

Social Development



SD 3.1 Cigarette Smoking Among Youth

Cigarette smoking is the single most preventable cause of death in the United States. The Centers for Disease Control and Prevention estimates that one in five deaths is caused by tobacco use.²⁹ Youthful smoking can have severe, lifelong consequences because a large proportion of those who initiate smoking in adolescence will continue to smoke as adults.³⁰ In addition, youth who smoke are also more likely to use illicit drugs and to drink more heavily than their nonsmoking peers.³¹ Youth tobacco use varies within and among racial and ethnic minority groups, and it has been the focus of federal attention in recent years.³²

There are an estimated 3 million underage smokers in the United States. In a 1990 study, it was estimated that each year underage smokers purchase 947 million packs of cigarettes and 26 million cans of smokeless tobacco, resulting in \$1.26 billion in tobacco sales.³³ A 1992 study by the CDC concluded that more than half of underage smokers buy their own cigarettes.³⁴ Although studies also show that only 23 percent of smoking youth now use vending machines often or occasionally, anticipated changes in state enforcement of minors' access laws may increase the number of underage smokers who use tobacco vending machines.

Daily smoking among 12th-grade students decreased sharply in the late 1970s, and increased throughout most of the 1990s before declining modestly in 1998. Between 1992 and 1997, the percentage of 12th graders who reported smoking daily increased from 17.2 percent to 24.6 percent. In 1999, however, the percentage of 12th graders reporting daily smoking decreased to 23.1 (see Figure SD 3.1).

Data for 8th- and 10th-grade students, available from 1991 through 1999, also show increases throughout the 1990s in the percentage of students who reported smoking daily and a decrease in the last several years of the survey. Among 8th-grade students, the rate increased from 7.2 percent to 10.4 percent between 1991 and 1996 and decreased to 8.1 percent in 1999. Among 10th-grade students, the rate increased from 12.6 percent to 18.3 between 1991 and 1996 and decreased to 15.9 percent in 1999 (see Table SD 3.1.A).

Increases in the prevalence of current smoking among youth are also reflected in the results from the Youth Risk Behavior Survey, which examines “current smoking,” or smoking on one or more of the previous 30 days (see Table SD 3.1.B).

²⁹ Centers for Disease Control and Prevention. 1993. Cigarette Smoking—Attributable Mortality and Years of Potential Life Lost—United States, 1990. *Morbidity and Mortality Weekly Report* 42 (33): 645-649.

³⁰ The Monitoring the Future Study, The University of Michigan. Cigarette Smoking Rates May Have Peaked among Younger Teens. Press release of December 18, 1997.

³¹ Substance Abuse and Mental Health Services Administration. 1996. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, MD: Public Health Service. 1995 results indicate that youth ages 12 through 17 who smoked were about 8 times as likely to use illicit drugs and 11 times as likely to drink heavily as nonsmoking youths.

³² Centers for Disease Control and Prevention. 1998. Tobacco Use among U.S. Racial/Ethnic Minority Groups, African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, Hispanics: A Report of the Surgeon General (Executive Summary). *Morbidity and Mortality Weekly Report* 47 (RR-18): 4.

³³ Difranza, J.R., & Tye, J.B. 1990. Who Profits from Tobacco Sales to Children? *JAMA* 263 (20): 2784-2787.

³⁴ Allen, K., et al. 1993. Teenage Tobacco Use: Data Estimates from the Teenage Attitudes and Practices Survey, United States, 1989. *Advance Data* 224: 1-20.

Differences by Age. In general, as age and/or grade increases, so does the prevalence of smoking. In 1999, the percentage of students who report daily smoking was 8.1 percent among 8th graders, 15.9 percent among 10th graders, and 23.1 percent among 12th-grade students (see Figure SD 3.1).

Differences by Race and Hispanic Origin.³⁵ White students consistently have the highest rates of smoking, while black students consistently have the lowest (see Tables SD 3.1.A and SD 3.1.B). The prevalence of current³⁶ smoking among white students is about twice that of black students. White students are twice as likely as Hispanic students and three times as likely as black students to be frequent³⁷ smokers (see Table SD 3.1.B).

Differences by Gender.³⁸ There is little to no difference in the prevalence of smoking between males and females, with the exception of black youth. Among black youth in grades 9 through 12, males were more likely than females in 1995 and in 1997 to report current and frequent smoking (see Table SD 3.1.B).

Prevalence of Smoking by Frequency. Two to three times the percentage of students report current smoking (smoking on 1 or more of the previous 30 days) than report frequent smoking (smoking on 20 or more of the previous 30 days) (see Table SD 3.1.B). This is apparent across all grades and for all the racial and ethnic groups shown.

³⁵ Estimates reported from the Youth Risk Behavior System for whites and blacks exclude Hispanics of those races.

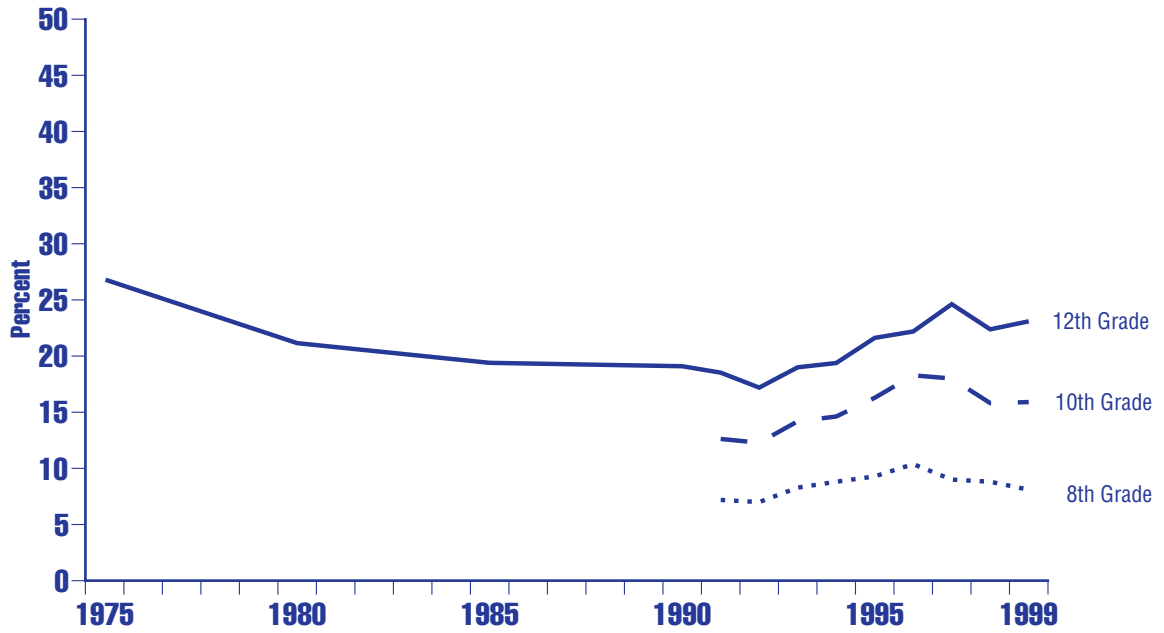
³⁶ Current smoking is smoking on 1 or more of the previous 30 days.

³⁷ Frequent smoking is smoking one or more cigarettes per day in the previous 30 days.

³⁸ The 1997 National Household Survey on Drug Abuse reports similar rates of cigarette smoking for males and females ages 12 through 17. 1997 responses to questions about use of cigarettes include: 39 percent of males and 38.3 percent of females "ever used," 25.7 percent of males and 27.2 percent of females "used in the past year," and 19 percent of males and 20.7 percent of females "used in the past month." Substance Abuse and Mental Health Services Administration, Office of Applied Studies. "National Household Survey on Drug Abuse: Population Estimates 1997," August 1998, Table 14A, accessed at <http://www.samhsa.gov/oas/nhsda/pe1997/pop105.htm#E10E107> on 4/29/99.

Figure SD 3.1

Percentage of 8th-, 10th-, and 12th-grade students in the United States who reported smoking cigarettes daily over the previous 30 days: Selected years, 1975-1999



Sources: Johnston, O'Malley & Bachman, 2000. 8th- and 10th-grade, Table D-48; 12th-grade Table D-49. 1998 prepublication detail tables provided by Monitoring the Future Study staff.



Table SD 3.1.A

Percentage of 8th-, 10th-, and 12th-grade students who reported smoking cigarettes daily over the previous 30 days, by gender and by race and Hispanic origin: Selected years, 1975-1999

	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
8th Grade													
Total	—	—	—	—	7.2	7.0	8.3	8.8	9.3	10.4	9.0	8.8	8.1
Gender													
Male	—	—	—	—	8.1	6.9	8.8	9.5	9.2	10.5	9.0	8.1	7.4
Female	—	—	—	—	6.2	7.2	7.8	8.0	9.2	10.1	8.7	9.0	8.4
Race and Hispanic origin ^{a, b}													
White	—	—	—	—	—	7.7	8.8	9.7	10.5	11.7	11.4	10.4	9.7
Black	—	—	—	—	—	1.4	1.8	2.6	2.8	3.2	3.7	3.8	3.8
Hispanic	—	—	—	—	—	7.3	7.2	9.0	9.2	8.0	8.1	8.4	8.5
10th Grade													
Total	—	—	—	—	12.6	12.3	14.2	14.6	16.3	18.3	18.0	15.8	15.9
Gender													
Male	—	—	—	—	12.4	12.1	13.8	15.2	16.3	18.1	17.2	14.7	15.6
Female	—	—	—	—	12.5	12.4	14.3	13.7	16.1	18.6	18.5	16.8	15.9
Race and Hispanic origin ^{a, b}													
White	—	—	—	—	—	14.5	15.3	16.5	17.6	20.0	21.4	20.3	19.1
Black	—	—	—	—	—	2.8	3.1	3.8	4.7	5.1	5.6	5.8	5.3
Hispanic	—	—	—	—	—	8.4	8.9	8.1	9.9	11.6	10.8	9.4	9.1
12th Grade													
Total	26.9	21.3	19.5	19.1	18.5	17.2	19.0	19.4	21.6	22.2	24.6	22.4	23.1
Gender													
Male	26.9	18.5	17.8	18.6	18.8	17.2	19.4	20.4	21.7	22.2	24.8	22.7	23.6
Female	26.4	23.5	20.6	19.3	17.9	16.7	18.2	18.1	20.8	21.8	23.6	21.5	22.2
Race and Hispanic origin ^{a, b}													
White	—	23.9	20.4	21.8	21.5	20.5	21.4	22.9	23.9	25.4	27.8	28.3	26.9
Black	—	17.4	9.9	5.8	5.1	4.2	4.1	4.9	6.1	7.0	7.2	7.4	7.7
Hispanic	—	12.8	11.8	10.9	11.5	12.5	11.8	10.6	11.6	12.9	14.0	13.6	14.0

^a Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

^b Estimates for race and Hispanic origin represent the mean of the specified year and the previous year. Data have been combined to increase subgroup sample sizes, thus providing more stable estimates.

Note: Data for 8th and 10th grades available since 1991.

Sources: Johnston, O'Malley, & Bachman, 2000. 8th- and 10th-grade Table D-48; 12th-grade Table D-49. 1998 prepublication detail tables provided by Monitoring the Future Study staff.

Table SD 3.1.B

Percentage of students in grades 9 through 12 in the United States who reported current and frequent smoking, by gender, race and Hispanic origin, and grade: 1991, 1993, 1995, 1997, and 1999

	Current Smoking ^a					Frequent Smoking ^b				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
Total	28	31	35	36	35	13	14	16	17	17
Male	28	30	35	38	35	13	14	16	18	18
Female	27	31	34	35	35	12	14	16	16	16
Race and Hispanic origin^c										
White	31	34	38	40	39	15	16	20	20	20
Male	30	32	37	40	38	15	16	18	20	21
Female	32	35	40	40	39	16	16	21	20	19
Black	13	15	19	23	20	3	5	5	7	7
Male	14	16	28	28	22	5	5	9	10	9
Female	11	14	12	17	18	2	4	1	4	5
Hispanic	25	29	34	34	33	7	8	10	11	10
Male	28	30	35	36	34	8	9	11	13	13
Female	23	27	33	32	32	6	7	9	8	9
Grade										
Ninth	23	28	31	33	28	8	9	10	13	11
Tenth	25	28	33	35	35	11	13	13	15	15
Eleventh	32	31	36	37	36	16	15	19	19	19
Twelfth	30	35	38	40	43	16	18	21	19	23

^a Current smoking is smoking on 1 or more of the previous 30 days.

^b Frequent smoking is smoking on 20 or more of the previous 30 days.

^c Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Centers for Disease Control and Prevention. 1990-1991 Youth Risk Behavior Surveillance System, Table 1, p. 60 (current smoking); Table 1, p. 50, and unpublished data results Q28 (frequent smoking); Kann et al., 1995, Table 12, p. 35; Kann et al., 1996, Table 12, p. 44; Kann et al., 1998, Table 12, p. 50.



SD 3.2 Smokeless Tobacco Use Among Youth

The use of smokeless tobacco— snuff and chewing tobacco—is associated with a substantially higher risk of developing oral cancer.³⁹ Data from the Monitoring the Future Study indicate that smokeless tobacco use among youth has generally decreased in recent years. Data from the Youth Risk Behavior Survey provide additional information about smokeless tobacco use by males and females within racial and Hispanic groups.

Differences by Age.⁴⁰ In general, as age and/or grade increases, so does the prevalence of smokeless tobacco use. In 1999, the percentage of students who reported using smokeless tobacco over the previous 30 days was 4.5 percent among 8th graders, 6.5 percent among 10th graders, and 8.4 percent among 12th-grade students (see Table SD 3.2.A). The rate for 12th-grade students decreased from 12.2 percent in 1995 to 8.4 percent in 1999.

Differences by Gender. While rates of youth cigarette smoking are similar among males and females (see section SD 3.1), male students in the 8th, 10th, and 12th grades are more likely to use smokeless tobacco than are female students (see Figure 3.2.A). In 1999, among 12th-grade students, 15.5 percent of males and 1.3 percent of females reported smokeless tobacco use (see Table 3.2.A).

Differences by Race and Grade.⁴¹ The use of smokeless tobacco is most prevalent among white youth. In 1999, 11 percent of white 12th graders reported having used smokeless tobacco one or more times in the 30 days preceding the survey, compared with 3.9 percent of Hispanic 12th graders and 1.5 percent of black 12th graders (see Table SD 3.2.A). The rate of smokeless tobacco use increases for white students as grade level increases. In 1999 among white students, the prevalence of smokeless tobacco use was 5.4 percent among 8th graders, 8.7 percent among 10th graders, and 11 percent among 12th graders (see Table 3.2.A).

The Youth Risk Behavior Survey provides additional subgroup information for 9th- through 12th-grade students combined. According to this survey's most recent administration in 1999, the use of smokeless tobacco is most prevalent among white, non-Hispanic male high school students, with 19 percent reporting having used smokeless tobacco one or more times in the 30 days preceding the survey, compared with 6 percent of Hispanic male youth and 3 percent of black male youth (see Figure SD 3.2.B).

³⁹ U.S. Department of Health and Human Services, Centers for Disease Control. 1999. *Targeting Tobacco Use: The Nation's Leading Cause of Death: At-a-Glance*. Atlanta, GA.: Centers for Disease Control. See also Tomar, S.L., & Henningfield, J.E. 1995. Additional Evidence Implicating Moist Snuff as a Potent Carcinogen. *Journal of the National Cancer Institute* 87 (24): 1822-1823.

⁴⁰ According to Sherry Everett Jones at the Center for Disease Control, differences by grade are not statistically significant.

⁴¹ In Table SD 3.2.B and Figure SD 3.2.B, estimates for whites and blacks exclude Hispanics of those races.

Table SD 3.2.A

Percentage of 8th-, 10th-, and 12th-grade students in the United States who reported using smokeless tobacco over the previous 30 days, by grade, gender, and race and Hispanic origin: Selected years, 1992-1999

	1992	1993	1994	1995	1996	1997	1998	1999
8th Grade								
Total	7.0	6.6	7.7	7.1	7.1	5.5	4.8	4.5
Gender								
Male	12.5	10.9	12.8	11.8	11.4	9.9	8.1	6.9
Female	2.0	2.7	2.4	2.9	2.9	1.5	1.5	2.1
Race and Hispanic origin ^a (2-year average) ^b								
White	8.3	8.0	8.1	8.9	8.8	7.6	6.1	5.4
Black	1.8	2.7	3.2	2.6	2.2	2.6	2.3	2.3
Hispanic	4.2	4.0	5.0	5.7	5.2	4.6	4.5	4.6
10th Grade								
Total	9.6	10.4	10.5	9.7	8.6	8.9	7.5	6.5
Gender								
Male	18.1	19.3	19.2	17.2	15.0	14.9	13.8	12.2
Female	1.8	2.0	2.1	2.1	2.3	2.7	1.7	1.3
Race and Hispanic origin ^a (2-year average) ^b								
White	11.4	12.0	12.5	12.0	11.0	10.4	10.0	8.7
Black	2.9	2.3	2.3	2.5	2.5	2.8	2.3	1.6
Hispanic	6.2	6.1	4.3	3.6	4.0	4.6	4.8	4.8
12th Grade								
Total	11.4	10.7	11.1	12.2	9.8	9.7	8.8	8.4
Gender								
Male	20.8	19.7	20.3	23.6	19.5	18.7	15.6	15.5
Female	2.0	2.3	2.6	1.8	1.1	1.2	1.5	1.3
Race and Hispanic origin ^a (2-year average) ^b								
White	—	13.8	13.8	13.8	13.0	12.2	11.8	11.0
Black	—	2.0	1.9	2.1	2.7	2.2	1.4	1.5
Hispanic	—	6.0	5.4	7.6	8.1	5.3	4.3	3.9

^a Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

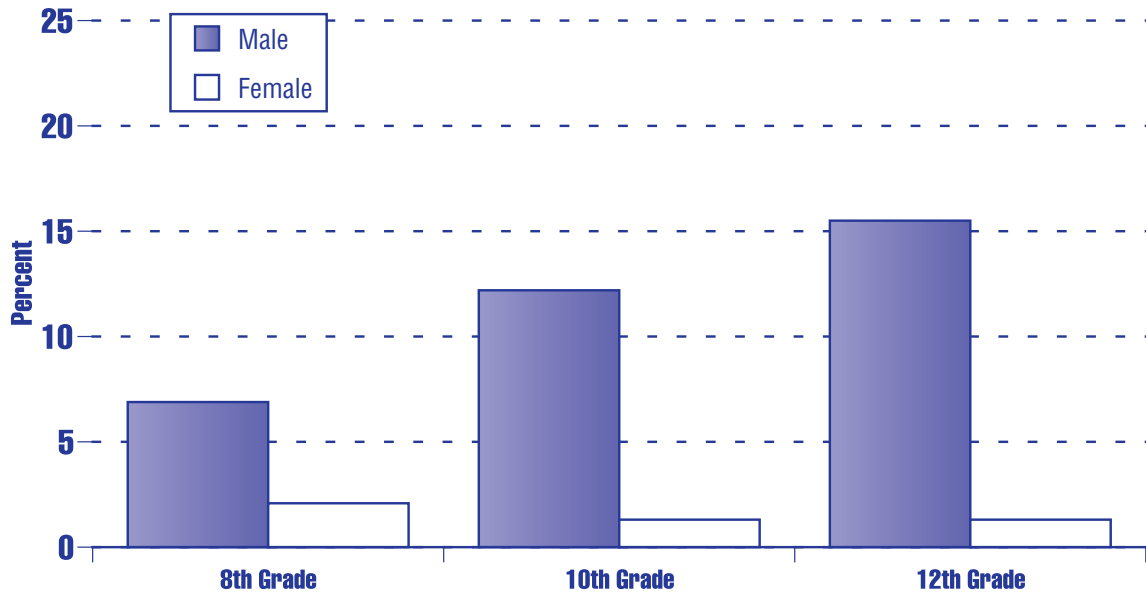
^b Estimates for race and Hispanic origin represent the mean of the specified year and the previous year. Data have been combined to increase subgroup sample sizes, thus providing more stable estimates.

Note: Prevalence of smokeless tobacco was not asked of 12th graders in 1990 and 1991. Prior to 1990, the prevalence question on smokeless tobacco was located near the end of one 12th-grade questionnaire form, whereas after 1991, the question was placed in a different and earlier form in the questionnaire. This shift could explain the discontinuities between the corresponding data in later years. Data for 8th and 10th grades have been available since 1991.

Sources: Johnston, O'Malley, & Bachman, 2000, 8th and 10th grade Table D-33; 12th grade Table D-34. Data for 1999: prepublication detail tables provided by Monitoring the Future Study staff: 8th and 10th grade Table D-52; 12th grade Table D-53.

Figure SD 3.2.A

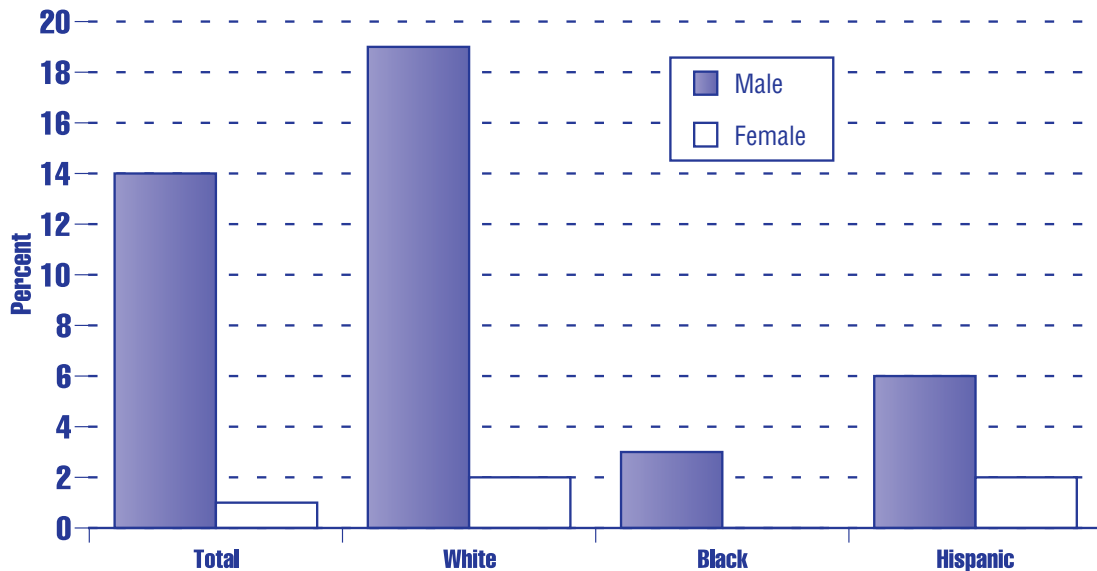
Percentage of 8th-, 10th-, and 12th-grade students in the United States who reported using smokeless tobacco during the previous 30 days, by gender: 1999



Source: The Monitoring the Future Study, The University of Michigan. Prepublication detail tables provided by the Monitoring the Future Study staff: 8th and 10th grade Table D-52; 12th grade Table D-53.

Figure SD 3.2.B

Percentage of youth in grades 9 through 12 in the United States who reported having used smokeless tobacco during the previous 30 days, by gender and by race and Hispanic origin:^a 1999



^a Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Source: Kan, et al. 1998, Table 12, p. 50.

Table SD 3.2.B

Percentage of youth in grades 9 through 12 in the United States who reported having used smokeless tobacco during the previous 30 days,^a by gender and by race and Hispanic origin:^b 1991, 1993, 1995, 1997, and 1999

	1991			1993			1995			1997			1999		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	11	19	1	12	20	2	11	20	2	9	16	2	8	14	1
Race and Hispanic origin^b															
White	13	24	1	15	26	2	15	25	3	12	21	2	10	19	2
Black	2	4	1	3	5	1	2	4	1	2	3	1	1	3	0
Hispanic	6	11	1	5	8	2	4	6	3	5	8	1	4	6	2

^a In 1991 and 1993, students were asked whether they had “used chewing tobacco or snuff during the 30 days preceding the survey;” in 1995 1997, and 1999, students were asked how many days they had “used chewing tobacco or snuff on 1 or more of the 30 days preceding the survey.”

^b Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Centers for Disease Control and Prevention. 1990-1991, Table 1, p. 50; Kann, et al., 1995, Table 12, p. 35; Kann, et al., 1996, Table 12, p. 44; Kann, et al., Table 12, p. 50.

SD 3.3 Alcohol Use Among Youth

Alcohol use among adolescents is linked to a host of problems, including motor vehicle crashes and deaths, difficulties in school and the workplace, fighting, and breaking the law.⁴² The National Institute on Alcohol Abuse and Alcoholism finds that the younger the age of drinking onset, the greater the chance that an individual at some point in life will develop a clinically defined alcohol disorder.⁴³ In addition, binge drinking by youth at some point in the previous 2 weeks is associated with higher levels of illicit drug use.⁴⁴

Among 12th-grade students, rates of binge drinking fell from a high of 41.4 percent in 1981 to 27.5 percent in 1993 (see Figure SD 3.3.A). Between 1993 and 1999, rates have edged up modestly to 30.8 percent (see Table SD 3.3.A).⁴⁵ Having an alcoholic beverage on one or more occasion in the previous 30 days was reported by 52 percent of 12th-grade students in 1998 but dropped slightly to 51 percent in 1999 (see Table SD 3.3.B).

Differences by Age. Binge drinking increases as students move into the upper grade levels (see Figure SD 3.3.A). In 1999, 15.2 percent of 8th-grade students reported binge drinking, while more than twice this percentage (30.8 percent) reported binge drinking in the 12th grade. A larger increase in binge drinking appears to occur between the 8th and 10th grades than in the period between the 10th and 12th grades (see Table SD 3.3.A).

⁴² Petraitis, J., & Flay, B.R. 1995. Reviewing Theories of Adolescent Substance Use: Organizing Pieces in the Puzzle. *Psychological Bulletin* 117 (1): 67-86; Hawkins, J.D., Catalano, R.F., & Miller, J.Y. 1992. Risk and Protective Factors for Alcohol and Other Drug Problems in Adolescence and Early Adulthood: Implications for Substance Abuse Prevention. *Psychological Bulletin* 112 (1): 64-105; National Institute on Drug Abuse. 1987. *National Trends in Drug Use and Related Factors among American High School Students and Young Adults, 1976-1986*. DHHS Pub. No. (ADM) 87-1535. Washington, D.C.: U.S. Department of Health and Human Services.

⁴³ Grant, B.R., & Dawson, D.A. Age at Onset of Alcohol Use and Its Association with DSM-IV Alcohol Abuse and Dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse* 9: 103-110. Also, National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism. "Age of Drinking Onset Predicts Future Alcohol Abuse and Dependence." Press release of January 14, 1998.

⁴⁴ Substance Abuse and Mental Health Services Administration. 1996. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, Md.: Public Health Service. Results from 1995 indicate that among binge drinkers, 18 percent were illicit drug users. In this survey, binge drinking is defined as having five or more drinks on the same occasion at least once in the past month. See also: Gruber, E., Diciemante, R.J., Anderson, M.M., & Lodico, M. 1996. Early Drinking Onset and Its Association with Alcohol Use and Problem Behavior in Late Adolescence. *Preventive Medicine* 25: 293-300.

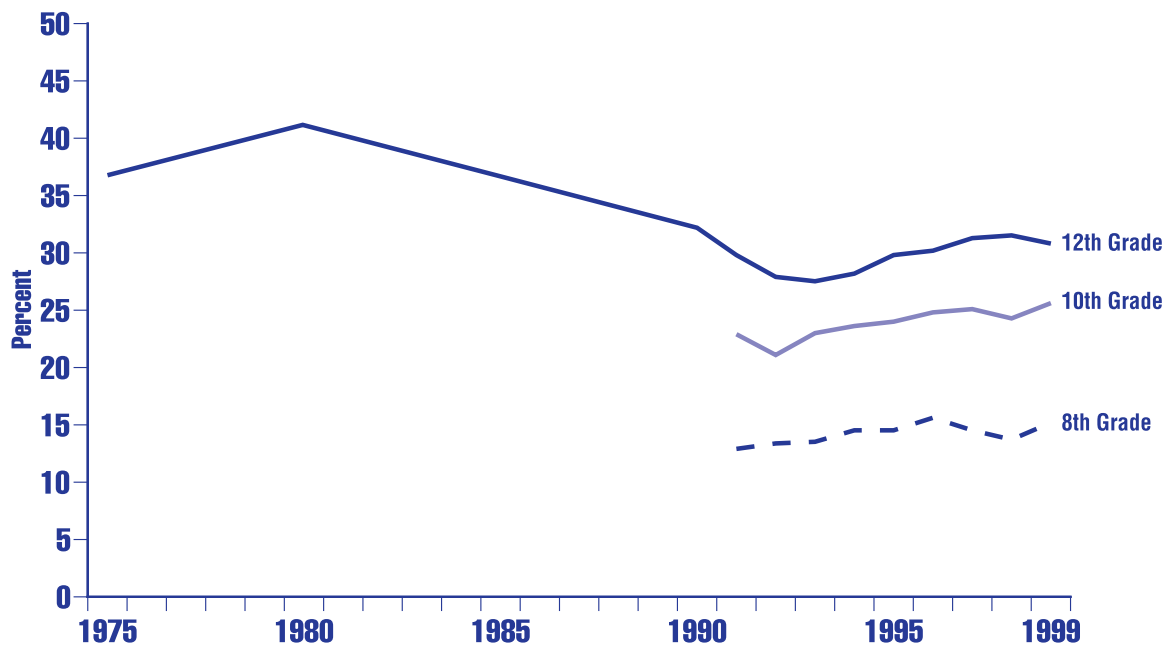
⁴⁵ These percentages underestimate the rate of binge drinking among all youth, because school-age youth who are not in school are somewhat more likely to binge drink than those in school. (Based on unpublished analyses of the National Health Interview Survey 1992 by Child Trends, and unpublished prevalence rates of past-month alcohol use among youth ages 12 through 17 by school status, enrolled or not enrolled, from the 1994-95 National Household Surveys on Drug Abuse.)

Differences by Gender. Male students report higher rates of binge drinking than do female students. The disparity in binge drinking rates between males and females is greater in the upper grades, with 38.1 percent of males and 23.6 percent of females in the 12th grade reporting binge drinking in 1999 (see Table SD 3.3.A). Similar disparities exist for regular drinking (see Table 3.3.B).

Differences by Race and Hispanic Origin. Hispanic youth in the 8th grade are more likely than their white and black peers to engage in binge drinking. By the 12th grade, however, white students report a higher prevalence of binge drinking than do either Hispanic or black students. Black students consistently report the lowest prevalence of binge drinking for all grades and across all years (see Table SD 3.3.A).

Figure SD 3.3.A

Percentage of 8th-, 10th-, and 12th-grade students who reported binge drinking:^a Selected years, 1975-1999



^a Binge drinking means having five or more drinks in a row in the previous 2 weeks.

Sources: Johnston, O'Malley, & Bachman, 1998, 8th and 10th grade Table D-27; 12th grade Table D-28. Data for 1998: prepublication detail tables provided by Monitoring the Future Study staff: 8th and 10th grade Table D-31; 12th grade Table D-32.

Table SD 3.3.A

Percentage of 8th-, 10th-, and 12th-grade students in the United States who reported binge drinking,^a by gender and by race and Hispanic origin: Selected years, 1975-1999

	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
8th Grade													
Total	—	—	—	—	12.9	13.4	13.5	14.5	14.5	15.6	14.5	13.7	15.2
Gender													
Male	—	—	—	—	14.3	13.9	14.8	16.0	15.1	16.5	15.3	14.4	16.4
Female	—	—	—	—	11.4	12.8	12.3	13.0	13.9	14.5	13.5	12.7	13.9
Race and Hispanic origin ^{b, c}													
White	—	—	—	—	—	12.7	12.6	12.9	13.9	15.1	15.1	14.1	14.3
Black	—	—	—	—	—	9.6	10.7	11.8	10.8	10.4	9.8	9.0	9.9
Hispanic	—	—	—	—	—	20.4	21.4	22.3	22.0	21.0	20.7	20.4	20.9
10th Grade													
Total	—	—	—	—	22.9	21.1	23.0	23.6	24.0	24.8	25.1	24.3	25.6
Gender													
Male	—	—	—	—	26.4	23.7	26.5	28.5	26.3	27.2	28.6	26.7	29.7
Female	—	—	—	—	19.5	18.6	19.3	18.7	21.5	22.3	21.7	22.2	21.8
Race and Hispanic origin ^{b, c}													
White	—	—	—	—	—	23.2	23.0	24.5	25.4	26.2	26.9	27.0	27.2
Black	—	—	—	—	—	15.0	14.8	14.0	13.3	12.2	12.7	12.8	12.7
Hispanic	—	—	—	—	—	22.9	23.8	24.2	26.8	29.6	27.5	26.3	27.5
12th Grade													
Total	36.8	41.2	36.7	32.2	29.8	27.9	27.5	28.2	29.8	30.2	31.3	31.5	30.8
Gender													
Male	49.0	52.1	45.3	39.1	37.8	35.6	34.6	37.0	36.9	37.0	37.9	39.2	38.1
Female	26.4	30.5	28.2	24.4	21.2	20.3	20.7	20.2	23.0	23.5	24.4	24.0	23.6
Race and Hispanic origin ^{b, c}													
White	—	44.3	41.5	36.6	34.6	32.1	31.3	31.5	32.3	33.4	35.1	36.4	35.7
Black	—	17.7	15.7	14.4	11.7	11.3	12.6	14.4	14.9	15.3	13.4	12.3	12.3
Hispanic	—	33.1	31.7	25.6	27.9	31.1	27.2	24.3	26.6	27.1	27.6	28.1	29.3

^a Binge drinking means having five or more drinks in a row in the previous 2 weeks.

^b Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

^c Estimates for race and Hispanic origin represent the mean of the specified year and the previous year. Data have been combined to increase subgroup sample sizes, thus providing more stable estimates.

Note: Data for 8th and 10th grades available since 1991.

Sources: Johnston, O'Malley, & Bachman, 1998, 8th and 10th grade Table D-27; 12th-grade Table D-28. Data for 1998: prepublication detail tables provided by Monitoring the Future Study staff.

Table SD 3.3.B

Percentage of 8th-, 10th-, and 12th-grade students in the United States who reported drinking alcohol on one or more occasions,^a by gender: Selected years, 1998-1999

	1998	1999
8th Grade		
Total	23.0	24.0
Male	24.0	24.8
Female	21.9	23.3
10th Grade		
Total	38.8	40.0
Male	40.0	42.3
Female	37.7	38.1
12th Grade		
Total	52.0	51.0
Male	57.3	55.3
Female	46.9	46.8

^a Question indicated that a “drink” of alcohol is more than a few sips within the last 30 days.

Note: The form of this question changed in 1993 so the data in this report are not comparable to previous editions of this report.

Sources: Bachman, Johnston, & O’Malley, 8th and 10th grade 1991-1996 Questionnaire Forms 1 and 2, item B05C; 12th grade 1980-1988 Questionnaire Forms 1-5, item B04B, and 1989-1997 Questionnaire Forms 1-6, item B04C.

SD 3.4 Exposure to Drunk Driving

Motor vehicle crashes are a major cause of death in the United States for youth ages 15 through 19.⁴⁶ Among young Americans of driving age, the issue of alcohol-impaired driving has particular significance. In all states, the purchase of alcohol by persons under age 21 is illegal; however, in 1994, 29 percent of the 2,610 traffic fatalities involving persons ages 15 through 17 were alcohol-related. For traffic deaths involving persons ages 18 through 20, the percentage of alcohol involvement was 44 percent.⁴⁷

In 1999, 36 percent of adolescents in grades 9 through 12 reported that within the month prior to the survey, they had either driven after drinking alcohol or had ridden with a driver who had been drinking alcohol (see Table SD 3.4). Since 1991, about two in five high school students have reported this level of exposure to drunk driving.

Differences by Age. Rates of exposure to drunk driving differed modestly by age. In 1999, 41 percent of 12th-grade students reported taking this risk, compared with 32 percent of 9th-grade students (see Figure SD 3.4).

Differences by Gender. In 1999, 38 percent of males and 34 percent of females reported driving after drinking alcohol or riding with someone who had been drinking (see Table SD 3.4).

Differences by Race and Hispanic Origin.⁴⁸ In 1999, 42 percent of Hispanic, 36 percent of white, and 36 percent of black teens reported having been exposed to drunk driving within the past month (see Table SD 3.4).

⁴⁶ Injury-related mortality (including motor vehicle crashes, fires and burns, drowning, suffocation, and accidents caused by firearms and other explosive materials, among others) accounted for 80 percent of all deaths of youth ages 15 through 19 in 1995. However, the rate of motor vehicle crash deaths among youth has been relatively constant since 1992 and has declined as a fraction of all violent deaths to teens. Preliminary data for 1996 show that motor vehicle crashes claimed 28.9 lives per 100,000 youth ages 15 through 19, compared with 43.6 per 100,000 youth in 1970. Data for 1996 are preliminary based on 85 percent of all reported deaths in 1996.

⁴⁷ Update: Alcohol-Related Traffic Crashes and Fatalities among Youth and Young Adults—United States, 1982-1994. *Morbidity and Mortality Weekly Report* 44: 869-874.

⁴⁸ Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Table SD 3.4

Percentage of students in grades 9 through 12 in the United States who reported driving after drinking alcohol, or riding with a driver who had been drinking alcohol,^a by gender, grade, and race and Hispanic origin: 1991, 1993, 1995, 1997, and 1999

	1991	1993	1995	1997	1999
Total	42	38	42	40	36
Gender					
Male	44	40	43	42	38
Female	41	36	40	37	34
Grade					
Ninth	36	32	39	35	32
Tenth	39	37	40	36	36
Eleventh	45	39	41	42	35
Twelfth	49	44	46	45	41
Race and Hispanic origin^b					
White	43	37	41	40	36
Black	38	41	39	36	36
Hispanic	49	45	52	47	42

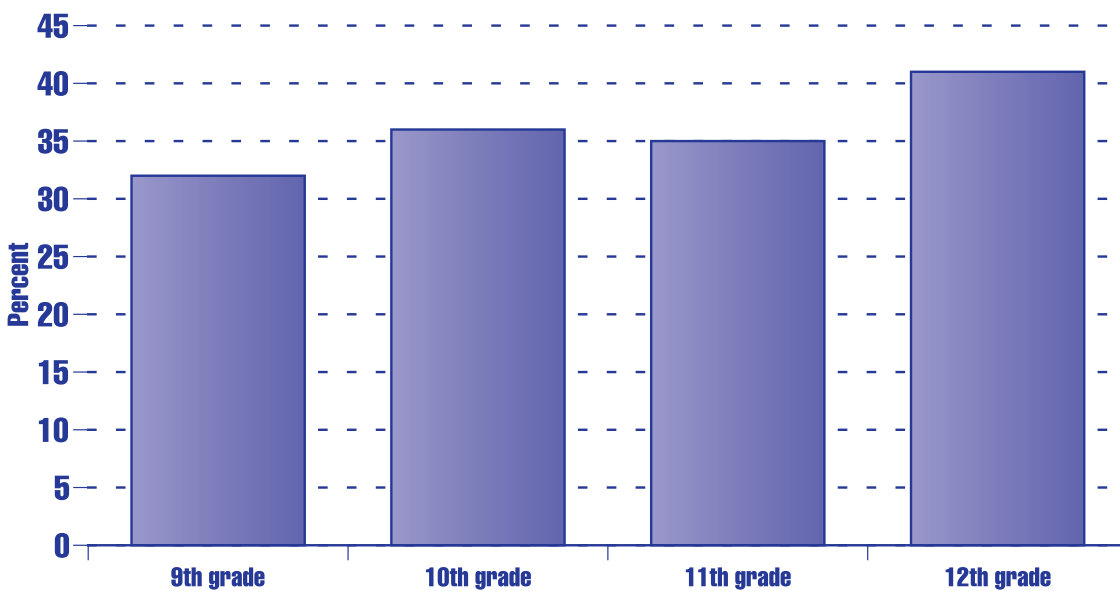
^a Within the last 30 days.

^b Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Youth Risk Behavior Survey results, 1991, 1993, 1995, 1997, and 1999. Unpublished tabulations by Laura Kann, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.

Figure SD 3.4

Percentage of students in grades 9 through 12 in the United States who reported driving after drinking alcohol or riding with a driver who had been drinking alcohol within the past 30 days, by grade: 1999



^a Within the last 30 days.

Source: Youth Risk Behavior Survey results, 1999. Unpublished tabulations by Laura Kann, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.

SD 3.5 Drug Use Among Youth: Marijuana, Inhalants, Hallucinogens, and Cocaine

Drug use by youth has serious and often long-term individual, social, and economic consequences. Drug use contributes to crime, decreases economic productivity, and requires a disproportionate share of health care services for those affected. Use of drugs is a preventable behavior that, when established during adolescence, can extend into adulthood.⁴⁹

The effects of drug use on individual health and well-being have been well documented: for example, the use of cocaine has been linked with numerous health problems ranging from eating disorders to disability and even death from heart attack and stroke.⁵⁰ Marijuana use holds both health and cognitive risks, particularly for damage to pulmonary functions as a result of chronic use.⁵¹ Hallucinogens can affect brain chemistry and result in problems both in learning new information and retaining knowledge.⁵² And chronic use of some inhalants may result in injury to the liver and kidneys as well as cause neurological damage, although it is not yet determined whether such damage is long term.⁵³

Marijuana Use.⁵⁴ From a high of 37.1 percent in 1978, large and steady declines in the percentage of 12th graders reporting marijuana use were evident through 1992. Since 1992, however, marijuana use in the past 30 days among 12th-grade students has increased from 11.9 percent to 23.1 percent in 1999 (see Figure SD 3.5.A). The rise in marijuana use is also evident among 8th-grade students, increasing from 3.2 percent in 1991 to 9.7 percent in 1999. Marijuana use by 10th graders rose from 8.7 percent in 1991 to 19.4 percent in 1999.

Tenth and 12th graders have consistently been more likely to use marijuana than inhalants, hallucinogens, or cocaine. As of 1994, marijuana use among 8th-grade students had surpassed prevalence rates of other drugs shown (see Table SD 3.5.A). This increase in the use of marijuana corresponds with a decline in its perceived harmfulness by students across all grade levels from 1991 to 1998.⁵⁵

⁴⁹ Johnson, R.A., Hoffmann, J.P., & Gerstein, D.R. July 1996. *The Relationship between Family Structure and Adolescent Substance Use*. Rockville, Md.: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

⁵⁰ Blanken, A.J. 1993. Measuring Use of Alcohol and Other Drugs among Adolescents. *Public Health Reports* (Journal of the U.S. Public Health Service) 108 (Supp. 1).

⁵¹ See, for example, Marijuana: Facts Parents Need to Know, National Institute on Drug Abuse, U.S. Department of Health and Human Services, NCADI Pub. No. PHD712, 1995; and Pope, H., & Yurgelun-Todd, D., 1996, The Residual Cognitive Effects of Heavy Marijuana Use in College Students, *Journal of the American Medical Association* 275 (7).

⁵² "Measuring the Health Behavior of Adolescents: The Youth Risk Behavior Surveillance System and Recent Reports on High-Risk Adolescents." 1993. *Public Health Reports* 108 (Supp. 1). Rockville, Md.: Public Health Service.

⁵³ Public Health Service, 1993.

⁵⁴ These percentages likely underestimate the rate of drug use among all youth, because school-age youth who are not in school are somewhat more likely to use drugs than those in school. (Based on unpublished prevalence rates of past-month marijuana use, past-year cocaine use, and past-year inhalant use among youth ages 12 to 17, by school status, enrolled or not enrolled, from the 1994-95 National Household Surveys on Drug Abuse.)

⁵⁵ The data on perceived harmfulness of specified drugs are not shown here but can also be obtained from the Monitoring the Future Study. The percentage of students who think that smoking marijuana occasionally or regularly is physically or otherwise harmful has dropped from 1991 to 1998 across all grade levels. In 1999, 23.9 percent of 12th-grade students perceived smoking marijuana occasionally to be harmful (down from 40.6 percent in 1991), and 57.4 percent perceived smoking marijuana regularly to be harmful (down from 78.6 percent in 1991).

Differences by Age. As seen with cigarette and alcohol use (see Sections SD 3.1 and SD 3.3), use of both marijuana and hallucinogens increases with grade level. This increase is relatively small for hallucinogen use but is substantial for marijuana use. In 1999, 9.7 percent of 8th-grade students reported using marijuana in the past 30 days (see Table SD 3.5.A). More than twice that percentage of 12th graders (23.1 percent) reported using marijuana within the past 30 days in the same year. In contrast, inhalant use is more prevalent in the 8th grade than in either the 10th or the 12th grade. The rate of inhalant use among 8th graders was 5.0 percent, compared with 2.6 percent for 10th graders and 2.0 percent for high school seniors in 1999. The prevalence of cocaine use is lowest among 8th graders in 1999 (1.3 percent), but similarly small rates are reflected in other grades as well (1.8 percent for 10th grade and 2.6 percent for 12th grade) (see Table SD 3.5.A).

Use of Other Specified Drugs. Increases have also been shown in the use of cocaine and hallucinogens since 1991 across all grade levels. In recent years, cocaine use has been least prevalent among the four drugs types examined in this section among all grade levels, with a high of 2.6 percent of 12th-grade students reporting use within a 30-day period in 1999 (see Figure SD 3.5.B). Hallucinogens have low prevalence rates among 8th graders in 1999 (1.3 percent), although use increases with grade, eventually surpassing the use of inhalants for the upper grade levels. The use of inhalants is highest among 8th-grade students at 5.0 percent in 1999 (see Table SD 3.5.A).

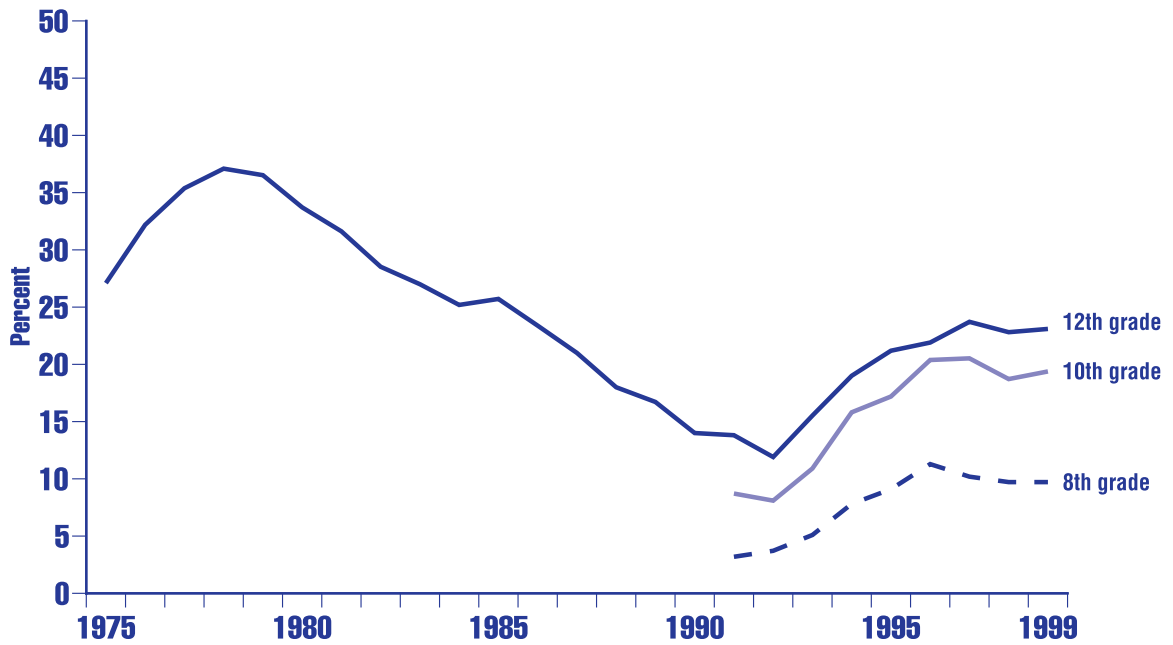
One-quarter (25.9 percent) of America's 12th graders report use of "any illicit drug" in the past 30 days in 1999, with 22.1 percent of 10th graders and 12.2 percent of 8th graders reporting similar recent use (see Table SD 3.5.C).

Differences by Gender. Male high school students appear somewhat more likely than females to report use of marijuana, inhalants, hallucinogens, and cocaine. The largest gender difference is seen in marijuana use and is most apparent in the upper grade levels. Among 8th-grade students, 10.5 percent of males and 8.8 percent of females reported marijuana use within the preceding 30 days of the survey in 1999. In the 10th grade in that year, males reported marijuana use at about 5 percentage points higher than that of females (21.8 versus 17 percent). This gender gap is about 7 percentage points among high school seniors in 1999 (26.3 versus 19.7) (see Table SD 3.5.A).

Differences by Race. For each category of drug use shown, as well as for use of any illicit drugs, black students consistently report the lowest rates of use across all grades (see Tables SD 3.5.B and SD 3.5.C).

Figure SD 3.5.A

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report having used marijuana within the previous 30 days: Selected years, 1975-1999



Sources: Johnston, O'Malley, and Bachman, 2000, Table 4-7; also, prior years of this publication. Additional historical data tables provided by Monitoring the Future Study staff.



Table SD 3.5.A

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report having used specified drugs within the previous 30 days, by grade and gender: Selected years, 1975-1999

	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Marijuana													
8th grade	---	---	---	---	3.2	3.7	5.1	7.8	9.1	11.3	10.2	9.7	9.7
Male	---	---	---	---	3.8	3.8	6.1	9.5	9.8	12.1	11.4	10.3	10.5
Female	---	---	---	---	2.6	3.5	4.1	6.0	8.2	10.2	8.9	8.8	8.8
10th grade	---	---	---	---	8.7	8.1	10.9	15.8	17.2	20.4	20.5	18.7	19.4
Male	---	---	---	---	10.1	9.0	13.1	18.6	19.1	22.3	23.0	20.3	21.8
Female	---	---	---	---	7.3	7.1	8.6	12.8	15.0	18.6	17.9	17.2	17.0
12th grade	27.1	33.7	25.7	14.0	13.8	11.9	15.5	19.0	21.2	21.9	23.7	22.8	23.1
Male	32.3	37.8	28.7	16.1	16.1	13.4	18.2	23.0	24.6	25.1	26.4	26.5	26.3
Female	22.5	29.1	22.4	11.5	11.2	10.2	12.5	15.1	17.2	18.3	20.3	18.8	19.7
Inhalants^a													
8th grade	---	---	---	---	4.4	4.7	5.4	5.6	6.1	5.8	5.6	4.8	5.0
Male	---	---	---	---	4.0	4.4	4.9	5.4	5.6	4.8	5.1	4.8	4.6
Female	---	---	---	---	4.7	4.9	6.0	5.8	6.6	6.6	5.8	4.7	5.3
10th grade	---	---	---	---	2.7	2.7	3.3	3.6	3.5	3.3	3.0	2.9	2.6
Male	---	---	---	---	2.9	2.9	3.7	3.9	3.8	3.4	3.0	3.2	2.9
Female	---	---	---	---	2.6	2.6	2.9	3.3	3.2	3.2	2.9	2.6	2.2
12th grade	---	1.4	2.2	2.7	2.4	2.3	2.5	2.7	3.2	2.5	2.5	2.3	2.0
Male	---	1.8	2.8	3.5	3.3	3.0	3.2	3.6	3.9	3.1	3.3	2.9	2.5
Female	---	1.0	1.7	2.0	1.6	1.6	1.7	1.9	2.5	2.0	1.8	1.7	1.5
Hallucinogens^b													
8th grade	---	---	---	---	0.8	1.1	1.2	1.3	1.7	1.9	1.8	1.4	1.3
Male	---	---	---	---	0.9	1.1	1.3	1.5	1.8	2.0	2.2	1.7	1.6
Female	---	---	---	---	0.7	1.0	1.1	1.0	1.5	1.6	1.3	1.1	1.0
10th grade	---	---	---	---	1.6	1.8	1.9	2.4	3.3	2.8	3.3	3.2	2.9
Male	---	---	---	---	1.8	2.1	2.5	3.0	3.9	3.3	4.0	3.5	3.6
Female	---	---	---	---	1.4	1.4	1.3	1.7	2.7	2.3	2.5	2.9	2.2
12th grade	4.7	3.7	2.5	2.2	2.2	2.1	2.7	3.1	4.4	3.5	3.9	3.8	3.5
Male	6.0	4.8	3.4	3.2	3.1	2.9	3.6	4.3	5.8	4.7	5.1	5.1	4.5
Female	3.6	2.5	1.4	1.0	1.1	1.4	1.7	1.7	2.7	2.3	2.7	2.3	2.3
Cocaine													
8th grade	---	---	---	---	0.5	0.7	0.7	1.0	1.2	1.3	1.1	1.4	1.3
Male	---	---	---	---	0.7	0.6	0.9	1.2	1.1	1.2	1.2	1.5	1.4
Female	---	---	---	---	0.4	0.8	0.6	0.9	1.2	1.4	1.0	1.2	1.2
10th grade	---	---	---	---	0.7	0.7	0.9	1.2	1.7	1.7	2.0	2.1	1.8
Male	---	---	---	---	0.7	0.8	1.2	1.4	1.8	1.8	1.9	2.4	2.2
Female	---	---	---	---	0.6	0.6	0.5	0.9	1.5	1.6	1.8	1.8	1.6
12th grade	1.9	5.2	6.7	1.9	1.4	1.3	1.3	1.5	1.8	2.0	2.3	2.4	2.6
Male	2.5	6.0	7.7	2.3	1.7	1.5	1.7	1.9	2.2	2.6	2.8	3.0	3.3
Female	1.2	4.3	5.6	1.3	0.9	0.9	0.9	1.1	1.3	1.4	1.6	1.7	1.8

^a All data are unadjusted for underreporting of nitrites. Data for 12th grade only, based on three of six questionnaire forms, with sample size one-half of total sample size.

^b All data are unadjusted for underreporting of PCP.

Note: Data for 8th and 10th grades available since 1991.

Sources: Johnston, O'Malley, & Bachman, 2000. Table 4-7, pre-publication Table 4-7 for 1998, and prior years of this publication. Additional historical data tables provided by Monitoring the Future Study staff.

Table SD 3.5.B

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report having used specified drugs within the previous 30 days, by race and Hispanic origin^a: 1992-1999

	1992	1993	1994	1995	1996	1997	1998	1999
8th Grade								
Marijuana^a								
White	3.3	4.1	5.6	7.8	10.0	10.6	9.5	8.7
Black	2.0	2.9	5.0	6.6	8.0	9.0	9.1	9.7
Hispanic	6.4	8.3	12.1	12.9	12.5	13.1	13.5	14.3
Inhalants^{a,b}								
White	4.7	5.4	6.0	6.6	6.8	6.5	5.9	5.5
Black	2.4	2.7	2.8	2.5	2.0	1.9	2.2	2.2
Hispanic	5.5	5.6	6.1	6.5	6.4	5.5	5.2	6.0
Hallucinogens^{a,c}								
White	0.8	1.1	1.3	1.6	2.0	2.0	1.5	1.2
Black	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4
Hispanic	1.9	1.9	1.8	1.9	2.2	2.3	2.5	2.3
Cocaine^a								
White	0.5	0.5	0.7	0.9	1.2	1.2	1.0	1.1
Black	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4
Hispanic	1.7	1.8	2.2	2.5	2.3	2.1	2.5	3.2
10th Grade								
Marijuana^a								
White	9.0	9.8	13.4	16.8	19.3	21.1	20.3	19.8
Black	3.6	4.9	9.8	13.8	15.9	16.5	15.3	14.6
Hispanic	10.4	12.4	15.6	17.7	19.1	21.3	21.4	20.6
Inhalants^{a,b}								
White	2.9	3.2	3.7	3.9	3.9	3.5	3.3	3.1
Black	2.0	2.0	1.6	1.3	1.2	1.2	1.1	1.0
Hispanic	3.0	3.0	3.4	3.4	2.9	2.9	2.9	2.6
Hallucinogens^{a,c}								
White	2.0	2.1	2.3	3.1	3.5	3.4	3.5	3.5
Black	0.2	0.3	0.7	0.8	0.5	0.6	0.7	0.6
Hispanic	1.4	1.8	2.2	2.7	3.1	3.3	3.8	3.0
Cocaine^a								
White	0.7	0.8	0.9	1.4	1.6	1.7	1.9	2.0
Black	0.1	0.2	0.6	0.6	0.4	0.4	0.6	0.5
Hispanic	1.1	1.2	1.8	2.4	2.9	3.6	3.9	3.6

Table SD 3.5.B continued

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report having used specified drugs within the previous 30 days, by race and Hispanic origin^a: 1992-1999

	1992	1993	1994	1995	1996	1997	1998	1999
12th Grade								
Marijuana^a								
White	14.1	14.9	18.4	20.8	22.0	23.6	24.4	23.8
Black	6.1	8.1	13.1	16.8	18.3	18.5	18.3	19.3
Hispanic	12.7	12.5	14.9	17.9	19.1	21.2	21.6	22.0
Inhalants^{a,b}								
White	2.4	2.6	2.8	3.3	3.3	3.0	2.8	2.4
Black	1.5	1.4	1.5	1.4	1.0	0.9	0.9	0.8
Hispanic	2.5	2.1	2.3	2.3	2.1	1.7	1.8	2.3
Hallucinogens^{a,c}								
White	2.5	2.9	3.3	4.1	4.4	4.3	4.5	4.1
Black	0.3	0.5	0.8	0.7	0.6	0.9	0.7	0.6
Hispanic	1.5	1.7	2.0	3.4	4.0	2.9	2.8	3.1
Cocaine^a								
White	1.5	1.2	1.3	1.6	1.9	2.2	2.5	2.7
Black	0.7	0.4	0.5	0.5	0.4	0.5	0.6	0.4
Hispanic	1.9	2.4	2.3	2.3	3.2	3.3	2.7	2.8

^a Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

^b Inhalants include substances such as glues and aerosols. Data for 12th-grade students based on five of six forms. Data are unadjusted for known underreporting of nitrites.

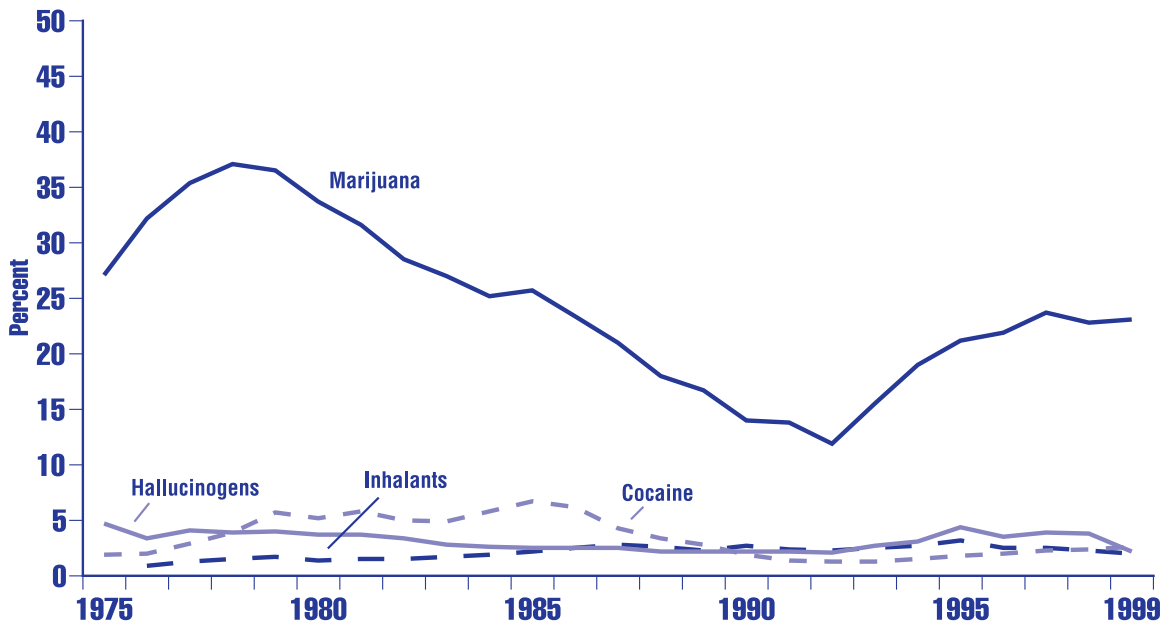
^c Hallucinogens include substances such as LSD. Data are unadjusted for known underreporting of PCP.

Note: Estimates represent the mean of the specified year and the previous year. Data have been combined to increase subgroup sample sizes, thus providing more stable estimates.

Sources: Johnston, O'Malley, & Bachman, 1998, Table 4-9. Also, prior years of this publication (Table 10 for 1992-1995, Table 4-9 thereafter). Prepublication Table 4-9 for 1998 provided by Monitoring the Future Study staff.

Figure SD 3.5.B

Percentage of 12th-grade students in the United States who report having used specified drugs within the previous 30 days: 1975-1999



^a All data on inhalants are unadjusted for underreporting of nitrites.

^b All data on hallucinogens are unadjusted for underreporting of PCP.

Sources: Johnston, O'Malley, & Bachman, 2000, Table 4-7. Also, prior years of this publication. Additional historical data tables provided by Monitoring the Future Study staff.

Table SD 3.5.C

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report having used any illicit drugs^a in the previous 30 days, and 12th-grade reports of illicit drug use by gender and by race and Hispanic origin: Selected years, 1985-1999

	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Grade											
Eighth	—	—	5.7	6.8	8.4	10.9	12.4	14.6	12.9	12.1	12.2
Tenth	—	—	11.6	11.0	14.0	18.5	20.2	23.2	23.0	21.5	22.1
Twelfth	29.7	17.2	16.4	14.4	18.3	21.9	23.8	24.6	26.2	25.6	25.9
12th Graders											
Gender											
Male	32.1	18.9	18.4	15.9	20.4	25.5	26.8	27.5	28.7	29.1	28.6
Female	26.7	15.2	14.1	12.7	15.9	18.3	20.4	21.2	23.2	21.6	22.7
Race and Hispanic origin ^{b, c}											
White	30.2	20.5	18.6	16.8	17.8	21.4	23.8	24.8	26.4	27.5	27.0
Black	22.9	9.0	7.2	7.3	9.1	14.3	18.3	19.7	20.0	19.4	20.2
Hispanic	27.2	13.9	14.7	14.6	15.6	18.3	21.4	22.6	23.9	24.1	24.4

^a For 12th graders only: Use of “any illicit drug” includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin, or any use of other opiates, stimulants, barbiturates, or tranquilizers not under a doctor’s orders. For 8th and 10th graders only: The use of other opiates and barbiturates has been excluded, because these younger respondents appear to overreport use (perhaps because they include the use of nonprescription drugs in their answers).

^b Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

^c Estimates for race and Hispanic origin represent the mean of the specified year and the previous year. Data have been combined to increase subgroup sample sizes, thus providing more stable estimates.

Note: Data for 8th and 10th grades available since 1991.

Sources: Johnston, O’Malley, & Bachman, 2000, Table 2-1b. Some data for 1998: The Monitoring the Future Study, The University of Michigan. Drug Use among American Young People Begins to Turn Downward. Press release of December 18, 1998, Table 1b. 1119: pre-publication tables 4-7 and 4-9 provided by Monitoring the Future Study staff.

SD 3.6 Peer Attitudes Toward Alcohol, Marijuana, Cocaine, and Smoking

Drug use is correlated with attitudes and beliefs about drugs, both in terms of perceived health risks and the level of peer disapproval.⁵⁶ As children reach adolescence, peer influences on personal behavior can take on increasing importance in determining the use of drugs, alcohol, and cigarettes.

The majority of high school seniors have long reported peer disapproval of drug and alcohol use and cigarette smoking, as reflected in their responses to questions of the level of disapproval they would receive from their peers for (1) taking one to two drinks nearly every day, (2) smoking marijuana even occasionally (as opposed to trying it once), (3) taking cocaine even occasionally (as opposed to trying it once), and (4) smoking one or more packs of cigarettes per day (see Table SD 3.6).⁵⁷

Among 12th graders, peer disapproval of drinking (one to two drinks nearly every day) and smoking marijuana (even occasionally) reached highs of 78 and 79 percent, respectively, in 1992, before declining to 72 and 62 percent by 1999 (see Figure SD 3.6). Peer disapproval of smoking cigarettes (one or more packs per day) has declined since 1992, although disapproval levels had been relatively stable prior to that time. In 1999, 71 percent of 12th graders reported peer disapproval of smoking a pack or more of cigarettes per day. Peer disapproval of cocaine use (even occasionally) increased from 87 percent in 1986 to 95 percent in 1991 and has remained at about this level. Cocaine use commands the highest level of peer disapproval for every year shown (see Table SD 3.6 and Figure SD 3.6).

Differences by Gender. Male high school seniors have consistently reported lower levels of peer disapproval of drinking than have their female peers. In 1999, 64 percent of males reported peer disapproval of drinking, compared with 79 percent of females. Male students also report somewhat lower peer disapproval of smoking cigarettes and marijuana.

Differences by Race. For 1999, rates of disapproval for drug use were generally similar for black and white 12th graders for marijuana and for cocaine use. Group differences are apparent for disapproval of smoking (81 percent disapproval among black compared with 69 percent among white students) and disapproval of drinking (79 percent disapproval among black compared with 70 percent among white students).

⁵⁶ Substance Abuse and Mental Health Services Administration. 1996. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, Md.: Public Health Service. Also see U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education, 1993, Student Reports of Availability, Peer Approval, and Use of Alcohol, Marijuana, and Other Drugs at School: *Statistics in Brief*, June 1997.

⁵⁷ All references to drinking, marijuana and cocaine use, and smoking cigarettes throughout this text use the parameters for these activities as defined by the Monitoring the Future questionnaire.

Table SD 3.6

Percentage of 12th-grade students in the United States who report that peers would not approve of their using alcohol, marijuana, cocaine, or cigarettes: Selected years, 1980-1999

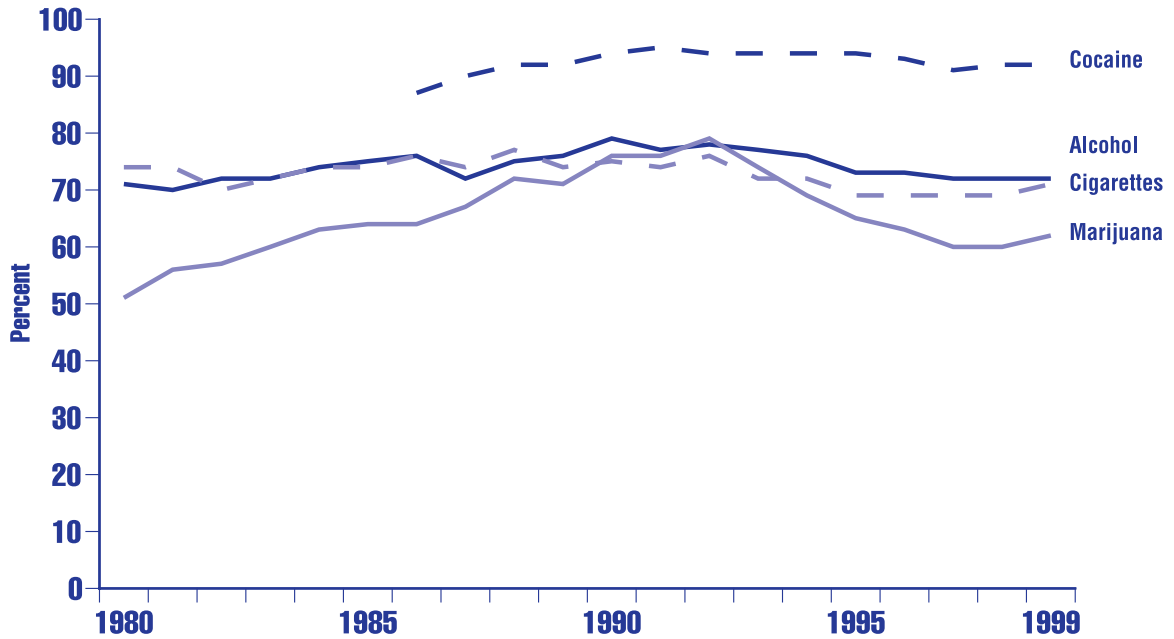
	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Disapprove of taking one to two drinks nearly every day												
Total	71	75	79	77	78	77	76	73	73	72	72	72
Gender												
Male	61	69	71	68	69	68	67	65	63	63	63	64
Female	79	81	87	85	85	85	83	80	83	79	82	79
Race												
White	70	75	77	77	77	76	76	72	71	71	71	70
Black	76	82	85	80	81	80	78	74	77	74	75	79
Disapprove of smoking marijuana even occasionally												
Total	51	64	76	76	79	74	69	65	63	60	60	62
Gender												
Male	49	64	73	73	78	72	63	62	59	57	56	58
Female	52	65	80	78	80	75	74	69	67	63	66	65
Race												
White	50	63	74	75	78	73	68	64	62	58	60	61
Black	59	72	89	86	84	76	70	69	66	67	67	63
Disapprove of taking cocaine even occasionally^a												
Total	—	—	94	95	94	94	94	94	93	91	92	92
Gender												
Male	—	—	92	93	93	92	91	92	90	89	90	90
Female	—	—	96	96	96	96	96	95	96	93	95	94
Race												
White	—	—	95	96	96	95	94	95	93	91	92	93
Black	—	—	92	97	91	89	94	92	93	95	94	91
Disapprove of smoking one or more packs of cigarettes per day												
Total	74	74	75	74	76	72	72	69	69	69	69	71
Gender												
Male	73	72	73	72	76	68	67	65	65	65	66	67
Female	76	76	77	77	77	75	77	74	73	71	73	76
Race												
White	75	73	73	72	75	71	69	67	66	64	65	69
Black	74	81	87	88	82	80	83	81	82	83	81	81

^a The question regarding cocaine use was not included prior to 1986.

Sources: Johnston, Bachman, & O'Malley, 1980, 1985, 1990-1999 (prepublication tables), Questionnaire Form 4. 1980-1985: items E08A, E08C, E08G. 1986-1987: items E08A, E08C, E08H, E08I. 1988-1999: items E07A, E07C, E07H, E07I. Data based on one of six questionnaire forms, with a resulting sample size one-sixth of the total sample size for each year.

Figure SD 3.6

Percentage of 12th-grade students in the United States who report that peers would not approve of their using alcohol, marijuana, cocaine, or cigarettes: 1980-1999



Note: Figure reports students' perceived peer nonapproval rates of use of various drugs: alcohol (taking one to two drinks nearly every day), marijuana (smoking even occasionally), cocaine (using even occasionally), and smoking (one or more packs of cigarettes every day).

Sources: Johnston, Bachman, & O'Malley, Questionnaire Form 4. 1980-1999: items E08A, E08C, E08G. 1986-1987: items E08A, E08C, E08H, E08I. 1988-1997: items E07A, E07C, E07H, E07I. Data based on one of six questionnaire forms, with a resulting sample size one-sixth of the total sample size for each year.



SD 3.7 Abuse of Alcohol or Other Controlled Substances

The use of alcohol and other illicit drugs by teens⁵⁸ has been related to numerous social problems, such as delinquency, fighting, and early sexual activity⁵⁹ and to a variety of short- and long-term health problems.⁶⁰ For many reasons, then, it is important that youth stay free of all such substances.

In 1998, 13 percent of 12- through 17-year-olds reported binge drinking and/or any use of an illicit drug during the previous month (see Table SD 3.7).

Differences by Gender. Rates of reported use vary little by gender. In 1998, 14 percent of males and 12 percent of females ages 12 through 17 reported illicit drug use or binge drinking in the previous month.

Differences by Race and Hispanic Origin.⁶¹ Rates of reported use differed little among whites, blacks, and Hispanics, ranging from 12 percent to 14 percent in 1998.

⁵⁸ A note on methodology. Throughout this report, we present data from two major federally sponsored surveys of adolescent substance use: the Monitoring the Future Study, a school-based survey, and the National Household Survey on Drug Abuse, a household survey of the population ages 12 and older. A recent report finds that rates of drug use obtained were larger in the school survey than in the household survey, possibly because of greater underreporting in the household setting than in the classroom and the different questionnaires used in the two surveys. Gfroerer, J., Wright, D., & Kopstein, A. 1997. Prevalence of Youth Substance Use: The Impact of Methodological Differences between Two National Surveys. *Drug and Alcohol Dependence* 47: 19-30.

⁵⁹ National Institute on Drug Abuse. *National Trends in Drug Use and Related Factors among American High School Students and Young Adults, 1976-1986*. 1987. DHHS Pub. No. (ADM) 87-1535. Washington, D.C.: U.S. Department of Health and Human Services. See also: Grant, B.R., & Dawson, D.A. Age at Onset of Alcohol Use and Its Association with DSM-IV Alcohol Abuse and Dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse* 9: 103-110, which reports decreasing odds of alcohol dependence with each increasing year of age at onset of use, as well as decreasing odds of alcohol abuse.

⁶⁰ Public Health Service, 1993.

⁶¹ Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Table SD 3.7

Percentage of youth ages 12 through 17 in the United States reporting illicit drug^a use and/or binge drinking^b in the past month, by gender and by race and Hispanic origin: 1994-1998

	1994	1995	1996	1997	1998
Total	13	15	13	14	13
Gender					
Male	14	17	14	16	14
Female	12	13	11	13	12
Race and Hispanic origin^c					
White	15	16	13	15	14
Black	10	12	10	12	11
Hispanic	10	13	13	13	12
Other	4	14	8	13	8

^a Illicit drugs include marijuana, cocaine (including crack), heroin, hallucinogens (including PCP), inhalants, and nonmedical use of psychotherapeutics.

^b Binge drinking includes drinking five or more drinks on the same occasion on one or more days in the past 30 days.

^c Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Source: Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies, Prevalence Branch. Unpublished analyses, National Household Survey on Drug Abuse, 1994-1998.