

## SMOKING, ALCOHOL, AND SUBSTANCE ABUSE

### SD 3.1 CIGARETTE SMOKING AMONG YOUTH

Cigarette smoking is the single most preventable cause of death in the United States. It has been estimated that one in five deaths is caused by tobacco use.<sup>37</sup>

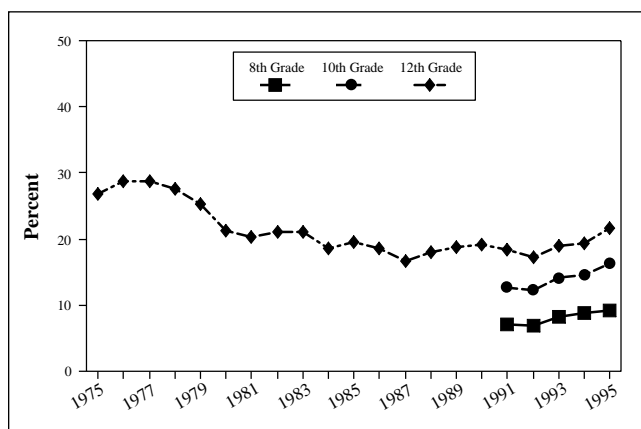
Figure SD 3.1 and Table SD 3.1.a present trends in the percent of eighth, tenth, and twelfth grade students who reported smoking cigarettes daily. Prevalence of daily smoking decreased sharply in the late 1970s for twelfth graders, flattened off beginning in the early 1980s, and has recently begun to increase. Between 1992 and 1995, rates increased from 17.2 percent to 21.6 percent. Data for eighth and tenth grade students, available from 1991 through 1995, also show a recent increase in the percent who reported smoking daily from 7.2 percent to 9.3 percent among eighth graders, and from 12.6 percent to 16.3 percent among tenth graders.

Table SD 3.1.b presents data from a separate data source, which provides a different way of looking at smoking and which furnishes estimates by gender and race/ethnicity. These data provide the percent of students in grades nine through twelve who report “current” and “frequent” smoking.<sup>38</sup> Data for 1993 indicate that male and female youth were equally likely to smoke, with 14 percent in both groups reporting that they smoked frequently. Substantial differences existed, however, across race/ethnicity groups. In 1993, 16 percent of white, non-Hispanic youth reported smoking frequently, compared to 5 percent of black, non-Hispanic youth and 8 percent of Hispanic youth. Current cigarette use (i.e., smoking on one or more of the previous 30 days) is higher for all groups: 34 percent for white, non-Hispanics, 15 percent for black, non-Hispanics, and 29 percent for Hispanics.

<sup>37</sup>Centers for Disease Control. *Cigarette Smoking-Attributable Mortality and Years of Potential Life Lost—United States, 1990. Morbidity and Mortality Weekly Report* 1993; 42:645-9.

<sup>38</sup>Current smoking means smoking on one or more of the previous 30 days. Frequent smoking means smoking on 20 or more of the previous 30 days.

Figure SD 3.1 PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORT SMOKING CIGARETTES DAILY: 1975 - 1994



Source: Johnston, L.D., O'Malley, P.M. and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1994, Volume 1, Secondary School Students*. Rockville, Maryland; U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute on Drug Abuse, NIH Pub. No 95-4026, 1995, and unpublished tables, Institute for Social Research, University of Michigan.

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**Table SD 3.1.A CIGARETTE SMOKING: PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORT SMOKING CIGARETTES DAILY**

	1975	1980	1985	1990	1991	1992	1993	1994	1995
8th Grade					7.2	7.0	8.3	8.8	9.3
10th Grade					12.6	12.3	14.2	14.6	16.3
12th Grade	26.9	21.3	19.5	19.1	18.5	17.2	19.0	19.4	21.6

Source: Johnston, L.D., O'Malley, P.M. and Bachman, J.G. *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1994*, Volume 1, Secondary School Students. Rockville, Maryland; U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute on Drug Abuse, NIH Pub. No 95-4026, 1995, and unpublished tables, Institute for Social Research, University of Michigan.

**Table SD 3.1.B CIGARETTE SMOKING: PERCENT OF STUDENTS IN GRADES 9-12 WHO REPORT CURRENT SMOKING AND FREQUENT SMOKING**

	Current Smoking		Frequent Smoking	
	1991	1993	1991	1993
Total	28	31	13	14
Male	28	30	12	14
Female	27	31	12	14
White Non-Hispanic	31	34	15	16
Male	30	32	15	16
Female	32	35	16	16
Black Non-Hispanic	13	15	3	5
Male	14	16	5	5
Female	11	14	2	4
Hispanic	25	29	7	8
Male	28	30	8	9
Female	23	27	6	7
Grade				
9th Grade	23	28	8	9
10th Grade	25	28	11	13
11th Grade	32	31	16	15
12th Grade	31	35	16	18

Note: Current smoking means smoking on one or more of the previous 30 days. Frequent smoking means smoking on 20 or more of the previous 30 days.

Source: Data for 1991 from U.S. Department of Health and Human Services, *Preventing Tobacco Use Among Young People, A Report of the Surgeon General*. U.S. Public Health Service, 1994. Data for 1993 from "Youth Risk Behavior Surveillance-United States 1993," *Morbidity and Mortality Weekly Report*, Vol. 44, No. SS-1, 1995.

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### SD 3.2 SMOKELESS TOBACCO USE AMONG TEENS IN GRADES 9-12.

The use of smokeless tobacco (*i.e.* snuff, chewing tobacco) has been associated with substantially higher risk for developing oral cancer.<sup>39</sup>

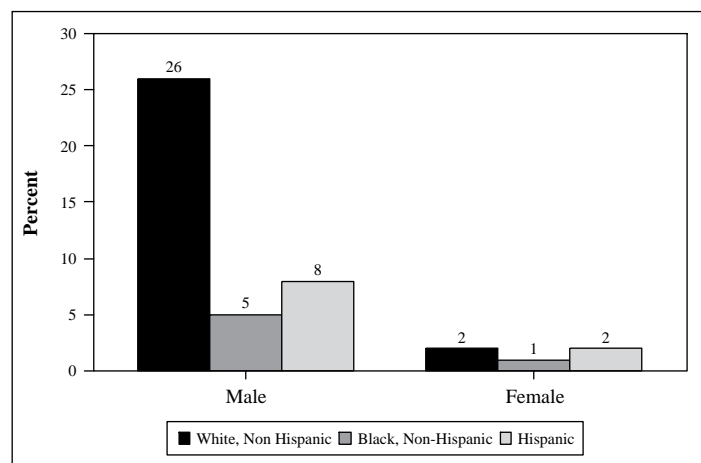
Table SD 3.2 shows the percent of teens in grades 9-12 who reported using some form of smokeless tobacco one or more times in the previous 30 days. The data indicate that the percent reporting smokeless tobacco use was 10 percent in 1991 and 12 percent in 1993.<sup>40</sup> Unlike cigarettes, smokeless tobacco is much more common among males, with 20 percent of males and 2 percent of females reporting smokeless tobacco use in 1993.

The use of smokeless tobacco is most prevalent among white, non-Hispanic male youth, with over one quarter (26 percent) in 1993 reporting having used smokeless tobacco one or more times in the previous 30 days, compared to 8 percent of Hispanic male youth and 5 percent of black, non-Hispanic male youth. (See Figure SD 3.2) Rates of reported use among female youth never exceed 2 percent for any race/ethnicity group.

<sup>39</sup>Public 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.

<sup>40</sup>Data for 1991 from U.S. Department of Health and Human Services, *Preventing Tobacco Use Among Young People, A Report of the Surgeon General.* U.S. Public Health Service, 1994. Data for 1993 from "Youth Risk Behavior Surveillance-United States 1993," *Morbidity and Mortality Weekly Report*, Vol. 44, No. SS-1, 1995. Another federal survey, the National Household Survey of Drug Abuse, shows a declining trend in the use of smokeless tobacco among all male youth ages 12-17, with rates declining from 6.6 percent in 1988 to 4.8 percent in 1992 and 3.9 percent in 1993. See National Center for Health Statistics, 1995. *Healthy People 2000 Review*, 1994 Hyattsville, MD: Public Health Service. Caution should be exercised in making comparisons between the two surveys because the age ranges and the methods of administering the surveys differ.

Figure SD 3.2 SMOKELESS TOBACCO: THE PERCENT OF YOUTH IN GRADES 9-12 WHO REPORT HAVING USED SMOKELESS TOBACCO DURING THE PREVIOUS 30 DAYS: 1993



Source: Centers for Disease Control and Prevention, 1995. "Youth Risk Behavior Surveillance - United States, 1993." *Morbidity and Mortality Weekly Report*, Vol. 44, No. SS-1.

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**Table SD 3.2 SMOKELESS TOBACCO: THE PERCENT OF YOUTH IN GRADES 9-12 WHO REPORT HAVING USED SMOKELESS TOBACCO DURING THE PREVIOUS 30 DAYS**

	1991			1993		
	Total	Male	Female	Total	Male	Female
Total	10	19	1	12	20	2
Race/Ethnicity						
White, non-Hispanic	13	24	1	15	26	2
Black, non-Hispanic	2	4	1	3	5	1
Hispanic	6	11	1	5	8	2

Source: Data for 1991 from U.S. Department of Health and Human Services, *Preventing Tobacco Use Among Young People, A Report of the Surgeon General*. U.S. Public Health Service, 1994. Data for 1993 from "Youth Risk Behavior Surveillance-United States 1993," *Morbidity and Mortality Weekly Report*, Vol. 44, No. SS-1, 1995.

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### SD 3.3 BINGE DRINKING AMONG YOUTH

Binge drinking among adolescents has been linked to a host of problems including motor vehicle crashes and deaths, difficulties in school and the workplace, fighting, and breaking the law.<sup>41</sup> Table 3.3.A reports the percentage of students in the 8th, 10th, and 12th grade who report having taken five or more drinks in a row within the previous two weeks<sup>42</sup>. Data are available from 1975 for 12th grade students, and from 1991 for 8th and 10th grade students. 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 also Figure SD 3.5). Between 1993 and 1995, rates have edged up modestly to 29.8 percent.

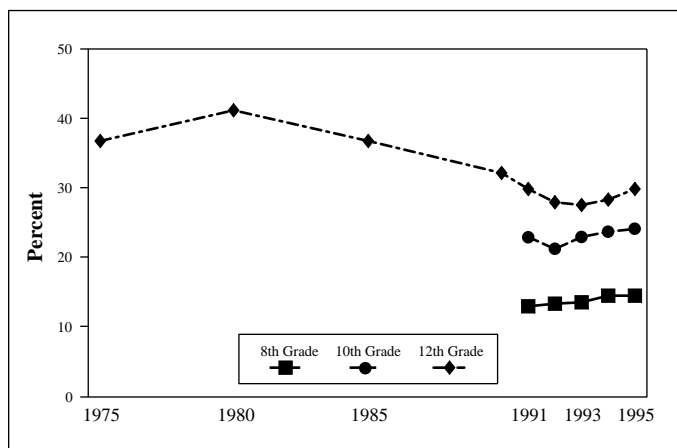
Among 8th grade students, reported binge drinking has risen from 12.9 percent in 1991 (the first year for which data were available) to 14.5 percent in 1995. During the same time period rates increased slightly from 22.9 percent to 24.0 percent among 10th grade students.

Table SD 3.5.B presents separate estimates of reported binge drinking for white, black, and Hispanic students in the 8th, 10th, and 12th grades. Data from 1993 and 1994 were combined to produce a single, stable set of estimates for these population subgroups. Among white students, reported rates of binge drinking increase substantially from 12.9 percent in 8th grade to 31.5 percent in 12th grade. Hispanic students reported the highest rates of binge drinking in the 8th grade at 22.3 percent. By 12th grade, however, their rates increased only slightly to 24.3 percent, well below that of white students. Black students consistently reported the lowest levels of binge drinking with rates ranging from 11.8 percent in 8th grade to 14.4 percent in 12th grade.

<sup>41</sup>National 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.

<sup>42</sup>These percentages underestimate the rate of binge drinking among all youth, since school age youth who are not in school are somewhat more likely to binge drink than those in school. (Based on unpublished analyses, National Health Interview Survey 1992, by Child Trends, Inc.)

**Figure SD 3.3 BINGE DRINKING: PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORTED HAVING HAD FIVE OR MORE DRINKS IN A ROW IN THE PREVIOUS TWO WEEKS:**



Source: Data are from the Monitoring The Future Surveys, as reported in "Drug Use Rise Again in 1995 Among American Teens". press release December 11, 1995, University of Michigan.

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**Table SD 3.3.A BINGE DRINKING: PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORTED HAVING HAD FIVE OR MORE DRINKS IN A ROW IN THE PREVIOUS TWO WEEKS: 1975 - 1995**

	1975	1980	1985	1990	1991	1992	1993	1994	1995
8th Grade					12.9	13.4	13.5	14.5	14.5
10th Grade					22.9	21.1	23.0	23.6	24.0
12th Grade	36.8	41.2	36.7	32.2	29.8	27.9	27.5	28.2	29.8

Source: Data are from the Monitoring The Future Surveys, as reported in "Drug Use Rise Again in 1995 Among American Teens". press release December 11, 1995, University of Michigan.

**Table SD 3.3.B BINGE DRINKING: PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORTED HAVING HAD FIVE OR MORE DRINKS IN A ROW IN THE PREVIOUS TWO WEEKS: VARIATIONS BY RACE/ETHNICITY GROUP, 1993 - 1994 (combined)**

	8th Grade	10th Grade	12th Grade
White	12.9	24.5	31.5
Black	11.8	14.0	14.4
Hispanic	22.3	24.2	24.3

Note: Data from 1993 and 1994 surveys were combined to increase subgroup sample sizes.

Source: Johnston, L.D., O'Malley, P.M., and Bachman, J.G. 1995. National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1994. Volume I, Secondary School Students. National Institute on Drug Abuse, Rockville, MD.

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### SD 3.4 EXPOSURE TO DRUNK DRIVING

Automobile accidents are a major cause of death among teens ages 15 and older, and studies indicate that about 30 percent of drivers ages 15-20 who were involved in fatal crashes were alcohol involved.<sup>43</sup> Further, as of 1991 nearly one half of all fatal crashes were alcohol-related.<sup>44</sup>

Table SD 3.4 shows 1991 estimates of the percentage of students in grades 9 through 12 who report having driven drunk or ridden with a drunk driver within the last 30 days. The data reveal that a large proportion of youth are at-risk, with 42 percent of all teens reporting having ridden with a drunk driver or driven drunk during the previous month. Further, teens exhibit high rates of this dangerous behavior regardless of gender, grade, or race-ethnicity group. Males and females are virtually equally as likely to report such activity at 44 percent and 41 percent, respectively. Exposure to drunk driving rises steadily with age starting at a surprisingly high 36 percent in grade nine, and rising to 49 percent among twelfth grade students. Finally, the percentage of teens who report having driven drunk or ridden with a drunk driver within the last 30 days is lowest among black non-Hispanic students at 38 percent, followed by white non-Hispanic students at 43 percent and Hispanic students at 49 percent.

<sup>43</sup>"Factors Potentially Associated with Reductions in Alcohol-related Traffic Fatalities - United States, 1990 and 1991." *MMWR Morbidity and Mortality Weekly Report* 41: 893-899, December 4, 1993. Cited in Waxweiler, R.J., Harel, Y., and O'Carroll, P.W. 1993. "Measuring Adolescent Behaviors Related to Unintentional Injuries." In *Public Health Reports, Journal of the U.S. Public Health Service*, Volume 108, Supplement 1, 1993.

<sup>44</sup>Ibid.

**Table SD 3.4 DRUNK DRIVING: PERCENT OF TEENS IN GRADES 9-12 WHO REPORT HAVING DRIVEN DRUNK OR WITH A DRUNK DRIVER WITHIN THE LAST 30 DAYS: 1991**

Total	42
Male	44
Female	41
Grade	
9	36
10	39
11	45
12	49
Race/Ethnicity Group	
White Non-Hispanic	43
Black Non-Hispanic	38
Hispanic	49

Source: Youth Risk Behavior Surveys, 1991, calculations by Child Trends, Inc.



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### SD 3.5 DRUG USE AMONG ADOLESCENTS: MARIJUANA AND COCAINE

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.<sup>45</sup> New research has confirmed a number of health and cognitive risks associated with marijuana as well.<sup>46</sup>

Table SD 3.5.A reports trends in marijuana (or hashish) and cocaine use among 8th, 10th, and 12th grade students. Data are available from 1975 for 12th grade students, and from 1991 for 8th and 10th grade students. Among 12th grade students, the proportion who report having used marijuana during the previous 30 days decreased from a high of 33.7 percent in 1980 to a low of 11.9 percent in 1992 (See also Figure 3.5). Beginning in 1992, rates have risen reach year reaching 21.2 percent in 1995.

Reported marijuana (or hashish) use among 8th and 10th grade students has also increased. Between 1991 and 1995, rates increased from 3.2 percent to 9.1 percent among 8th grade students and from 8.7 percent to 17.2 percent among 10th grade students.

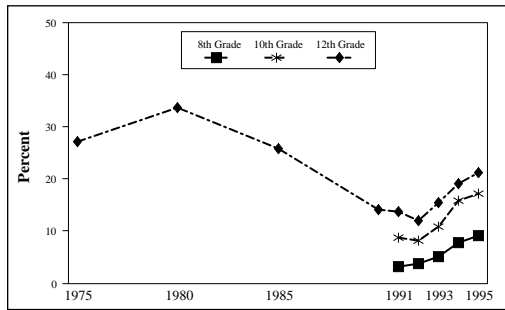
The proportion of 12th grade students who report having used cocaine during the previous 30 days increased from 1.9 percent to 6.7 percent between 1975 and 1985, and then dropped to 1.3 percent in 1992. Beginning in 1992, it has increased slightly from 1.3 percent to 1.8 percent in 1995. Rates of reported use also increased slightly among those in the earlier grades, from 0.5 percent in 1991 to 1.2 percent in 1995 among 8th grade students, and from 0.7 in 1991 to 1.7 percent in 1995 among 10th grade students.

Table SD 3.5.B presents separate estimates of reported marijuana and cocaine use for white, black, and Hispanic students in the 8th, 10th, and 12th grades. Data from 1993 and 1994 were combined to produce a single, stable set of estimates for these population subgroups. In the 8th and 10th grades, reported marijuana use is highest among Hispanics. In 12th grade, whites have higher rates of reported marijuana use than Hispanics. Reported cocaine use was highest among Hispanic students and lowest among black students in all three grades.

<sup>45</sup>Blanken, A.J. 1993. "Measuring Use of Alcohol and Other Drugs Among Adolescents." In *Public Health Reports, Journal of the U.S. Public Health Service*, Volume 108, Supplement 1, 1993.

<sup>46</sup>See, for example, "Marijuana: Facts Parents Need to Know," National Institute on Drug Abuse, U.S. Department of Health and Human Services, NCADI Publication No., PHD712, 1995, and Pope.Harrison G. Jr., and Deborah Yurgelun-Todd, "The Residual Cognitive Effects of Heavy Marijuana Use in College Students," *JAMA*. Feb. 21, 1996, Vol. 275, No. 7.

**Figure SD 3.5 PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORTED HAVING USED MARIJUANA WITHIN THE PREVIOUS 30 DAYS: 1975 - 1995**



Source: Data are from the Monitoring The Future Surveys, as reported in "Drug Use Rise Again in 1995 Among American Teens," press release December 4, 1995, University of Michigan.

**Table SD 3.5.A PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORTED HAVING USED MARIJUANA OR COCAINE WITHIN THE PREVIOUS 30 DAYS: 1975 - 1995**

	1975	1980	1985	1990	1991	1992	1993	1994	1995
Marijuana/Hashish									
8th					3.2	3.7	5.1	7.8	9.1
10th					8.7	8.1	10.9	15.8	17.2
12th	27.1	33.7	25.7	14.0	13.8	11.9	15.5	19.0	21.2
Cocaine									
8th					0.5	0.7	0.7	1.0	1.2
10th					0.7	0.7	0.9	1.2	1.7
12th	1.9	5.2	6.7	1.9	1.4	1.3	1.3	1.5	1.8

Source: Data are from the Monitoring The Future Surveys, as reported in "Drug Use Rise Again in 1995 Among American Teens," press release December 4, 1995, University of Michigan.

**Table SD 3.5.B PERCENT OF 8TH, 10TH, AND 12TH GRADE STUDENTS WHO REPORTED USING MARIJUANA OR COCAINE WITHIN THE PREVIOUS 30 DAYS: VARIATIONS BY RACE/ETHNICITY GROUP, 1993 - 1994 (combined)**

	8th Grade	10th Grade	12th Grade
Marijuana/Hashish			
White	5.6	13.4	18.4
Black	5.0	9.8	13.1
Hispanic	12.1	15.6	14.9
Cocaine			
White	0.7	0.9	1.3
Black	0.3	0.6	0.5
Hispanic	2.2	1.8	2.3

Note: Data from 1993 and 1994 surveys were combined to increase subgroup sample sizes.

Source: Johnston, L.D., O'Malley, P.M., and Buchman, J.G. 1995. National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1994. Volume I, Secondary School Students. National Institute on Drug Abuse, Rockville, MD.

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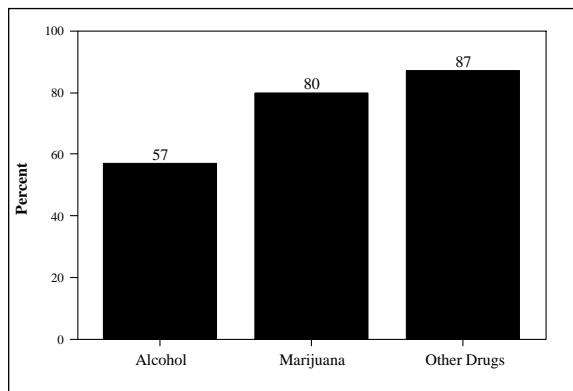
### SD 3.6 PEER ATTITUDES TOWARDS ALCOHOL, MARIJUANA, AND OTHER DRUGS

As children reach adolescence, peer influences on personal behavior can take on increasing importance. Figure SD 3.6.a indicates the percentage of students in grades 6-12 in 1993 who report peer disapproval of alcohol, marijuana, and other drug use. For each of these drugs, a majority of students reported that peers did not approve of their use. Disapproval rates ranged from 57 percent for alcohol to 80 percent for marijuana and 87 percent for other drugs.

Table SD 3.6 reports rates of peer disapproval for using various type of drugs for selected population subgroups. Rates of reported peer disapproval are similar across gender, race/ethnicity, and poverty status subgroups, never differing by more than a few percentage points. Students who have had drug/alcohol education within the past year report somewhat higher rates of peer disapproval for the use of marijuana and other drugs than those who did not receive such education, though the differences are small, never exceeding five percentage points.

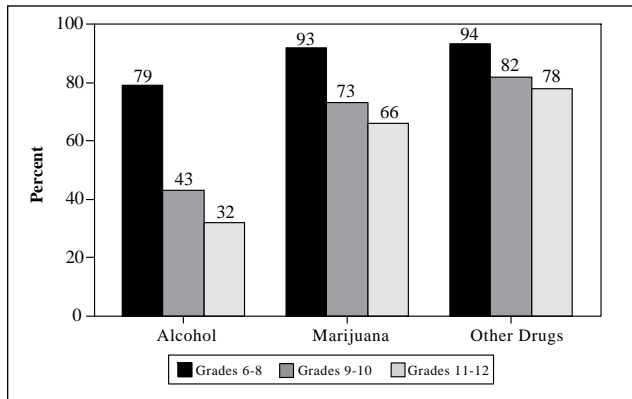
The largest contrasts in reported rates of peer disapproval are between younger and older students, with younger students far more likely to report peer disapproval of all drugs. (See Figure SD 3.6.b) For example, among sixth through eighth graders, 79 percent report that their peers disapprove of drinking alcohol. This declines to 32 percent, or less than one third, among eleventh and twelfth grade students. Peer disapproval rates for these two groups are 93 percent and 66 percent for marijuana use, and 94 and 78 percent regarding the use of other drugs.

**Figure SD 3.6.A PERCENT OF STUDENTS IN GRADES 6-12 REPORTING PEER DISAPPROVAL OF ALCOHOL, MARIJUANA, AND OTHER DRUGS**



Source: Vaden-Kiernan, N. & Nolin, M.J. (March/April 1995) "School, home, and community factors related to peer approval of drug use". Paper presented at the Eastern Sociological Annual Meeting: Philadelphia, PA. Data from the National Household Education Survey 1993 School Safety and Discipline Component, National Center for Education Statistics.

Figure SD 3.6.B PERCENT OF STUDENTS IN GRADES 6-12 REPORTING PEER DISAPPROVAL OF ALCOHOL, MARIJUANA, AND OTHER DRUG USE, BY GRADE: 1993



Source: Vaden-Kiernan, N. & Nolin, M.J. (March/April 1995) "School, home, and community factors related to peer approval of drug use." Paper presented at the Eastern Sociological Society Annual Meeting: Philadelphia, PA. Data from the National Household Education Survey 1993 School Safety and Discipline Component, National Center for Education Statistics.

Table SD 3.6 PERCENTAGE OF STUDENTS IN GRADES 6 THROUGH 12 REPORTING THAT PEERS DO NOT APPROVE OF USE OF ALCOHOL, MARIJUANA, OR OTHER DRUGS: 1993

	Percent of Friends at School Who Do Not Think it is Alright to:		
	Drink Alcohol	Smoke Marijuana	Use Other Drugs
Total	57	80	87
Gender			
Male	56	81	88
Female	57	80	85
Race/Ethnicity			
White, non-Hispanic	55	82	87
Black, non-Hispanic	57	77	86
Hispanic	61	77	83
Grade			
6-8	79	93	94
9-10	43	73	82
11-12	32	66	78
Household poverty status			
Not poor	55	80	87
Poor	61	80	87
Received school alcohol/drug education within past year			
In Current Year	58	81	87
Not in Current Year	52	76	83
Discussion With Parents About Avoiding Alcohol or Drugs			
Yes	65	84	88
No	52	78	86

Source: Vaden-Kiernan, N. & Nolin, M. J. (March /April 1995) "School, home, and community factors related to peer approval of drug use." Paper presented at the Eastern Sociological Society Annual Meeting: Philadelphia, PA.

Data are from the National Household Education Survey 1993 School and Safety Component, National Center for Education Statistics.