
	Installation, Maintenance, and Repairs Workers-con
7010	Computer, Automated Teller, and Office Machine Repairers
7020	Radio and Telecommunications Equipment Installers and Repairers
7030	Avionics Technicians
7040	Electric Motor, Power Tool, and Related Repairers
7050	Electrical and Electronics Installers and Repairers, Transportation Equipment
7100	Electrical and Electronics Repairers, Industrial and Utility
7110	Electronic Equipment Installers and Repairers, Motor Vehicles
7120	Electronic Home Entertainment Equipment Installers and Repairers
7130	Security and Fire Alarm Systems Installers
7140	Aircraft Mechanics and Service Technicians
7150	Automotive Body and Related Repairers
7160	Automotive Glass Installers and Repairers
7200	Automotive Service Technicians and Mechanics
7210	Bus and Truck Mechanics and Diesel Engine Specialists
7220	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics
7240	Small Engine Mechanics
7260	Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
7300	Control and Valve Installers and Repairers
7310	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
7320	Home Appliance Repairers
7330	Industrial and Refractory Machinery Mechanics
7340	Maintenance and Repair Workers, General
7350	Maintenance Workers, Machinery
7360	Millwrights
7410	Electrical Power-Line Installers and Repairers
7420	Telecommunications Line Installers and Repairers
7430	Precision Instrument and Equipment Repairers
7510	Coin, Vending, and Amusement Machine Servicers and Repairers
7520	Commercial Divers
7540	Locksmiths and Safe Repairers
7550	Manufactured Building and Mobile Home Installers
7560	Riggers
7600	Signal and Track Switch Repairers
7610	Helpers--Installation, Maintenance, and Repair Workers
7620	Other Installation, Maintenance, and Repair Workers
	Production and Operating Workers
7700	First-Line Supervisors/Managers of Production and Operating Workers
7710	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
7720	Electrical, Electronics, and Electromechanical Assemblers
7730	Engine and Other Machine Assemblers
7740	Structural Metal Fabricators and Fitters
7750	Miscellaneous Assemblers and Fabricators

2000 Census code	Occupation category
	Food Preparation Occupations
7800	Bakers
7810	Butchers and Other Meat, Poultry, and Fish Processing Workers
7830	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
7840	Food Batchmakers
7850	Food Cooking Machine Operators and Tenders
	Setters, Operators, and Tenders
7900	Computer Control Programmers and Operators
7920	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
7930	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
7940	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
7950	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
7960	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
8000	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
8010	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
8020	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
8030	Machinists
8040	Metal Furnace and Kiln Operators and Tenders
8060	Model Makers and Patternmakers, Metal and Plastic
8100	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic
8120	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
8130	Tool and Die Makers
8140	Welding, Soldering, and Brazing Workers
8150	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
8160	Lay-Out Workers, Metal and Plastic
8200	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
8210	Tool Grinders, Filers, and Sharpeners
8220	Metalworkers and Plastic Workers, All Other
8230	Bookbinders and Bindery Workers
8240	Job Printers
8250	Prepress Technicians and Workers
8260	Printing Machine Operators
8300	Laundry and Dry-Cleaning Workers
8310	Pressers, Textile, Garment, and Related Materials
8320	Sewing Machine Operators
8330	Shoe and Leather Workers and Repairers
8340	Shoe Machine Operators and Tenders
8350	Tailors, Dressmakers, and Sewers
8360	Textile Bleaching and Dyeing Machine Operators and Tenders
8400	Textile Cutting Machine Setters, Operators, and Tenders
8410	Textile Knitting and Weaving Machine Setters, Operators, and Tenders

2000 Census code	Occupation category
	Setters, Operators, and Tenders-con
8420	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
8430	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
8440	Fabric and Apparel Patternmakers
8450	Upholsterers
8460	Textile, Apparel, and Furnishings Workers, All Other
8500	Cabinetmakers and Bench Carpenters
8510	Furniture Finishers
8520	Model Makers and Patternmakers, Wood
8530	Sawing Machine Setters, Operators, and Tenders, Wood
8540	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
8550	Woodworkers, All Other
8600	Power Plant Operators, Distributors, and Dispatchers
8610	Stationary Engineers and Boiler Operators
8620	Water and Liquid Waste Treatment Plant and System Operators
8630	Miscellaneous Plant and System Operators
8640	Chemical Processing Machine Setters, Operators, and Tenders
8650	Crushing, Grinding, Polishing, Mixing, and Blending Workers
8710	Cutting Workers
8720	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
8730	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
8740	Inspectors, Testers, Sorters, Samplers, and Weighers
8750	Jewelers and Precious Stone and Metal Workers
8760	Medical, Dental, and Ophthalmic Laboratory Technicians
8800	Packaging and Filling Machine Operators and Tenders
8810	Painting Workers
8830	Photographic Process Workers and Processing Machine Operators
8840	Semiconductor Processors
8850	Cementing and Gluing Machine Operators and Tenders
8860	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
8900	Cooling and Freezing Equipment Operators and Tenders
8910	Etchers and Engravers
8920	Molders, Shapers, and Casters, Except Metal and Plastic
8930	Paper Goods Machine Setters, Operators, and Tenders
8940	Tire Builders
8950	Helpers--Production Workers
8960	Production Workers, All Other

2000 Census code	Occupation category
	Transportation and Material Moving Workers
9000	Supervisors, Transportation and Material Moving Workers
9030	Aircraft Pilots and Flight Engineers
9040	Air Traffic Controllers and Airfield Operations Specialists
9110	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
9120	Bus Drivers
9130	Driver/Sales Workers and Truck Drivers
9140	Taxi Drivers and Chauffeurs
9150	Motor Vehicle Operators, All Other
9200	Locomotive Engineers and Operators
9230	Railroad Brake, Signal, and Switch Operators
9240	Railroad Conductors and Yardmasters
9260	Subway, Streetcar, and Other Rail Transportation Workers
9300	Sailors and Marine Oilers
9310	Ship and Boat Captains and Operators
9330	Ship Engineers
9340	Bridge and Lock Tenders
9350	Parking Lot Attendants
9360	Service Station Attendants
9410	Transportation Inspectors
9420	Other Transportation Workers
9500	Conveyor Operators and Tenders
9510	Crane and Tower Operators
9520	Dredge, Excavating, and Loading Machine Operators
9560	Hoist and Winch Operators
9600	Industrial Truck and Tractor Operators
9610	Cleaners of Vehicles and Equipment
9620	Laborers and Freight, Stock, and Material Movers, Hand
9630	Machine Feeders and Offbearers
9640	Packers and Packagers, Hand
9650	Pumping Station Operators
9720	Refuse and Recyclable Material Collectors
9730	Shuttle Car Operators
9740	Tank Car, Truck, and Ship Loaders
9750	Material Moving Workers, All Other
	ARMED FORCES (FOR CPS)
*9840	Armed Forces
	CPS Special Codes
*9970	Problem Referral
*9990	Not Reported (Includes Refused, Classified, Blank and all other noncodable
	MILITARY SPECIFIC OCCUPATIONS (FOR ACS)
9800	Military officer special and tactical operations l leaders/managers
9810	First-line enlisted military supervisors/managers
9820	Military enlisted tactical operations and air/weapons specialists and crew members
9830	Military, rank not specified

* Code changed from 2000

D.2 Industrial Classification System

2000 Census code	Industry category
	AGRICULTURE, FORESTRY, FISHING AND HUNTING
0170	AGR-Crop production
0180	AGR-Animal production
0190	AGR-Forestry except Logging
0270	AGR-Logging
0280	AGR-Fishing, hunting, and trapping
0290	AGR-Support activities for agriculture and forestry
	MINING
0370	EXT-Oil and gas extraction
0380	EXT-Coal mining
0390	EXT-Metal ore mining
0470	EXT-Nonmetallic mineral mining and quarrying
0480	EXT-Not specified type of mining
0490	EXT-Support activities for mining Utilities
0570	UTL-Electric power generation, transmission and distribution
0580	UTL-Natural gas distribution
0590	UTL-Electric and gas, and other combinations
0670	UTL-Water, steam, air conditioning, and irrigation systems
0680	UTL-Sewage treatment facilities
0690	UTL-Not specified utilities
	CONSTRUCTION
0770	** CON-Construction
	(Includes the cleaning of buildings and dwellings is incidental during construction and immediately after construction)
	MANUFACTURING
	Nondurable Goods
	Food Manufacturing
1070	MFG-Animal food, grain and oilseed milling
1080	MFG-Sugar and confectionery products
1090	MFG-Fruit and vegetable preserving and specialty foods
1170	MFG-Dairy products
1180	MFG-Animal slaughtering and processing
1190	MFG-Retail bakeries
1270	MFG-Bakeries, except retail 3118 exc.
1280	MFG-Seafood and other miscellaneous foods, n.e.c.
1290	MFG-Not specified food industries
	Beverage and Tobacco Products Manufacturing
1370	MFG-Beverage
1390	MFG-Tobacco

2000 Census code	Industry category
	MANUFACTURING Nondurable Goods-Con
	Textile Mills and Textile Product Mills
1470	MFG-Fiber, yarn, and thread mills
1480	MFG-Fabric mills, except knitting
1490	MFG-Textile and fabric finishing and coating mills
1570	MFG-Carpets and rugs
1590	MFG-Textile product mills except carpets and rugs
	Apparel Manufacturing
1670	MFG-Knitting mills
1680	MFG-Cut and sew apparel
1690	MFG-Apparel accessories and other apparel
	Leather and Allied Product Manufacturing
1770	MFG-Footwear
1790	MFG-Leather tanning and products, except footwear
	Paper Manufacturing
1870	MFG-Pulp, paper, and paperboard mills
1880	MFG-Paperboard containers and boxes
1890	MFG-Miscellaneous paper and pulp products
	Printing and Related Support Activities
1990	MFG-Printing and related support activities
	Petroleum and Coal Products Manufacturing
2070	MFG-Petroleum refining
2090	MFG-Miscellaneous petroleum and coal products
	Chemical Manufacturing
2170	MFG-Resin, synthetic rubber and fibers, and filaments
2180	MFG-Agricultural chemicals
2190	MFG-Pharmaceuticals and medicines
2270	MFG-Paint, coating, and adhesives
2280	MFG-Soap, cleaning compound, and cosmetics
2290	MFG-Industrial and miscellaneous chemicals
	Plastics and Rubber Product Manufacturing
2370	MFG-Plastics products
2380	MFG-Tires
2390	MFG-Rubber products, except tires
	Durable Goods
	Nonmetallic Mineral Product Manufacturing
2470	MFG-Pottery, ceramics, and related products
2480	MFG-Structural clay products
2490	MFG-Glass and glass products
2570	MFG-Cement, concrete, lime, and gypsum products
2590	MFG-Miscellaneous nonmetallic mineral products
	Metal Industries
2670	MFG-Iron and steel mills and steel products
2680	MFG-Aluminum production and processing
2690	MFG-Nonferrous metal, except aluminum, production and processing
2770	MFG-Foundries
2780	MFG-Metal forgings and stampings

2000 Census code	Industry category
	MANUFACTURING Durable Goods-Con
	Metal Industries-Con
2790	MFG-Cutlery and hand tools
2870	MFG-Structural metals, and tank and shipping containers
2880	MFG-Machine shops; turned products; screws, nuts and bolts
2890	MFG-Coating, engraving, heat treating and allied activities
2970	MFG-Ordnance
2980	MFG-Miscellaneous fabricated metal products
2990	MFG-Not specified metal industries
	Machinery Manufacturing
3070	MFG-Agricultural implements 33311
3080	MFG-Construction mining and oil field machinery
3090	MFG-Commercial and service industry machinery
3170	MFG-Metalworking machinery
3180	MFG-Engines, turbines, and power transmission equipment
3190	MFG-Machinery, n.e.c.
3290	MFG-Not specified machinery
	Computer and Electronic Product Manufacturing
3360	MFG-Computer and peripheral equipment
3370	MFG-Communications, audio, and video equipment
3380	MFG-Navigational, measuring, electomedical, and control instruments
3390	MFG-Electronic components and products, n.e.c.
	Electrical Equipment, Appliances, and Component Manufacturing
3470	MFG-Household appliances
3490	MFG-Electrical machinery, equipment, and supplies, n.e.c.
	Transportation Equipment Manufacturing
3570	MFG-Motor vehicles and motor vehicle equipment
3580	MFG-Aircraft and parts
3590	MFG-Aerospace products and parts
3670	MFG-Railroad rolling stock
3680	MFG-Ship and boat building
3690	MFG-Other transportation equipment
	Wood Products, including Furniture, Manufacturing
3770	MFG-Sawmills and wood preservation
3780	MFG-Veneer, plywood, and engineered wood products
3790	MFG-Prefabricated wood buildings and mobile homes
3870	MFG-Miscellaneous wood products
3890	MFG-Furniture and Fixtures
	Miscellaneous Manufacturing
3960	MFG-Medical equipment and supplies
3970	MFG-Toys, amusement, and sporting goods
3980	MFG-Miscellaneous manufacturing, n.e.c.
3990	MFG-Not specified industries

2000 Census code	Industry category
	WHOLESALE TRADE
	Durable Goods, Wholesalers
4070	** WHL-Motor vehicles, parts and supplies
4080	** WHL-Furniture and home furnishing
4090	** WHL-Lumber and other construction materials
4170	** WHL-Professional and commercial equipment and supplies
4180	** WHL-Metals and minerals, except petroleum
4190	** WHL-Electrical goods
4260	** WHL-Hardware, plumbing and heating equipment, and supplies
4270	** WHL-Machinery, equipment , and supplies
4280	** WHL-Recyclable material
4290	** WHL-Miscellaneous durable goods
	Nondurable Goods, Wholesalers
4370	** WHL-Paper and paper products
4380	** WHL-Drugs, sundries, and chemical and allied products
4390	** WHL-Apparel, fabrics, and notions
4470	** WHL-Groceries and related products
4480	** WHL-Farm product raw materials
4490	** WHL-Petroleum and petroleum products
4560	** WHL-Alcoholic beverages
4570	** WHL-Farm supplies
4580	** WHL-Miscellaneous nondurable goods
*4585	*** WHL-Wholesale electronic markets, agents, and brokers (New Industry)*
4590	WHL-Not specified trade
	RETAIL TRADE
4670	RET-Automobile dealers
4680	RET-Other motor vehicle dealers
4690	RET-Auto parts, accessories, and tire stores
4770	RET-Furniture and home furnishings stores
4780	RET-Household appliance stores
4790	RET-Radio, TV, and computer stores
4870	RET-Building material and supplies dealers
4880	RET-Hardware stores
4890	RET-Lawn and garden equipment and supplies stores
4970	RET-Grocery stores
4980	RET-Specialty food stores
4990	RET-Beer, wine, and liquor stores
5070	RET-Pharmacies and drug stores
5080	RET-Health and personal care, except drug, stores
5090	RET-Gasoline stations
5170	RET-Clothing and accessories, except shoe, stores
5180	RET-Shoe stores
5190	RET-Jewelry, luggage, and leather goods stores
5270	RET-Sporting goods, camera, and hobby and toy stores
5280	RET-Sewing, needlework and piece goods stores
5290	RET-Music stores
5370	RET-Book stores and news dealers
5380	**RET-Department stores and Discount stores
5390	RET-Miscellaneous general merchandise stores
5470	RET-Retail florists
5480	RET-Office supplies and stationary stores
5490	RET-Used merchandise stores

2000 Census code	Industry category
	RETAIL TRADE-Con
5570	RET-Gift, novelty, and souvenir shops
5580	RET-Miscellaneous stores
5590	*** RET-Electronic shopping (New Industry)
*5591	*** RET-Electronic auctions (New Industry)
*5592	** RET-Mail order houses
5670	RET-Vending machine operators
5680	RET-Fuel dealers
5690	RET-Other direct selling establishments
5790	RET-Not specified trade
	TRANSPORTATION AND WAREHOUSING
6070	TRN-Air transportation
6080	TRN-Rail transportation
6090	TRN-Water transportation
6170	TRN-Truck transportation
6180	TRN-Bus service and urban transit
6190	TRN-Taxi and limousine service
6270	TRN-Pipeline transportation
6280	TRN-Scenic and sightseeing transportation
6290	TRN-Services incidental to transportation
6370	TRN-Postal Service
6380	TRN-Couriers and messengers
6390	TRN-Warehousing and storage
	INFORMATION AND COMMUNICATIONS
	Publishing Industries
6470	INF-Newspaper publishers
6480	INF-Publishing, except newspapers and software
6490	INF-Software publishing
6570	INF-Motion pictures and video industries
6590	INF-Sound recording industries
	Broadcasting and Telecommunications
6670	INF-Radio and television broadcasting and cable
*6675	***INF-Internet publishing and broadcasting (New Industry)
6680	INF-Wired telecommunications carriers
6690	INF-Other telecommunication services
*6692	***INF-Internet service providers (New Industry)
*6695	**INF-Data processing, hosting, and related services
	Information Services and Data Processing Services
6770	INF-Libraries and archives
6780	INF-Other information services
	FINANCE, INSURANCE, REAL ESTATE, AND RENTAL AND LEASING
	Finance and Insurance
6870	FIN-Banking and related activities
6880	FIN-Savings institutions, including credit unions
6890	FIN-Non-depository credit and related activities
6970	FIN-Securities, commodities, funds, trusts, and other financial investments
6990	FIN-Insurance carriers and related activities

2000 Census code	Industry category
	FINANCE, INSURANCE, REAL ESTATE, AND RENTAL AND LEASING-Con
	Real Estate and Rental and Leasing
7070	FIN-Real estate
7080	FIN-Automotive equipment rental and leasing
7170	FIN-Video tape and disk rental
7180	FIN-Other consumer goods rental
7190	FIN-Commercial, industrial, and other intangible assets rental and leasing
	PROFESSIONAL, SCIENTIFIC, MANAGEMENT, ADMINISTRATIVE, AND WASTE MANAGEMENT SERVICES
	Professional, Scientific, and Technical Services
7270	PRF-Legal services
7280	PRF-Accounting, tax preparation, bookkeeping and payroll services
7290	PRF-Architectural, engineering, and related services
7370	PRF-Specialized design services
7380	PRF-Computer systems design and related services
7390	PRF-Management, scientific and technical consulting services
7460	PRF-Scientific research and development services
7470	PRF-Advertising and related services
7480	PRF-Veterinary services
7490	PRF-Other professional, scientific and technical services
	Management, Administrative and Support, and Waste Management Services
7570	PRF-Management of companies and enterprises
7580	PRF-Employment services
7590	PRF-Business support services
7670	PRF-Travel arrangements and reservation services
7680	PRF-Investigation and security services
7690	**PRF-Services to buildings and dwellings (except cleaning during construction and immediately after construction
7770	PRF-Landscaping services
7780	PRF-Other administrative, and other support services
7790	PRF-Waste management and remediation services
	EDUCATIONAL, HEALTH AND SOCIAL SERVICES
	Educational Services
7860	EDU-Elementary and secondary schools
7870	EDU-Colleges, including junior colleges, and universities
7880	EDU-Business, technical, and trade schools and training
7890	EDU-Other schools, instruction and educational services

2000 Census code	Industry category
	EDUCATIONAL, HEALTH AND SOCIAL SERVICES-Con
	Health Care
7970	MED-Offices of physicians
7980	MED-Offices of dentists
7990	MED-Office of chiropractors
8070	MED-Offices of optometrists
8080	MED-Offices of other health practitioners
8090	MED-Outpatient care centers
8170	MED-Home health care services
8180	MED-Other health care services
8190	MED-Hospitals
8270	MED-Nursing care facilities
8290	MED-Residential care facilities, without nursing
	Social Assistance
8370	SCA-Individual and family services
8380	SCA-Community food and housing, and emergency services
8390	SCA-Vocational rehabilitation services
8470	SCA-Child day care services
	ARTS, ENTERTAINMENT, RECREATION, ACCOMMODATIONS, AND FOOD SERVICES
	Arts, Entertainment, and Recreation
8560	ENT-Independent artists, performing arts, spectator sports and related industries
8570	ENT-Museums, art galleries, historical sites, and similar institutions
8580	ENT-Bowling centers
8590	ENT-Other amusement, gambling, and recreation industries
	Accommodations and Food Services
8660	ENT-Traveler accommodation
8670	ENT-Recreational vehicle parks and camps, and rooming and boarding houses
8680	ENT-Restaurants and other food services
8690	ENT-Drinking places, alcohol beverages
	OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
	Repair and Maintenance
8770	SRV-Automotive repair and maintenance
8780	SRV-Car washes
8790	SRV-Electronic and precision equipment repair and maintenance
8870	SRV-Commercial and industrial machinery and equipment repair and maintenance
8880	SRV-Personal and household goods repair and maintenance
8890	SRV-Footwear and leather goods repair
	Personal and Laundry Services
8970	SRV-Barber shops
8980	SRV-Beauty salons
8990	SRV-Nail salons and other personal care services
9070	SRV-Dry cleaning and laundry services
9080	SRV-Funeral homes, cemeteries and crematories
9090	SRV-Other personal services

2000 Census code	Industry category
	Religious, Grantmaking, Civic, Business, and Similar Organizations
9160	SRV-Religious organizations
9170	SRV-Civic, social, advocacy organizations and grantmaking and giving service
9180	SRV-Labor unions
9190	SRV-Business, professional, political and similar organizations
	Private Households
9290	SRV-Private households
	PUBLIC ADMINISTRATION
9370	ADM-Executive offices and legislative bodies
9380	ADM-Public finance activities
9390	ADM-Other general government and support
9470	ADM-Justice, public order, and safety activities
9480	ADM-Administration of human resource programs
9490	ADM-Administration of environmental quality and housing programs
9570	ADM-Administration of economic programs and space research
9590	ADM-National security and international affairs
*	**ARMED FORCES (FOR CPS ONLY)**
9890	Armed Forces
	CPS Special Codes
9970	Problem Referral
9990	Uncodable (Includes Refused or reported Classified)
	Active Duty Military (for Census and ACS)
9670	U. S. Army
9680	U. S. Air Force
9690	U. S. Navy
9770	U. S. Marines
9780	U. S. Coast Guard
9790	U. S. Armed Forces, Branch Not Specified
9870	Military Reserves or National Guard

* Code changed from 2000
** Name changed from 2000 and Industry content changed
*** New industry

Appendix E: Selected Data Tables

Table 2.1 Substance Use and Substance Dependence or Abuse among Persons Aged 18 to 64, by Employment Status: Percentages, Numbers in Thousands, and Percentage Distributions, Annual Averages Based on 2002-2004

Employment Status	Past Month Illicit Drug Use[1]	Past Month Marijuana Use	Past Month Heavy Alcohol Use[2]	Past Year Illicit Drug Dependence or Abuse[3]	Past Year Alcohol Dependence or Abuse[3]
Percentage					
Total	9.2	7.0	8.4	3.2	9.1
Full-Time	8.2	6.4	8.8	2.6	9.2
Part-Time	11.9	9.6	8.6	4.1	10.0
Unemployed	18.6	13.9	13.6	8.0	15.6
Other[4]	8.3	5.9	5.6	3.5	6.5
Number (in Thousands)					
Total	16,363	12,569	15,017	5,737	16,225
Full-Time	9,413	7,293	10,113	3,030	10,562
Part-Time	2,903	2,339	2,094	989	2,424
Unemployed	1,405	1,050	1,028	608	1,178
Other[4]	2,642	1,888	1,783	1,110	2,060
Percentage Distribution					
Total	100.0	100.0	100.0	100.0	100.0
Full-Time	57.5	58.0	67.3	52.8	65.1
Part-Time	17.7	18.6	13.9	17.2	14.9
Unemployed	8.6	8.4	6.8	10.6	7.3
Other[4]	16.1	15.0	11.9	19.4	12.7

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[3] Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[4] Retired persons, disabled persons, homemakers, students, or other persons not in the labor force are included in the Other Employment category.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 2.2 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Demographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Past Month Illicit Drug Use[1]		Past Month Marijuana Use		Past Month Heavy Alcohol Use[2]	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	8.2	9,413	6.4	7,293	8.8	10,113
Age						
18-25	19.0	2,798	15.9	2,343	16.3	2,398
26-34	10.3	2,573	8.0	1,982	10.4	2,590
35-49	7.0	3,309	5.2	2,444	8.1	3,807
50-64	2.6	733	1.9	525	4.7	1,319
Gender						
Male	9.7	6,384	7.9	5,167	12.3	8,111
Female	6.2	3,029	4.3	2,126	4.1	2,002
Hispanic Origin and Race						
Not Hispanic or Latino	8.4	8,389	6.6	6,597	9.1	9,070
White	8.8	6,989	6.9	5,510	10.1	8,048
Black or African American	8.0	1,060	6.4	847	5.4	716
American Indian or Alaska Native	7.3	44	4.7	28	8.7	52
Native Hawaiian or Other Pacific Islander	13.0	47	9.1	33	9.4	34
Asian	2.2	106	1.3	64	2.9	140
Two or More Races	13.5	143	11.0	116	7.5	80
Hispanic or Latino	6.7	1,024	4.6	696	6.9	1,044

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
[2] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 2.3 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, and Geographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Past Month Illicit Drug Use[1]		Past Month Marijuana Use		Past Month Heavy Alcohol Use[2]	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	8.2	9,413	6.4	7,293	8.8	10,113
Education						
Less Than High School	11.2	1,605	8.6	1,227	10.8	1,538
High School Graduate	9.0	3,193	7.0	2,479	10.0	3,550
Some College	8.7	2,604	6.9	2,068	8.9	2,678
College Graduate	5.7	2,011	4.3	1,519	6.7	2,347
Family Income						
Less Than $20,000	13.2	1,570	10.0	1,191	9.8	1,168
$20,000-49,999	9.1	3,815	7.3	3,032	9.7	4,039
$50,000-74,999	7.5	1,853	5.7	1,419	9.1	2,249
$75,000 or More	6.0	2,175	4.6	1,652	7.3	2,658
Geographic Region						
Northeast	8.9	1,947	7.4	1,608	8.4	1,845
Midwest	8.0	2,085	6.2	1,613	10.6	2,762
South	7.6	3,143	5.6	2,318	8.5	3,529
West	8.8	2,239	6.9	1,754	7.8	1,978
County Type[3]						
Large MSA	8.3	5,323	6.5	4,149	8.1	5,195
Small MSA	8.8	2,908	6.9	2,262	9.8	3,233
MiSA	7.1	757	5.4	581	9.2	985
Noncore Adjacent with Town	6.2	311	4.6	228	10.4	518
Noncore Adjacent, No Town	4.5	47	3.1	32	9.1	94
Noncore Rural, Not Adjacent	5.7	67	3.5	40	7.5	88

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
[2] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.
[3] Definitions for county type are based on 2003 Urban Influence Codes (UICs), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

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Table 2.4 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Demographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	2.6	3,030	9.2	10,562
Age				
18-25	7.5	1,109	18.4	2,709
26-34	3.3	831	12.3	3,053
35-49	1.9	887	7.8	3,679
50-64	0.7	203	4.0	1,121
Gender				
Male	3.3	2,152	11.8	7,776
Female	1.8	878	5.7	2,786
Hispanic Origin and Race				
Not Hispanic or Latino	2.6	2,546	9.1	9,035
White	2.5	2,020	9.6	7,646
Black or African American	2.9	382	7.3	961
American Indian or Alaska Native	4.5	27	10.7	64
Native Hawaiian or Other Pacific Islander	4.3	16	9.4	34
Asian	1.1	56	4.6	224
Two or More Races	4.3	46	10.1	107
Hispanic or Latino	3.2	484	10.0	1,527

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 2.5 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, and Geographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	2.6	3,030	9.2	10,562
Education				
Less Than High School	5.1	725	11.9	1,705
High School Graduate	2.9	1,018	9.4	3,324
Some College	2.9	863	9.7	2,894
College Graduate	1.2	425	7.5	2,639
Family Income				
Less Than $20,000	5.6	661	13.3	1,581
$20,000-49,999	3.0	1,255	9.8	4,075
$50,000-74,999	2.0	500	8.7	2,162
$75,000 or More	1.7	613	7.6	2,744
Geographic Region				
Northeast	2.6	570	8.3	1,813
Midwest	2.4	614	10.5	2,719
South	2.7	1,104	8.5	3,505
West	2.9	742	9.9	2,525
County Type[1]				
Large MSA	2.7	1,725	9.3	5,912
Small MSA	2.7	902	9.5	3,145
MiSA	2.7	283	8.2	872
Noncore Adjacent with Town	1.7	87	9.2	458
Noncore Adjacent, No Town	1.1	11	8.0	84
Noncore Rural, Not Adjacent	1.9	22	7.9	92

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Definitions for county type are based on 2003 Urban Influence Codes (UICs), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 3.1 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Occupational Categories: Annual Averages Based on 2002-2004

Occupational Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Total[1]	73,325	114,675	40.1	57.3
Management Occupations	7,097	14,272	42.7	59.7
Chief Executives	333	962	46.6	83.0
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	408	798	40.3	60.3
Financial Occupations	1,482	2,734	41.3	50.3
Mathematical and Computer Scientists	1,685	3,216	39.0	71.9
Engineering, Architecture, and Surveyors	1,452	2,883	41.7	88.1
Drafters and Engineering Technicians	355	597	39.6	80.9
Life, Physical, and Social Science Occupations	792	1,370	40.5	59.3
Physical Scientists	360	690	40.4	67.6
Social Scientists and Related Workers	190	327	41.5	46.7
Community and Social Services Occupations	1,180	2,010	42.7	38.5
Legal Occupations	719	1,401	42.3	43.4
Lawyers	327	758	42.7	64.5
Education, Training, and Library Occupations	3,679	6,241	42.5	28.4
Elementary and Middle School Teachers	1,359	2,456	42.3	21.3
Secondary School Teachers	587	1,010	42.3	47.3
Special Education Teachers	201	347	43.2	15.7
Other Teachers and Instructors	1,024	1,590	41.6	38.6
Arts, Design, Entertainment, Sports, and Media Occupations	1,298	2,155	38.9	58.6

See notes at end of table.

(continued)

Table 3.1 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Occupational Categories: Annual Averages Based on 2002-2004 (continued)

Occupational Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Healthcare Practitioners and Technical Occupations	4,823	7,605	40.8	22.2
Health Diagnosing and Treatment Practitioners	1,782	3,609	42.8	27.4
Registered Nurses	1,000	2,057	43.8	9.5
Health Care Technical and Support Occupations	3,041	3,995	39.0	17.4
Nursing, Psychiatric, and Home Health Aides	1,238	1,564	39.8	9.8
Protective Service Occupations	1,532	2,605	40.1	80.3
Protective Service Managers and Supervisors, Firefighter and Prevention Workers, Law Enforcement Workers	943	1,747	40.0	84.3
Other Protective Service Workers	589	858	40.4	72.4
Food Preparation and Serving Related Occupations	4,779	4,660	33.9	49.8
Food Preparation Supervisors and Managers	599	595	34.2	37.4
Cooks	1,540	1,745	36.1	60.8
Food Preparation Workers	513	570	34.5	61.7
Food and Beverage Serving and Other Food Preparation Serving Related Occupations	2,127	1,751	31.5	39.1
Building and Grounds Cleaning and Maintenance Occupations	2,269	3,439	40.4	65.2
Personal Care and Service Occupations	1,845	2,357	38.3	16.4
Personal Appearance Workers	457	622	37.7	18.9
Child Care Workers	784	922	37.7	5.0
Personal and Homecare Aides	270	446	41.5	14.4
Sales and Related Occupations	8,102	11,581	39.1	58.3
Retail Sales	1,621	1,956	37.4	62.3
Sales Representatives, Services	259	473	38.9	71.7
Sales Representatives, Wholesale and Manufacturing	708	1,393	40.5	74.2

See notes at end of table.

(continued)

Table 3.1 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Occupational Categories: Annual Averages Based on 2002-2004 (continued)

Occupational Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Office and Administrative Support Occupations	10,504	15,587	40.0	27.0
Farming, Fishing, and Forestry Occupations	746	1,022	40.3	82.8
Construction and Extraction Occupations	5,881	8,234	37.5	97.4
Carpenters	1,387	1,892	37.3	98.8
Carpet, Floor, Tile Installers, and Finishers	197	241	33.4	99.9
Construction Laborer	805	927	33.1	97.7
Construction Equipment Operator	261	409	42.5	96.6
Electricians	516	815	38.9	99.0
Roofers	218	217	33.0	*
Other Construction Related Workers	1,682	2,377	37.6	94.9
Extraction Workers	115	117	36.2	*
Installation, Maintenance, and Repair Occupations	3,001	4,931	39.6	96.2
Production Occupations	5,502	8,930	40.0	70.0
Transportation and Material-Moving Occupations	4,469	6,752	39.6	87.2
Motor Vehicle Operators	119	236	42.9	*
Bus Drivers	162	405	44.6	48.1
Truck Drivers, Heavy and Tractor-Trailer	1,945	3,379	40.2	95.7
Material-Moving Workers	1,782	2,010	36.2	80.6

*Low precision; no estimate reported.

[1] Estimates in the Total row include respondents with unknown or other occupational information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 3.2 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Industry Categories: Annual Averages Based on 2002-2004

Industry Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Total[1]	73,325	114,675	40.1	57.3
Agriculture, Forestry, Fishing, and Hunting	1,258	1,740	41.4	80.9
Crop Production	486	721	40.7	81.5
Animal Production	491	643	42.4	82.9
Mining	377	516	43.7	89.1
Utilities	535	1,077	43.6	81.1
Construction	7,231	10,671	38.3	92.6
Manufacturing	9,369	16,946	40.8	70.2
Food Manufacturing	940	1,443	39.3	64.4
Textile Mills and Textile Product Mills	194	385	39.4	*
Apparel Manufacturing	192	378	38.8	40.6
Wood Product Manufacturing	797	1,205	39.2	78.5
Paper Manufacturing	281	552	41.0	72.1
Printing and Related Support Activities	458	798	39.9	64.2
Chemical Manufacturing	677	1,329	40.7	67.4
Plastics and Rubber Products Manufacturing	437	762	39.9	69.2
Nonmetallic Mineral Product Manufacturing	278	494	40.7	72.4
Metal Industries Manufacturing	992	1,696	40.6	79.6
Machinery Manufacturing	710	1,324	42.6	77.1
Computer and Electronic Product Manufacturing	799	1,653	39.9	68.6
Electrical Equipment, Appliance, and Component Manufacturing	295	521	41.6	57.0
Transportation Equipment Manufacturing	1,439	2,725	42.7	73.6
Miscellaneous Manufacturing	651	1,238	40.3	65.0
Wholesale Trade	2,399	3,928	39.3	73.0
Merchant Wholesalers, Durable Goods	1,134	1,964	39.8	75.5
Merchant Wholesalers, Nondurable Goods	1,265	1,964	38.9	70.5

See notes at end of table.

(continued)

Table 3.2 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Industry Categories: Annual Averages Based on 2002-2004 (continued)

Industry Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Retail Trade	8,532	10,831	37.7	53.7
Motor Vehicle and Parts Dealers	975	1,325	38.4	76.2
Furniture and Home Furnishings Stores	412	559	38.6	53.0
Electronics and Appliance Stores	523	722	37.2	70.6
Building Material and Garden Equipment and Supplies Dealers	710	972	38.9	65.0
Food and Beverage Stores (including Beer, Wine, and Liquor Stores)	1,544	2,008	37.7	55.6
Health and Personal Care Stores	571	721	37.2	40.1
Gasoline Stations	442	433	35.2	38.4
Clothing and Clothing Accessories Stores	865	930	35.0	39.4
Sporting Goods, Hobby, Book, and Music Stores	453	522	36.9	58.0
General Merchandise Stores	187	242	38.0	41.9
Department Stores	762	771	35.4	33.5
Miscellaneous Store Retailers	544	853	41.7	46.5
Non-Store Retailers	544	774	38.9	47.2
Transportation and Warehousing	2,628	5,094	42.3	77.5
Air Transportation	241	441	41.7	66.0
Rail Transportation	127	249	43.5	93.7
Truck Transportation	802	1,522	41.4	91.1
Transit and Ground Passenger Transportation	266	634	43.6	68.0
Support Activities for Transportation	384	656	41.0	78.8
Postal Service	325	783	46.7	61.5
Warehousing and Storage	143	254	40.3	*
Information	1,721	2,821	39.2	61.0
Publishing Industries (except Internet)	525	826	38.0	63.3
Broadcasting (except Internet) and Telecommunications	978	1,642	39.4	61.1
Internet Publishing and Broadcasting, Internet Service Providers, Web Search Portals, and Data Processing Services	195	323	41.6	54.3

See notes at end of table.

(continued)

Table 3.2 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Industry Categories: Annual Averages Based on 2002-2004 (continued)

Industry Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Finance and Insurance	3,678	5,795	39.9	42.8
Securities, Commodity Contracts, Funds, Trusts, and Other Financial Investments and Related Activities	560	1,116	39.7	63.4
Insurance Carriers and Related Activities	1,232	2,097	41.6	38.8
Banking, Savings Institutions (including Credit Unions), and Related Activities	1,252	1,702	39.1	32.3
Real Estate and Rental and Leasing	1,057	1,992	42.3	49.4
Real Estate	803	1,691	43.3	49.2
Rental and Leasing Services (including Leasers of Non-Financial Intangible Assets)	254	301	36.7	50.5
Professional, Scientific, and Technical Services	4,115	7,508	40.2	58.0
Management of Companies and Enterprises, Administrative, Support, Waste Management, and Remediation Services	2,948	4,133	37.9	65.5
Investigation and Security Services	407	573	39.0	72.7
Janitorial Services	573	912	39.4	58.9
Landscaping Services	712	937	36.1	93.4
Waste Management and Remediation Services	214	376	39.8	88.1
Educational Services	4,709	8,929	43.6	31.6
Elementary and Secondary Schools	3,676	7,036	43.7	26.8
Colleges	811	1,523	43.6	49.0
Health Care and Social Assistance	8,467	13,326	41.0	21.3
Home Health Care Services	322	598	43.5	7.6
Hospitals	1,941	3,272	41.3	25.2
Nursing and Residential Care Facilities	1,267	1,707	40.0	18.4
Social Assistance	1,741	2,224	39.3	11.2
Individual and Family Services	561	887	42.2	17.5
Child Day Care Services	1,069	1,212	37.4	3.5

See notes at end of table.

(continued)

Table 3.2 Sample Sizes, Average Age, and Percentage Distribution of Males among Full-Time Workers Aged 18 to 64, by Industry Categories: Annual Averages Based on 2002-2004 (continued)

Industry Category	Sample Size	Population (in Thousands)	Average Age	Percent Male
Arts, Entertainment, and Recreation	1,253	1,607	37.9	58.3
Performing Arts, Spectator, and Related Industries	325	533	38.7	58.0
Amusement, Gambling, and Recreation Industries	779	840	37.0	59.1
Accommodations and Food Services	5,887	5,771	34.1	51.6
Traveler Accommodation	659	814	39.2	45.7
Food Services and Drinking Places	5,174	4,916	33.2	52.7
Other Services (except Public Administration)	3,504	5,236	39.5	60.6
Repair and Maintenance	1,672	2,428	38.3	91.8
Automotive Repair and Maintenance	1,126	1,585	37.1	93.7
Commercial and Industrial Machinery and Equipment	208	356	40.3	95.7
Personal and Laundry Services	960	1,392	38.7	31.9
Personal Care Services	565	779	37.9	22.4
Religious, Grantmaking, Civic, Professional, and Similar Organizations	537	944	43.3	50.9
Religious Organizations	274	553	44.7	66.7
Civic and Social Organizations	204	289	40.0	29.3
Public Administration	3,443	6,373	42.9	54.0
Executive, Legislative, and Other General Government Support	934	1,705	44.1	48.0
Justice, Public Order, and Safety Activities	1,351	2,545	41.2	66.3

*Low precision; no estimate reported.

[1] Estimates in the Total row include respondents with unknown or other industry information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 3.3 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Occupational Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Occupational Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[1]	8.2	9,413	6.4	7,293	8.8	10,113
Management Occupations	6.1	876	4.5	641	7.9	1,121
Chief Executives	3.6	35	3.1	30	5.5	53
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	6.2	50	3.5	28	10.5	84
Financial Occupations	4.9	133	3.3	91	6.2	170
Mathematical and Computer Scientists	6.9	222	5.5	178	5.9	191
Engineering, Architecture, and Surveyors	6.9	199	6.0	172	8.3	238
Drafters and Engineering Technicians	12.7	76	10.2	61	13.2	79
Life, Physical, and Social Science Occupations	7.0	95	5.0	68	5.3	73
Physical Scientists	7.2	50	4.6	32	4.7	32
Social Scientists and Related Workers	7.4	24	6.7	22	6.3	21
Community and Social Services Occupations	4.0	80	2.4	49	2.8	56
Legal Occupations	4.8	68	3.9	55	5.9	82
Lawyers	4.3	33	3.0	23	6.5	49
Education, Training, and Library Occupations	4.1	254	3.2	198	3.7	231
Elementary and Middle School Teachers	3.1	76	2.3	57	3.3	82
Secondary School Teachers	4.4	44	3.3	33	4.7	48
Special Education Teachers	5.3	19	2.9	10	6.4	22
Other Teachers and Instructors	5.1	82	4.4	70	3.4	54
Arts, Design, Entertainment, Sports, and Media Occupations	12.4	267	10.1	218	7.5	161

See notes at end of table.

(continued)

Table 3.3 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Occupational Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Occupational Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Healthcare Practitioners and Technical Occupations	6.1	463	3.9	293	3.9	294
Health Diagnosing and Treatment Practitioners	4.4	159	2.6	95	2.5	92
Registered Nurses	4.6	95	3.3	68	2.2	46
Health Care Technical and Support Occupations	7.6	303	4.9	198	5.1	202
Nursing, Psychiatric, and Home Health Aides	7.5	117	5.7	89	4.6	71
Protective Service Occupations	3.4	89	2.4	63	8.7	227
Protective Service Managers and Supervisors, Firefighter and Prevention Workers, Law Enforcement Workers	1.5	25	1.1	19	9.1	158
Other Protective Service Workers	7.4	63	5.2	44	8.0	69
Food Preparation and Serving Related Occupations	17.4	809	14.2	661	12.1	564
Food Preparation Supervisors and Managers	12.6	75	10.1	60	8.6	51
Cooks	16.8	294	14.2	248	11.9	208
Food Preparation Workers	9.2	53	7.4	42	6.9	39
Food and Beverage Serving and Other Food Preparation Serving Related Occupations	22.2	388	17.7	310	15.2	265
Building and Grounds Cleaning and Maintenance Occupations	8.2	284	6.6	225	9.5	328
Personal Care and Service Occupations	7.7	181	5.7	135	5.4	127
Personal Appearance Workers	8.2	51	7.0	44	6.6	41
Child Care Workers	6.9	64	4.6	43	3.3	31
Personal and Homecare Aides	6.6	30	5.2	23	4.4	20
Sales and Related Occupations	9.6	1,114	7.4	857	10.2	1,183
Retail Sales	11.7	229	9.1	179	12.4	242
Sales Representatives, Services	9.8	46	7.3	34	14.7	69
Sales Representatives, Wholesale and Manufacturing	9.8	137	7.0	98	14.6	204

See notes at end of table.

(continued)

Table 3.3 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Occupational Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Occupational Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Office and Administrative Support Occupations	7.5	1,172	5.7	892	6.9	1,071
Farming, Fishing, and Forestry Occupations	8.7	89	3.3	34	9.5	97
Construction and Extraction Occupations	15.1	1,247	12.9	1,063	17.8	1,467
Carpenters	20.0	378	16.5	312	17.9	338
Carpet, Floor, Tile Installers, and Finishers	18.7	45	17.4	42	17.6	42
Construction Laborer	14.8	137	11.6	107	17.6	164
Construction Equipment Operator	8.6	35	6.1	25	12.8	53
Electricians	13.0	106	12.7	104	19.0	155
Roofers	16.9	37	14.1	31	25.7	56
Other Construction Related Workers	15.1	359	13.0	310	17.4	415
Extraction Workers	9.9	12	5.9	7	*	*
Installation, Maintenance, and Repair Occupations	9.5	468	8.1	401	14.7	724
Production Occupations	7.4	663	5.7	510	9.7	865
Transportation and Material-Moving Occupations	8.4	569	6.3	427	11.2	760
Motor Vehicle Operators	7.2	17	5.4	13	8.6	20
Bus Drivers	1.5	6	*	*	2.7	11
Truck Drivers, Heavy and Tractor-Trailer	7.4	249	5.2	176	11.2	380
Material-Moving Workers	12.7	255	10.1	204	14.1	284

*Low precision; no estimate reported.
NOTE: Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
NOTE: Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[1] Estimates in the Total row include respondents with unknown or other occupational information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 3.4 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Occupational Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Occupational Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[1]	2.6	3,030	9.2	10,562
Management Occupations	1.7	236	8.7	1,246
Chief Executives	*	*	7.9	76
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	1.5	12	8.1	65
Financial Occupations	1.6	43	6.9	189
Mathematical and Computer Scientists	1.3	40	7.2	230
Engineering, Architecture, and Surveyors	1.6	47	9.2	265
Drafters and Engineering Technicians	5.4	32	11.7	70
Life, Physical, and Social Science Occupations	1.2	16	8.1	111
Physical Scientists	0.9	6	6.6	46
Social Scientists and Related Workers	1.9	6	11.7	38
Community and Social Services Occupations	1.4	29	6.9	138
Legal Occupations	0.3	4	8.1	113
Lawyers	0.0	0	9.7	74
Education, Training, and Library Occupations	0.9	55	4.8	298
Elementary and Middle School Teachers	0.4	10	4.6	112
Secondary School Teachers	1.1	11	7.8	79
Special Education Teachers	1.9	7	3.1	11
Other Teachers and Instructors	0.9	14	3.6	57
Arts, Design, Entertainment, Sports, and Media Occupations	3.2	69	8.2	177

See notes at end of table.

(continued)

Table 3.4 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Occupational Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Occupational Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Healthcare Practitioners and Technical Occupations	1.4	103	5.4	408
Health Diagnosing and Treatment Practitioners	0.8	29	4.6	167
Registered Nurses	0.8	17	4.0	82
Health Care Technical and Support Occupations	1.9	74	6.0	241
Nursing, Psychiatric, and Home Health Aides	2.0	31	5.5	86
Protective Service Occupations	1.0	25	7.3	190
Protective Service Managers and Supervisors, Firefighter and Prevention Workers, Law Enforcement Workers	0.2	4	7.3	127
Other Protective Service Workers	2.5	21	7.3	63
Food Preparation and Serving Related Occupations	6.5	303	14.7	684
Food Preparation Supervisors and Managers	5.0	30	9.4	56
Cooks	5.5	96	12.0	209
Food Preparation Workers	3.7	21	13.4	77
Food and Beverage Serving and Other Food Preparation Serving Related Occupations	8.9	156	19.6	342
Building and Grounds Cleaning and Maintenance Occupations	3.4	118	10.0	344
Personal Care and Service Occupations	2.7	63	6.6	156
Personal Appearance Workers	1.8	11	8.5	53
Child Care Workers	1.8	16	4.2	39
Personal and Homecare Aides	*	*	7.3	32
Sales and Related Occupations	3.1	355	10.3	1,198
Retail Sales	3.6	70	12.2	238
Sales Representatives, Services	2.3	11	20.7	98
Sales Representatives, Wholesale and Manufacturing	3.4	47	12.4	173

See notes at end of table.

(continued)

Table 3.4 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Occupational Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Occupational Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Office and Administrative Support Occupations	2.5	385	7.6	1,189
Farming, Fishing, and Forestry Occupations	2.8	28	8.9	91
Construction and Extraction Occupations	6.2	514	16.9	1,391
Carpenters	7.4	139	16.6	314
Carpet, Floor, Tile Installers, and Finishers	7.0	17	16.8	41
Construction Laborer	9.8	91	21.7	201
Construction Equipment Operator	2.4	10	10.6	43
Electricians	4.1	33	14.8	120
Roofers	8.0	17	21.1	46
Other Construction Related Workers	6.0	143	18.0	429
Extraction Workers	*	*	10.9	13
Installation, Maintenance, and Repair Occupations	2.1	105	9.9	489
Production Occupations	2.9	256	9.5	847
Transportation and Material-Moving Occupations	3.1	207	11.1	749
Motor Vehicle Operators	3.2	8	*	*
Bus Drivers	*	*	3.1	13
Truck Drivers, Heavy and Tractor-Trailer	2.6	88	11.6	393
Material-Moving Workers	4.8	96	12.8	257

*Low precision; no estimate reported.
NOTE: Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Estimates in the Total row include respondents with unknown or other occupational information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 3.5 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Industry Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[1]	8.2	9,413	6.4	7,293	8.8	10,113
Agriculture, Forestry, Fishing, and Hunting	6.2	108	2.3	40	9.7	169
Crop Production	5.7	41	1.7	12	7.6	55
Animal Production	3.1	20	1.1	7	10.3	66
Mining	7.3	38	2.5	13	13.3	69
Utilities	3.8	41	3.3	36	10.1	109
Construction	13.7	1,465	11.7	1,251	15.9	1,699
Manufacturing	6.5	1,109	5.1	857	9.5	1,608
Food Manufacturing	6.5	93	5.3	76	8.0	115
Textile Mills and Textile Product Mills	5.3	20	3.9	15	9.8	38
Apparel Manufacturing	7.2	27	3.6	14	4.6	18
Wood Product Manufacturing	8.1	98	6.3	76	13.2	159
Paper Manufacturing	6.0	33	4.8	26	8.5	47
Printing and Related Support Activities	9.2	74	7.7	62	8.9	71
Chemical Manufacturing	5.6	74	4.4	58	9.5	126
Plastics and Rubber Products Manufacturing	6.3	48	4.4	34	13.4	102
Nonmetallic Mineral Product Manufacturing	6.2	31	5.1	25	9.5	47
Metal Industries Manufacturing	10.8	182	8.3	140	9.9	168
Machinery Manufacturing	6.1	80	4.4	59	12.6	167
Computer and Electronic Product Manufacturing	4.2	69	3.7	61	5.9	98
Electrical Equipment, Appliance, and Component Manufacturing	5.7	30	5.2	27	5.8	30
Transportation Equipment Manufacturing	5.4	147	3.9	105	9.9	269
Miscellaneous Manufacturing	6.6	82	4.8	59	8.6	106
Wholesale Trade	8.5	335	6.5	255	11.5	452
Merchant Wholesalers, Durable Goods	9.2	181	7.3	144	12.1	238
Merchant Wholesalers, Nondurable Goods	7.8	154	5.7	111	10.9	214

See notes at end of table.

(continued)

Table 3.5 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Industry Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Retail Trade	9.4	1,015	7.3	786	8.8	950
Motor Vehicle and Parts Dealers	11.1	147	8.5	113	12.3	163
Furniture and Home Furnishings Stores	10.2	57	7.8	44	7.4	42
Electronics and Appliance Stores	9.8	70	8.8	64	7.7	55
Building Material and Garden Equipment and Supplies Dealers	9.0	88	6.8	66	13.2	128
Food and Beverage Stores (including Beer, Wine, and Liquor Stores)	7.8	158	6.0	120	9.1	182
Health and Personal Care Stores	8.8	64	5.8	42	4.3	31
Gasoline Stations	11.0	48	7.9	34	6.6	29
Clothing and Clothing Accessories Stores	10.2	95	7.9	73	4.8	45
Sporting Goods, Hobby, Book, and Music Stores	11.5	60	8.8	46	12.2	64
General Merchandise Stores	15.4	37	9.3	23	8.4	20
Department Stores	4.9	38	3.9	30	6.8	53
Miscellaneous Store Retailers	8.6	73	7.4	63	8.3	71
Non-Store Retailers	10.5	81	8.8	68	8.7	67
Transportation and Warehousing	6.2	318	4.5	230	8.6	440
Air Transportation	3.4	15	1.9	8	6.0	26
Rail Transportation	3.3	8	2.1	5	7.4	18
Truck Transportation	6.4	98	5.2	79	11.1	169
Transit and Ground Passenger Transportation	4.3	27	2.2	14	6.3	40
Support Activities for Transportation	7.6	50	5.5	36	7.2	47
Postal Service	6.1	48	3.6	29	6.0	47
Warehousing and Storage	3.1	8	2.8	7	7.5	19
Information	11.3	318	9.2	260	10.4	293
Publishing Industries (except Internet)	12.2	100	10.9	90	7.8	64
Broadcasting (except Internet) and Telecommunications	11.9	196	9.4	155	12.6	207
Internet Publishing and Broadcasting, Internet Service Providers, Web Search Portals, and Data Processing Services	5.8	19	4.7	15	6.5	21

See notes at end of table.

(continued)

Table 3.5 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Industry Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Finance and Insurance	6.8	392	4.9	286	6.9	398
Securities, Commodity Contracts, Funds, Trusts, and Other Financial Investments and Related Activities	6.7	75	5.2	58	6.7	75
Insurance Carriers and Related Activities	5.8	123	3.7	77	6.4	134
Banking, Savings Institutions (including Credit Unions), and Related Activities	5.8	99	4.6	79	4.8	83
Real Estate and Rental and Leasing	7.5	150	5.6	111	9.8	194
Real Estate	7.3	124	5.7	96	10.5	178
Rental and Leasing Services (including Leasers of Non-Financial Intangible Assets)	8.6	26	5.2	16	5.6	17
Professional, Scientific, and Technical Services	8.0	598	6.2	469	7.1	531
Management of Companies and Enterprises, Administrative, Support, Waste Management, and Remediation Services	10.9	452	8.7	360	10.4	429
Investigation and Security Services	5.3	30	4.5	26	6.3	36
Janitorial Services	9.1	83	6.7	61	8.1	74
Landscaping Services	14.4	135	12.9	121	16.5	154
Waste Management and Remediation Services	12.2	46	8.8	33	11.1	42
Educational Services	4.0	353	2.9	263	4.0	359
Elementary and Secondary Schools	3.6	255	2.7	187	3.8	265
Colleges	5.2	80	4.1	63	5.4	82
Health Care and Social Assistance	6.1	808	4.0	532	4.3	578
Home Health Care Services	6.3	37	4.0	24	3.3	20
Hospitals	5.1	166	3.7	123	4.8	158
Nursing and Residential Care Facilities	7.4	126	4.8	82	6.2	106
Social Assistance	7.6	170	5.1	113	3.6	81
Individual and Family Services	8.1	72	5.4	47	3.2	29
Child Day Care Services	7.2	87	4.8	58	3.5	43

See notes at end of table.

(continued)

Table 3.5 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Industry Category	Past Month Illicit Drug Use		Past Month Marijuana Use		Past Month Heavy Alcohol Use	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Arts, Entertainment, and Recreation	11.6	187	9.5	153	13.6	219
Performing Arts, Spectator, and Related Industries	15.5	83	13.2	71	10.6	56
Amusement, Gambling, and Recreation Industries	10.4	87	8.4	70	15.4	129
Accommodations and Food Services	16.9	975	13.9	804	12.0	694
Traveler Accommodation	7.8	64	6.6	54	7.7	63
Food Services and Drinking Places	18.4	902	15.1	743	12.8	630
Other Services (except Public Administration)	8.8	459	7.3	381	9.9	517
Repair and Maintenance	11.6	281	9.7	235	15.3	371
Automotive Repair and Maintenance	12.5	198	10.8	172	16.3	258
Commercial and Industrial Machinery and Equipment	10.7	38	7.0	25	18.6	66
Personal and Laundry Services	9.5	133	8.1	113	7.4	103
Personal Care Services	9.2	71	8.1	63	7.2	56
Religious, Grantmaking, Civic, Professional, and Similar Organizations	2.3	22	2.0	18	3.3	31
Religious Organizations	0.5	3	0.3	1	0.6	3
Civic and Social Organizations	5.6	16	4.9	14	4.6	13
Public Administration	4.1	261	2.8	182	5.9	373
Executive, Legislative, and Other General Government Support	6.3	108	4.5	78	4.5	77
Justice, Public Order, and Safety Activities	2.0	51	1.3	33	7.2	184

*Low precision; no estimate reported.

NOTE: Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
NOTE: Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[1] Estimates in the Total row include respondents with unknown or other industry information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 3.6 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Industry Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[1]	2.6	3,030	9.2	10,562
Agriculture, Forestry, Fishing, and Hunting	2.3	39	8.8	153
Crop Production	2.7	20	8.3	60
Animal Production	1.3	8	7.2	46
Mining	3.3	17	8.6	44
Utilities	1.9	21	9.4	101
Construction	5.1	548	15.6	1,669
Manufacturing	2.4	411	9.5	1,609
Food Manufacturing	3.8	54	10.1	146
Textile Mills and Textile Product Mills	*	*	11.0	42
Apparel Manufacturing	*	*	7.2	27
Wood Product Manufacturing	3.3	40	12.2	147
Paper Manufacturing	2.4	13	8.4	46
Printing and Related Support Activities	2.1	17	9.8	79
Chemical Manufacturing	2.4	32	7.4	98
Plastics and Rubber Products Manufacturing	2.4	18	9.9	75
Nonmetallic Mineral Product Manufacturing	1.8	9	12.3	61
Metal Industries Manufacturing	4.5	77	11.7	199
Machinery Manufacturing	1.7	23	7.8	104
Computer and Electronic Product Manufacturing	1.5	25	7.7	128
Electrical Equipment, Appliance, and Component Manufacturing	1.0	5	8.2	43
Transportation Equipment Manufacturing	1.9	52	9.5	260
Miscellaneous Manufacturing	1.7	21	9.0	111
Wholesale Trade	2.8	109	12.0	472
Merchant Wholesalers, Durable Goods	2.6	51	13.2	259
Merchant Wholesalers, Nondurable Goods	2.9	58	10.8	213

See notes at end of table.

(continued)

Table 3.6 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Industry Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Retail Trade	3.1	341	9.1	991
Motor Vehicle and Parts Dealers	2.7	36	9.9	132
Furniture and Home Furnishings Stores	1.9	11	8.4	47
Electronics and Appliance Stores	3.9	28	12.0	87
Building Material and Garden Equipment and Supplies Dealers	2.7	26	10.0	97
Food and Beverage Stores (including Beer, Wine, and Liquor Stores)	3.1	62	9.7	196
Health and Personal Care Stores	3.8	28	9.6	69
Gasoline Stations	5.4	23	11.1	48
Clothing and Clothing Accessories Stores	4.7	43	9.0	84
Sporting Goods, Hobby, Book, and Music Stores	2.7	14	6.5	34
General Merchandise Stores	*	*	7.5	18
Department Stores	2.5	20	8.5	65
Miscellaneous Store Retailers	2.1	18	4.9	41
Non-Store Retailers	3.5	27	9.4	73
Transportation and Warehousing	2.2	111	8.1	410
Air Transportation	0.6	2	7.9	35
Rail Transportation	*	*	8.9	22
Truck Transportation	2.7	40	8.7	133
Transit and Ground Passenger Transportation	1.8	11	4.6	29
Support Activities for Transportation	2.2	14	8.8	58
Postal Service	0.8	6	7.5	59
Warehousing and Storage	*	*	4.5	11
Information	2.2	61	8.9	250
Publishing Industries (except Internet)	3.4	28	7.2	59
Broadcasting (except Internet) and Telecommunications	1.7	28	9.5	156
Internet Publishing and Broadcasting, Internet Service Providers, Web Search Portals, and Data Processing Services	1.7	5	8.3	27

See notes at end of table.

(continued)

Table 3.6 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Industry Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Finance and Insurance	1.9	112	8.4	485
Securities, Commodity Contracts, Funds, Trusts and Other Financial Investments and Related Activities	1.9	22	10.2	114
Insurance Carriers and Related Activities	1.5	31	8.3	174
Banking, Savings Institutions (including Credit Unions) and Related Activities	1.5	25	6.1	104
Real Estate and Rental and Leasing	2.3	45	8.2	162
Real Estate	2.1	35	8.3	141
Rental and Leasing Services (including Leasers of Non-Financial Intangible Assets)	3.5	11	7.2	22
Professional, Scientific, and Technical Services	1.9	142	8.5	635
Management of Companies and Enterprises, Administrative, Support, Waste Management, and Remediation Services	4.3	176	12.4	511
Investigation and Security Services	2.9	16	8.7	50
Janitorial Services	4.9	45	9.3	85
Landscaping Services	6.0	57	19.3	181
Waste Management and Remediation Services	1.9	7	*	*
Educational Services	0.7	64	4.7	416
Elementary and Secondary Schools	0.8	56	4.6	322
Colleges	0.3	5	4.0	62
Health Care and Social Assistance	1.7	226	5.6	740
Home Health Care Services	*	*	5.1	30
Hospitals	0.9	31	5.5	181
Nursing and Residential Care Facilities	2.2	38	6.9	118
Social Assistance	1.8	41	5.0	111
Individual and Family Services	2.2	20	6.2	55
Child Day Care Services	1.6	20	3.6	44

See notes at end of table.

(continued)

Table 3.6 Substance Dependence or Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Industry Categories: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004 (continued)

Industry Category	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Arts, Entertainment, and Recreation	4.0	65	11.1	178
Performing Arts, Spectator, and Related Industries	6.2	33	12.9	69
Amusement, Gambling, and Recreation Industries	3.1	26	10.7	90
Accommodations and Food Services	6.0	349	15.4	890
Traveler Accommodation	2.7	22	10.8	88
Food Services and Drinking Places	6.6	323	16.3	800
Other Services (except Public Administration)	2.3	122	8.3	433
Repair and Maintenance	3.2	78	11.1	268
Automotive Repair and Maintenance	3.5	55	11.4	181
Commercial and Industrial Machinery and Equipment	2.1	7	9.7	34
Personal and Laundry Services	2.8	39	8.4	117
Personal Care Services	2.7	21	9.0	70
Religious, Grantmaking, Civic, Professional, and Similar Organizations	0.3	3	3.3	31
Religious Organizations	0.3	2	1.8	10
Civic and Social Organizations	0.3	1	2.4	7
Public Administration	0.9	56	6.1	388
Executive, Legislative, and Other General Government Support	1.3	23	6.6	113
Justice, Public Order, and Safety Activities	0.4	11	7.1	180

*Low precision; no estimate reported.
NOTE: Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Estimates in the Total row include respondents with unknown or other industry information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

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Table 3.7 Illicit Drug, Marijuana, and Heavy Alcohol Use in the Past Month among Full-Time Workers Aged 18 to 64, by Establishment Size: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Establishment Size	Past Month Illicit Drug Use[1]		Past Month Marijuana Use		Past Month Heavy Alcohol Use[2]	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[3]	8.2	9,413	6.4	7,293	8.8	10,113
Less Than 10 Employees	9.9	2,874	7.9	2,286	10.1	2,935
10-24 Employees	9.7	1,891	7.8	1,513	9.2	1,802
25-99 Employees	8.2	2,165	6.4	1,690	8.5	2,265
100-499 Employees	6.7	1,531	4.9	1,114	8.6	1,956
500 or More Employees	5.7	928	4.1	674	6.8	1,121

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.
[2] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.
[3] Estimates in the Total row include respondents with unknown establishment size information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

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Table 3.8 Substance Dependence and Abuse in the Past Year among Full-Time Workers Aged 18 to 64, by Establishment Size: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Establishment Size	Past Year Illicit Drug Dependence or Abuse		Past Year Alcohol Dependence or Abuse	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[1]	2.6	3,030	9.2	10,562
Less Than 10 Employees	3.1	891	9.8	2,840
10-24 Employees	3.5	676	9.9	1,935
25-99 Employees	2.4	624	9.4	2,489
100-499 Employees	2.5	577	9.0	2,054
500 or More Employees	1.6	256	7.5	1,227

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Estimates in the Total row include respondents with unknown establishment size information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.1 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	43.8	47,701	78.7	87,010	58.4	60,929
Age						
18-25	33.2	4,685	76.9	10,856	39.7	5,064
26-34	39.6	9,411	79.3	18,993	56.4	12,669
35-49	46.3	20,827	79.8	36,552	62.4	27,107
50-64	48.9	12,778	77.1	20,609	62.6	16,088
Gender						
Male	44.0	27,630	76.4	48,806	56.5	34,181
Female	43.4	20,071	81.8	38,204	61.0	26,748
Hispanic Origin and Race						
Not Hispanic or Latino	44.6	42,099	79.5	76,200	61.2	55,324
White	42.7	32,219	78.4	59,920	60.6	43,800
Black or African American	56.3	7,106	86.9	11,210	65.7	8,002
American Indian or Alaska Native	54.1	313	84.2	494	62.7	330
Native Hawaiian or Other Pacific Islander	54.0	176	*	*	*	*
Asian	41.6	1,862	77.3	3,476	57.5	2,387
Two or More Races	42.1	423	80.1	823	62.0	608
Hispanic or Latino	38.4	5,601	73.1	10,810	40.4	5,604

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.2 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, and Geographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	43.8	47,701	78.7	87,010	58.4	60,929
Education						
Less Than High School	34.2	4,670	69.0	9,564	32.1	4,158
High School Graduate	44.3	14,868	78.4	26,952	55.4	17,697
Some College	45.4	12,957	80.9	23,506	61.7	16,924
College Graduate	45.8	15,205	81.1	26,989	69.3	22,149
Family Income						
Less Than $20,000	31.9	3,652	68.2	7,876	31.4	3,335
$20,000-49,999	41.5	16,419	77.1	31,106	52.1	19,524
$50,000-74,999	46.6	11,004	82.3	19,681	65.4	14,835
$75,000 or More	48.4	16,625	81.5	28,348	69.2	23,235
Geographic Region						
Northeast	41.2	8,487	75.4	15,587	58.9	11,539
Midwest	43.6	10,723	80.4	20,161	62.0	14,593
South	45.8	18,119	79.9	32,238	56.3	21,472
West	42.8	10,372	77.7	19,024	57.7	13,324
County Type[1]						
Large MSA	42.0	25,431	78.1	47,795	59.3	34,415
Small MSA	45.9	14,456	80.8	25,857	59.6	17,918
MiSA	45.5	4,609	78.5	8,132	56.1	5,425
Noncore Adjacent with Town	47.5	2,254	75.1	3,665	49.3	2,233
Noncore Adjacent, No Town	49.2	487	77.1	784	47.5	451
Noncore Rural, Not Adjacent	41.2	464	69.6	777	47.2	487

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.3 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	32.1	44.8	71.0	79.4	45.4	59.6
Age						
18-25	28.2	34.4	70.5	78.4	34.3	41.0
26-34	31.3	40.6	70.3	80.4	44.4	57.9
35-49	35.7	47.1	70.9	80.5	51.9	63.2
50-64	33.2	49.3	76.3	77.1	58.2	62.7
Gender						
Male	31.7	45.3	68.5	77.3	43.5	57.9
Female	32.8	44.2	76.3	82.2	49.4	61.8
Hispanic Origin and Race						
Not Hispanic or Latino	32.0	45.8	71.2	80.3	46.4	62.5
White	30.6	43.9	69.9	79.2	47.0	61.9
Black or African American	40.6	57.6	77.9	87.7	43.1	67.7
American Indian or Alaska Native	*	54.2	*	84.1	*	63.6
Native Hawaiian or Other Pacific Islander	*	54.5	*	*	*	*
Asian	*	41.9	*	77.3	*	57.7
Two or More Races	27.2	44.5	69.7	81.7	31.2	66.8
Hispanic or Latino	32.7	38.9	69.9	73.3	37.1	40.7

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.4 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	32.1	44.8	71.0	79.4	45.4	59.6
Education						
Less Than High School	29.5	34.8	66.2	69.4	28.5	32.5
High School Graduate	32.6	45.4	71.2	79.1	43.8	56.5
Some College	34.2	46.5	73.3	81.6	48.2	63.0
College Graduate	30.7	46.7	71.7	81.7	57.5	70.0
Family Income						
Less Than $20,000	27.9	32.5	63.1	68.9	25.9	32.3
$20,000-49,999	32.3	42.4	71.9	77.7	44.3	52.9
$50,000-74,999	30.4	47.9	74.8	82.9	51.8	66.5
$75,000 or More	36.2	49.2	72.2	82.1	55.3	70.0
Geographic Region						
Northeast	29.3	42.3	68.2	76.1	48.0	60.0
Midwest	31.4	44.7	73.6	81.0	48.4	63.2
South	33.4	46.9	71.3	80.6	39.5	57.7
West	33.2	43.7	70.7	78.3	48.5	58.6
County Type[2]						
Large MSA	31.0	43.0	70.7	78.7	47.9	60.3
Small MSA	34.8	47.0	72.6	81.6	43.7	61.1
MiSA	30.6	46.6	69.5	79.2	39.5	57.3
Noncore Adjacent with Town	30.7	48.7	64.3	75.8	34.2	50.3
Noncore Adjacent, No Town	*	50.5	*	77.8	*	47.7
Noncore Rural, Not Adjacent	*	41.8	*	69.2	*	48.0

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.5 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Heavy Alcohol Use: Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	3,611	44,089	7,240	79,770	4,692	56,236
Age						
18-25	703	3,981	1,650	9,206	792	4,272
26-34	906	8,505	1,851	17,142	1,238	11,431
35-49	1,569	19,259	2,811	33,741	2,003	25,104
50-64	433	12,344	929	19,680	659	15,429
Gender						
Male	2,954	24,676	5,771	43,035	3,736	30,444
Female	658	19,413	1,469	36,735	956	25,792
Hispanic Origin and Race						
Not Hispanic or Latino	3,194	38,905	6,475	69,724	4,299	51,025
White	2,770	29,449	5,676	54,244	3,828	39,972
Black or African American	330	6,775	596	10,614	338	7,664
American Indian or Alaska Native	*	292	*	448	*	298
Native Hawaiian or Other Pacific Islander	*	161	*	*	*	*
Asian	37	1,825	*	3,401	*	2,343
Two or More Races	20	403	*	773	*	574
Hispanic or Latino	417	5,184	765	10,045	393	5,211

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.6 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	37.2	44.4	73.7	79.2	51.1	59.1
Age						
18-25	30.3	33.8	71.5	77.9	38.1	40.1
26-34	36.0	40.1	74.1	79.9	53.4	56.8
35-49	43.1	46.6	75.0	80.3	56.5	62.9
50-64	35.0	49.5	73.4	77.3	53.4	63.1
Gender						
Male	37.8	44.9	73.1	76.9	50.5	57.4
Female	34.6	43.8	76.5	82.0	53.7	61.3
Hispanic Origin and Race						
Not Hispanic or Latino	36.7	45.4	73.6	80.2	52.2	62.1
White	36.0	43.5	72.7	79.1	52.4	61.5
Black or African American	47.5	56.8	85.2	87.0	51.2	66.6
American Indian or Alaska Native	*	55.3	*	83.8	*	61.6
Native Hawaiian or Other Pacific Islander	*	55.1	*	*	*	*
Asian	27.2	42.1	*	77.8	*	58.2
Two or More Races	25.4	43.5	*	81.5	*	62.9
Hispanic or Latino	41.0	38.2	75.0	72.9	41.4	40.4

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.7 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Heavy Alcohol Use: Numbers in Thousands, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	3,611	44,089	7,240	79,770	4,692	56,236
Education						
Less Than High School	495	4,175	998	8,566	460	3,698
High School Graduate	1,318	13,550	2,568	24,384	1,589	16,108
Some College	994	11,963	1,994	21,512	1,353	15,571
College Graduate	804	14,401	1,681	25,308	1,291	20,858
Family Income						
Less Than $20,000	327	3,325	716	7,160	299	3,036
$20,000-49,999	1,399	15,020	2,870	28,235	1,710	17,813
$50,000-74,999	912	10,092	1,733	17,948	1,222	13,613
$75,000 or More	973	15,652	1,921	26,427	1,461	21,774
Geographic Region						
Northeast	599	7,888	1,219	14,367	883	10,656
Midwest	988	9,735	1,986	18,175	1,340	13,253
South	1,283	16,835	2,550	29,688	1,468	20,004
West	741	9,631	1,485	17,540	1,001	12,323
County Type[2]						
Large MSA	1,766	23,665	3,740	44,055	2,560	31,854
Small MSA	1,234	13,222	2,362	23,495	1,447	16,471
MiSA	358	4,251	696	7,436	412	5,013
Noncore Adjacent with Town	194	2,060	325	3,340	208	2,025
Noncore Adjacent, No Town	*	459	*	720	*	420
Noncore Rural, Not Adjacent	*	433	*	724	*	453

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.8 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	37.2	44.4	73.7	79.2	51.1	59.1
Education						
Less Than High School	33.1	34.4	66.9	69.3	32.9	32.0
High School Graduate	38.7	44.9	74.1	78.8	49.4	56.0
Some College	38.9	46.0	75.8	81.4	55.1	62.4
College Graduate	35.5	46.5	75.3	81.5	61.2	69.9
Family Income						
Less Than $20,000	28.8	32.2	64.1	68.6	29.2	31.7
$20,000-49,999	36.1	42.1	72.8	77.6	47.1	52.7
$50,000-74,999	42.2	47.1	78.5	82.7	58.7	66.1
$75,000 or More	38.2	49.2	75.2	82.0	59.9	69.9
Geographic Region						
Northeast	34.1	41.8	69.7	76.0	53.6	59.4
Midwest	37.2	44.3	74.3	81.1	54.4	62.9
South	37.6	46.6	73.9	80.5	45.0	57.4
West	39.3	43.1	76.4	77.8	55.5	57.9
County Type[2]						
Large MSA	35.4	42.6	73.9	78.5	53.8	59.8
Small MSA	39.8	46.6	75.9	81.3	49.7	60.6
MiSA	38.1	46.2	72.2	79.2	46.6	57.0
Noncore Adjacent with Town	38.5	48.6	63.6	76.5	45.3	49.8
Noncore Adjacent, No Town	*	51.0	*	77.9	*	48.6
Noncore Rural, Not Adjacent	*	41.6	*	69.9	*	47.8

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.9 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Year Illicit Drug Dependence or Abuse: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Year Illicit Drug Dependence or Abuse	No Past Year Illicit Drug Dependence or Abuse	Past Year Illicit Drug Dependence or Abuse	No Past Year Illicit Drug Dependence or Abuse	Past Year Illicit Drug Dependence or Abuse	No Past Year Illicit Drug Dependence or Abuse
Total	29.5	44.2	70.6	78.9	38.4	59.0
Age						
18-25	26.6	33.8	69.3	77.5	30.9	40.5
26-34	29.8	40.0	70.9	79.6	37.5	57.1
35-49	34.3	46.5	73.9	80.0	45.4	62.7
50-64	*	49.0	*	77.2	*	62.7
Gender						
Male	30.2	44.5	69.2	76.7	37.3	57.2
Female	27.8	43.7	74.1	81.9	40.8	61.4
Hispanic Origin and Race						
Not Hispanic or Latino	28.9	45.0	69.8	79.8	39.9	61.7
White	27.9	43.1	68.4	78.7	39.3	61.1
Black or African American	34.5	56.9	76.6	87.2	40.5	66.5
American Indian or Alaska Native	*	55.0	*	85.6	*	63.9
Native Hawaiian or Other Pacific Islander	*	53.9	*	*	*	*
Asian	*	41.9	*	77.5	*	57.6
Two or More Races	*	42.8	*	80.0	*	62.9
Hispanic or Latino	32.6	38.6	74.9	73.0	30.0	40.8

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.10 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Year Alcohol Dependence or Abuse: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Year Alcohol Dependence or Abuse	No Past Year Alcohol Dependence or Abuse	Past Year Alcohol Dependence or Abuse	No Past Year Alcohol Dependence or Abuse	Past Year Alcohol Dependence or Abuse	No Past Year Alcohol Dependence or Abuse
Total	37.2	44.4	74.9	79.1	51.0	59.2
Age						
18-25	29.2	34.1	73.4	77.7	36.7	40.4
26-34	34.1	40.4	73.4	80.2	49.8	57.4
35-49	43.1	46.6	77.0	80.1	58.6	62.7
50-64	45.8	49.0	75.8	77.1	61.8	62.6
Gender						
Male	38.0	44.8	73.1	76.9	49.5	57.5
Female	35.0	44.0	80.3	81.9	55.5	61.3
Hispanic Origin and Race						
Not Hispanic or Latino	38.1	45.2	76.0	79.9	54.1	61.9
White	36.3	43.4	74.8	78.8	54.7	61.2
Black or African American	51.6	56.6	84.8	87.1	51.5	66.9
American Indian or Alaska Native	*	54.9	*	83.8	*	65.1
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	*
Asian	*	42.0	*	77.5	*	58.2
Two or More Races	*	42.7	*	80.3	*	63.4
Hispanic or Latino	32.1	39.2	68.5	73.6	32.9	41.3

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 4.11 Workplace Provides Educational Information, Prepares a Written Policy, or Maintains an EAP concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Year Alcohol Dependence or Abuse: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Educational Information about Drug or Alcohol Use		Written Policy about Drug or Alcohol Use		EAP	
	Past Year Alcohol Dependence or Abuse	No Past Year Alcohol Dependence or Abuse	Past Year Alcohol Dependence or Abuse	No Past Year Alcohol Dependence or Abuse	Past Year Alcohol Dependence or Abuse	No Past Year Alcohol Dependence or Abuse
Total	37.2	44.4	74.9	79.1	51.0	59.2
Education						
Less Than High School	29.0	34.9	66.6	69.4	28.1	32.6
High School Graduate	41.0	44.6	76.4	78.6	48.6	56.1
Some College	38.6	46.1	76.3	81.4	55.3	62.4
College Graduate	36.3	46.6	77.0	81.4	64.4	69.7
Family Income						
Less Than $20,000	28.8	32.4	64.4	68.7	28.7	31.9
$20,000-49,999	34.9	42.2	74.3	77.4	47.1	52.7
$50,000-74,999	41.8	47.1	81.2	82.4	59.9	66.0
$75,000 or More	42.0	48.9	77.0	81.9	62.3	69.7
Geographic Region						
Northeast	33.1	41.9	70.9	75.8	52.6	59.5
Midwest	39.5	44.1	76.8	80.8	56.0	62.7
South	37.1	46.7	74.9	80.4	46.7	57.2
West	37.8	43.3	75.8	77.9	50.7	58.5
County Type[1]						
Large MSA	35.8	42.6	74.4	78.5	52.1	60.0
Small MSA	39.0	46.7	77.1	81.2	50.8	60.5
MiSA	38.1	46.1	75.6	78.8	50.4	56.6
Noncore Adjacent with Town	39.0	48.4	66.8	76.0	42.4	50.0
Noncore Adjacent, No Town	*	49.9	*	77.8	*	47.8
Noncore Rural, Not Adjacent	*	41.2	77.2	69.0	*	47.3

EAP = Employee Assistance Program.

*Low precision; no estimate reported.

NOTE: Dependence or abuse is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.1 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	35.4	38,743	48.8	54,019	42.9	47,050	29.6	32,015
Age								
18-25	30.5	4,306	46.7	6,654	39.0	5,534	27.3	3,799
26-34	34.2	8,175	49.9	12,058	44.3	10,631	29.6	6,978
35-49	37.5	16,934	50.4	23,025	44.7	20,220	30.6	13,669
50-64	35.3	9,328	46.0	12,282	40.8	10,666	29.1	7,569
Gender								
Male	37.7	23,969	51.4	32,953	45.8	29,034	33.0	20,736
Female	32.1	14,775	45.1	21,065	39.1	18,016	24.9	11,279
Hispanic Origin and Race								
Not Hispanic or Latino	35.1	33,235	49.1	47,130	43.1	40,828	29.7	27,862
White	33.3	25,181	46.9	35,975	40.5	30,691	28.3	21,201
Black or African American	46.7	5,914	63.1	8,058	58.1	7,340	41.9	5,201
American Indian or Alaska Native	48.1	277	59.9	342	50.8	289	48.0	272
Native Hawaiian or Other Pacific Islander	*	*	56.5	203	53.5	191	35.3	119
Asian	30.3	1,368	44.5	2,048	41.8	1,881	17.4	759
Two or More Races	34.4	347	49.1	504	42.8	436	30.9	311
Hispanic or Latino	37.4	5,508	46.5	6,888	42.3	6,222	28.7	4,152

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.2 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, and Geographic Characteristics: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total	35.4	38,743	48.8	54,019	42.9	47,050	29.6	32,015
Education								
Less Than High School	38.6	5,351	48.1	6,698	42.5	5,890	32.9	4,497
High School Graduate	40.6	13,773	54.6	18,786	48.5	16,528	35.0	11,805
Some College	37.9	10,866	51.7	15,068	45.7	13,142	32.1	9,109
College Graduate	26.5	8,753	40.4	13,467	35.0	11,490	20.4	6,603
Family Income								
Less Than $20,000	30.9	3,521	42.2	4,846	36.3	4,143	27.2	3,053
$20,000-49,999	36.7	14,690	49.8	20,137	44.0	17,643	31.2	12,336
$50,000-74,999	38.7	9,178	52.3	12,563	45.9	10,858	32.1	7,508
$75,000 or More	33.0	11,354	47.3	16,472	41.9	14,407	26.8	9,118
Geographic Region								
Northeast	26.8	5,557	38.7	8,058	34.4	7,073	20.4	4,150
Midwest	36.7	9,080	50.6	12,675	44.5	10,986	27.9	6,814
South	39.6	15,771	54.7	22,079	48.2	19,304	36.7	14,538
West	34.3	8,335	45.6	11,207	39.9	9,688	27.3	6,513
County Type[1]								
Large MSA	33.3	20,244	46.6	28,628	41.7	25,307	26.5	15,873
Small MSA	37.4	11,813	51.7	16,506	45.1	14,253	32.3	10,074
MiSA	38.7	3,949	51.9	5,379	44.7	4,571	35.1	3,581
Noncore Adjacent with Town	39.9	1,940	50.3	2,462	42.7	2,074	35.2	1,698
Noncore Adjacent, No Town	36.3	365	48.2	494	41.4	420	37.7	378
Noncore Rural, Not Adjacent	38.6	433	48.3	549	37.7	425	36.8	411

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.3 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	25.3	36.3	39.5	49.6	31.9	44.0	20.9	30.4
Age								
18-25	21.0	32.8	37.6	48.8	29.4	41.3	19.7	29.1
26-34	23.5	35.5	38.3	51.3	32.0	45.8	20.0	30.8
35-49	29.5	38.1	42.4	51.0	34.2	45.5	22.6	31.2
50-64	29.6	35.5	38.1	46.2	31.3	41.0	20.4	29.3
Gender								
Male	26.1	39.0	40.0	52.7	32.7	47.2	21.9	34.2
Female	23.7	32.6	38.5	45.5	30.2	39.7	18.7	25.3
Hispanic Origin and Race								
Not Hispanic or Latino	25.4	36.0	39.9	50.0	31.9	44.1	21.2	30.6
White	24.0	34.2	38.3	47.8	30.1	41.5	20.0	29.1
Black or African American	32.5	48.0	48.9	64.3	42.9	59.5	29.4	43.0
American Indian or Alaska Native	*	48.3	*	59.6	*	50.0	*	48.6
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	*	*	*
Asian	*	30.4	*	44.7	*	42.0	*	17.4
Two or More Races	*	35.1	40.1	50.5	24.0	45.7	*	32.2
Hispanic or Latino	25.1	38.3	36.7	47.2	31.6	43.0	17.8	29.5

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.4 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	25.3	36.3	39.5	49.6	31.9	44.0	20.9	30.4
Education								
Less Than High School	27.8	40.0	39.6	49.2	31.5	43.9	24.0	34.0
High School Graduate	29.8	41.7	45.5	55.5	35.8	49.8	23.7	36.1
Some College	25.5	39.1	40.0	52.9	33.7	46.8	20.8	33.2
College Graduate	16.0	27.1	29.1	41.1	23.7	35.7	13.9	20.8
Family Income								
Less Than $20,000	20.8	32.5	34.8	43.3	26.2	37.9	20.2	28.3
$20,000-49,999	26.4	37.8	41.0	50.7	33.3	45.1	24.4	31.9
$50,000-74,999	29.7	39.4	44.1	53.0	34.5	46.9	19.4	33.2
$75,000 or More	23.1	33.6	36.4	48.0	31.5	42.6	16.3	27.5
Geographic Region								
Northeast	17.7	27.8	28.2	39.8	23.8	35.4	14.5	21.0
Midwest	26.3	37.7	42.6	51.3	35.9	45.3	21.1	28.5
South	29.9	40.4	45.1	55.5	35.3	49.3	26.1	37.6
West	24.6	35.3	38.4	46.3	30.5	40.9	18.7	28.1
County Type[2]								
Large MSA	24.3	34.1	38.1	47.4	31.5	42.6	18.6	27.3
Small MSA	26.2	38.6	41.3	52.7	32.0	46.4	23.9	33.1
MiSA	27.0	39.6	42.6	52.6	34.1	45.5	23.2	36.0
Noncore Adjacent with Town	29.9	40.6	39.7	51.0	33.4	43.4	24.9	35.9
Noncore Adjacent, No Town	*	36.1	*	48.5	*	41.4	*	38.4
Noncore Rural, Not Adjacent	*	39.6	*	49.3	*	38.8	*	37.5

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.5 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Heavy Alcohol Use: Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	3,313	35,431	4,892	49,127	4,071	42,980	2,922	29,093
Age								
18-25	559	3,748	989	5,664	802	4,732	560	3,238
26-34	818	7,357	1,253	10,804	1,025	9,605	721	6,257
35-49	1,428	15,506	1,964	21,061	1,664	18,556	1,220	12,449
50-64	508	8,820	685	11,597	580	10,086	420	7,149
Gender								
Male	2,825	21,143	4,115	28,839	3,436	25,599	2,538	18,197
Female	487	14,287	777	20,288	635	17,381	384	10,895
Hispanic Origin and Race								
Not Hispanic or Latino	2,958	30,277	4,376	42,755	3,642	37,186	2,615	25,247
White	2,546	22,634	3,778	32,198	3,102	27,588	2,258	18,943
Black or African American	321	5,593	455	7,603	415	6,924	271	4,931
American Indian or Alaska Native	*	250	*	304	*	256	*	235
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	*	*	*
Asian	*	1,343	*	1,996	*	1,832	*	739
Two or More Races	*	321	*	467	*	406	*	290
Hispanic or Latino	355	5,154	516	6,372	428	5,794	307	3,845

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.6 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	33.6	35.5	49.5	48.7	41.5	43.1	30.0	29.6
Age								
18-25	24.0	31.8	42.4	47.5	34.4	39.9	24.5	27.8
26-34	32.2	34.5	49.2	50.0	40.4	44.8	28.8	29.7
35-49	38.7	37.4	52.8	50.2	45.0	44.7	33.1	30.4
50-64	39.6	35.1	53.5	45.7	46.4	40.5	33.3	28.9
Gender								
Male	35.7	38.0	51.8	51.4	43.5	46.1	32.3	33.1
Female	25.3	32.4	40.3	45.3	33.1	39.3	20.3	25.1
Hispanic Origin and Race								
Not Hispanic or Latino	33.5	35.2	49.3	49.1	41.4	43.2	29.9	29.7
White	32.4	33.4	48.0	46.8	39.8	40.6	29.1	28.2
Black or African American	45.7	46.8	64.4	63.0	58.8	58.1	39.2	42.0
American Indian or Alaska Native	*	47.6	*	58.4	*	49.4	*	45.7
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	*	*	*
Asian	*	30.7	*	44.8	*	42.0	*	17.5
Two or More Races	*	34.4	*	49.0	*	43.0	*	31.1
Hispanic or Latino	35.1	37.5	51.6	46.1	42.4	42.2	30.7	28.5

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.7 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	33.6	35.5	49.5	48.7	41.5	43.1	30.0	29.6
Education								
Less Than High School	37.3	38.8	49.9	47.9	39.1	42.9	32.2	32.9
High School Graduate	36.9	41.0	53.6	54.7	45.3	48.8	33.7	35.1
Some College	34.4	38.2	51.0	51.8	44.3	45.8	31.5	32.2
College Graduate	25.4	26.6	41.2	40.3	33.9	35.1	20.9	20.4
Family Income								
Less Than $20,000	26.0	31.4	38.5	42.6	30.8	36.9	24.9	27.5
$20,000-49,999	34.4	37.0	50.7	49.7	42.5	44.1	30.5	31.3
$50,000-74,999	39.3	38.6	56.5	51.9	46.1	45.9	34.9	31.8
$75,000 or More	30.9	33.1	46.5	47.3	40.7	42.0	27.2	26.7
Geographic Region								
Northeast	24.3	27.1	37.6	38.8	32.8	34.5	21.4	20.4
Midwest	35.7	36.9	50.7	50.5	43.9	44.6	29.4	27.8
South	36.4	39.9	53.6	54.8	44.5	48.5	35.7	36.8
West	34.4	34.3	51.6	45.1	40.7	39.9	28.5	27.2
County Type[2]								
Large MSA	30.2	33.6	46.9	46.6	39.9	41.8	26.3	26.6
Small MSA	35.8	37.6	52.2	51.6	42.9	45.4	32.7	32.3
MiSA	41.0	38.4	53.9	51.7	44.1	44.7	35.2	35.1
Noncore Adjacent with Town	38.6	40.0	51.0	50.2	44.1	42.6	35.7	35.2
Noncore Adjacent, No Town	*	36.2	*	48.6	*	42.1	*	37.5
Noncore Rural, Not Adjacent	*	38.5	*	48.0	*	37.3	*	36.4

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.8 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Marijuana Use: Numbers in Thousands, Annual Averages Based on 2002-2004

Demographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	1,580	37,163	2,667	51,351	2,066	44,985	1,338	30,676
Age								
18-25	445	3,862	827	5,827	625	4,910	410	3,389
26-34	398	7,777	702	11,356	560	10,070	351	6,627
35-49	610	16,324	962	22,063	742	19,478	492	13,177
50-64	127	9,201	*	12,106	139	10,526	85	7,484
Gender								
Male	1,164	22,805	1,917	31,036	1,501	27,533	1,006	19,730
Female	416	14,358	751	20,315	565	17,452	332	10,946
Hispanic Origin and Race								
Not Hispanic or Latino	1,455	31,780	2,452	44,678	1,890	38,938	1,245	26,617
White	1,145	24,036	1,960	34,015	1,476	29,215	978	20,223
Black or African American	249	5,665	394	7,664	338	7,002	224	4,977
American Indian or Alaska Native	*	269	*	328	*	277	*	265
Native Hawaiian or Other Pacific Islander	*	*	*	184	*	*	*	*
Asian	*	1,356	*	2,026	*	1,862	*	752
Two or More Races	*	316	*	461	27	410	*	286
Hispanic or Latino	125	5,383	215	6,674	175	6,047	93	4,059

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.9 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Marijuana Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	22.2	36.3	37.3	49.5	29.0	43.9	18.9	30.4
Age								
18-25	19.6	32.6	36.2	48.7	27.4	41.2	18.2	29.1
26-34	20.4	35.4	35.8	51.2	28.6	45.7	18.0	30.7
35-49	25.7	38.2	40.2	50.9	31.1	45.5	20.6	31.2
50-64	25.0	35.5	*	46.3	27.5	41.0	16.8	29.3
Gender								
Male	23.1	39.0	37.8	52.6	29.7	47.2	20.0	34.1
Female	20.2	32.6	36.0	45.5	27.2	39.6	16.2	25.3
Hispanic Origin and Race								
Not Hispanic or Latino	22.7	36.0	37.9	49.9	29.3	44.1	19.4	30.5
White	21.3	34.2	36.2	47.7	27.4	41.5	18.2	29.1
Black or African American	30.5	47.9	48.0	64.1	41.3	59.3	27.7	42.8
American Indian or Alaska Native	*	49.0	*	60.3	*	51.0	*	49.2
Native Hawaiian or Other Pacific Islander	*	*	*	56.4	*	*	*	*
Asian	*	30.5	*	44.7	*	42.0	*	17.5
Two or More Races	*	35.2	*	50.3	23.8	45.1	*	31.8
Hispanic or Latino	18.4	38.3	31.2	47.2	25.5	43.1	13.5	29.4

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.10 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Marijuana Use: Numbers in Thousands, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	1,580	37,163	2,667	51,351	2,066	44,985	1,338	30,676
Education								
Less Than High School	299	5,052	455	6,242	349	5,541	269	4,228
High School Graduate	638	13,134	1,063	17,723	792	15,737	538	11,267
Some College	448	10,418	758	14,310	621	12,521	356	8,753
College Graduate	195	8,558	391	13,076	303	11,187	175	6,429
Family Income								
Less Than $20,000	208	3,313	383	4,463	276	3,867	213	2,841
$20,000-49,999	685	14,005	1,143	18,994	900	16,743	637	11,699
$50,000-74,999	370	8,808	588	11,975	427	10,430	247	7,261
$75,000 or More	317	11,038	553	15,919	463	13,944	242	8,876
Geographic Region								
Northeast	250	5,307	441	7,617	368	6,705	211	3,939
Midwest	372	8,707	642	12,032	516	10,470	293	6,521
South	588	15,183	965	21,114	713	18,591	560	13,978
West	369	7,966	619	10,588	469	9,218	273	6,239
County Type[1]								
Large MSA	836	19,408	1,459	27,169	1,152	24,154	654	15,218
Small MSA	518	11,295	877	15,630	657	13,596	488	9,586
MiSA	146	3,802	230	5,149	173	4,397	122	3,459
Noncore Adjacent with Town	66	1,874	84	2,378	69	2,005	60	1,638
Noncore Adjacent, No Town	*	358	*	486	*	413	*	373
Noncore Rural, Not Adjacent	*	426	*	538	*	418	*	402

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.11 Workplace Tests Employees for Alcohol or Drug Use, during Hiring Process or on a Random Basis concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Marijuana Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Tests for Alcohol Use		Tests for Drug Use		Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	22.2	36.3	37.3	49.5	29.0	43.9	18.9	30.4
Education								
Less Than High School	25.0	39.9	37.8	49.1	29.2	43.8	22.6	33.8
High School Graduate	26.5	41.7	43.6	55.5	32.6	49.7	22.2	36.0
Some College	22.2	39.0	37.4	52.8	30.7	46.8	17.8	33.2
College Graduate	13.2	27.1	26.4	41.0	20.5	35.7	11.8	20.8
Family Income								
Less Than $20,000	18.0	32.4	32.9	43.3	23.7	37.7	18.6	28.2
$20,000-49,999	23.2	37.8	38.3	50.7	30.4	45.1	21.6	32.0
$50,000-74,999	26.9	39.4	42.3	52.9	30.8	46.9	17.9	33.0
$75,000 or More	19.7	33.6	34.2	47.9	28.7	42.5	15.0	27.4
Geographic Region								
Northeast	16.0	27.7	28.0	39.6	23.4	35.3	13.6	21.0
Midwest	24.0	37.6	40.7	51.2	33.0	45.3	18.9	28.6
South	25.8	40.4	42.1	55.4	31.2	49.2	24.6	37.5
West	21.7	35.3	36.2	46.3	27.4	40.9	16.0	28.1
County Type[1]								
Large MSA	20.7	34.2	35.9	47.4	28.4	42.6	16.2	27.3
Small MSA	23.5	38.5	39.5	52.6	29.8	46.3	22.2	33.1
MiSA	25.8	39.4	40.1	52.6	30.5	45.5	21.3	35.9
Noncore Adjacent with Town	29.8	40.4	37.8	50.9	31.0	43.3	27.2	35.6
Noncore Adjacent, No Town	*	36.8	*	49.0	*	42.1	*	38.4
Noncore Rural, Not Adjacent	*	39.4	*	49.1	*	38.4	*	37.3

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 5.12 Type of Testing Program Reported concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Establishment Size: Percentages and Numbers in Thousands, Annual Averages Based on 2002-2004

Establishment Size	Tests for Drug or Alcohol Use during Hiring Process		Tests for Drug or Alcohol Use on a Random Basis	
	Percentage	Number (in Thousands)	Percentage	Number (in Thousands)
Total[1]	42.9	47,050	29.6	32,015
Less Than 10 Employees	19.0	5,383	14.5	4,097
10-24 Employees	33.7	6,313	26.2	4,867
25-99 Employees	44.1	11,118	32.4	8,099
100-499 Employees	61.6	13,279	40.2	8,537
500 or More Employees	70.6	10,832	42.6	6,311

*Low precision; no estimate reported.
NOTE: Respondents with unknown workplace testing information were excluded.

[1] Estimates include respondents with unknown establishment size information.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.1 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring or Who Test Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests before Hiring			Employer Tests Randomly		
	More Likely	Less Likely	Would Make No Difference	More Likely	Less Likely	Would Make No Difference
Total	46.0	4.9	49.1	39.8	8.7	51.4
Age						
18-25	36.7	5.6	57.8	31.4	10.0	58.6
26-34	43.1	4.8	52.1	36.6	9.1	54.3
35-49	47.1	5.1	47.8	40.9	9.1	50.0
50-64	51.6	4.2	44.2	45.5	7.1	47.4
Gender						
Male	47.4	5.6	47.1	41.1	9.8	49.1
Female	44.1	4.0	51.9	38.2	7.3	54.5
Hispanic Origin and Race						
Not Hispanic or Latino	44.8	5.1	50.0	38.3	9.3	52.4
White	43.4	5.5	51.1	36.8	9.7	53.5
Black or African American	51.4	2.7	45.9	45.7	6.5	47.8
American Indian or Alaska Native	51.8	4.0	44.2	47.2	7.0	45.8
Native Hawaiian or Other Pacific Islander	54.0	*	33.5	50.6	11.1	38.3
Asian	49.2	5.3	45.4	40.8	10.1	49.1
Two or More Races	43.6	6.0	50.4	37.4	10.6	52.0
Hispanic or Latino	53.3	3.5	43.2	50.1	5.1	44.9

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.2 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring or Who Test Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests before Hiring			Employer Tests Randomly		
	More Likely	Less Likely	Would Make No Difference	More Likely	Less Likely	Would Make No Difference
Total	46.0	4.9	49.1	39.8	8.7	51.4
Education						
Less Than High School	51.3	4.3	44.3	48.7	6.1	45.1
High School Graduate	50.0	3.7	46.3	44.7	6.0	49.3
Some College	48.0	4.0	48.0	40.7	8.3	50.9
College Graduate	37.9	7.1	55.0	30.6	12.9	56.5
Family Income						
Less Than $20,000	46.2	5.4	48.4	42.6	8.2	49.2
$20,000-49,999	46.7	4.6	48.7	41.6	7.7	50.7
$50,000-74,999	47.4	4.3	48.3	40.6	8.1	51.2
$75,000 or More	44.1	5.4	50.5	36.4	10.5	53.1
Geographic Region						
Northeast	35.6	6.2	58.2	30.4	10.6	59.0
Midwest	46.1	4.4	49.6	38.3	8.5	53.2
South	51.1	3.4	45.5	45.8	6.1	48.1
Midwest	46.3	6.8	46.9	39.8	11.7	48.5
County Type[1]						
Large MSA	43.2	5.6	51.2	36.8	10.5	52.7
Small MSA	48.5	4.4	47.1	42.0	7.6	50.4
MiSA	50.3	3.2	46.5	45.2	5.0	49.8
Noncore Adjacent with Town	52.0	3.2	44.8	48.8	4.2	47.0
Noncore Adjacent, No Town	52.4	3.1	44.5	46.9	3.7	49.5
Noncore Rural, Not Adjacent	54.3	3.6	42.1	49.3	4.6	46.2

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.3 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests before Hiring					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	20.6	48.2	18.2	3.7	61.2	48.1
Age						
18-25	17.7	41.1	16.9	2.9	65.4	56.0
26-34	19.9	45.7	17.5	3.4	62.6	50.9
35-49	23.1	48.9	19.2	4.1	57.7	47.0
50-64	23.2	52.3	21.2	3.7	55.6	43.9
Gender						
Male	20.6	50.2	19.8	4.0	59.7	45.7
Female	20.7	45.6	14.9	3.3	64.4	51.1
Hispanic Origin and Race						
Not Hispanic or Latino	19.3	47.2	19.0	3.8	61.7	49.0
White	17.0	46.0	20.5	4.0	62.5	50.0
Black or African American	31.5	53.1	9.4	2.1	59.0	44.8
American Indian or Alaska Native	*	53.6	*	3.5	*	42.9
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	31.9
Asian	*	49.7	*	5.1	*	45.2
Two or More Races	24.3	46.6	22.0	3.6	53.7	49.9
Hispanic or Latino	31.2	54.9	11.8	2.9	57.0	42.2

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.4 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests before Hiring					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	20.6	48.2	18.2	3.7	61.2	48.1
Education						
Less Than High School	25.5	54.6	14.0	3.1	60.5	42.3
High School Graduate	23.2	52.7	17.1	2.4	59.8	44.9
Some College	21.2	50.6	15.0	3.0	63.8	46.5
College Graduate	11.9	39.5	27.5	5.8	60.6	54.7
Family Income						
Less Than $20,000	24.2	49.5	20.3	3.2	55.5	47.3
$20,000-49,999	21.7	49.2	18.0	3.2	60.3	47.5
$50,000-74,999	19.2	49.7	16.4	3.4	64.4	47.0
$75,000 or More	17.4	45.8	18.6	4.6	64.0	49.6
Geographic Region						
Northeast	13.8	37.8	21.0	4.7	65.3	57.5
Midwest	22.3	48.1	16.6	3.3	61.1	48.6
South	24.4	53.3	14.1	2.5	61.5	44.2
West	19.8	48.9	23.0	5.2	57.2	45.9
County Type[2]						
Large MSA	19.7	45.4	18.7	4.4	61.6	50.2
Small MSA	21.4	51.1	17.9	3.1	60.6	45.8
MiSA	22.5	52.4	16.9	2.1	60.6	45.4
Noncore Adjacent with Town	20.8	54.0	15.7	2.4	63.5	43.6
Noncore Adjacent, No Town	*	53.3	*	2.3	*	44.3
Noncore Rural, Not Adjacent	*	56.1	*	2.7	*	41.2

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.5 Employees' Feelings toward Working for Employers Who Conduct Drug Testing Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests Randomly					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	15.9	42.0	29.1	6.9	55.0	51.1
Age						
18-25	13.4	35.6	27.6	5.9	59.0	58.6
26-34	14.8	39.1	30.8	6.6	54.4	54.3
35-49	17.6	42.6	28.6	7.6	53.8	49.7
50-64	21.6	46.2	30.5	6.4	47.8	47.4
Gender						
Male	15.8	43.8	31.0	7.5	53.2	48.7
Female	16.0	39.7	25.0	6.1	58.9	54.2
Hispanic Origin and Race						
Not Hispanic or Latino	14.6	40.5	30.3	7.4	55.0	52.2
White	13.3	39.0	31.5	7.6	55.3	53.3
Black or African American	21.5	47.8	24.5	4.9	54.0	47.3
American Indian or Alaska Native	*	48.4	*	6.2	*	45.4
Native Hawaiian or Other Pacific Islander	*	*	*	7.8	*	36.4
Asian	*	41.1	*	9.9	*	48.9
Two or More Races	14.2	41.0	32.7	7.2	53.1	51.8
Hispanic or Latino	26.5	51.8	18.6	4.1	54.9	44.1

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.6 Employees' Feelings toward Working for Employers Who Conduct Drug Testing Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Illicit Drug Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests Randomly					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]	Past Month Illicit Drug Use[1]	No Past Month Illicit Drug Use[1]
Total	15.9	42.0	29.1	6.9	55.0	51.1
Education						
Less Than High School	20.3	52.4	24.7	3.8	55.0	43.9
High School Graduate	18.5	47.3	24.8	4.1	56.7	48.6
Some College	15.2	43.2	28.7	6.4	56.2	50.4
College Graduate	9.3	31.9	39.8	11.3	50.9	56.9
Family Income						
Less Than $20,000	19.1	46.1	29.9	4.9	51.0	48.9
$20,000-49,999	17.7	44.0	28.1	5.7	54.2	50.3
$50,000-74,999	13.7	42.8	29.3	6.4	57.0	50.8
$75,000 or More	12.4	37.9	29.9	9.2	57.7	52.8
Geographic Region						
Northeast	11.2	32.3	30.8	8.6	58.0	59.1
Midwest	15.4	40.3	29.5	6.7	55.1	53.0
South	19.4	48.0	23.6	4.6	57.0	47.4
West	15.6	42.2	34.8	9.5	49.6	48.4
County Type[2]						
Large MSA	15.0	38.8	31.7	8.5	53.3	52.7
Small MSA	16.8	44.4	27.2	5.7	55.9	49.8
MiSA	18.8	47.2	21.6	3.8	59.6	49.1
Noncore Adjacent with Town	16.2	51.0	21.7	3.0	62.2	46.0
Noncore Adjacent, No Town	*	48.6	*	3.0	*	48.4
Noncore Rural, Not Adjacent	*	51.0	*	3.4	*	45.6

*Low precision; no estimate reported.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.7 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests before Hiring					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	33.7	47.1	8.2	4.6	58.0	48.3
Age						
18-25	23.6	39.2	10.2	4.7	66.2	56.1
26-34	31.9	44.4	7.5	4.5	60.7	51.1
35-49	38.3	47.9	7.6	4.9	54.0	47.2
50-64	42.7	52.0	7.9	4.0	49.4	44.0
Gender						
Male	35.6	49.0	8.7	5.1	55.8	45.9
Female	26.4	44.9	6.5	3.9	67.1	51.3
Hispanic Origin and Race						
Not Hispanic or Latino	32.1	46.1	8.4	4.8	59.4	49.1
White	30.9	44.8	8.9	5.1	60.2	50.1
Black or African American	43.7	51.8	4.2	2.6	52.1	45.6
American Indian or Alaska Native	*	52.7	*	4.1	*	43.3
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	31.5
Asian	*	49.6	*	5.4	*	45.0
Two or More Races	*	44.0	*	5.4	*	50.5
Hispanic or Latino	47.7	53.7	6.6	3.3	45.8	43.0

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.8 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests before Hiring					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	33.7	47.1	8.2	4.6	58.0	48.3
Education						
Less Than High School	38.9	52.8	8.3	3.8	52.8	43.3
High School Graduate	36.9	51.5	7.9	3.2	55.2	45.3
Some College	34.8	49.3	7.6	3.7	57.6	47.0
College Graduate	24.5	38.9	9.5	6.9	66.1	54.2
Family Income						
Less Than $20,000	28.6	48.1	12.0	4.7	59.3	47.2
$20,000-49,999	33.5	48.1	8.5	4.2	58.0	47.7
$50,000-74,999	35.8	48.5	7.4	4.0	56.8	47.4
$75,000 or More	34.6	44.8	6.9	5.3	58.4	49.9
Geographic Region						
Northeast	25.2	36.6	10.8	5.8	64.0	57.6
Midwest	34.3	47.5	6.8	4.1	58.8	48.5
South	39.4	52.2	5.5	3.2	55.1	44.6
West	30.9	47.6	12.7	6.3	56.4	46.0
County Type[2]						
Large MSA	31.7	44.2	9.4	5.3	58.9	50.5
Small MSA	35.7	49.9	7.1	4.1	57.2	46.0
MiSA	34.0	51.9	7.6	2.8	58.5	45.3
Noncore Adjacent with Town	39.0	53.5	5.7	2.9	55.3	43.6
Noncore Adjacent, No Town	*	54.7	8.2	2.6	*	42.6
Noncore Rural, Not Adjacent	*	54.5	*	3.4	*	42.2

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.9 Employees' Feelings toward Working for Employers Who Conduct Drug Testing Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests Randomly					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	28.0	41.0	15.0	8.1	57.0	50.9
Age						
18-25	19.3	33.7	18.1	8.4	62.5	57.9
26-34	26.7	37.7	15.4	8.4	57.9	53.9
35-49	30.9	41.7	14.0	8.7	55.1	49.6
50-64	37.6	45.9	11.7	6.8	50.7	47.3
Gender						
Male	29.9	42.6	15.3	9.0	54.7	48.3
Female	20.0	39.0	13.8	7.0	66.2	54.0
Hispanic Origin and Race						
Not Hispanic or Latino	26.1	39.5	15.7	8.7	58.2	51.8
White	24.9	38.1	16.1	9.0	59.0	52.9
Black or African American	37.5	46.2	12.2	6.1	50.3	47.7
American Indian or Alaska Native	*	47.6	*	6.9	*	45.5
Native Hawaiian or Other Pacific Islander	*	*	*	10.0	*	37.7
Asian	*	41.0	7.4	10.1	*	48.8
Two or More Races	*	38.5	17.0	10.1	*	51.4
Hispanic or Latino	43.9	50.5	9.3	4.8	46.8	44.7

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.10 Employees' Feelings toward Working for Employers Who Conduct Drug Testing Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Heavy Alcohol Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests Randomly					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]	Past Month Heavy Alcohol Use[1]	No Past Month Heavy Alcohol Use[1]
Total	28.0	41.0	15.0	8.1	57.0	50.9
Education						
Less Than High School	34.8	50.4	12.0	5.4	53.2	44.1
High School Graduate	31.5	46.2	12.4	5.3	56.1	48.6
Some College	28.0	42.0	16.1	7.6	55.9	50.5
College Graduate	18.2	31.4	19.7	12.4	62.1	56.1
Family Income						
Less Than $20,000	25.7	44.4	18.8	7.1	55.5	48.5
$20,000-49,999	27.9	43.0	13.8	7.1	58.3	49.9
$50,000-74,999	31.4	41.6	14.4	7.5	54.2	50.9
$75,000 or More	26.1	37.2	15.8	10.1	58.1	52.7
Geographic Region						
Northeast	21.1	31.2	17.7	9.9	61.1	58.8
Midwest	25.7	39.7	14.1	7.9	60.2	52.4
South	34.5	46.9	11.7	5.5	53.8	47.6
West	25.7	41.0	19.8	11.0	54.5	48.0
County Type[2]						
Large MSA	25.5	37.8	18.4	9.8	56.1	52.4
Small MSA	30.6	43.2	12.2	7.1	57.1	49.6
MiSA	27.9	46.9	11.2	4.4	60.9	48.7
Noncore Adjacent with Town	35.4	50.3	8.7	3.7	55.9	46.0
Noncore Adjacent, No Town	*	49.3	6.4	3.4	*	47.3
Noncore Rural, Not Adjacent	*	50.0	*	4.2	*	45.8

*Low precision; no estimate reported.

[1] Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on each of 5 or more days in the past 30 days.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.11 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Marijuana Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests before Hiring					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	15.5	48.0	21.2	3.8	63.3	48.2
Age						
18-25	14.7	40.8	19.0	3.0	66.3	56.2
26-34	14.2	45.6	20.8	3.4	65.0	51.0
35-49	17.4	48.7	22.8	4.2	59.8	47.1
50-64	15.6	52.3	24.7	3.8	59.8	43.9
Gender						
Male	16.1	50.0	22.3	4.1	61.6	45.8
Female	14.1	45.5	18.4	3.3	67.5	51.2
Hispanic Origin and Race						
Not Hispanic or Latino	15.0	47.0	21.9	3.9	63.1	49.1
White	12.8	45.7	23.5	4.1	63.6	50.2
Black or African American	27.7	53.0	11.1	2.1	61.2	44.9
American Indian or Alaska Native	*	53.7	*	3.5	*	42.9
Native Hawaiian or Other Pacific Islander	*	*	*	*	*	31.8
Asian	*	49.7	*	5.2	*	45.1
Two or More Races	23.0	46.1	26.1	3.6	50.9	50.3
Hispanic or Latino	20.4	54.9	14.8	3.0	64.9	42.2

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.12 Employees' Feelings toward Working for Employers Who Conduct Drug Testing before Hiring concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Marijuana Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests before Hiring					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	15.5	48.0	21.2	3.8	63.3	48.2
Education						
Less Than High School	20.3	54.3	16.8	3.2	62.9	42.6
High School Graduate	18.2	52.5	19.9	2.5	61.9	45.1
Some College	16.2	50.4	17.9	3.0	65.9	46.6
College Graduate	6.4	39.3	31.2	6.0	62.3	54.7
Family Income						
Less Than $20,000	19.7	49.1	24.2	3.4	56.1	47.5
$20,000-49,999	16.2	49.1	20.9	3.3	62.8	47.6
$50,000-74,999	14.1	49.4	18.8	3.5	67.1	47.1
$75,000 or More	12.5	45.6	21.5	4.7	66.0	49.7
Geographic Region						
Northeast	12.0	37.5	22.8	4.9	65.2	57.6
Midwest	17.0	48.0	20.2	3.3	62.8	48.7
South	18.3	53.1	16.7	2.6	65.0	44.3
West	13.7	48.8	26.6	5.3	59.8	45.9
County Type[1]						
Large MSA	14.9	45.2	21.3	4.5	63.8	50.3
Small MSA	15.9	50.9	21.3	3.2	62.9	45.9
MiSA	17.3	52.2	21.1	2.2	61.5	45.7
Noncore Adjacent with Town	18.1	53.6	16.7	2.6	65.3	43.8
Noncore Adjacent, No Town	*	53.7	*	2.3	*	44.0
Noncore Rural, Not Adjacent	*	55.6	*	2.9	*	41.5

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.13 Employees' Feelings toward Working for Employers Who Conduct Drug Testing Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Demographic Characteristics and Past Month Marijuana Use: Percentages, Annual Averages Based on 2002-2004

Demographic Characteristic	Employer Tests Randomly					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	11.4	41.8	33.5	7.1	55.1	51.2
Age						
18-25	10.5	35.3	30.9	6.1	58.6	58.6
26-34	9.9	38.9	35.5	6.9	54.6	54.3
35-49	12.6	42.4	33.9	7.8	53.5	49.8
50-64	*	46.1	35.8	6.5	48.9	47.4
Gender						
Male	11.9	43.5	34.6	7.7	53.5	48.8
Female	10.1	39.5	30.9	6.2	59.0	54.3
Hispanic Origin and Race						
Not Hispanic or Latino	10.9	40.2	34.6	7.5	54.6	52.3
White	9.8	38.8	35.8	7.8	54.5	53.4
Black or African American	17.3	47.7	27.4	5.0	55.3	47.3
American Indian or Alaska Native	*	48.5	*	6.1	*	45.4
Native Hawaiian or Other Pacific Islander	*	55.1	*	7.7	*	37.2
Asian	*	41.2	*	9.9	*	48.9
Two or More Races	*	40.1	34.5	7.7	50.1	52.2
Hispanic or Latino	16.3	51.7	23.4	4.2	60.3	44.1

*Low precision; no estimate reported.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.14 Employees' Feelings toward Working for Employers Who Conduct Drug Testing Randomly concerning Drug or Alcohol Use among Full-Time Workers Aged 18 to 64, by Educational Attainment, Family Income, Geographic Characteristics, and Past Month Marijuana Use: Percentages, Annual Averages Based on 2002-2004

Educational Attainment, Family Income, and Geographic Characteristic	Employer Tests Randomly					
	More Likely		Less Likely		Would Make No Difference	
	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use	Past Month Marijuana Use	No Past Month Marijuana Use
Total	11.4	41.8	33.5	7.1	55.1	51.2
Education						
Less Than High School	14.5	52.0	29.4	3.9	56.1	44.1
High School Graduate	14.3	47.0	29.1	4.3	56.6	48.8
Some College	11.2	42.9	32.1	6.6	56.7	50.5
College Graduate	4.5	31.7	45.9	11.4	49.7	56.8
Family Income						
Less Than $20,000	14.7	45.7	34.6	5.3	50.7	49.0
$20,000-49,999	12.6	43.9	32.6	5.8	54.8	50.4
$50,000-74,999	9.1	42.6	33.8	6.6	57.1	50.9
$75,000 or More	8.9	37.7	34.1	9.4	57.1	53.0
Geographic Region						
Northeast	9.0	32.1	34.0	8.7	57.0	59.2
Midwest	11.9	40.0	34.3	6.8	53.8	53.1
South	14.1	47.7	27.5	4.8	58.4	47.5
West	9.6	42.1	40.1	9.6	50.2	48.4
County Type[1]						
Large MSA	10.8	38.6	36.3	8.7	52.9	52.7
Small MSA	11.8	44.2	31.4	5.9	56.8	49.9
MiSA	13.3	47.0	26.3	3.8	60.4	49.2
Noncore Adjacent with Town	12.9	50.5	22.8	3.3	64.2	46.2
Noncore Adjacent, No Town	*	48.1	*	2.9	*	49.0
Noncore Rural, Not Adjacent	*	50.4	*	3.8	*	45.9

*Low precision; no estimate reported.

[1] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.15 Results of Multinomial Logit Model of Willingness to Work for Employers Who Test for Drug or Alcohol Use during Hiring Process among Full-Time Workers Aged 18 to 64: 2002-2004

Characteristic	Willingness to Work for Employer Who Tests for Drug or Alcohol Use during Hiring Process			
	More Likely vs. Would Make No Difference		Less Likely vs. Would Make No Difference	
	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)
Intercept	0.49[b]	0.45-0.54	0.08[b]	0.06-0.10
Illicit Drug Use[1]				
No Lifetime Use	--	--	--	--
Lifetime Use, No Past Year Use	0.73[b]	0.69-0.77	1.24[a]	1.05-1.47
Past Year Use, No Past Month Use	0.45[b]	0.41-0.49	1.91[b]	1.51-2.40
Past Month Use	0.28[b]	0.26-0.31	5.18[b]	4.40-6.11
Age Group				
18-25	--	--	--	--
26-34	1.29[b]	1.21-1.37	1.10	0.97-1.25
35-49	1.53[b]	1.46-1.62	1.46[b]	1.31-1.64
50-64	1.69[b]	1.57-1.83	1.52[b]	1.27-1.81
Gender				
Male	1.26[b]	1.20-1.32	1.38[b]	1.23-1.54
Female	--	--	--	--
Hispanic Origin and Race				
Not Hispanic or Latino				
White	--	--	--	--
Black or African American	1.30[b]	1.19-1.41	0.61[b]	0.49-0.76
American Indian or Alaska Native	1.21	0.85-1.71	0.88	0.43-1.81
Native Hawaiian or Other Pacific Islander	1.94[b]	1.25-3.00	2.86[a]	1.04-7.92
Asian	1.39[b]	1.19-1.63	1.10	0.80-1.52
Two or More Races	1.06	0.84-1.33	1.01	0.69-1.47
Hispanic or Latino	1.35[b]	1.23-1.49	0.76[b]	0.63-0.93
Education				
Less Than High School	1.70[b]	1.55-1.86	0.65[b]	0.54-0.77
High School Graduate	1.68[b]	1.57-1.80	0.57[b]	0.49-0.66
Some College	1.58[b]	1.47-1.70	0.60[b]	0.50-0.70
College Graduate	--	--	--	--
Family Income				
Less Than $20,000	0.89[a]	0.81-0.98	1.41[b]	1.17-1.70
$20,000-49,999	0.90[b]	0.84-0.97	1.16	1.00-1.34
$50,000-74,999	1.00	0.93-1.08	0.98	0.85-1.14
$75,000 or More	--	--	--	--
Geographic Region				
Northeast	0.63[b]	0.58-0.68	0.76[b]	0.64-0.90
Midwest	0.96	0.89-1.03	0.66[b]	0.55-0.79
South	1.10[a]	1.02-1.19	0.57[b]	0.48-0.68
West	--	--	--	--
County Type[2]				
Large MSA	--	--	--	--
Small MSA	1.23[b]	1.15-1.30	0.86[a]	0.76-0.98
MiSA	1.23[b]	1.14-1.34	0.68[b]	0.54-0.85
Noncore Adjacent with Town	1.21[b]	1.08-1.37	0.79	0.56-1.12
Noncore Adjacent, No Town	1.24	0.90-1.70	0.82	0.50-1.37
Noncore Rural, Not Adjacent	1.35[b]	1.10-1.67	0.85	0.54-1.34

CI = confidence interval.

-- Reference level.

[a] Statistically significant at the 0.05 level.

[b] Statistically significant at the 0.01 level.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.16 Results of Multinomial Logit Model of Willingness to Work for Employers Who Test for Drug or Alcohol Use on a Random Basis among Full-Time Workers Aged 18 to 64: 2002-2004

Characteristic	Willingness to Work for Employer Who Tests for Drug or Alcohol Use on a Random Basis			
	More Likely vs. Would Make No Difference		Less Likely vs. Would Make No Difference	
	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)
Intercept	0.36[b]	0.32-0.41	0.17[b]	0.14-0.20
Illicit Drug Use[1]				
No Lifetime Use	--	--	--	--
Lifetime Use, No Past Year Use	0.71[b]	0.67-0.75	1.32[b]	1.19-1.48
Past Year Use, No Past Month Use	0.44[b]	0.40-0.49	2.30[b]	1.95-2.72
Past Month Use	0.29[b]	0.26-0.32	5.61[b]	4.96-6.34
Age Group				
18-25	--	--	--	--
26-34	1.27[b]	1.20-1.36	1.08	0.97-1.19
35-49	1.59[b]	1.50-1.67	1.29[b]	1.18-1.42
50-64	1.76[b]	1.63-1.90	1.21[a]	1.05-1.40
Gender				
Male	1.26[b]	1.20-1.32	1.37[b]	1.25-1.49
Female	--	--	--	--
Hispanic Origin and Race				
Not Hispanic or Latino				
White	--	--	--	--
Black or African American	1.34[b]	1.22-1.46	0.85[a]	0.72-0.99
American Indian or Alaska Native	1.28	0.89-1.86	0.97	0.56-1.66
Native Hawaiian or Other Pacific Islander	1.96[b]	1.21-3.20	1.22	0.68-2.20
Asian	1.35[b]	1.11-1.64	1.08	0.83-1.40
Two or More Races	1.07	0.86-1.34	1.04	0.73-1.50
Hispanic or Latino	1.47[b]	1.33-1.62	0.65[b]	0.54-0.77
Education				
Less Than High School	1.89[b]	1.72-2.09	0.54[b]	0.46-0.63
High School Graduate	1.74[b]	1.62-1.87	0.50[b]	0.45-0.56
Some College	1.57[b]	1.46-1.69	0.67[b]	0.59-0.75
College Graduate	--	--	--	--
Family Income				
Less Than $20,000	0.97	0.87-1.07	1.15	0.98-1.36
$20,000-49,999	0.95	0.89-1.03	1.02	0.90-1.16
$50,000-74,999	1.02	0.95-1.10	0.95	0.85-1.06
$75,000 or More	--	--	--	--
Geographic Region				
Northeast	0.65[b]	0.60-0.71	0.74[b]	0.64-0.84
Midwest	0.90[a]	0.83-0.98	0.72[b]	0.63-0.82
South	1.13[b]	1.04-1.23	0.57[b]	0.50-0.66
West	--	--	--	--
County Type[2]				
Large MSA	--	--	--	--
Small MSA	1.21[b]	1.13-1.29	0.77[b]	0.70-0.85
MiSA	1.27[b]	1.17-1.39	0.56[b]	0.48-0.66
Noncore Adjacent with Town	1.34[b]	1.19-1.51	0.55[b]	0.41-0.74
Noncore Adjacent, No Town	1.22	0.84-1.77	0.49[b]	0.30-0.80
Noncore Rural, Not Adjacent	1.38[b]	1.11-1.71	0.55[b]	0.36-0.85

CI = confidence interval.

-- Reference level.

[a] Statistically significant at the 0.05 level.

[b] Statistically significant at the 0.01 level.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Table 6.17 Results of Logistic Models of Employers Who Test for Drug or Alcohol Use among Full-Time Workers Aged 18 to 64: 2002-2004

Characteristic	Employer Tests for Drug or Alcohol Use		Employer Tests for Drug or Alcohol Use during Hiring Process		Employer Tests for Drug or Alcohol Use on a Random Basis	
	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)	Odds Ratio	CI (95%)
Intercept	0.51[b]	0.46-0.57	0.36[b]	0.32-0.40	0.16[b]	0.14-0.18
Illicit Drug Use[1]						
No Lifetime Use	--	--	--	--	--	--
Lifetime Use, No Past Year Use	1.02	0.97-1.08	0.98	0.93-1.04	1.00	0.94-1.06
Past Year Use, No Past Month Use	0.81[b]	0.74-0.89	0.77[b]	0.70-0.85	0.80[b]	0.71-0.89
Past Month Use	0.62[b]	0.57-0.68	0.55[b]	0.51-0.60	0.55[b]	0.50-0.60
Age Group						
18-25	--	--	--	--	--	--
26-34	1.12[b]	1.05-1.19	1.21[b]	1.15-1.29	1.14[b]	1.07-1.22
35-49	1.08[b]	1.03-1.15	1.19[b]	1.13-1.25	1.15[b]	1.09-1.22
50-64	0.90[a]	0.84-0.98	0.99	0.91-1.08	1.05	0.96-1.15
Gender						
Male	1.35[b]	1.28-1.42	1.39[b]	1.32-1.46	1.58[b]	1.49-1.67
Female	--	--	--	--	--	--
Hispanic Origin and Race						
Not Hispanic or Latino						
White	--	--	--	--	--	--
Black or African American	2.00[b]	1.85-2.17	2.08[b]	1.92-2.24	1.82[b]	1.68-1.98
American Indian or Alaska Native	1.65[b]	1.18-2.32	1.58[b]	1.14-2.17	2.08[b]	1.48-2.94
Native Hawaiian or Other Pacific Islander	1.65[a]	1.05-2.58	1.96[b]	1.24-3.09	1.51	0.93-2.44
Asian	1.16	0.96-1.39	1.27[a]	1.05-1.53	0.70[b]	0.57-0.86
Two or More Races	1.14	0.92-1.41	1.15	0.92-1.44	1.15	0.92-1.43
Hispanic or Latino	1.00	0.92-1.09	1.08	0.99-1.18	0.95	0.87-1.04
Education						
Less Than High School	1.56[b]	1.43-1.71	1.56[b]	1.42-1.70	1.97[b]	1.77-2.18
High School Graduate	1.86[b]	1.74-1.98	1.88[b]	1.75-2.01	2.07[b]	1.92-2.23
Some College	1.63[b]	1.52-1.74	1.63[b]	1.53-1.75	1.84[b]	1.71-1.98
College Graduate	--	--	--	--	--	--
Family Income						
Less Than $20,000	0.58[b]	0.53-0.63	0.57[b]	0.52-0.63	0.69[b]	0.61-0.76
$20,000-49,999	0.85[b]	0.79-0.91	0.84[b]	0.78-0.90	0.90[b]	0.83-0.97
$50,000-74,999	1.04	0.97-1.12	1.00	0.93-1.08	1.06	0.97-1.16
$75,000 or More	--	--	--	--	--	--
Geographic Region						
Northeast	0.72[b]	0.65-0.80	0.77[b]	0.69-0.85	0.66[b]	0.59-0.74
Midwest	1.15[b]	1.05-1.25	1.18[b]	1.08-1.29	0.92	0.84-1.01
South	1.31[b]	1.20-1.43	1.31[b]	1.20-1.42	1.36[b]	1.25-1.48
West	--	--	--	--	--	--
County Type[2]						
Large MSA	--	--	--	--	--	--
Small MSA	1.19[b]	1.12-1.27	1.14[b]	1.07-1.22	1.26[b]	1.18-1.34
MiSA	1.16[b]	1.07-1.26	1.09[a]	1.01-1.18	1.38[b]	1.27-1.50
Noncore Adjacent with Town	1.03	0.92-1.14	0.94	0.84-1.04	1.26[b]	1.12-1.43
Noncore Adjacent, No Town	0.95	0.71-1.26	0.91	0.64-1.29	1.44[a]	1.08-1.92
Noncore Rural, Not Adjacent	0.94	0.76-1.16	0.77[a]	0.60-0.98	1.37[a]	1.07-1.74

CI = confidence interval.

-- Reference level.

[a] Statistically significant at the 0.05 level.

[b] Statistically significant at the 0.01 level.

[1] Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Definitions for county type are based on 2003 Urban Influence Codes (UIC), which are provided as a service by the United States Department of Agriculture (USDA). These estimates are not comparable with estimates by county type published in other NSDUH reports. MSA refers to metropolitan statistical area and MiSA refers to micropolitan statistical area. Noncore is defined as a nonmetro area that does not contain an urban cluster of 10,000 or more residents.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002, 2003, and 2004.

Appendix F: References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (DSM-IV)* (4th ed.). Washington, DC: American Psychiatric Association.

Aquilino, W. S. (1994). Interview mode effects in surveys of drug and alcohol use: A field experiment. *Public Opinion Quarterly, 58*, 210-240.

Biglan, M., Gilpin, E. A., Rohrbach, L. A., & Pierce, J. P. (2004). Is there a simple correction factor for comparing adolescent tobacco-use estimates from school- and home-based surveys? *Nicotine & Tobacco Research, 6*, 427-437.

Bowman, K. R., Chromy, J. R., Hunter, S. R., & Martin, P. C. (2005a, February). 2004 National Survey on Drug Use and Health: Sample design report. In *2004 National Survey on Drug Use and Health: Methodological resource book* (Section 2, prepared for the Substance Abuse and Mental Health Services Administration, Office of Applied Studies, under Contract No. 283-03-9028, Deliverable No. 8, RTI/8726). Research Triangle Park, NC: RTI International. [To be available as a PDF at http://www.oas.samhsa.gov/nhsda/methods.cfm#2k4]

Bowman, K. R., Chromy, J. R., Hunter, S. R., Martin, P. C., & Odom, D. M. (2005b, January). 2003 National Survey on Drug Use and Health: Sample design report. In *2003 National Survey on Drug Use and Health: Methodological resource book* (Section 2, prepared for the Substance Abuse and Mental Health Services Administration, Office of Applied Studies, under Contract No. 283-98-9008, Deliverable No. 10, RTI/7190.530.400). Research Triangle Park, NC: RTI International. [Available as a PDF at http://www.oas.samhsa.gov/nhsda/methods.cfm#2k3]

Bradburn, N. M., & Sudman, S. (1983). *Improving interview method and questionnaire design*. Washington, DC: Jossey-Bass.

Chen, P., Dai, L., Gordek, H., Shi, W., Singh, A., & Westlake, M. (2005, January). Person-level sampling weight calibration for the 2003 NSDUH. In *2003 National Survey on Drug Use and Health: Methodological resource book* (Section 3, prepared for the Substance Abuse and Mental Health Services Administration, Office of Applied Studies, under Contract No. 283-98-9008, Deliverable No. 28, RTI/07190.574.100). Research Triangle Park, NC: RTI International. [Available as a PDF at http://www.oas.samhsa.gov/nhsda/methods.cfm#2k3]

Delaney, W., Grube, J. W., & Ames, G. M. (1998). Predicting likelihood of seeking help through the employee assistance program among salaried and union hourly employees. *Addiction, 93*(3), 399-410.

Deville, J. C., & Särndal, C. E. (1992). Calibration estimating in survey sampling. *Journal of the American Statistical Association, 87*, 376-382.

Fendrich, M., Johnson, T. P., Sudman, S., Wislar, J. S., & Spiehler, V. (1999). Validity of drug use reporting in a high-risk community sample: A comparison of cocaine and heroin survey reports with hair tests. *American Journal of Epidemiology, 149*, 955-962.

Folsom, R. E., & Singh, A. C. (2000). The generalized exponential model for sampling weight calibration for extreme values, nonresponse, and poststratification. In *Proceedings of the 2000 Joint Statistical Meetings, American Statistical Association, Survey Research Methods Section, Indianapolis, IN* (pp. 598-603). Alexandria, VA: American Statistical Association. [Available as a PDF at http://www.amstat.org/sections/SRMS/proceedings/]

French, M. T., Roebuck, M. C., & Kebreau Alexandre, P. (2004). To test or not to test: Do workplace drug testing programs discourage employee drug use? *Social Science Research, 33*(1), 45-63.

Hartwell, T. D., Steele, P. D., French, M. T., & Rodman, N. F. (1996). Prevalence of drug testing in the workplace. *Monthly Labor Review, 119*(11), 35-42.

Hartwell, T. D., Steele, P. D., & Rodman, N. F. (1998). Workplace alcohol-testing programs: Prevalence and trends. *Monthly Labor Review, 121*(6), 27-34.

Hoffmann, J. P., Brittingham, A., & Larison, C. (1996, May). *Drug use among U.S. workers: Prevalence and trends by occupation and industry categories* (Report No. DHHS Publication No. SMA 96-3089). Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at http://www.oas.samhsa.gov/work1996/toc.htm and as a WordPerfect 6.1 file from http://www.oas.samhsa.gov/analytic.htm]

Hoffmann, J. P., Larison, C., & Sanderson, A. (1997). *An analysis of worker drug use and workplace policies and programs* (Report No. DHHS Publication No. SMA 97-3142, Analytic Series A-2). Rockville, MD: Office of Applied Studies. [Available at http://www.oas.samhsa.gov/analytic.htm]

Hser, Y., & Anglin, M. D. (Eds.). (1993). Prevalence estimation techniques for drug-using populations [Special issue]. *Journal of Drug Issues, 23*(2), 163-360.

Keyfitz, N. (1951). Sampling with probabilities proportional to size: Adjustment for changes in the probabilities. *Journal of the American Statistical Association, 46*, 105-109.

Mangione, T. W., Howland, J., Amick, B., Cote, J., Lee, M., Bell, N., & Levine, S. (1999). Employee drinking practices and work performance. *Journal of Studies on Alcohol, 60*(2), 261-270.

Manly, B. F. J. (1986). *Multivariate statistical methods: A primer*. London, England: Chapman and Hall.

Normand, J., Lempert, R. O., & O'Brien, C. P. (1994). *Under the influence? Drugs and the American work force*. Washington, DC: National Academy Press.

Office of Applied Studies. (1999). *Substance use and mental health characteristics by employment status* (DHHS Publication No. SMA 99-3311, Analytic Series A-10). Rockville, MD: Substance Abuse and Mental Health Services Administration. [Prepared by T. N. Townsend, J. D. Lane, C. S. Dewa, A. M. Brittingham, & M. Pergamit; available as a PDF at http://www.oas.samhsa.gov/analytic.htm]

Office of Applied Studies. (2003). *Results from the 2002 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 03-3836, NSDUH Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at http://www.oas.samhsa.gov/p0000016.htm#Standard]

Office of Applied Studies, Substance Abuse and Mental Health Services Administration. (2005, September). *Results from the 2004 National Survey on Drug Use and Health: National findings*. (Report No. DHHS Publication No. SMA 05-4062, NSDUH Series H-28). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. [Available at http://www.oas.samhsa.gov/p0000016.htm#2k4]

Office of Management and Budget. (1997). Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register, 62*(210), 58781-58790. [Available at http://www.whitehouse.gov/omb/fedreg/1997standards.html]

Office of Management and Budget. (2003, June 6). OMB Bulletin No. 03-04: Revised definitions of metropolitan statistical areas, new definitions of micropolitan statistical areas and combined statistical areas, and guidance on uses of the statistical definitions of these areas [Web Page]. URL http://www.whitehouse.gov/omb/bulletins/b03-04.html [July 18, 2006; August 17, 2005; July 22, 2004; June 7, 2004; September 29, 2003; July 30, 2003]

Reynolds, G. S., & Lehman, W. E. (2003). Levels of substance use and willingness to use the Employee Assistance Program. *Journal of Behavioral Health Services & Research, 30*(2), 238-248.

RTI International. (2004). *SUDAAN® language manual, Release 9.0*. Research Triangle Park, NC: Author.

RTI International. (2005). *2003 National Survey on Drug Use and Health: Methodological resource book* (RTI 7190, prepared for the Substance Abuse and Mental Health Services Administration, Office of Applied Studies, under Contract No. 283-98-9008, Deliverable No. 28). Research Triangle Park, NC: Author. [Available as a PDF at http://www.oas.samhsa.gov/nhsda/methods.cfm#2k3]

Singh, A., Grau, E., & Folsom, R., Jr. (2001). Predictive mean neighborhood imputation with application to the person-pair data of the National Household Survey on Drug Abuse. In *Proceedings of the 2001 Joint Statistical Meetings, American Statistical Association, Survey Research Methods Section, Atlanta, GA* [CD-ROM]. Alexandria, VA: American Statistical Association. [Available as a PDF at http://www.amstat.org/sections/SRMS/proceedings/]

Singh, A., Grau, E., & Folsom, R., Jr. (2002). Predictive mean neighborhood imputation for NHSDA substance use data. In J. Gfroerer, J. Eyerman, & J. Chromy (Eds.), *Redesigning an ongoing national household survey: Methodological issues* (DHHS Publication No. SMA 03-3768, pp. 111-133). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. [Available as a PDF at http://www.oas.samhsa.gov/nhsda/methods.cfm#Reports]

SRNT Subcommittee on Biochemical Verification. (2002). Biochemical verification of tobacco use and cessation. *Nicotine &Tobacco Research, 4*, 149-159.

Turner, C. F., Lessler, J. T., & Gfroerer, J. C. (Eds.). (1992). *Survey measurement of drug use: Methodological studies* (DHHS Publication No. ADM 92-1929). Rockville, MD: National Institute on Drug Abuse.

U.S. Department of Labor, Bureau of Labor Statistics. (2000). *Standard Occupational Classification (SOC) User Guide*. Retrieved December 21, 2006, from http://www.bls.gov/soc/socguide.htm

Wright, D., & Sathe, N. (2004). *State estimates of substance use from the 2002-2003 National Surveys on Drug Use and Health* (DHHS Publication No. SMA 05-3989, NSDUH Series H-26). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. [Available at http://www.oas.samhsa.gov/states.htm and http://www.oas.samhsa.gov/states.htm#Prevalence]

Zhang, Z., Huang, L. X., & Brittingham, A. M. (1999). *Worker drug use and workplace policies and programs: Results from the 1994 and 1997 National Household Survey on Drug Abuse*. (Report No. DHHS Publication No. SMA 99-3352, Analytic Series A-11). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. [Available at http://www.oas.samhsa.gov/analytic.htm]