

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.²⁷ Youthful smoking can have severe, lifelong consequences because a large proportion of those who initiate smoking in adolescence will continue to smoke as adults.²⁸ In addition, youth who smoke are also more likely to use illicit drugs and to drink more heavily than their peers who do not smoke.²⁹

There are an estimated 3 million underage smokers in the United States. They purchase 947 million packs of cigarettes and 26 million cans of smokeless tobacco each year, resulting in \$1.26 billion in tobacco sales.³⁰ A 1992 study by the CDC concluded that more than half of underage smokers buy their own cigarettes.³¹ 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.

Data from two in-school national surveys, the Youth Risk Behavior Surveillance Survey and the Monitoring the Future Study, indicate that smoking among youth has increased in recent years.

- Daily smoking among 12th-grade students had decreased sharply in the late 1970s but has begun to increase again in recent years, as reflected by the Monitoring the Future Study. Between 1992 and 1997, the percentage of 12th graders who reported smoking daily increased from 17.2 percent to 24.6 percent (see Figure SD 3.1).
- Data for 8th- and 10th-grade students, available from 1991 through 1997, also show recent increases in the percentage of students who reported smoking daily, although improvements are indicated in 1997. Among 8th-grade students, the rate increased from 7.2 percent to 10.4 percent between 1991 and 1996, and decreased to 9 percent in 1997. Among 10th-grade students, the rate increased from 12.6 percent to 18.3 between 1991 and 1996 and remained at 18 percent in 1997 (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 Surveillance Survey, which examines "current smoking," or smoking on one or more of the previous 30 days (see Table SD 3.1.B).

Differences by Age. In general, as age and/or grade increases, so does the prevalence of smoking. In 1997, the percentage of students who report daily smoking was 9 percent among 8th graders, 18 percent among 10th graders, and 24.6 percent among 12th-grade students (see Figure SD 3.1).

Differences by Race and Hispanic Origin.³² 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 current³³ smoking among white students is about twice that of black students. White students are twice as likely as Hispanic students and four times as likely as black students to be frequent³⁴ smokers (see Table SD 3.1.B).

²⁷Centers 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.

²⁸The Monitoring the Future Study, The University of Michigan. "Cigarette Smoking Rates May Have Peaked among Younger Teens." Press release of December 18, 1997.

²⁹Substance Abuse and Mental Health Services Administration. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, Md.: Public Health Service, 1996. 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.

³⁰Difranza, J.R., and Tye, J.B. 1990. "Who Profits from Tobacco Sales to Children?" *Journal of the American Medical Association* 263(20):2784B87.

³¹Allen, K., et al. 1993. "Teenage tobacco use: Data Estimates from the Teenage Attitudes and Practices Survey, United States, 1989." *Advance Data* 224:1B20.

³²Estimates reported from the Youth Health Behavior Surveillance System for whites and blacks exclude Hispanics of those races.

³³Current smoking is smoking on 1 or more of the previous 30 days.

³⁴Frequent smoking is smoking on 20 or more of the previous 30 days.

Differences by Gender.³⁵ 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, black males were more likely than black females in 1995 to report current smoking. This disparity became apparent only in 1995, when current and frequent smoking rates for black males increased over the previous year (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 race and ethnic groups shown.

³⁵The 1996 National Household Survey on Drug Abuse reports similar rates of cigarette smoking for males and females ages 12 through 17. 1996 responses to questions about use of cigarettes include: 37.2 percent of males and 35.3 percent of females "ever used," 24 percent of both males and females "used in the past year," and 18 percent of males and 19 percent of females "used in the past month." Substance Abuse and Mental Health Services Administration, Office of Applied Statistics. *National Household Survey on Drug Abuse: Population Estimates 1996*, July 1997, Table 14A.

Table SD 3.1.A

Percentage of 8th-, 10th-, and 12th-grade students who report smoking cigarettes daily over the previous 30 days, by gender and by race and Hispanic origin: selected years, 1975-1997

	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997 ^a
Total	---	---	---	---	7.2	7.0	8.3	8.8	9.3	10.4	9.0
Gender											
Male	---	---	---	---	8.1	6.9	8.8	9.5	9.2	10.5	9.0
Female	---	---	---	---	6.2	7.2	7.8	8.0	9.2	10.1	8.7
Race and Hispanic origin^b											
(2-year average)^c											
White	---	---	---	---	---	7.7	8.8	9.7	10.5	11.7	---
Black	---	---	---	---	---	1.4	1.8	2.6	2.8	3.2	---
Hispanic	---	---	---	---	---	7.3	7.2	9.0	9.2	8.0	---
10th Grade											
Total	---	---	---	---	12.6	12.3	14.2	14.6	16.3	18.3	18.0
Gender											
Male	---	---	---	---	12.4	12.1	13.8	15.2	16.3	18.1	17.2
Female	---	---	---	---	12.5	12.4	14.3	13.7	16.1	18.6	18.5
Race and Hispanic origin^b											
(2-year average)^c											
White	---	---	---	---	---	14.5	15.3	16.5	17.6	20.0	21.4
Black	---	---	---	---	---	2.8	3.1	3.8	4.7	5.1	5.6
Hispanic	---	---	---	---	---	8.4	8.9	8.1	9.9	11.6	10.8
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
Gender											
Male	26.9	18.5	17.8	18.6	18.8	17.2	19.4	20.4	21.7	22.2	24.8
Female	26.4	23.5	20.6	19.3	17.9	16.7	18.2	18.1	20.8	21.8	23.6
Race and Hispanic origin^b											
(2-year average)^c											
White	---	23.9	20.4	21.8	21.5	20.5	21.4	22.9	23.9	25.4	27.8
Black	---	17.4	9.9	5.8	5.1	4.2	4.1	4.9	6.1	7.0	7.2
Hispanic	---	12.8	11.8	10.9	11.5	12.5	11.8	10.6	11.6	12.9	14.0

^aOnly totals by grade are available for 1997.

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

^cEstimates 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, L.D., O'Malley, P.M., and Bachman, J.G. 1997. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, Institute for Social Research, The University of Michigan. Tables D-31 and D-32; 1996 data from updated Tables D-31 and D-32, The Monitoring the Future Study, The University of Michigan; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1c.

Table SD 3.1.B

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

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

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

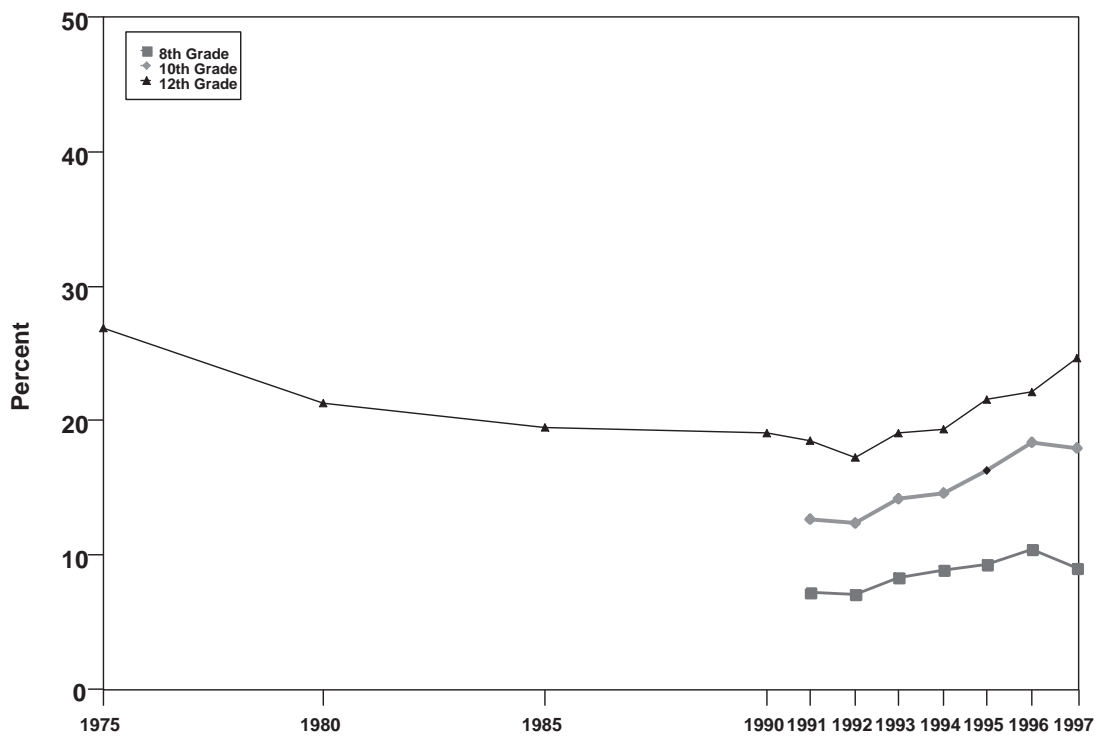
^bFrequent smoking is smoking on 20 or more of the previous 30 days.

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

Sources: Data for 1991: Centers for Disease Control and Prevention. "1990-1991 Youth Risk Behavior Surveillance System." In *Chronic Disease and Health Promotion Reporting from the MMWR*, Table 1, p. 60 (current smoking); Table 1, p. 50 (frequent smoking); Data for 1993: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Douglas, K.A., Collins, M.E., Williams, B.I., Ross, J.G., Kolbe, L.J., and State and Local YRBSS (Youth Risk Behavior Surveillance System) Coordinators. "Youth Risk Behavior Surveillance--United States, 1993." In *CDC Surveillance Summaries*, March 24, 1995. *Morbidity and Mortality Weekly Report* 44 (SS-1): Table 12; Data for 1995: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Williams, B.I., Ross, J.G., and Kolbe, L.J. "Youth Risk Behavior Surveillance--United States, 1995." In *CDC Surveillance Summaries*, September 27, 1996. *Morbidity and Mortality Weekly Report* 45 (SS-4): Table 12.

Figure SD 3.1

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report smoking cigarettes daily over the previous 30 days: selected years, 1975-1997



Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. 1997. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, Institute for Social Research, The University of Michigan. Tables D-31 and D-32; 1996 data from updated Tables D-31 and D-32, The Monitoring the Future Study, The University of Michigan; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1c.

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.³⁶ 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 Surveillance Survey provide additional information about smokeless tobacco use by males and females within racial and Hispanic groups.

Differences by Age. In general, as age and/or grade increases, so does the prevalence of smokeless tobacco use. In 1997, the percentage of students who report using smokeless tobacco over the previous 30 days was 5.5 percent among 8th graders, 8.9 percent among 10th graders, and 9.7 percent among 12th-grade students (see Table 3.2.A). The rate for 12th-grade students decreased from 12.2 percent in 1995 to 9.7 percent in 1997.

Differences by Gender. While rates of youth cigarette smoking are similar among male and females (see section SD 3.1), male students in 8th, 10th and 12th grades are significantly more likely to use smokeless tobacco than are female students (see Figure 3.2.A). In 1997, among 12th-grade students, 18.7 percent of males and 1.2 percent of females report smokeless tobacco use (see Table 3.2.A).

Differences by Race.³⁷ The use of smokeless tobacco is most prevalent among white youth. In 1997, 12.2 percent of white 12th graders reported having used smokeless tobacco one or more times in the 30 days preceding the survey, compared with 5.3 percent of Hispanic 12th graders and 2.2 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 1997, the prevalence of smokeless tobacco use among white students in the 8th-grade was 7.6 percent, 10.4 percent among 10th graders, and 12.2 percent among 12th graders (see Table 3.2.A).

The Youth Risk Behavior Surveillance Survey provides additional subgroup information for 9th-through 12th-grade students combined. According to this survey's most recent administration in 1995, the use of smokeless tobacco is most prevalent among white, non-Hispanic male high school students, with one-quarter 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 4 percent of black male youth (see Figure SD 3.2.B).

³⁶Public Health Service. 1986. *The Health Consequences of Using Smokeless Tobacco. A Report to the Surgeon General*. DHHS Pub. No. (NIH) 86-2874. U.S. Department of Health and Human Services.

³⁷In 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 report using smokeless tobacco over the previous 30 days, by grade, gender, and race and Hispanic origin: selected years, 1986-1997

	1986	1989	1992	1993	1994	1995	1996	1997 ^a
8th Grade								
Total	—	—	7.0	6.6	7.7	7.1	7.1	5.5
Gender								
Male	—	—	12.5	10.9	12.8	11.8	11.4	9.9
Female	—	—	2.0	2.7	2.4	2.9	2.9	1.5
Race and Hispanic origin^b								
(2-year average)^c								
White	—	—	8.3	8.0	8.1	8.9	8.8	7.6
Black	—	—	4.8	2.7	3.2	2.6	2.2	2.6
Hispanic	—	—	4.2	4.0	5.0	5.7	5.2	4.6
10th Grade								
Total	—	—	9.6	10.4	10.5	9.7	8.6	8.9
Gender								
Male	—	—	18.1	19.3	19.2	17.2	15.0	14.9
Female	—	—	1.8	2.0	2.1	2.1	2.3	2.7
Race and Hispanic origin^b								
(2-year average)^c								
White	—	—	11.4	12.0	12.5	12.0	11.0	10.4
Black	—	—	2.9	2.3	2.3	2.5	2.5	2.8
Hispanic	—	—	6.2	6.1	4.3	3.6	4.0	4.6
12th Grade								
Total	11.5	8.4	11.4	10.7	11.1	12.2	9.8	9.7
Gender								
Male	22.3	15.9	20.8	19.7	20.3	23.6	19.5	18.7
Female	1.6	1.2	2.0	2.3	2.6	1.8	1.1	1.2
Race and Hispanic origin^b								
(2-year average)^c								
White	—	10.6	—	13.8	13.8	13.8	13.0	12.2
Black	—	4.5	—	2.0	1.9	2.1	2.7	2.2
Hispanic	—	5.1	—	6.0	5.4	7.6	8.1	5.3

^aOnly totals by grade are available for 1997. - ^bEstimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race. - ^cEstimates 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 corresponding the data in later years. Data for 8th and 10th grades available since 1991.

Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. 1997. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, Institute for Social Research, The University of Michigan. Tables D-33 and D-34; 1996 data from updated Tables D-33 and D-34, *The Monitoring the Future Study*, The University of Michigan; Data for 1997: *The Monitoring the Future Study*, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1b.

Table SD 3.2.B

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

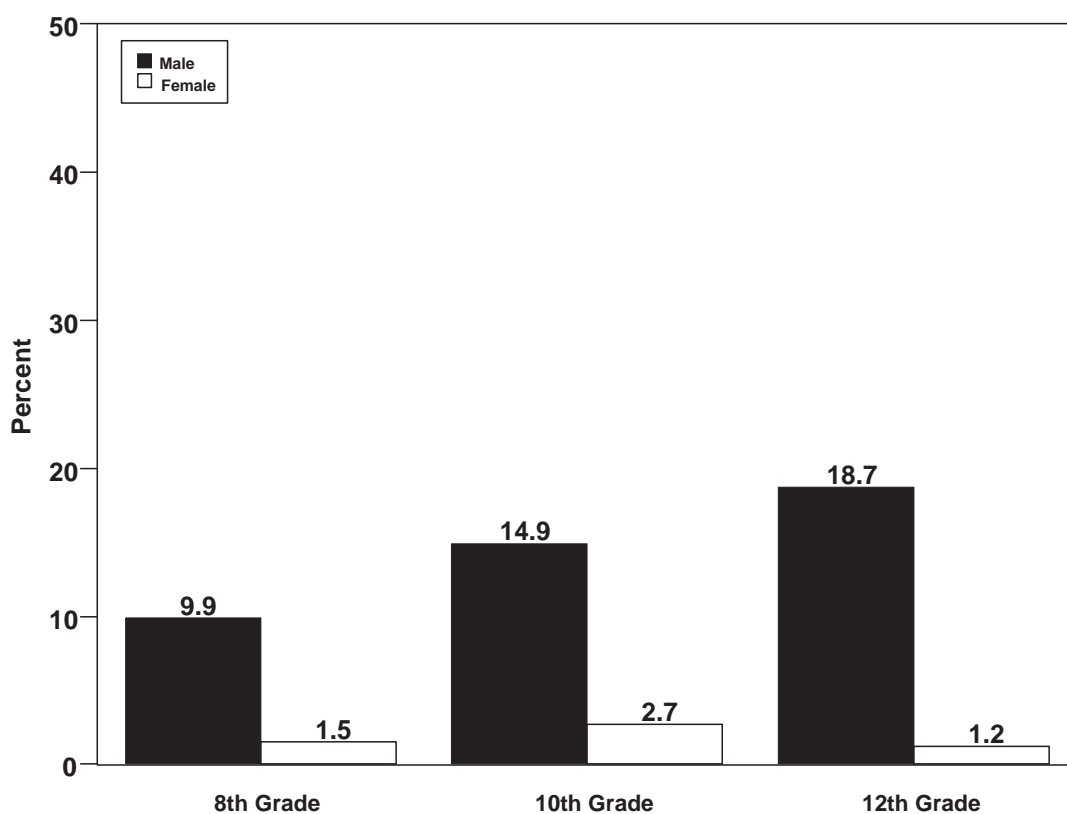
	1991			1993			1995		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	11	19	1	12	20	2	11	20	2
Race and Hispanic origin^a									
White, non-Hispanic	13	24	1	15	26	2	15	25	3
Black, non-Hispanic	2	4	1	3	5	1	2	4	1
Hispanic	6	11	1	5	8	2	4	6	3

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

Sources: Data for 1991: Centers for Disease Control and Prevention. "1990-1991 Youth Risk Behavior Surveillance System." In *Chronic Disease and Health Promotion Reporting from the MMWR*, Table 1, p. 50; Data for 1993: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Douglas, K.A., Collins, M.E., Williams, B.I., Ross, J.G., Kolbe, L.J., and State and Local YRBSS (Youth Risk Behavior Surveillance System) Coordinators. "Youth Risk Behavior Surveillance--United States, 1993." In *CDC Surveillance Summaries*, March 24, 1995. *Morbidity and Mortality Weekly Report* 44 (SS-1): Table 12; Data for 1995: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Williams, B.I., Ross, J.G., and Kolbe, L.J. "Youth Risk Behavior Surveillance--United States, 1995." In *CDC Surveillance Summaries*, September 27, 1996. *Morbidity and Mortality Weekly Report* 45 (SS-4): Table 12.

Figure SD 3.2.A

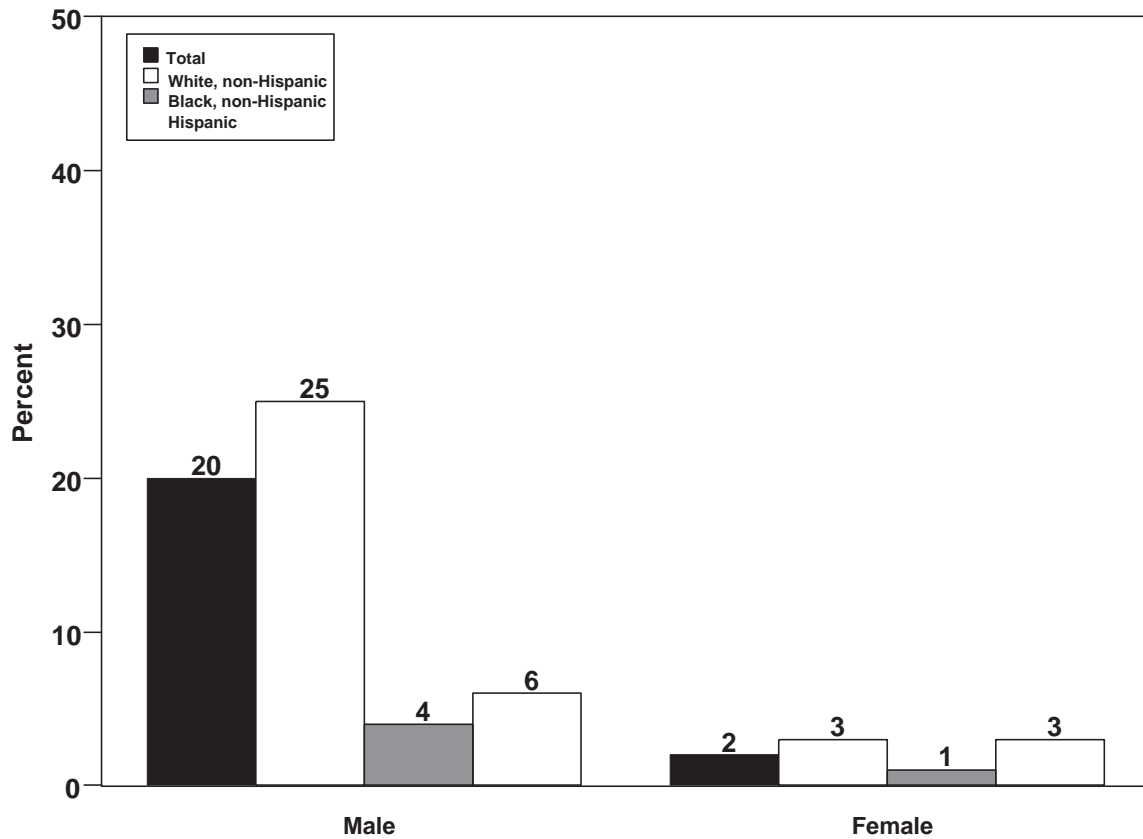
Percentage of 8th-, 10th-, and 12th-grade students in the United States who report using smokeless tobacco during the previous 30 days, by gender: 1997



Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. 1997. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, Institute for Social Research, The University of Michigan. Tables D-33 and D-34; 1996 data from updated Tables D-33 and D-34, *The Monitoring the Future Study*, The University of Michigan; Data for 1997: *The Monitoring the Future Study*, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1b.

Figure SD 3.2.B

Percentage of youth in grades 9 through 12 in the United States who report having used smokeless tobacco during the previous 30 days by gender and by race and Hispanic origin,^a 1995



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

Sources: Data for 1991: Centers for Disease Control and Prevention. "1990-1991 Youth Risk Behavior Surveillance System." In *Chronic Disease and Health Promotion Reporting from the MMWR*, Table 1, p. 50; Data for 1993: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Douglas, K.A., Collins, M.E., Williams, B.I., Ross, J.G., Kolbe, L.J., and State and Local YRBSS (Youth Risk Behavior Surveillance System) Coordinators. "Youth Risk Behavior Surveillance--United States, 1993." In *CDC Surveillance Summaries*, March 24, 1995. *Morbidity and Mortality Weekly Report* 44 (SS-1): Table 12; Data for 1995: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Williams, B.I., Ross, J.G., and Kolbe, L.J. "Youth Risk Behavior Surveillance--United States, 1995." In *CDC Surveillance Summaries*, September 27, 1996. *Morbidity and Mortality Weekly Report* 45 (SS-4): Table 12.

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.³⁸ A recent report released by 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.³⁹ In addition, binge drinking by youth having five or more drinks in a row at some point in the previous two weeks is associated with higher levels of illicit drug use.⁴⁰

Among 12th-grade students, rates of binge drinking fell from a high of 41.2 percent in 1980 to 27.5 percent in 1993 (see Table SD 3.3.A). Between 1993 and 1997, rates have edged up modestly from 27.5 to 31.3 percent.⁴¹ Regular drinking--having an alcoholic beverage on more than two occasions in the previous 30 days--was a behavior reported by one-half of 12th-grade students in 1980, a figure that has dropped to under one-third in 1996 (see Figure 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 1997, 14.5 percent of 8th-grade students reported binge drinking, while more than twice this percentage (31.3 percent) reported binge drinking in 12th-grade. The larger increase in binge drinking appears to occur between the 8th- and 10th-grade, rather than in the period between the upper grade levels (see Table SD 3.3.A). Similar grade-level differences exist for regular drinking in 1996, with rates of 11.6 percent for 8th-grade, 20.3 percent for 10th grade, and 30.6 percent for 12th grade (see Table 3.3.B).

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 37.9 percent of males and 24.4 percent of females in the 12th grade reporting binge drinking in 1997 (see Table SD 3.3.A). In the case of regular drinking, similar gender disparities exist for 12th grade students in 1996, with 35.5 percent of males and 25.3 percent of females reporting regular drinking in the previous 30 days (see Table SD 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).

³⁸National Institute on Drug Abuse. *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, 1987.

³⁹Grant, B.R., and 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.

⁴⁰Substance Abuse and Mental Health Services Administration. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, Md.: Public Health Service, 1996. 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., and Lodico, M. 1996. Early Drinking Onset and Its Association with Alcohol Use and Problem Behavior in Late Adolescence. *Preventive Medicine* 25:293-300.

⁴¹These 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, Inc., and by unpublished prevalence rates of past-month alcohol use among youths ages 12 through 17 by school status, enrolled or not-enrolled, from the 1994-95 National Household Surveys on Drug Abuse.)

Table SD 3.3.A

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report binge drinking,^a by gender and by race and Hispanic origin: selected years, 1975-1997

	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997 ^b
8th Grade											
Total	---	---	---	---	12.9	13.4	13.5	14.5	14.5	15.6	14.5
Gender											
Male	---	---	---	---	14.3	13.9	14.8	16.0	15.1	16.5	15.3
Female	---	---	---	---	11.4	12.8	12.3	13.0	13.9	14.5	13.5
Race and Hispanic origin^c (2-year average)^d											
White	---	---	---	---	---	12.7	12.6	12.9	13.9	15.1	15.1
Black	---	---	---	---	---	9.6	10.7	11.8	10.8	10.4	9.8
Hispanic	---	---	---	---	---	20.4	21.4	22.3	22.0	21.0	20.7
10th Grade											
Total	---	---	---	---	22.9	21.1	23.0	23.6	24.0	24.8	25.1
Gender											
Male	---	---	---	---	26.4	23.7	26.5	28.5	26.3	27.2	28.6
Female	---	---	---	---	19.5	18.6	19.3	18.7	21.5	22.3	21.7
Race and Hispanic origin^c (2-year average)^d											
White	---	---	---	---	---	23.2	23.0	24.5	25.4	26.2	26.9
Black	---	---	---	---	---	15.0	14.8	14.0	13.3	12.2	12.7
Hispanic	---	---	---	---	---	22.9	23.8	24.2	26.8	29.6	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
Gender											
Male	49.0	52.1	45.3	39.1	37.8	35.6	34.6	37.0	36.9	37.0	37.9
Female	26.4	30.5	28.2	24.4	21.2	20.3	20.7	20.2	23.0	23.5	24.4
Race and Hispanic origin^c (2-year average)^d											
White	---	44.3	41.5	36.6	34.6	32.1	31.3	31.5	32.3	33.4	35.1
Black	---	17.7	15.7	14.4	11.7	11.3	12.6	14.4	14.9	15.3	13.4
Hispanic	---	33.1	31.7	25.6	27.9	31.1	27.2	24.3	26.6	27.1	27.6

^aBinge drinking means having five or more drinks in a row in the previous two weeks.

^bOnly totals by grade are available for 1997.

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

^dEstimates 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, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health, National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. The Monitoring the Future Study, The University of Michigan, updated Tables D-27 and D-28; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1c.

Table SD 3.3.B

Percentage of 8th-, 10th-, and 12th-grade students in the United States who report regular drinking,^a by gender: selected years, 1980-1996

	1980	1985	1990	1991	1992	1993 ^b	1994 ^c	1995 ^c	1996 ^c
8th Grade									
Total	---	---	---	9.1	9.8	10.1	11.1	10.5	11.6
Male	---	---	---	10.4	10.7	11.1	12.0	11.6	12.1
Female	---	---	---	7.5	9.0	9.4	10.1	9.4	11.0
10th Grade									
Total	---	---	---	20.3	19.0	20.5	19.9	19.7	20.3
Male	---	---	---	23.4	21.1	23.6	24.0	21.4	23.3
Female	---	---	---	17.4	16.7	17.4	15.8	17.8	17.4
12th Grade									
Total	49.9	42.0	34.3	32.1	29.6	28.2	29.0	30.7	30.6
Male	57.6	48.2	39.9	38.8	35.6	33.3	35.7	36.4	35.5
Female	42.6	36.1	28.1	24.8	23.6	23.1	22.7	25.1	25.3

^aRegular drinking means having an alcoholic beverage on more than two occasions in the previous 30 days.

^bData from 1993 for 8th-, 10th-, and 12-grade students based on a smaller sample size than in other years.

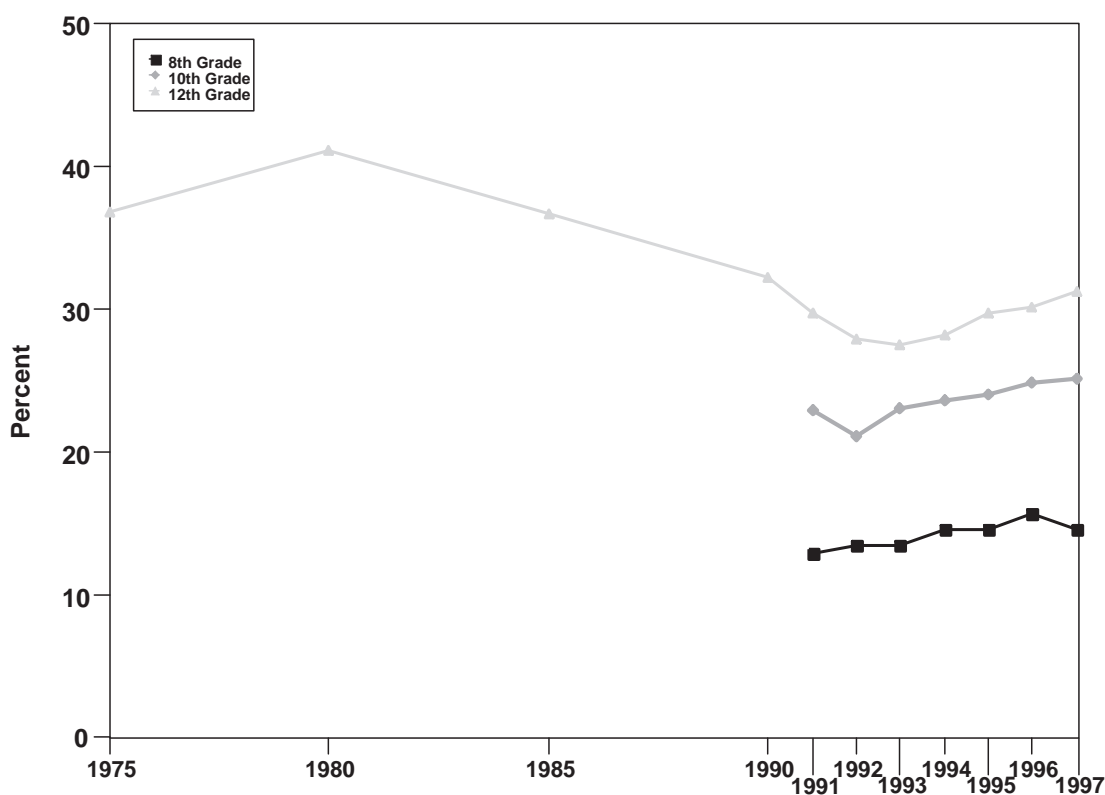
^cData presented for 1994, 1995, and 1996 reflect a slight change in the question text that includes clarification that a drink means "more than just a few sips." Percentages for all grades for 1994, 1995, and 1996 are not directly comparable to previous years.

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

Sources: Bachman, J.G., Johnston, L.D., and O'Malley, P.M. "Monitoring the Future: Questionnaire Responses from the National's High School Seniors, Descriptive Results." 1980, 1985 (Questionnaire Forms 1-5); 1990, 1991, 1992 (Questionnaire Forms 1-6); 1993 (Questionnaire Forms 1, 3, 4); and unpublished data from "Monitoring the Future," University of Michigan, 1994-1996 8th and 10th grade results from Questionnaire Forms 1 and 2, item B05C, and 1994-1996 12th grade results from Questionnaire Forms 1-6, item B04c.

Figure SD 3.3.A

Percentage of 8th-, 10th-, and 12th-grade students who report binge drinking:^a selected years, 1975-1997

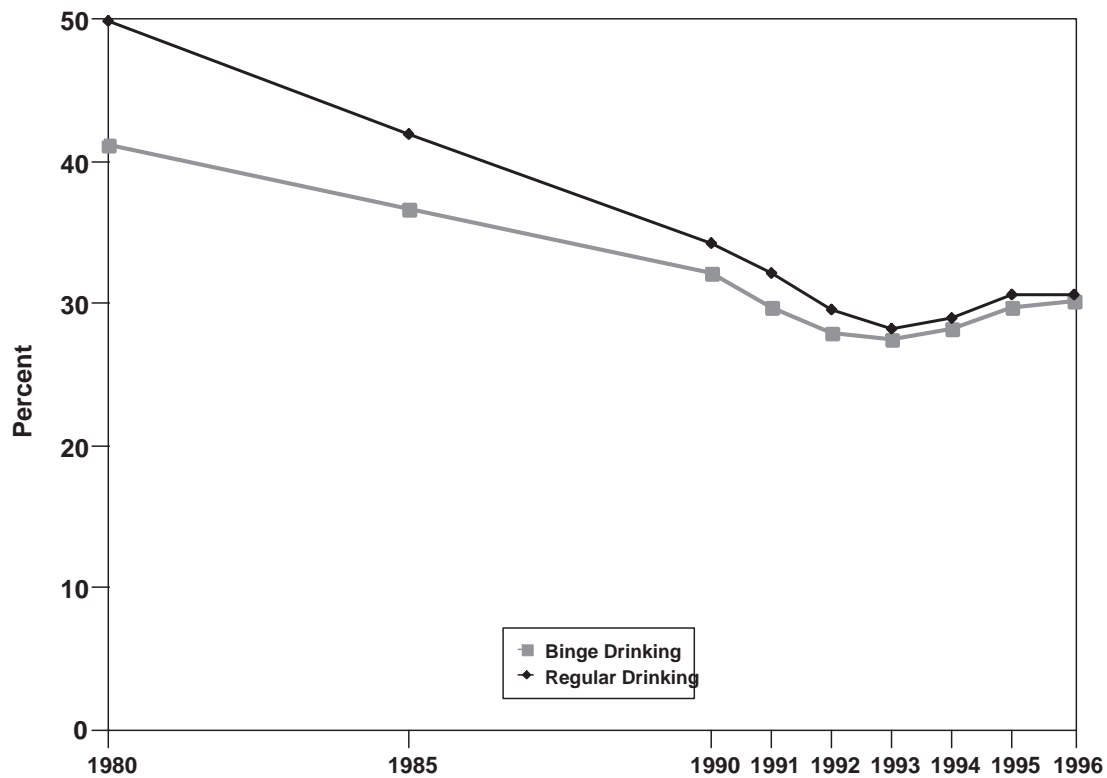


^aBinge drinking means having five or more drinks in a row in the previous two weeks.

Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health, National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. The Monitoring the Future Study, The University of Michigan, updated Tables D-27 and D-28; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1c.

Figure SD 3.3.B

Percentage of 12th-grade students in the United States who report binge drinking^a and who report regular drinking:^b selected years, 1980-1996



^aBinge drinking means having five or more drinks in a row in the previous two weeks.

^bRegular drinking means having an alcoholic beverage on more than two occasions in the previous 30 days.

Sources: Bachman, J.G., Johnston, L.D., and O'Malley, P.M. "Monitoring the Future: Questionnaire Responses from the National's High School Seniors, Descriptive Results." 1980, 1985 (Questionnaire Forms 1-5); 1990, 1991, 1992 (Questionnaire Forms 1-6); 1993 (Questionnaire Forms 1, 3, 4); and unpublished data from "Monitoring the Future," University of Michigan, 1994-1996 8th and 10th grade results from Questionnaire Forms 1 and 2, item B05C, and 1994-1996 12th grade results from Questionnaire Forms 1-6, item B04c. Figure SD 3.4, Johnston, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health, National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. The Monitoring the Future Study, The University of Michigan, updated Tables D-27 and D-28; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1c.

SD 3.4

EXPOSURE TO DRUNK DRIVING

Motor vehicle crashes are a major cause of death in the United States for youth ages 13 through 19.⁴² 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.⁴³

In 1995, 42 percent of adolescents in grades 9 through 12 reported that within the last month prior to the survey, they had either driven after drinking alcohol or had ridden with a driver who had been drinking alcohol--the same percentage as in 1991, and slightly higher than the 38 percent who reported doing so in 1993 (see Table SD 3.4).

Differences by Age. Rates of exposure to drunk driving differed little by age. In 1995, 46 percent of 12th-grade students reported taking this risk, compared with 39 percent of 9th-grade students (see Figure SD 3.4).

Differences by Gender. In 1995, 43 percent of males and 40 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.⁴⁴ In 1995, 52 percent of Hispanic, 41 percent of white, and 39 percent of black teens reported having been exposed to drunk driving within the last month (see Table SD 3.4).

⁴²Injury-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.

⁴³"Update: Alcohol-Related Traffic Crashes and Fatalities among Youth and Young Adults--United States, 1982-1994." *Morbidity and Mortality Weekly Report* 44:869-874.

⁴⁴Estimates 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 report driving after drinking alcohol, or riding with a driver who had been drinking alcohol, within the last 30 days, by gender, grade, and race and Hispanic origin: 1991, 1993, and 1995

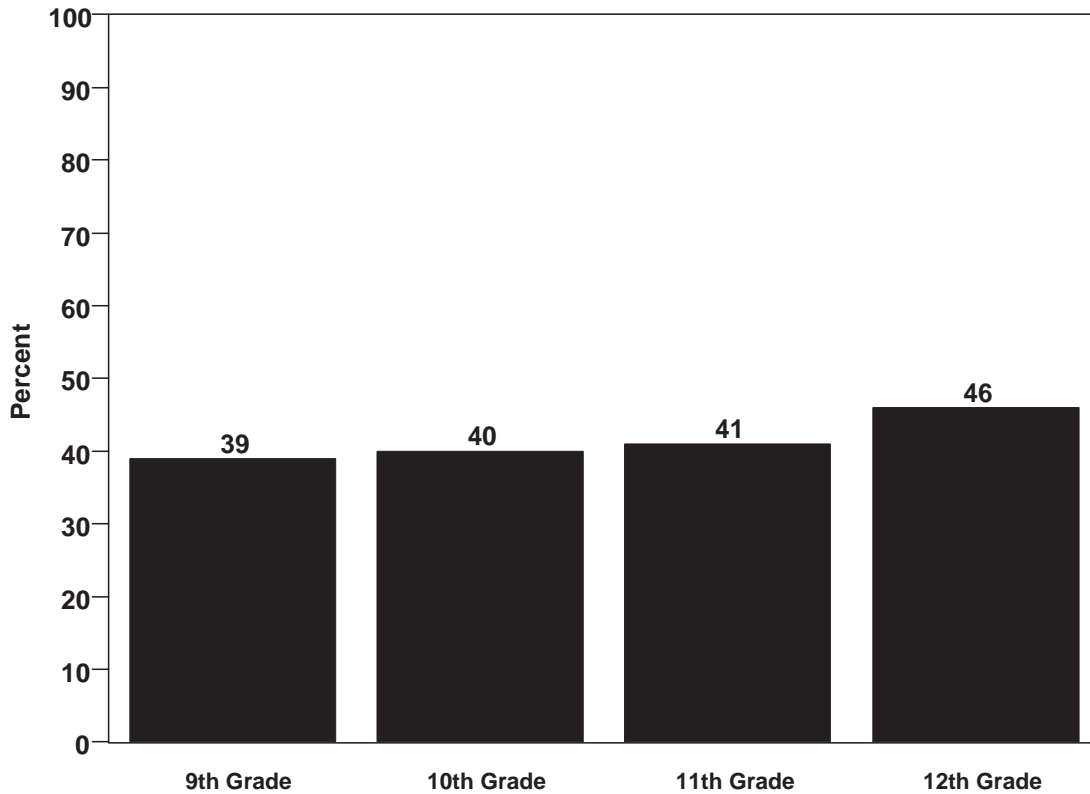
	1991	1993	1995
Total	42	38	42
Gender			
Male	44	40	43
Female	41	36	40
Grade			
9	36	32	39
10	39	37	40
11	45	39	41
12	49	44	46
Race and Hispanic origin^a			
White, non-Hispanic	43	37	41
Black, non-Hispanic	38	41	39
Hispanic	49	45	52

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

Source: Youth Risk Behavior Surveillance System survey results, 1991, 1993, and 1995. 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 report driving after drinking alcohol or riding with a driver who had been drinking alcohol within the past 30 days, by grade: 1995



Sources: Youth Risk Behavior Surveillance System survey results, 1991, 1993, and 1995. 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 in youth, can extend into adulthood.⁴⁵

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.⁴⁶ Marijuana use holds both health and cognitive risks, particularly for damage to pulmonary functions as a result of chronic use.⁴⁷ Hallucinogens can affect brain chemistry and result in problems both in learning new information and retaining knowledge.⁴⁸ 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.⁴⁹

Marijuana Use.⁵⁰ From a high of 33.7 percent in 1980, large and steady declines in the percentage of 12th graders reporting marijuana use were evident until 1992. Since 1992, however, marijuana use among 12th-grade students has increased from 11.9 percent to 23.7 percent by 1997 (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 10.2 percent in 1997. Marijuana use by 10th graders rose from 8.7 percent in 1991 to 20.5 percent by 1997.

Marijuana has consistently been used by higher percentages of 10th and 12th graders than any of the other drugs specified here. 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 1996.⁵¹

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 in all grade levels, with a high of 2.3 percent of 12th-grade students reporting use within a 30-day period in 1997 (see Figure SD 3.5.B). Hallucinogens have low prevalence rates among 8th graders in 1997 (1.8 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 and has increased since 1991, with 5.6 percent reporting use in the past 30 days in 1997 (see Table SD 3.5.A).

⁴⁵Johnson, R.A., Hoffmann, J.P., and Gerstein, D.R. *The Relationship between Family Structure and Adolescent Substance Use*. Rockville, Md.: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, July 1996.

⁴⁶Blanken, 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).

⁴⁷See, 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, Harrison G., Jr., and Deborah Yurgelun-Todd, "The Residual Cognitive Effects of Heavy Marijuana Use in College Students," *Journal of the American Medical Association* 275 (7), Feb. 21, 1996.

⁴⁸"Measuring the Health Behavior of Adolescents: The Youth Risk Behavior Surveillance System and Recent Reports on High-Risk Adolescents." *Public Health Reports* 108 (Supp. 1). Rockville, Md.: Public Health Service, 1993.

⁴⁹Ibid.

⁵⁰These 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.)

⁵¹The 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 harmful, physically or in other ways, has dropped by at least 13 percentage points from 1991 to 1996 across all grade levels, according to the Monitoring the Future Study. In 1996, 25.9 percent of 12th-grade students perceived smoking marijuana occasionally to be harmful, and 59.9 percent perceived smoking marijuana regularly to be harmful.

In general, one-quarter (26.2 percent) of America's 12th graders report use of "any illicit drug" in the past 30 days in 1997, with 23.0 percent of 10th graders and 12.9 percent of 8th graders reporting similar recent use (see Table SD 3.5.C).

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 1997, 10.2 percent of 8th-grade students reported using marijuana in the last 30 days (see Table SD 3.5.A). More than twice that percentage of 12th graders (23.7 percent) reported using marijuana within the last 30 days in the same year. In contrast, inhalant use is more prevalent in the 8th-grade than in either the 10th- or 12th- grade level. The rate of inhalant use among 8th graders was 5.6 percent, compared with 3.0 percent for 10th graders and 2.5 percent for high school seniors in 1997. The prevalence of cocaine use is lowest among 8th graders in 1997 (1.1 percent), but similarly small rates are reflected in other grades as well (2.0 for 10th grade and 2.3 percent for 12th grade) (see Table SD 3.5.A).

Differences by Gender. Male high school students are somewhat more likely than females to report using 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, 12.1 percent of males and 10.2 percent of females reported marijuana use within the preceding 30 days of the survey in 1996. In the 10th-grade, males reported marijuana use is about 4 percentage points higher than that of females (22.3 versus 18.6). This gender gap increases to about 7 percentage points among high school seniors in 1996 (25.1 versus 18.3) (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 have the lowest rates of use across all grades (see Tables SD 3.5.B and SD 3.5.C).

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, 1975-1997

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

^aOnly totals by grade are available for 1997. - ^bAll data are unadjusted for underreporting of nitrites. Data for 12th grade only, based on five of six questionnaire forms, with sample size five-sixths of total sample size. - ^cAll data are unadjusted for underreporting of PCP.

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

Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. Institute for Social Research, The University of Michigan. Tables 2-3-12, 3-3-12, 5-3-12, 9-3-12 through 1996; Table 8 through 1995; and Table 4-7 for 1996; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1b.

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: 1992-1996

	8th Grade					10th Grade				
	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
Marijuana/Hashish										
White	3.3	4.1	5.6	7.8	10.0	9.0	9.8	13.4	16.8	19.3
Black	2.0	2.9	5.0	6.6	8.0	3.6	4.9	9.8	13.8	15.9
Hispanic ^a	6.4	8.3	12.1	12.9	12.5	10.4	12.4	15.6	17.7	19.1
Inhalants^b										
White	4.7	5.4	6.0	6.6	6.8	2.9	3.2	3.7	3.9	3.9
Black	2.4	2.7	2.8	2.5	2.0	2.0	2.0	1.6	1.3	1.2
Hispanic ^a	5.5	5.6	6.1	6.5	6.4	3.0	3.0	3.4	3.4	2.9
Hallucinogens^c										
White	0.8	1.1	1.3	1.6	2.0	2.0	2.1	2.3	3.1	3.5
Black	0.4	0.4	0.4	0.4	0.5	0.2	0.3	0.7	0.8	0.5
Hispanic ^a	1.9	1.9	1.8	1.9	2.2	1.4	1.8	2.2	2.7	3.1.0
Cocaine										
White	0.5	0.5	0.7	0.9	1.2	0.7	0.8	0.9	1.4	1.6
Black	0.4	0.4	0.3	0.4	0.4	0.1	0.2	0.6	0.6	0.4
Hispanic ^a	1.7	1.8	2.2	2.5	2.3	1.1	1.2	1.8	2.4	2.9
12th Grade										
	1992	1993	1994	1995	1996					
Marijuana/Hashish										
White	14.1	14.9	18.4	20.8	22.0					
Black	6.1	8.1	13.1	16.8	18.3					
Hispanic ^a	12.7	12.5	14.9	17.9	19.1					
Inhalants^b										
White	2.4	2.6	2.8	3.3	3.3					
Black	1.5	1.4	1.5	1.4	1.0					
Hispanic ^a	2.5	2.1	2.3	2.3	2.1					
Hallucinogens^c										
White	2.5	2.9	3.3	4.1	4.4					
Black	0.3	0.5	0.8	0.7	0.6					
Hispanic ^a	1.5	1.7	2.0	3.4	4.0					
Cocaine										
White	1.3	1.2	1.3	1.6	1.9					
Black	0.7	0.4	0.5	0.5	0.4					
Hispanic ^a	1.9	2.4	2.3	2.3	3.2					

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

^bInhalants 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 nitrates.

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

Note: 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.

Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. Institute for Social Research, The University of Michigan. Table 10, 1992 through 1995; Table 4-9 for 1996.

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, 1985-1997

	1985	1990	1991	1992	1993	1994	1995	1996	1997 ^b
Grade									
8	—	—	5.7	6.8	8.4	10.9	12.4	14.6	12.9
10	—	—	11.6	11.0	14.0	18.5	20.2	23.2	23.0
12	29.7	17.2	16.4	14.4	18.3	21.9	23.8	24.6	26.2
12th Graders									
Gender									
Male	32.1	18.9	18.4	15.9	20.4	25.5	26.8	27.5	28.7
Female	26.7	15.2	14.1	12.7	15.9	18.3	20.4	21.2	23.2
Race and Hispanic origin									
(2-year average)^c									
White	30.2	20.5	18.6	16.8	17.8	21.4	23.8	24.8	26.4
Black	22.9	9.0	7.2	7.3	9.1	14.3	18.3	19.7	20.0
Hispanic ^d	27.2	13.9	14.7	14.6	15.6	18.3	21.4	22.6	23.9

^aFor 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).

^bOnly totals by grade are available for 1997.

^cEstimates 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.

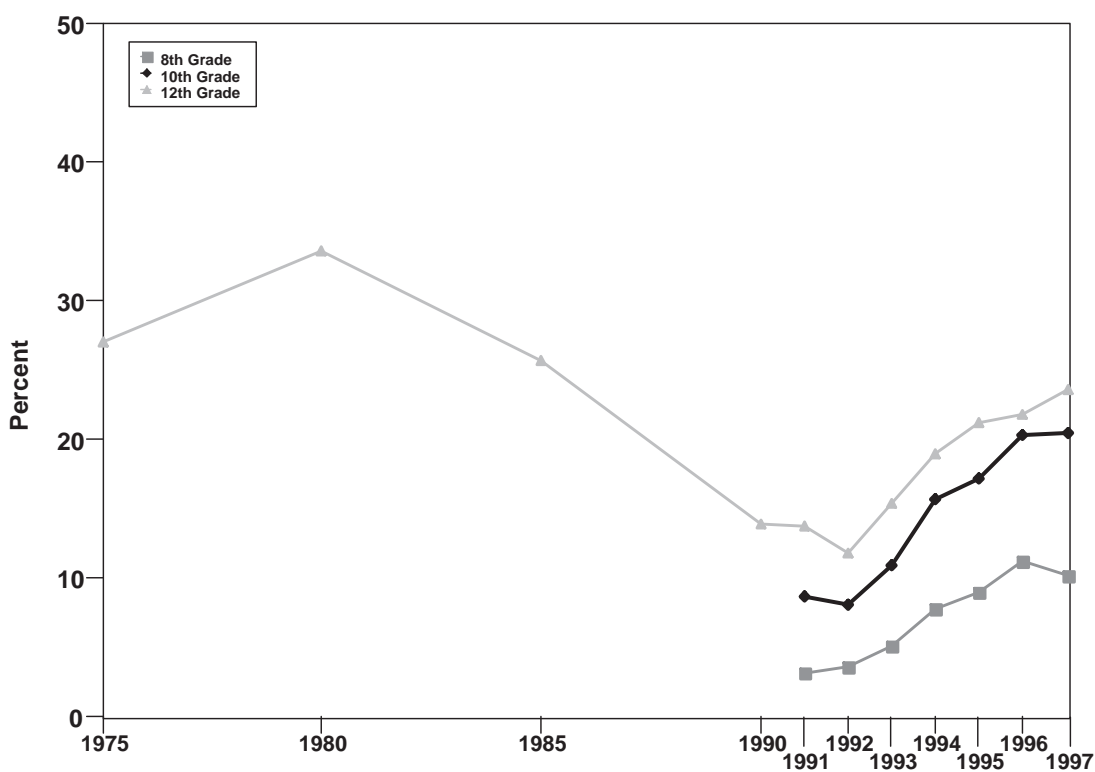
^dEstimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

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

Sources: Johnston, L.D., O’Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. Institute for Social Research, The University of Michigan; Data for 1996: Unpublished tables from the Monitoring the Future Study, provided by project staff; Data for 1997: The Monitoring the Future Study, The University of Michigan. “Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise.” Press release of December 20, 1997, Table 5.

Figure SD 3.5.A

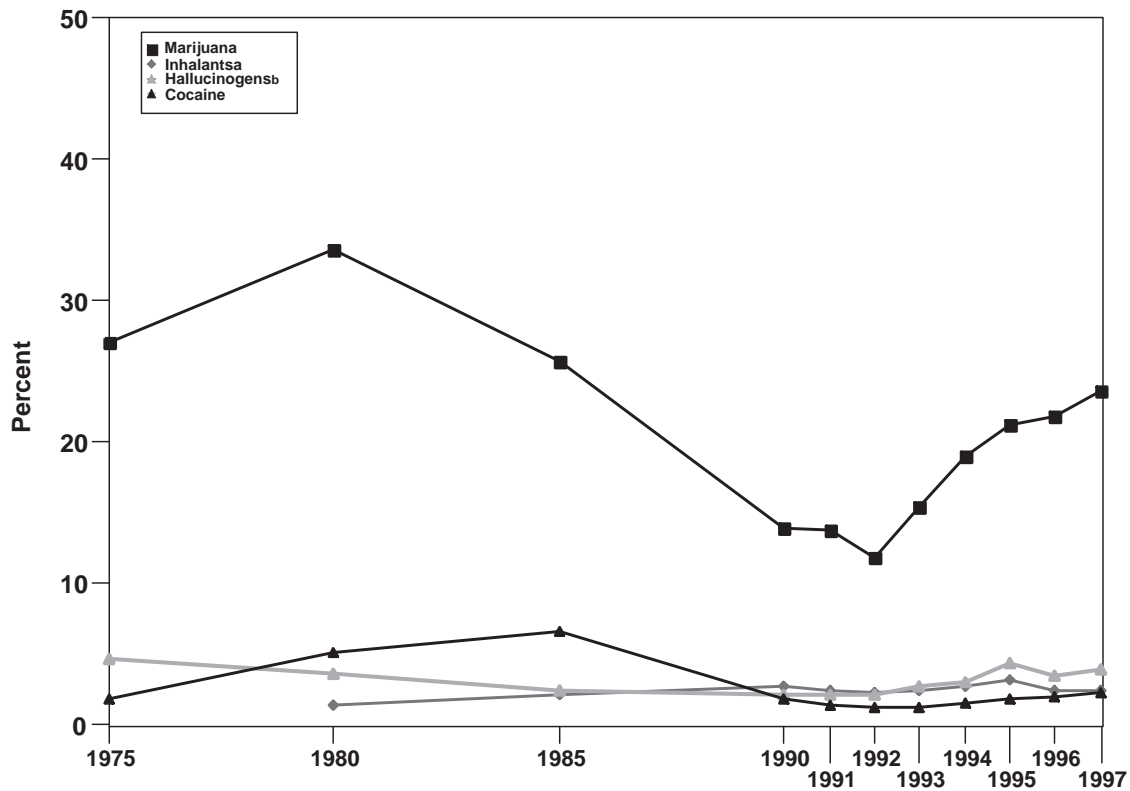
Percentage of 8th-, 10th-, and 12th-grade students in the United States who report having used marijuana within the previous 30 days: selected years, 1975-1997



Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. Institute for Social Research, The University of Michigan. Tables 2-3-12, 3-3-12, 5-3-12, 9-3-12 through 1996; Table 8 through 1995; and Table 4-7 for 1996; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1b.

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: selected years, 1975-1997



^aAll data on inhalants are unadjusted for underreporting of nitrites.

^bAll data on hallucinogens are unadjusted for underreporting of PCP.

Sources: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995*. Rockville, Md.: National Institutes of Health. National Institute on Drug Abuse, NIH Pub. No. 97-4139, 1997. Institute for Social Research, The University of Michigan. Tables 2-3-12, 3-3-12, 5-3-12, 9-3-12 through 1996; Table 8 through 1995; and Table 4-7 for 1996; Data for 1997: The Monitoring the Future Study, The University of Michigan. "Drug Use among American Teens Shows Some Signs of Leveling after a Long Rise." Press release of December 20, 1997, Table 1b.

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.⁵² 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).⁵³

Peer disapproval of drinking (one to two drinks nearly every day) and smoking marijuana (even occasionally) among 12th graders increased from 1981 to 1992 to highs of 78 percent and 79 percent, respectively. Disapproval of both these actions began to decline in 1993. By 1996, the percentage of 12th-grade students who reported peer disapproval of drinking was 73 percent, and of smoking marijuana, 63 percent (see Figure SD 3.6). Peer disapproval of smoking cigarettes (one or more packs per day) has also declined since 1992, although disapproval levels had been relatively stable prior to that time. In 1996, 69 percent of 12th graders reported peer disapproval of smoking cigarettes, down from a high of 76 percent in 1992. 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).

Differences by Gender. Male high school seniors have consistently reported lower levels of peer disapproval of drinking than have their female peers. In 1996, 63 percent of males reported peer disapproval of drinking, compared with 83 percent of females. Disapproval rates for cigarette use were similar for males and females until 1993, when male disapproval began to decrease. Male students also report somewhat lower peer disapproval of smoking marijuana.

Differences by Race. For 1996, rates of disapproval for drug use were generally similar for blacks and whites, with the exception of cigarette smoking. Among blacks, 82 percent reported peer disapproval of smoking, compared with 66 percent among white students.

⁵²Substance Abuse and Mental Health Services Administration. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, Md.: Public Health Service, 1996. Also see U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education. "Student Reports of Availability, Peer Approval, and Use of Alcohol, Marijuana, and Other Drugs at School: 1993." *Statistics in Brief*, June 1997.

⁵³All 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, 1981-1996

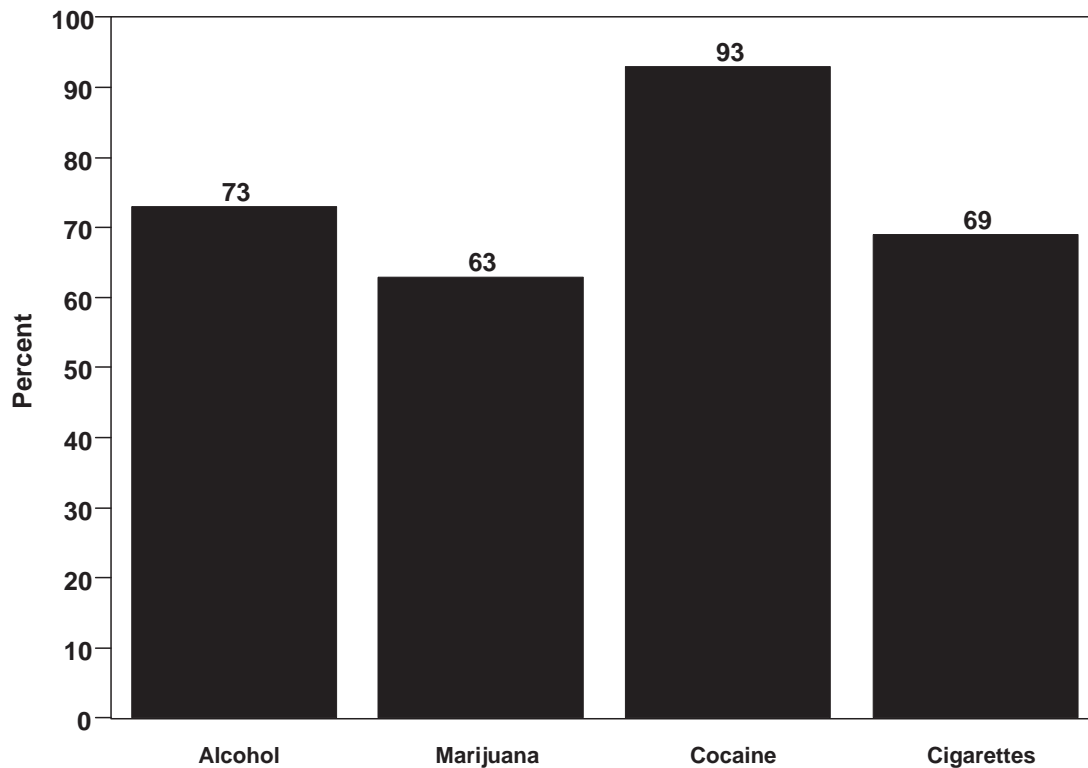
	1981	1986	1991	1992	1993	1994	1995	1996
Disapprove of taking one to two drinks nearly every day								
Total	70	76	77	78	77	76	73	73
Gender								
Male	61	68	68	69	68	67	65	63
Female	79	84	85	85	85	83	80	83
Race								
White	69	75	77	77	76	76	72	71
Black	73	82	80	81	80	78	74	77
Disapprove of smoking marijuana even occasionally								
Total	56	64	76	79	74	69	65	63
Gender								
Male	54	60	73	78	72	63	62	59
Female	58	68	78	80	75	74	69	67
Race								
White	55	63	75	78	73	68	64	62
Black	62	72	86	84	76	70	69	66
Disapprove of taking cocaine even occasionally^a								
Total	—	87	95	94	94	94	94	93
Gender								
Male	—	84	93	93	92	91	92	90
Female	—	90	96	96	96	96	95	96
Race								
White	—	88	96	96	95	94	95	93
Black	—	89	97	91	89	94	92	93
Disapprove of smoking one or more packs of cigarettes per day								
Total	74	76	74	76	72	72	69	69
Gender								
Male	74	75	72	76	68	67	65	65
Female	74	77	77	77	75	77	74	73
Race								
White	74	75	72	75	71	69	67	66
Black	75	81	88	82	80	83	81	82

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

Source: Johnston, L.D., Bachman, J.G., and O'Malley, P.M. *Monitoring the Future: Questionnaire Responses from the Nation's High School Seniors*. 1981, 1986, 1991, 1992, 1993, 1994, 1995, 1996. Ann Arbor, Mich.: Institute for Social Research, The University of Michigan. Form 4, items E07A, E07C, E07H, and 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: 1996



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 (use even occasionally), and smoking (one or more packs of cigarettes every day).

Sources: Johnston, L.D., Bachman, J.G., and O'Malley, P.M. *Monitoring the Future: Questionnaire Responses from the Nation's High School Seniors*. 1981, 1986, 1991, 1992, 1993, 1994, 1995, 1996. Ann Arbor, Mich.: Institute for Social Research, The University of Michigan. Form 4, items E07A, E07C, E07H, and 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 teens⁵⁴ has been related to numerous social problems, such as delinquency, fighting, and early sexual activity,⁵⁵ and to a variety of short- and long-term health problems.⁵⁶ For many reasons, then, it is important that youth stay free of all such substances.

In 1996, 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 1996, 14 percent of males and 11 percent of females ages 12 through 17 reported illicit drug use or binge drinking in the previous month.

Differences by Race and Hispanic Origin.⁵⁷ Rates of reported use differed little among whites, blacks, and Hispanics, ranging from 10 percent to 13 percent in 1996.

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: 1994-1996

	1994	1995	1996
Total	13	15	13
Gender			
Male	14	17	14
Female	12	13	11
Race and Hispanic origin^c			
White, non-Hispanic	15	16	13
Black, non-Hispanic	10	12	10
Hispanic	10	13	13

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

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

^cEstimates 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.

⁵⁴A 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 age 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., and Kopstein, A. 1997. "Prevalence of Youth Substance Use: The Impact of Methodological Differences between Two National Surveys." *Drug and Alcohol Dependence* 47:19-30. The tables in this section draw from the Monitoring the Future Survey.

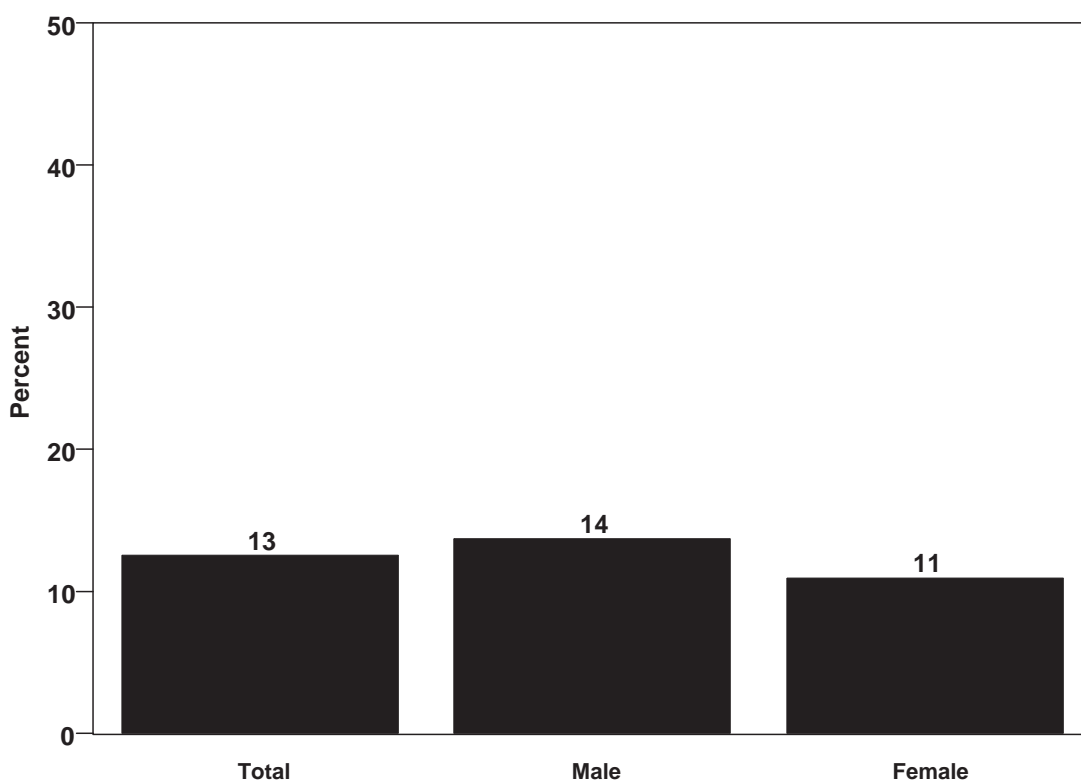
⁵⁵National Institute on Drug Abuse. *National Trends in Drug Use and Related Factors among American High School Students and Young Adults, 1976-1986*. DHHS Pub. No. (ADM) 87-1535. Washington, D.C.: U.S. Department of Health and Human Services, 1987. See also: Grant, B.R., and Dawson, D.A. "Age at Onset 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.

⁵⁶Measuring the Health Behavior of Adolescents: The Youth Risk Behavior Surveillance System and Recent Reports on High Risk Adolescents." *Public Health Reports* 108 (Supp. 1). Rockville, Md.: Public Health Service, 1993.

⁵⁷Estimates for whites and blacks exclude Hispanics of those races.

Figure 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: 1996



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

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

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