# The University of Michigan

## **News and Information Services**

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Since 1975, drug use has been lower among Black high school seniors than among whites, Hispanics or Native Americans, according to U-M survey.

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ANN ARBOR---Drug use rates are higher among white high school seniors than among Black seniors and those in most other racial or ethnic groups, according to social scientists at The University of Michigan.

Native American high school seniors have had the highest rates for use of illicit drugs such as marijuana and cocaine, for daily use of alcohol, and for use of cigarettes, according to the study. White seniors had the next-highest rates for most drugs. Hispanic seniors had intermediate levels of use for most drugs. Asian Americans had the lowest rates, and Black seniors had levels nearly as low.

The U-M report, based on data from 14 nationally representative surveys of high school seniors from 1976 through 1989, will be published in the March issue of the American Journal of Public Health. Authors of the study are Jerald G. Bachman, John M. Wallace Jr., Patrick M. O'Malley, Lloyd D. Johnston, Candace L. Kurth and Harold W. Neighbors---all at the U-M Institute for Social Research (ISR).

Data for the study came from the Monitoring the Future project, conducted by ISR under grants from the National Institute on Drug Abuse. The project, which uses confidential self-completed questionnaires administered in classrooms, has surveyed nationally representative samples of approximately 17,000 high school seniors, located in about 135 high schools, during spring of each year since

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1975. More than 200,000 seniors participated in the 1976-1989 surveys included in the report, and more than 70,000 participated in the 1985-89 surveys that were the basis for the most recent findings.

"Of course, a study of high school seniors tells only part of the story, because it leaves out the hard-core drug users who have dropped out of school," Bachman says. "But this part of the story is important and often overlooked: The majority of non-white youth do complete high school, and among these individuals, usage rates for both illicit and licit drugs are generally lower than average."

Racial and ethnic differences in high school senior drug use cannot be attributed to parental presence in the home, parental education, region or urban density, according to the U-M social scientists. "On the other hand, low usage rates do seem to be strongly influenced by particular religious doctrines or affiliations; different attitudes regarding the use of drugs; differences in family, peer or community norms; and differing levels of perceived risk," Bachman says.

## MARIJUANA:

From 1985 to 1989, 44 percent of Native American female respondents and 42 percent of Native American male respondents reported using marijuana at least once in the past year, compared with 36 percent of white females and 40 percent of white males. Among Blacks, 30 percent of males and 18.4 percent of females had used marijuana during the previous year.

Mexican American males had rates of marijuana use nearly as high as those for whites and Native Americans. Use of marijuana was significantly lower among Mexican American females, Puerto Rican and other Latin American males. The lowest annual rates, between 17 percent and 21 percent, are reported by Puerto Rican and other Latin American females, Black females, and Asian American males and females.

Monthly and daily rates for marijuana use are lower than annual rates, but the racial and ethnic distinctions remain much the same except that male/female differences are more pronounced, according to the U-M researchers. Among

Blacks and Hispanics, twice as many males as females used marijuana in the last month. Male/female differences are smaller within Native American, White and Asian American groups.

Since 1979 marijuana use has declined among all racial and ethnic groups, but throughout the period higher percentages of Native American, white and Mexican American seniors used marijuana than Black, Latin American and Asian American seniors.

#### COCAINE:

"Although cocaine is much less widely used among high school seniors than is marijuana, substantial proportions of those in the classes of 1985-89 used this drug," according to Bachman. Among white males, 12 percent reported using cocaine in the prior year, compared with 6 percent of Black males. Native Americans and Hispanic males reported the highest levels of cocaine use in the prior year of approximately 15 percent of each group.

White females had rates of reported cocaine use a little lower than white males at 9 percent. Among Black females, about 3 percent reported using cocaine in the previous year. Among Asian Americans, about 6 percent of both males and females had used cocaine in the previous year.

Cocaine use overall increased between the late 1970s and early 1980s and has declined since then. Numbers of users are relatively small, making it difficult to generalize about use among some racial or ethnic groups, according to the U-M social researchers. "But we can assert with confidence that throughout the 1980s Black and Asian American males have reported less cocaine use than have males in other subgroups, and the same can be said for Black females compared with other females."

# OTHER ILLICIT DRUGS:

Use of other illicit drugs, including inhalants, hallucinogens, heroin, other opiates, stimulants, and sedatives and tranquilizers not taken under a doctor's order, is highest for Native American seniors and lowest for Black and Asian American students. In all groups, fewer females than males report any use.

Large majorities of seniors in all ethnic and racial groups used alcohol at least sometime during the past year, and nearly two-thirds of all seniors used alcohol within the past 30 days, according to the U-M study. "Use among White and Native American males and females is relatively high at more than 60 percent for all groups in the last month, while among Black and Asian American seniors only about half of the males and one-third of the females report use of alcohol during the past month," Bachman says.

"The most important subgroup differences, however, involve frequent or heavy use of alcohol: Almost half of the white and Native American males report having five or more drinks in a single sitting once or more during the two weeks preceding the survey, and the rate is nearly as high for Mexican American males," he says. Instances of heavy drinking are significantly less common among Puerto Rican and other Latin American males and even lower among Black males and Asian American males.

Among females, the racial and ethnic differences in alcohol use parallel those for males, but at distinctly lower rates, perhaps because of physiological differences, according to Bachman. "While five or more drinks would have a serious effect on a typical male high school senior, they would have an even more drastic impact on the typical female due to differences in weight and ability to metabolize alcohol," he says.

Relatively few seniors drink on a daily basis, but racial and ethnic differences parallel those for occasions of heavy drinking, according to the U-M researchers. Rates are highest for Native American seniors, nearly as high among Mexican American and White seniors, and distinctly lower for the other groups. Within each of these groups, daily drinking is about two to four times as likely among males as females.

#### CIGARETTES:

"Native American seniors have been smoking cigarettes at substantially higher rates than any other group, and throughout the 1980s, White seniors have had distinctly higher smoking rates than Hispanic, Black and Asian American seniors," Bachman says.

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Among Native American seniors, 34 percent of the females and 26 percent of the males are daily cigarette smokers. Among white high school seniors, 23 percent of the females and 19 percent of the males report smoking every day. Rates among all other racial and ethnic groups are far lower less than those for whites, according to the U-M study. "And in contrast to most other drugs, cigarettes in recent years have been used at least as much by young women as by young men on average," Bachman notes.

Smoking declined for all groups in the early years of the U-M survey. However, during the past decade smoking rates for whites have remained virtually unchanged, while rates have continued to decline among non-white groups, according to Bachman.

Daily smoking by white seniors dropped by about one quarter from the late 1970s to the 1980s. Among Black seniors, daily smoking dropped by two-thirds, from 24 percent to 9 percent for males, and 22 percent to 7 percent for females. "Thus Black-white differences in cigarette smoking have become more pronounced in recent classes of high school seniors," Bachman says.

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The absence of high school dropouts in the study affects the reported drug use among some groups more than among others. "Because dropouts are more likely to use drugs, the inclusion of dropouts would have the greatest impact in subgroups with high dropout rates," Bachman says.

National statistics show that dropout rates are far above average among Native American youth, and well above average among Hispanic youth. Among Blacks, however, overall dropout rates in recent years are not much higher than those for whites, and Asian Americans have the lowest dropout rates.

"So if dropouts could have been included in the study, the gaps in drug use between Native American and Asian American youth would probably appear even wider; Black-white differences would be reduced somewhat; and Hispanic rates of drug use would rise more than most other groups, thus making

them generally more similar to white youth---except for the Hispanic males' higher rates of cocaine use," Bachman says.

"Because Black and white dropout rates are now fairly similar, that factor cannot fully account for the very large differences in illicit drug use, heavy drinking, or the even larger differences in cigarette smoking," he adds.

In addition, Blacks are more likely than whites to perceive high risks for various forms of drug use, and Blacks also are more likely to disapprove of drug use, according to the report. "Black seniors also are much less likely to report smoking, alcohol use and drunkenness among friends, consistent with the large racial differences in individuals' self-reported use of these drugs," Bachman notes. "We thus believe that the substantial differences in self-reports reflect genuine differences in drug use between the ethnic and racial groups we sampled."

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Table 1.
Racial/Ethnic Distribution of the Monitoring the Future
Combined Samples\*

N	_		-1984	1985-1989		
	<del>%</del>	N	<u>%</u>	N	<u>%</u>	
48993	85.0	62157	82.0	57864	7 <b>8.7</b>	
5965	10.4	8958	11.8	8187	11.1	
1088	1.9	1480	2.0	3117	4.2	
572	1.0	1105	1.5	1392	1.9	
439	.7	1139	1.5	1899	2.6	
563	1.0	933	1.2	1068	1.5	
57620	100.0	75772	100.0	73527	100.0	
	5965 1088 572 439 563	5965     10.4       1088     1.9       572     1.0       439     .7       563     1.0	5965     10.4     8958       1088     1.9     1480       572     1.0     1105       439     .7     1139       563     1.0     933	5965       10.4       8958       11.8         1088       1.9       1480       2.0         572       1.0       1105       1.5         439       .7       1139       1.5         563       1.0       933       1.2	5965       10.4       8958       11.8       8187         1088       1.9       1480       2.0       3117         572       1.0       1105       1.5       1392         439       .7       1139       1.5       1899         563       1.0       933       1.2       1068	

<sup>&</sup>quot;The multistage sampling design with respondents clustered in schools produces larger sampling errors than would a simple random sample of equivalent size. For statistics in the present paper the estimated design effects are 8.0 for White males and females, 3.0 for Black males and females, and 2.2 for the males and females in any of the other groups. Frequencies used to calculate statistical significance are equal to the actual number of cases shown in the table divided by the appropriate design effect (i.e., 8.0, 3.0, or 2.2). When referring to group differences the term "significant" or "significantly" refers to p< .01.

## CONFIDENCE INTERVALS

Confidence intervals vary greatly depending upon sample size, design effects (see note to Table 1), and percentage size. Examples of .95 confidence intervals for percentages in Tables 2-4 are as follows:

	Percentage Size					
	50%	20% (or 80%)	<u>10%</u>			
White males or females	1.7	1.3	1.0			
Black males or females	2.8	2.2	1.7			
Mexican American males or females	3.7	3.0	2.3			
Puerto Rican/Latin American males or females	5.6	4.5	3.3			
Asian American males or females	4.8	3.8	2.9			
Native American males or females	6.3	5.0	3.8			

TABLE 2
Annual Prevalence of Thirteen Types of Drugs, 1985–1989 Data Combined by Sex and Race

Percent who used in last twelve months

	White Male	Black Male	MexAm Male	PR&LA Male	Asian Male	Nat Am Male	White Female	Black Female	MexAm Female	PR&LA Female	Asian Female	Nat Am Female
Minimum N =	(28056)	(3688)	(1518)	(680)	(982)	(537)	(29808)	(4499)	(1599)	(712)	(917)	(531)
Mariju ana/Hashish	40.2	29.8	37.3	30.6	19.6	42.0	36.0	18.4	26.0	21.8	17.1	44.0
Inhalants	8.8	2.6	6.0	5.1	4.8	9.6	5.2	2.2	4.3	2.9	3.2	4.4
Hallucinogens	8.3	1.9	5.9	6.5	3.0	10.0	5.0	0.6	2.2	2.1	2.2	9.0
LSD	7.0	1.3	5.2	3.4	2.5	7.8	3.9	0.3	1.6	1.1	1.9	7.2
Cocaine	11.9	6.1	14.7	15.6	5.8	14.2	9.3	2.6	7.6	8.2	5.7	15.5
Heroin	0.7	0.7	0.9	1.2	0.4	1.5	0.3	0.4	0.4	0.4	0.2	1.0
Other opiates <sup>b</sup>	6.5	1.9	3.2	3.0	3.1	7.4	5.3	1.2	2.1	1.6	2.1	5.7
Stimulanța <sup>b</sup>	13.6	4.6	11.3	· 8.0	5.6	17.0	14.7	3.1	10.1	5.9	7.0	19.4
Sedatives b	5.3	2.2	4.7	4.6	3.4	8.8	4.4	1.2	2.7	2.6	2.6	6.4
Barbiturates b	4.4	1.9	4.1	4.0	2.6	7.2	3.8	1.1	2.4	2.5	2.3	6.2
Methaqualone <sup>b</sup>	2.5	0.9	1.2	2.3	1.5	4.8	1.4	0.3	0.5	0.5	0.9	2.2
Tranquilizers <sup>b</sup>	5.8	1.7	2.6	3.1	3.2	6.9	5.9	1.4	2.1	4.1	1.8	8.7
Alcohol	88.3	72.5	82.4	80.6	69.3	82.0	88.6	63.9	73.6	77.2	67.5	81.3

<sup>&</sup>lt;sup>a</sup>Data based on four questionnaire forms. N is four-fifths of N indicated.
Only drug use which was not under a doctor's orders is included here.

TABLE 3
Thirty-Day Prevalence of Fourteen Types of Drugs, 1985–1989 Data Combined by Sex and Race

Percent who used in last thirty days

	White Male	Black Male	MexAm Male	PR&LA Male	Asian Male	Nat Am Male	White Female	Black Female	MexAm Female	PR&LA Female	Asian Female	Nat Am Female
Minimum N =	(28056)	(3688)	(1518)	(680)	(982)	(537)	(29808)	(4499)	(1599)	(712)	(917)	(531)
Marijuana/Hashish	25.0	18.5	22.0	18.9	9.7	27.6	19.8	9.9	13.6	9.6	8.1	23.9
Inhalants <sup>a</sup>	3.4	1.4	2.3	2.0	1.3	5.2	2.0	1.4	2.1	8.0	0.8	0.9
Hallucinogens	3.5	0.9	2.4	3.0	1.5	3.6	1.7	0.3	0.7	0.4	0.3	2.7
LSD	2.8	0.6	1.9	1.6	1.1	3.1	1.1	0.2	0.3	0.2	0.1	2.2
Cocaine	5.6	2.6	8.2	8.1	1.8	7.3	4.1	1.3	3.0	2.9	2.6	9.2
Heroin	0.3	0.5	0.3	0.9	0.1	1.1	0.1	0.3	0.2	0.2	0.0	0.4
Other opiates	2.3	0.9	1.1	1.5	1.6	4.0	1.9	0.6	0.7	0.5	0.7	2.4
Stimulanta	5.6	1.9	4.9	3.1	2.1	8.1	6.0	1.3	4.8	1.2	3.6	10.3
Sedatives b	2.2	1.1	2.0	1.8	1.9	4.8	1.7	0.5	0.9	1.3	1.3	2.6
Barbiturates b	1.8	0.9	1.7	1.3	1.4	3.7	1.5	0.5	8.0	1.2	1.0	2.1
Methaqualone b	0.9	0.5	0.6	0.9	0.8	2.5	0.5	0.1	0.2	0.1	0.6	0.9
Tranquilizers <sup>b</sup>	1.9	8.0	0.8	0.6	1.7	3.1	2.0	0.5	0.9	1.5	0.9	2.2
Alcohol	72.3	49.2	65.0	55.4	43.7	69.0	66.6	32.8	50.5	43.0	34.2	60.2
Cigarettes	29.8	15.6	23.8	22.0	16.8	36.8	34.0	13.3	18.7	24.7	14.3	43.6

Bata based on four questionnaire forms. N is four-fifths of N indicated. Only drug use which was not under a doctor's orders is included here.

TABLE 4
Daily Use of Three Types of Drugs in the Last 30 Days, 1985–1989 Data Combined by Sex and Race

Percent who used daily in last thirty days

	White Male	Black Male	MexAm Male	PR&LA Male	Asian Male	Nat Am Male	White Female	Black Female	MexAm Female	PR&LA Female	Asian Female	Nat Am Female
Minimum N =	(28056)	(3688)	(1518)	(680)	(982)	(537)	(29808)	(4499)	(1599)	(712)	(917)	(531)
Marijuana/Hashish	5.1	2.8	4.2	3.5	1.7	8.2	2.1	0.9	1.1	0.5	0.5	4.3
Alcohol						•						
Daily	7.0	4.2	8.3	4.0	2.3	10.1	2.8	0.7	2.6	0.9	0.9	5.4
5+ drinks in a row/												
last 2 weeks	48.1	24.0	45.3	31.4	19.4	48.1	31.3	9.3	23.6	14.5	10.7	33.7
Cigarettes	18.8	8.6	11.6	13.3	9.0	26.0	22.5	7.1	8.1	13.3	9.4	33.8
Half-pack or more per day	12.5	3.3	5.2	6.1	4.4	18.4	13.3	2.2	2.5	4.2	4.5	23.4