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MARIJUANA USE AND THE EFFECTS OF MARIJUANA DECRIMINALIZATION*

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INTRODUCTION

I would like to thank the Subcommittee for providing me this opportunity to testify. Copies of my comments with supporting information will be made available after my testimony is completed.

Most of what I will be discussing today derives from a series of nationwide youth surveys that my colleagues and I have been conducting over the past six years at The University of Michigan's Institute for Social Research.* Each year since 1975 we have surveyed approximately 17,000 high school seniors drawn to be representative of seniors in public and private high schools nationwide.** This work has drawn its primary support from research grants from the National Institute on Drug Abuse. Our questionnaires ask students about their own use of various drugs; their attitudes about those drugs; the availability of the drugs to them; their opinions concerning decriminalization of marijuana; and also questions about a host of other values, attitudes, and behaviors. Since this stream of new entrants into the adult citizenry constitutes most of the nation's adult population in the decades to come, we have entitled the study Monitoring the Future.

Before presenting some results from this study, however, I would like to put them in perspective by mentioning a few facts about marijuana use across the full age spectrum.

What we know from adult surveys is that marijuana use currently tends to peak in the 18 to 21 range, and that rates of current use tend to be much higher for those in their late teens and early twenties than for younger or older age groups.*** Since most marijuana use is initiated between ages 14 and 18—in other words, during junior and senior high school—the proportion of 12 or 13 year olds who have tried marijuana tends to be quite small (8% in 1977), though it has been rising. Similarly, a very small fraction of Americans over 35 years old (around 7% in 1977) reported ever having used marijuana. The majority of those in the age range 18-25 (about 60% in 1977) reported having done so. Thus the high school seniors in our surveys are near the age of peak use. We also know that today's seniors have had more experience with marijuana by age 18 than any previous birth cohort in American history.

* L.D. Johnston, J.G. Bachman, and P.M. O'Malley. Drugs and the Class of '78: Behaviors, Attitudes, and Recent National Trends, Rockville, MD: National Institute on Drug Abuse, 1979.

L.D. Johnston, J.G. Bachman, and P.M. O'Malley. 1979 Highlights: Drugs and the Nation's High School Students, Rockville, MD: National Institute on Drug Abuse, in press.

** Approximately 80-85% of a birth cohort complete high school and thus are eligible to be included in this in-school survey.

*** H.I. Abelson, P.M. Fishburne, and I. Cisin. National Survey on Drug Abuse 1977: A Nationwide Study of Youth, Adults, and Older People. Rockville, MD: National Institute on Drug Abuse, 1977.

LEVELS AND TRENDS IN USE

In the class of 1979, six in every ten seniors has at least tried marijuana, half had used it in the prior 12 months, and over a third (37%) reported using it in the month prior to the survey. More important, one in ten reported using on a daily or near daily basis—that is, on 20 or more occasions in the prior month. (I should mention that, given what we know about the likely biases in this type of survey, we view these numbers as being, if anything, slightly low.)

One in ten is a significant portion of the age group to be using daily, and presumably these are the ones at greatest risk for detrimental effects. Most of the daily users (77%) give as their average daily intake between one and six joints per day. Overall, daily users average $3\frac{1}{2}$ joints per day. However, a significant proportion indicate that they smoke more than 7 joints daily (13% of daily users—1.3% of the age group).

Unfortunately, we do not yet have a clear picture of how many of these frequent users will show a continuing pattern of heavy use long term; but we do know from follow-ups of our own seniors that a substantial fraction remain heavy users for at least three years beyond high school. To be more specific, we find that about 60% of the daily users in high school are still using daily two years afterward, and nearly 50% are still using daily three years afterward. So, there does appear to be some considerable stability across time in heavy use.

As you probably are well aware, marijuana use rose consistently across the decade of the 70's for those of high school age, as well as for most other age groups. The good news is that in 1979 we have evidence for the first time that marijuana use among high school students may be leveling off. (See Table 1.) Daily or near-daily use rose at an alarming rate between 1975 and 1978, nearly doubling in just three years from 6% to 11% of seniors. In 1979, however, this increase abruptly halted, as did the rise in monthly and annual use. We believe that this fact may be attributable to the increased attention paid, by both the media and government officials, to the potential hazards of regular marijuana use. This interpretation is supported by our finding that significantly more seniors in 1979 than in 1978 believed the regular marijuana user runs a "great risk" of harming himself (see Table 2). Also, the proportion of seniors saying they personally disapprove of regular marijuana use has been increasing very gradually over the past two years (see Table 3).

A limitation on the availability of the drug definitely does not explain this stabilization of use, since fully nine out of every ten seniors say they could get marijuana fairly easily, if they wanted some. This high level of perceived availability in this age group has existed consistently since the study began in 1975. Unfortunately, I cannot comment on the role that increased price may have played in limiting use.

ATTITUDES AND BELIEFS ABOUT MARIJUANA

It should be noted that young people today make a rather clear distinction between marijuana and other illicitly used drugs, and they also distinguish different degrees of involvement with marijuana. (See Tables 2 and 3.) Over three quarters of seniors disapprove of even experimenting with any of the other illicitly used drugs, yet only a third disapprove of trying marijuana. The majority (55%) are also accepting of occasional use. But when it comes to regular marijuana use, the great majority (nearly 70%) disapprove of such behavior, even for adults.

Concerning the perceived harmfulness of marijuana, very few seniors (14%) see a great risk of harming themselves (physically or in other ways) if they use the drug occasionally. More feel that regular use can be harmful; and among those who have never used marijuana, or who have stopped using, over half list among their reasons a concern about the possible physical and/or psychological effects of the drug. But there still remain fair-sized proportions of all seniors who feel that there is little or no risk associated with regular marijuana use (29%), or at most a moderate risk (27%). As I stated earlier, the proportion concerned about the effects of regular use has been rising, but the majority still do not feel the risk is great.

The reasons offered for using marijuana (by recent users) are very similar to the reasons offered for using alcohol: as an enjoyable activity with friends, to feel good or get high, and (to a lesser extent) to relieve tension and relieve boredom.* Coping motives—such as to deal with anger and frustration, to relieve tension, to escape problems, or to deal with boredom—these motives play a more prominent role for the heavier users.

EFFECTS OF MARIJUANA

Concerning the possible effects of marijuana use, our data do not directly address the issue of physiological effects, about which you will be hearing a great deal of testimony from other witnesses. They do, however, address the question of possible effects on certain other behaviors.

In relation to effects on the use of other drugs, we have two sorts of findings. First, there is little evidence that marijuana use displaces alcohol use, as was once alleged, since rates of drinking among seniors have not declined as marijuana has gained in popularity. Second, it also has been alleged that increased marijuana use in the population would lead to an increase in the use of other illicit drugs; but our data really do not support this contention very well either. Although the proportion of seniors involved in marijuana use increased appreciably in the last half of the seventies, the proportion of these young people going beyond marijuana to other

* See J.G. Bachman, L.D. Johnston, and P.M. O'Malley. Questionnaire Responses from the Nation's High School Seniors, 1978. Ann Arbor: Institute for Social Research, 1980, pp. 44 and 48.

illicit drugs has not changed appreciably (see Figure C). In other words, most of the increase has been due to more people using only marijuana. That is not to say that other drugs are not rising and falling in popularity—they are—but rather that the proportion of students becoming involved with any such drugs has changed rather little.

Turning to other behaviors, it was once a widely held belief among adults that marijuana use caused young people to become involved in illegal activities unrelated to drug use. Using longitudinal data from a previous national survey of male students, we have demonstrated to our own satisfaction, at least, that this is not so.* Those who took up marijuana use did not become any more delinquent over time, relative to those who abstained.

DECRIMINALIZATION

Regarding the decriminalization bill per se, there are several facts of relevance in our data. First, it must be recognized that the norms in younger age groups are quite different than those in older age groups. Marijuana use is not disapproved by the great majority of young people, if done in moderation. In fact, for them the norms are not very different than the norms regarding alcohol use. Thus, the prevailing law is out of step with the social norms of youth, much as was true during Prohibition for nearly all age groups. Like Prohibition, this situation leads to a winking at the law by the majority of young people, and very likely to increased disrespect for the agents of the law.

Asked specifically how they felt about legal sanctions, only a quarter of the Class of '79 stated that they thought marijuana use should continue to be a criminal offense, while over 60% thought it should either be decriminalized or made entirely legal (30% and 32% respectively; see Table 4). In fact, the majority of all graduating classes since 1975 have favored the removal of criminal sanctions, while remaining quite conservative about the legal status of the other illicitly used drugs (see Table 5). The majority (62%), however, would not permit the legal use of marijuana in public places; but would permit smoking marijuana in private (58% in favor, 14% undecided). Asked if marijuana should be sold legally if use were to be made legal, nearly two thirds of all students (64%) said yes; but most of those (52% of the total sample) would want sale limited to adults only.

Anticipating the move toward decriminalization, we have asked each class since 1975 what effect legal sale and use of marijuana would have on their own behavior. (Note that this hypothetical situation goes considerably beyond "decriminalization" to actual legalization of use and of sale.) In each of the last five graduating classes, students in the aggregate have predicted that they would be little affected even by these broad changes in the law. In 1979, half of the respondents said they would not use the drug, even if it were legalized, and another 29% said they would simply continue their current rate of use. Only 6% said they

* L.D. Johnston, P.M. O'Malley, and L.K. Eveland. Drugs and Delinquency: A Search for Causal Connections in D.B. Kandel (Ed.) Longitudinal Research on Drug Use: Empirical Findings and Methodological Issues. Washington, D.C.: Hemisphere, 1978.

would use it more often than at present, while another 6% said they would try it for the first time. (About 6% were unsure how they would react.)

Naturally, we had some concern about the validity of the answers to such a hypothetical question. One way to deal with the problem was to directly assess the impact of decriminalization on this age group. Fortunately, we were able to supplement our ongoing series of surveys with a satellite effort to accomplish this. We enlarged our samples of seniors in several of the states where decriminalization has taken place (including California, Ohio, and New York); and then we measured rates of marijuana use among students before, during, and after decriminalization. Before mentioning any results, I must preface what I will say with the caution that our analyses of these data are still in a preliminary stage.

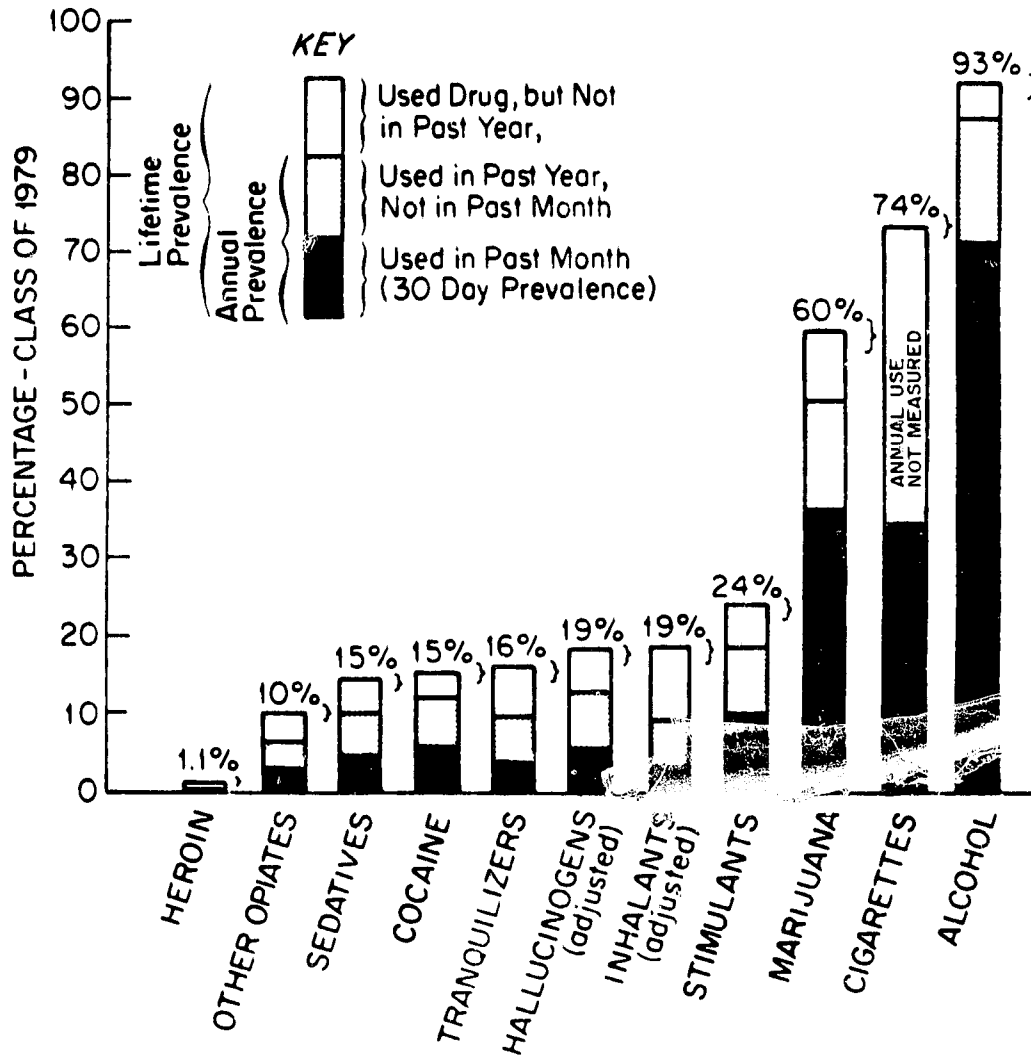
Looking at the impact of decriminalization on marijuana use between 1975 and 1979, we find little evidence of differential change in marijuana use between those states which decriminalized and those states which did not. Put another way, any increase in marijuana use in the decriminalized states, taken as a group, was equal to or less than the increases being observed in the rest of the country where decriminalization was not taking place. Thus the conservative response to decriminalization, which seniors themselves predicted in the aggregate, seems to be what in fact has taken place. Naturally, we will be doing a more thorough analysis and reporting of these data; but, given the importance of the deliberations of this committee, we judged that this preliminary reporting was justified.

Frankly, we did not find these early results surprising, given what we already know about the widespread availability of the drug to this age group, the tolerant norms existing among age-peers, and the high usage rates already attained prior to decriminalization. My own prediction has been and remains that, to the extent decriminalization has an effect of usage levels, the effect will be greatest on older age groups where these conditions do not yet pertain. However, should the advertising of marijuana ever be permitted, presumably as a concomitant of legalized sale, all bets are off. I think that legalized advertising could and would have a substantial effect on usage rates in all age groups and, therefore, holds the greatest danger inherent in any move toward removing legal sanctions. However, decriminalization—as distinct from legalization—is certainly consistent with a continuing ban on the legal sale of the drug and, therefore, with a ban on advertising, as well.

This concludes my testimony. I would be glad to try to answer any questions you may have.

FIGURE A

Prevalence and Recency of Use
Eleven Types of Drugs, Class of 1979



NOTE: The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

FIGURE B

Thirty-Day Prevalence of Daily Use
Eleven Types of Drugs, Class of 1979

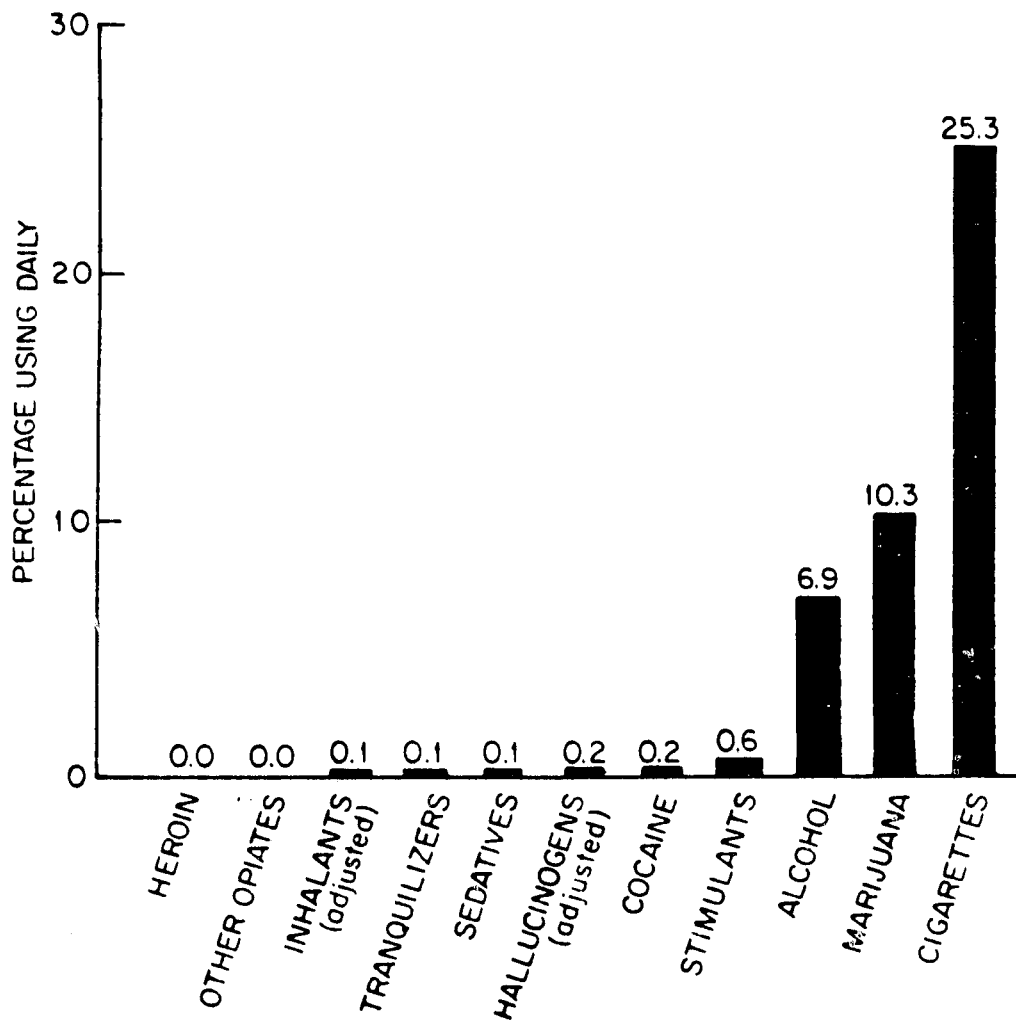
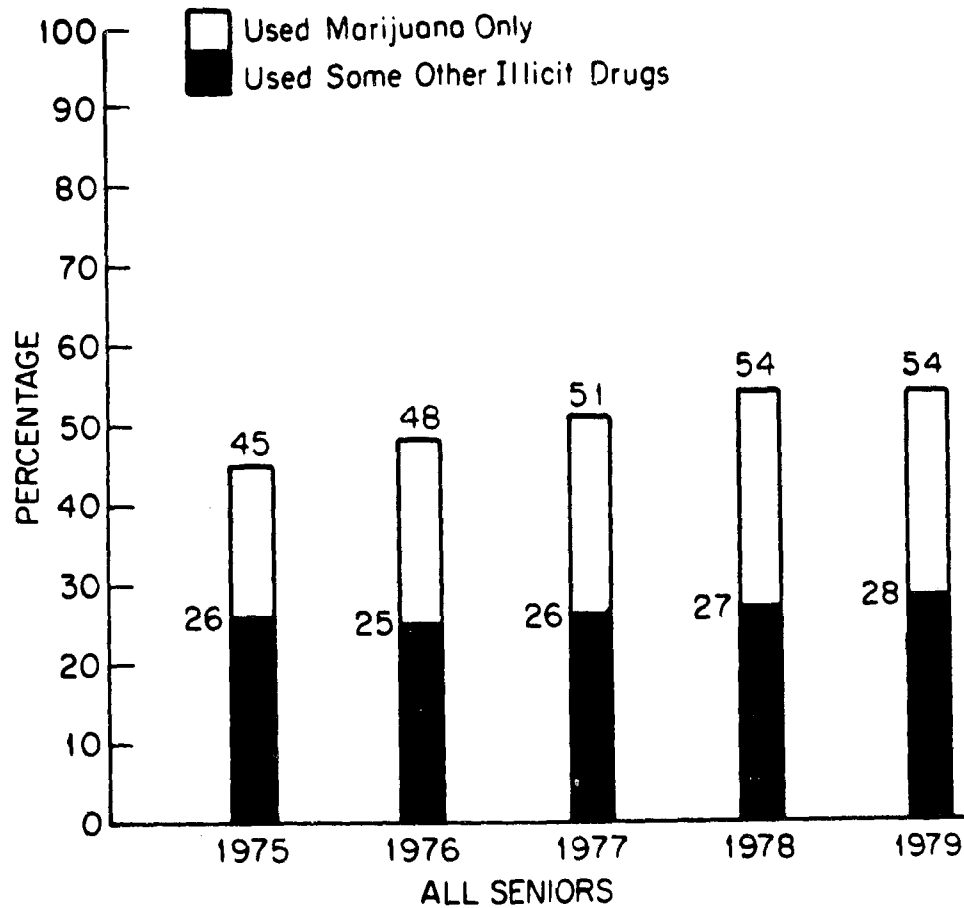


FIGURE C
Trends in Annual Prevalence of Illicit Drug Use
All Seniors



NOTES: The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

Use of "some other illicit drugs" includes any use of hallucinogens, cocaine, and heroin, or any use which is not under a doctor's orders of other opiates, stimulants, sedatives, or tranquilizers.

TABLE 1
Trends in Marijuana Use of High School Seniors
1975-1979

	Percent Using Marijuana					
	Class of <u>1975</u>	Class of <u>1976</u>	Class of <u>1977</u>	Class of <u>1978</u>	Class of <u>1979</u>	<u>'78-'79</u> <u>change</u>
	N = (9400)	(15400)	(17100)	(17800)	(15500)	
Used in Lifetime	47.3	52.8	56.4	59.2	60.4	+1.2
Used in Last 12 Months	40.0	44.5	47.6	50.2	50.8	+0.6
Used in Last 30 Days	27.1	32.2	35.4	37.1	36.5	-0.6
Used Daily in Last 30 Days*	6.0	8.2	9.1	10.7	10.3	-0.4

*Daily use is here defined as use on 20 or more occasions in the last thirty days.

TABLE 2
Trends in Perceived Harmfulness of Drugs

Q. How much do you think people
risk harming themselves (physically
or in other ways), if they...

Q. How much do you think people risk harming themselves (physically or in other ways), if they...	Percent saying "great risk" ^a					'78-'79 change
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	
Try marijuana once or twice	15.1	11.4	9.5	8.1	9.4	+1.3
Smoke marijuana occasionally	18.1	15.0	13.4	12.4	13.5	+1.1
Smoke marijuana regularly	43.3	38.6	36.4	34.9	42.0	+7.1 <i>sss</i>
Try LSD once or twice	49.4	45.7	43.2	42.7	41.6	-1.1
Take LSD regularly	81.4	80.8	79.1	81.1	82.4	+1.3
Try cocaine once or twice	42.6	39.1	35.6	33.2	31.5	-1.7
Take cocaine regularly	73.1	72.3	68.2	68.2	69.5	+1.3
Try heroin once or twice	60.1	58.9	55.8	52.9	50.4	-2.5
Take heroin occasionally	75.6	75.6	71.9	71.4	70.9	-0.5
Take heroin regularly	87.2	88.6	86.1	86.6	87.5	+0.9
Try amphetamines once or twice	35.4	33.4	30.8	29.9	29.7	-0.2
Take amphetamines regularly	69.0	67.3	66.6	67.1	69.9	+2.8 <i>s</i>
Try barbiturates once or twice	34.8	32.5	31.2	31.3	30.7	-0.6
Take barbiturates regularly	69.1	67.7	68.6	68.4	71.6	+3.2 <i>c</i>
Try one or two drinks of an alcoholic beverage (beer, wine, liquor)	5.3	4.8	4.1	3.4	4.1	+0.7
Take one or two drinks nearly every day	21.5	21.2	18.5	19.6	22.6	+3.0 <i>s</i>
Take four or five drinks nearly every day	63.5	61.0	62.9	63.1	66.2	+3.1 <i>s</i>
Have five or more drinks once or twice each weekend	37.8	37.0	34.7	34.5	34.9	+0.4
Smoke one or more packs of cigarettes per day	51.3	56.4	58.4	59.0	63.0	+4.0 <i>ss</i>
Approx. N = (2804) (3225) (3570) (3770) (3250)						

NOTE: Level of significance of difference between the two most recent classes:
s = .05, *ss* = .01, *sss* = .001.

^a Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk,
(4) Great risk, and (5) Can't say, Drug unfamiliar.

TABLE 3

Trends in Proportions Disapproving of Drug Use

Q. Do you disapprove of people
(who are 18 or older) doing
each of the following?

Do you disapprove of people (who are 18 or older) doing each of the following?	Percent disapproving ^a					Two- sided change
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	
Trying marijuana once or twice	47.0	38.4	33.4	33.4	34.2	+0.8
Smoking marijuana occasionally	54.8	47.8	44.3	43.5	45.3	+1.8
Smoking marijuana regularly	71.9	69.5	65.5	67.5	69.2	+1.7
Trying LSD once or twice	82.8	84.6	83.9	85.4	86.6	+1.2
Taking LSD regularly	94.1	95.3	95.8	96.4	96.9	+0.5
Trying cocaine once or twice	81.3	82.4	79.1	77.0	74.7	-2.3
Taking cocaine regularly	93.3	93.9	92.1	91.9	90.8	-1.1
Trying heroin once or twice	91.5	92.6	92.5	92.0	93.4	+1.4
Taking heroin occasionally	94.8	96.0	96.0	96.4	96.8	+0.4
Taking heroin regularly	96.7	97.5	97.2	97.8	97.9	+0.1
Trying an amphetamine once or twice	74.8	75.1	74.2	74.8	75.1	+0.3
Taking amphetamines regularly	92.1	92.8	92.5	93.5	94.4	+0.9
Trying a barbiturate once or twice	77.7	81.3	81.1	82.4	84.0	+1.6
Taking barbiturates regularly	93.3	93.6	93.0	94.3	95.2	+0.9
Trying one or two drinks of an alcoholic beverage (beer, wine, liquor)	21.6	18.2	15.6	15.6	15.8	+0.2
Taking one or two drinks nearly every day	67.6	68.9	66.8	67.7	68.3	+0.6
Taking four or five drinks nearly every day	88.7	90.7	88.4	90.2	91.7	+1.5
Having five or more drinks once or twice each weekend	60.3	58.6	57.4	56.2	56.7	+0.5
Smoking one or more packs of cigarettes per day	67.5	65.9	66.4	67.0	70.3	+3.3
Approx. N = (2677) (3234) (3582) (3686) (3221)						

NOTE: Level of significance of difference between the two most recent classes:
s = .05, ss = .01, sss = .001.

^aAnswer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. Percentages are shown for categories (2) and (3) combined.

^bThe 1975 question asked about people who are "20 or older."

TABLE 4
Trends in Attitudes Regarding Marijuana Laws

	<u>Class of 1975</u>	<u>Class of 1976</u>	<u>Class of 1977</u>	<u>Class of 1978</u>	<u>Class of 1979</u>
<i>Q. There has been a great deal of public debate about whether marijuana use should be legal. Which of the following policies would you favor?</i>					
Using marijuana should be entirely legal	27.3	32.6	33.6	32.9	32.1
It should be a minor violation--like a parking ticket--but not a crime	25.3	29.0	31.4	30.2	30.1
It should be a crime	30.5	25.4	21.7	22.2	24.0
Don't know	16.8	13.0	13.4	14.6	13.8
N =	(2617)	(3264)	(3622)	(3721)	(3278)
<i>Q. If it were legal for people to USE marijuana, should it also be legal to SELL marijuana?</i>					
No	27.8	23.0	22.5	21.8	22.9
Yes, but only to adults	37.1	49.8	52.1	53.6	53.2
Yes, to anyone	16.2	13.3	12.7	12.0	11.3
Don't know	18.9	13.9	12.7	12.6	12.6
N =	(2616)	(3279)	(3628)	(3719)	(3280)
<i>Q. If marijuana were legal to use and legally available, which of the following would you be most likely to do?</i>					
Not use it, even if it were legal and available	53.2	50.4	50.6	46.4	50.2
Try it	8.2	8.1	7.0	7.1	6.1
Use it about as often as I do now	22.7	24.7	26.8	30.9	29.1
Use it more often than I do now	6.0	7.1	7.4	6.3	6.0
Use it less than I do now	1.3	1.5	1.5	2.7	2.5
Don't know	8.5	8.1	6.6	6.7	6.1
N =	(2602)	(3272)	(3625)	(3711)	(3277)

TABLE 5
Trends in Attitudes Regarding Legality of Drug Use

6. Do you think that people (who are 18 or older) should be prohibited by law from doing each of the following? ^b	Percent saying "yes" ^a					1975-1979 change
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	
Smoking marijuana in private	32.8	27.5	26.8	25.4	28.0	+2.6 s
Smoking marijuana in public places	63.1	59.1	58.7	59.5	61.8	+2.3
Taking LSD in private	67.2	65.1	63.3	62.7	62.4	-0.3
Taking LSD in public places	85.8	81.9	79.3	80.7	81.5	+0.8
Taking heroin in private	76.3	72.4	69.2	68.8	68.5	-0.3
Taking heroin in public places	90.1	84.8	81.0	82.5	84.0	+1.5
Taking amphetamines or barbiturates in private	57.2	53.5	52.8	52.2	53.4	+1.2
Taking amphetamines or barbiturates in public places	79.6	76.1	73.7	75.8	77.3	+1.5
Getting drunk in private	14.1	15.6	18.6	17.4	16.8	-0.6
Getting drunk in public places	55.7	50.7	49.0	50.3	50.4	+0.1
Smoking cigarettes in certain specified public places	NA	NA	42.0	42.2	43.1	+0.9
	Approx. N = (2620)	(3265)	(3629)	(3783)	(3288)	

NOTES: Level of significance of difference between the two most recent classes:
s = .05, ss = .01, sss = .001.

NA indicates question not asked.

^aAnswer alternatives were: (1) No, (2) Not sure, and (3) Yes.

^bThe 1975 question asked about people who are "20 or older."