ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672
4587 HHES SB 32 (FILE 2)

marijuana, stimulants, and inhalants, the three drugs tried most frequently by the sample. At nine years years or less a small number of students have been initiated into substance use, with the highest number trying an inhalant type substance. Subsequent to nine years there is a decrease in initiation until age 12, where the first major peak occurs for all three substances. This high initiation level then drops sharply for inhalants, increases slightly for marijuana, and remains stable for stimulants at age 13. Subsequent to this point initiation into marijuana declines sharply. By age 14 initiation into stimulants peaks again at age 14, then drops sharply. Initiation into inhalants also increases, and then declines.

What the configuration of these three curves suggests is that inhalants tended to be used more than marijuana and stimulants at an early age, but that as age increases, interest shifts to experiencing marijuana and stimulants. Twelve years appears to correspond to a "critical period" of initiation into tying marijuana, inhalants, and stimulants. Subsequent to age 12 initiation to these substances declines, except for stimulants, which seems to attract the attention of 14 year olds. The data also suggests that if these substances were not tried by or before age before age 17, initiation into their use declines.

Part II. Alcohol

Lifetime Prevalence of Experience with Alcohol

Figure 7 shows the number of students who reported ever having tried alcohol in 1987 and 1982. (The lower confidence limit for the statistic pertaining to the number of students who drank is 64.7; the upper limit is 73.5.) As can be observed, the prevalence of lifetime experience with alcohol has decreased very slightly (1.4%) since 1982. The difference, however, is sufficiently small to conclude that the number of students who tried alcohol in 1982 and in 1987 remains at a consistent level.

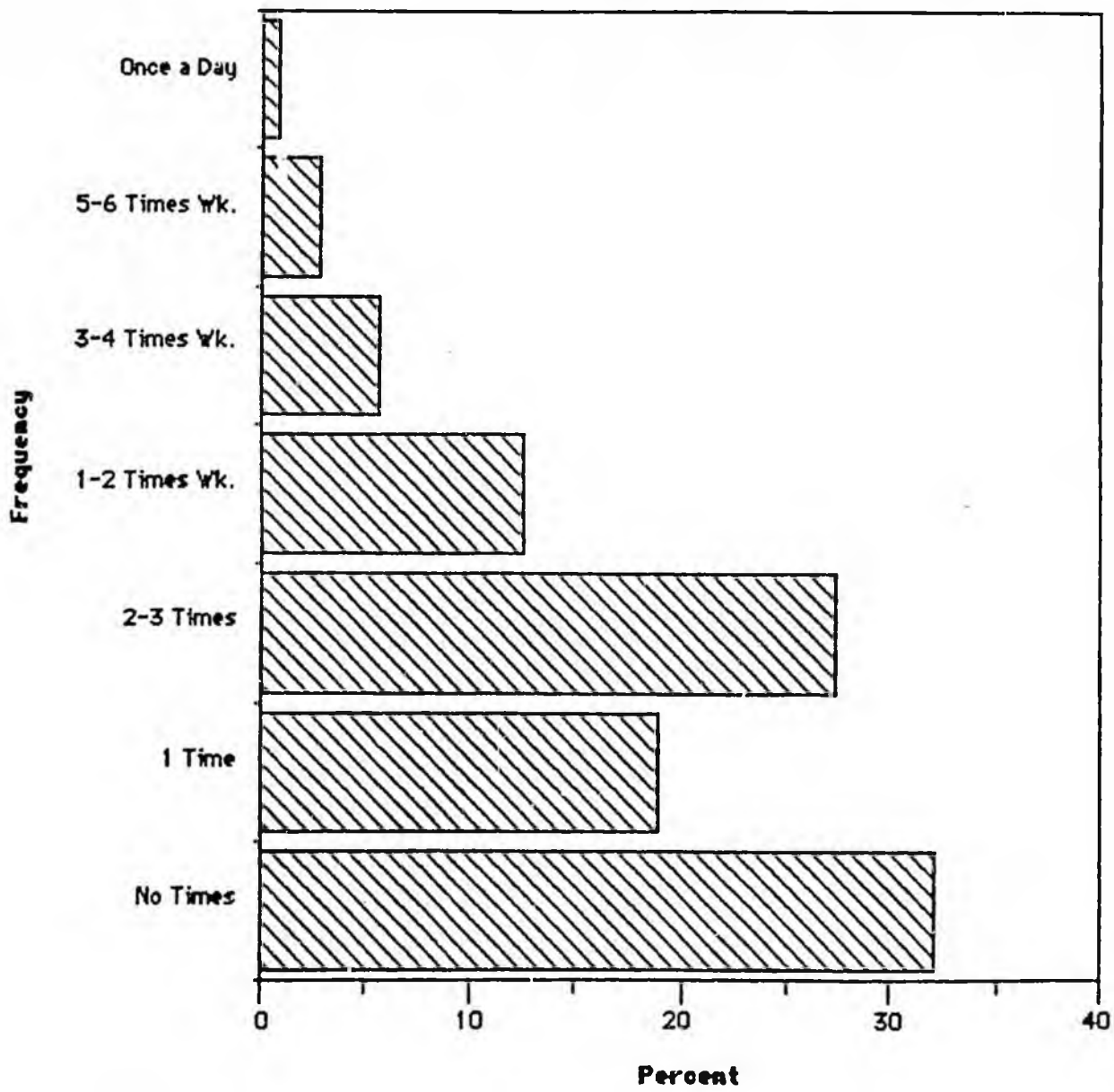
Frequency of Drinking During the Past 30 Days

Figure 8 reports the frequency of alcohol consumption among students who indicated having consumed alcohol during the past 30 days. Of those, over 30% indicated that they did not drink during the past 30 days. Among those who did report that they consumed alcohol, the largest number reported drinking 2-3 times a week. What seems evident from the data is that alcohol is being consumed, and its use ranges from infrequent for a majority of respondents, to more frequently (more than 3-4 times a week) for a smaller number of students.

Drinking by Gender

Figure 9 reports on use of alcohol by gender, comparing lifetime and past year experience with alcohol. Interestingly, more females than males showed

Figure 8
Frequency of Drinking Past 30 Days
Juneau Schools Grades 7-12
1987
(n=289)



both higher rates of lifetime prevalence and use during the past year

Consequences of Drinking

Figure 10 shows how many respondents reported the frequency with which their drinking resulted in either feeling high, getting drunk or very high, or in having gotten sick during the past year. Inspection of the findings indicate that most of the students who drank did so to get high, but many of those who did drink experienced drunkenness or became sick one or more times. There are some students, however, who report more frequent incidents of adverse consequences associated with their drinking, and if these self-reports are accurate, these occurrences meet established criteria representative of "problem drinking" among adolescents (Rachel et al., 1980).

Part III. Tobacco

Smoking and Chewing/Smokeless Tobacco

Figure 11 provides a description of the prevalence rates for lifetime use of tobacco (ever tried), and a comparison of the present findings with those obtained in 1982. Data for comparing the prevalence rates from the 1982 sample for chewing/smokeless tobacco were unavailable. As can be noted, the prevalence of cigarette smoking has increased (by 24.7 percent) since 1982. Over a third of those sampled have also indicated having used smokeless or chewing tobacco.

Part IV. Students' Perception of Increase or Decrease in Drug Use

Figure 12 presents the summarized results of questions that asked students to report whether they thought use of any of the substances had increased or decreased in their school during the past year. The students' perception of the level of use, for the most part, appears to be consistent with the pattern of drug use observed with respect to the reports of recency and frequency of substance use. Marijuana, cocaine, hallucinogens, and stimulants, which showed a recent and frequent pattern of use, are all perceived by the students as having increased in use during the past year. Surprisingly inhalants, which showed a recent and frequent pattern of use, was perceived as having decreased in use by the students. The students also report that alcohol and tobacco use have increased during the past year, and this perception is almost universal.

Part V. Comparison with Other Alaska Communities

Figure 13 provides a comparison of the findings for reports of lifetime experience with chemical substances from Juneau with two other Alaskan communities surveyed in the spring of 1987. As can be observed Juneau, except for lifetime experiences with stimulants, either shows the lowest, or second lowest, prevalence rate among the three communities.

Figure 10
Consequences of Drinking During the Past Year
Juneau Schools
Grades 7-12
1987

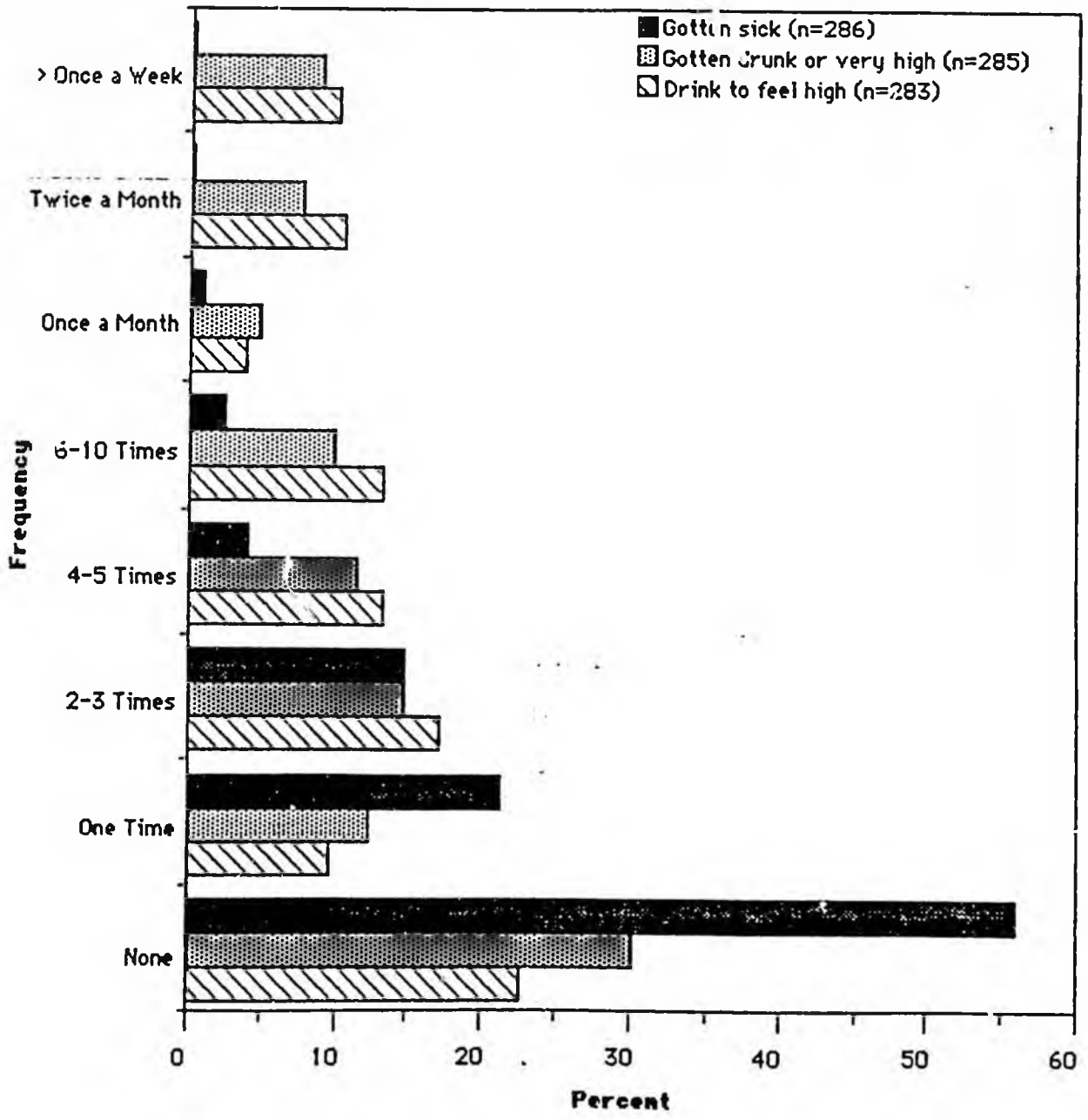


Figure 11
Use of Tobacco Products
Lifetime Experience
Juneau Schools

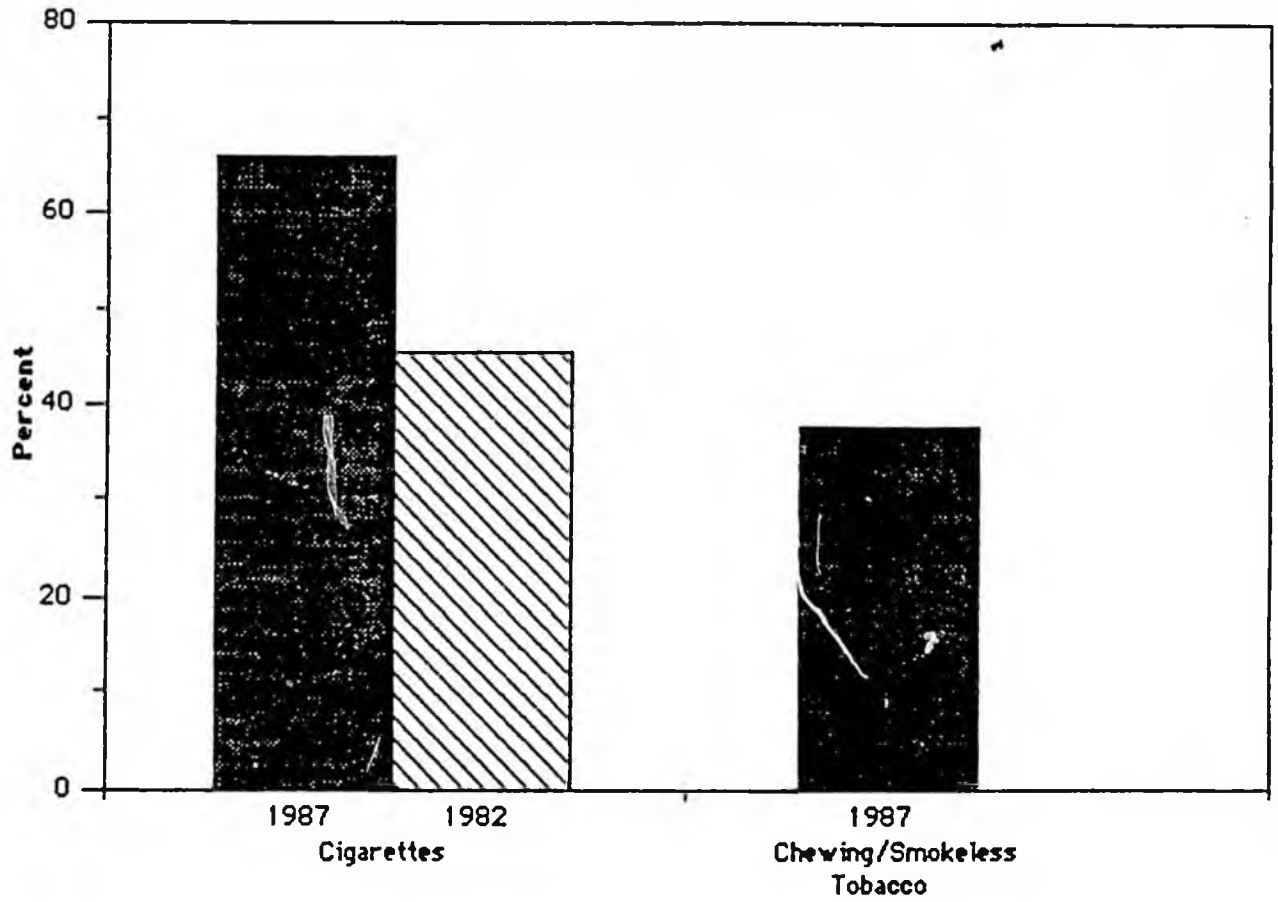
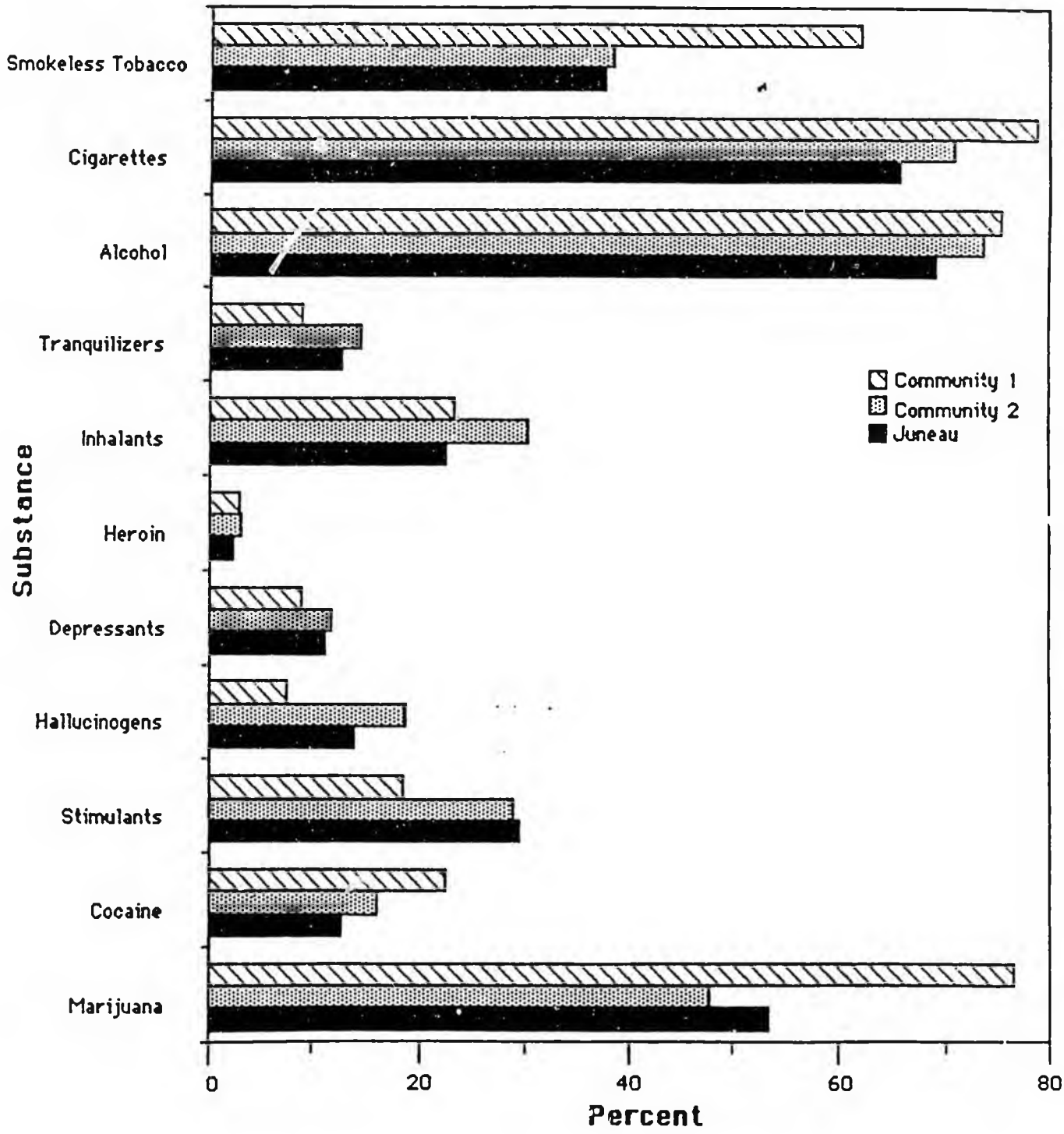


Figure 13
Lifetime Prevalence
Comparison of Experiences with Chemical Substances Among Three Alaska Communities
1987



Discussion and Implications

In summarizing the findings, it is apparent that drug-taking behavior is prevalent in varying degrees among the students responding to the questionnaire, and that changes in the pattern of drug use has taken place since the previous survey was undertaken in 1982. Increases have occurred in the use of some substances, some have appeared to stabilize, while others have decreased. Although marijuana continues to show the highest overall prevalence, experience with hallucinogens and inhalants have increased slightly, while cocaine has decreased. While the findings do suggest that the drug-taking behavior reported by the students can largely be described as experimental or infrequent use, a pattern of more frequent use is also evident. Of special interest in this pattern of use is that more females than males are involved in drug-taking behavior. Additionally, the present findings indicate a downward trend in age of initiation into drug use. Previous research (Segal, 1986) suggested that age 13 was the peak year for initiation into drugs, but the present finding indicate that age 12 now appears to be the critical year for initiation into drug use.

The prevalence of alcohol use was also high, and encompassed a wide range of different types of consumption, one of which is consistent with criteria indicating problem drinking among a small number of students. The extent of smoking is also high, having increased by 25 Percent since 1982.

The findings suggest that efforts are needed to reduce or minimize teenage involvement with chemical substances, tobacco products, drinking, and its associated negative consequences. Both direct and indirect strategies can be utilized to modify the situation. Direct strategies encompass drug education or prevention programs within the school setting that deal directly with the problem. Indirect strategies focus on modifying conditions believed to influence adolescents' behavior with respect to use of drugs. An example of an indirect strategy is a program to help students develop decision making skills useful in dealing with high risk situations. Such a program, however, needs to correspond to the point at which students are at a high risk for initiation into drugs, alcohol, or tobacco products. Based on the results of this study, a critical point would be at the grade level corresponding to age 11, one year before the first peak initiation period occurs.

In approaching the problem of preventing/minimizing the use of mood-altering substances, smoking or use of chewing/smokeless tobacco, and use of alcohol, it is important to take note that illicit drug use, smoking, and drinking, have become incorporated into the American lifestyle. Adolescents are thus, to a large extent, reflecting the value system of the larger society, and their behavior with respect to alcohol, drugs, and tobacco, can be

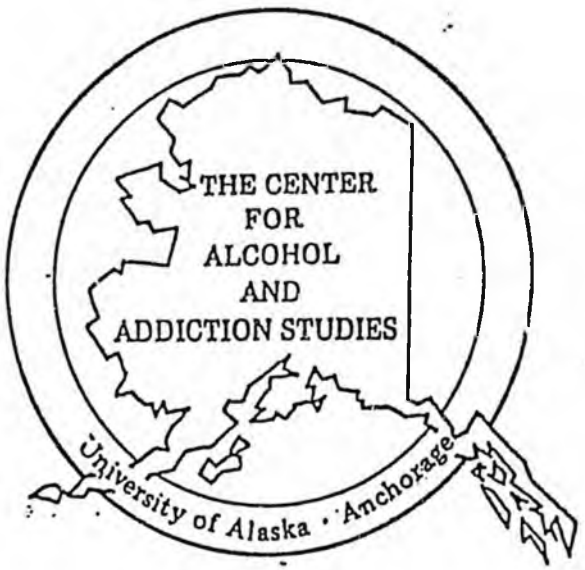
considered, to some extent, to be "normative" behavior. Many adolescents thus become involved with drugs in order to know what drug experience are like. Segal (1985-86) has shown that a major reason given by adolescents who try drugs is to experience the sensation that drugs provide. This does not diminish the need, however, to eliminate or reduce drug use among youth, particularly when other adolescents have reported that they used drugs to reduce stress (Segal, 1985-86), a motive that suggests that some adolescent drug users may be in need of help.

An effective way to combat the problem of drug use is a combination of both direct and indirect programs, in which the school and community cooperate on establishing an education/prevention program that is designed to meet common goals and objectives. A broadbased, community-wide approach, involving all elements of the community (parents, children, educators, police, governmental officials, counselors, etc.) is required to alleviate the problem of teenage smoking, drinking, and drug-taking behavior.

CONFIDENTIAL

Adolescent Drug-Taking Behavior Follow-Up Study
Preliminary Report

FAIRBANKS NORTH STAR BOROUGH SCHOOL DISTRICT



Bernard Segal, Ph.D.
The Center for Alcohol and Addiction Studies
The University of Alaska Anchorage
January, 1988

Released 3/2/93

Funded in part by a grant from from the State Office of Alcoholism and Drug Abuse, Department of health and Social Services

Preface

Adolescent Drug-Taking Behavior Followup Study (Preliminary Findings)

During 1981 and 1982 an extensive statewide study, sponsored by the State Office of Alcoholism and Drug abuse (SOADA), was undertaken by the Center for Alcohol and Addiction Studies (CAAS) to estimate the prevalence of drug-taking behavior among Alaskan youth. A comprehensive report of the findings was released in 1983 (Segal et al., 1983). That research involved eight widely separated urban and rural school districts representative of the different regions of Alaska, except for the Aleutian chain. The locations were Anchorage, Fairbanks, Bethel, Juneau, Kotzebue, Nome, and Sitka. These sites were selected in order to obtain a representative sample of the state's junior and senior high school students. This research also served to establish baseline information about drug-taking behavior among Alaskan youth so that comparisons could be made with subsequent studies.

The present research, also under the auspices of a grant from SOADA, is a follow-up study of the initial project undertaken during 1981-1982. The overall aims of the current study are: (1) to assess the nature and extent of current drug-taking behavior among Alaskan youth, (2) to compare the current findings with the initial study of drug-taking behavior, (3) to examine psychosocial characteristics associated with use and nonuse of chemical substances, and (4) to explore some of the implications that the findings have for prevention of substance abuse Some of the specific objectives are:

(1) To obtain demographic and socialization information about adolescents in grades 7 - 12 relative to use or nonuse of chemical substances.

(2) To obtain information on the prevalence of specific chemical substances, including alcohol and tobacco.

(3) To obtain data relating to the patterns of drug-taking behavior, including alcoholic beverages and tobacco products.

(4) To obtain data relating to actual or perceived peer group use of specific drugs, including alcohol and tobacco.

(5) To obtain information on the consequences of drug-taking behavior

(6) To obtain information about which factors serve to contribute to or mitigate against drug-taking behavior.

The preliminary results of the study pertaining to Fairbank[illegible]nts is presented as a confidential report to the Fairbanks Borough Sc[illegible]istrict. The findings will not be made public in any manner by CAAS, and[illegible]l not be presented in any way that will allow Fairbanks to be identified i[illegible]blished documents. If the school district chooses to make the findings p[illegible]ic, only then will the information be in the public domain.

This document presents a summary of the major findings, sp[illegible]ally focussing on substance use, alcohol, and tobacco. Comparisons [illegible]be made with previous findings and with findings from other Alaska co[illegible]ities. A complete report of the findings will be released by SOADA upo[illegible]study's completion. Additional findings pertaining to Fairbanks will be [illegible]arded after further analysis of the data is completed.

I would like to express my appreciation to the Fairbanks Boro[illegible] Schools for enabling me to include Fairbanks in this follow-up study.

Bernard Segal, Ph.D.
Principal Researcher and,
Director, Center for Alcohol and Addiction Studies

Introduction

The apparent ongoing use of mind-altering substances in th[illegible]d States, particularly by youth, has continued to challenge the efforts o[illegible]tors, health professionals, law enforcement agencies, and governmen[illegible]uthorities, to deal with the problem. Despite significant efforts at preven[illegible]of drug abuse, it is patently clear that some youth will try drugs, and t[illegible] few will continue to use them to the point where they become substance [illegible]ers. From large surveys conducted in the United States, we have seen that [illegible]e was an upward trend in the use of illicit drugs that began during the 1[illegible], which reached its peak in the 1980s. There is still considerable conc[illegible]at while the use of many illicit psychoactive substances is beginning to [illegible]ne, others such as cocaine are just beginning to stabilize, or even show m[illegible]t increases in use.

This study provides an opportunity to review what is happe[illegible]ithin Alaska with respect to the use of illicit psychoactive substan[illegible]d about drinking and use of tobacco products among the state's adoles[illegible]opulation. It is envisioned that these findings will be useful to both the s[illegible]nd school districts in their efforts to address the continuing problem of [illegible]use among adolescents.

Discussion and Implications

In summarizing the findings, it is apparent that drug-taking behavior is prevalent in varying degrees among the students responding to the questionnaire, and that some changes in the pattern of drug use has taken place since the previous survey was undertaken in 1982 (and reported in 1983). Increases have occurred in the use of some substances, some have appeared to stabilize, while others have decreased. Although marijuana continues to show the highest overall prevalence, experience with hallucinogens, stimulants, inhalants, and tranquilizers have increased. While the findings do suggest that the drug-taking behavior reported by the students can largely be described as experimental or infrequent use, a pattern of more frequent use is also evident. Additionally, the present findings indicate a downward trend in age of initiation into drug use. Previous research (Segal, 1986) suggested that age 13 was the peak year for initiation into drugs, but the present finding indicate that age 12 now appears to be the critical year for initiation into drug use.

The prevalence of alcohol use was also high, and encompassed a wide range of different types of consumption, one of which is consistent with criteria indicating problem drinking among a small number of students. The extent of smoking and use of chewing and smokeless have also increased since 1982.

The findings suggest that efforts are needed to reduce or minimize teenage involvement with chemical substances, tobacco products, and with drinking and its associated negative consequences. Both direct and indirect strategies can be utilized to modify the situation. Direct strategies encompass drug education or prevention programs within the school setting that deal directly with the problem. Indirect strategies focus on modifying conditions believed to influence adolescents' behavior with respect to use of drugs. An example of an indirect strategy is a program to help students develop decision making skills useful in dealing with high risk situations. Such a program, however, needs to correspond to the point at which students are at a high risk for initiation into drugs, alcohol, or tobacco products. Based on the results of this study, a critical point would be at the grade level corresponding to age 12, one year before the first peak initiation period occurs.

In approaching the problem of preventing/minimizing the use of mood-altering substances, smoking or use of chewing/smokeless tobacco, and use o alcohol, it is important to take note that illicit drug use, smoking, and drinking, have become incorporated into the American lifestyle. Adolescents are thus, to a large extent, reflecting the value system of the larger society, and their behavior with respect to alcohol, drugs, and tobacco, can be considered, to some extent, to be "normative" behavior. Many adolescents thu become involved with drugs in order to know what drug experience are like. Segal (1985-86) has shown that a major reason given by adolescents who try drugs is to experience the sensation that drugs provide. This does not diminish the need, however, to eliminate or reduce drug use among youth, particularly when other adolescents have reported that they used drugs to reduce stress (Segal, 1985-86), a motive that suggests that some adolescent drug users may be in need of help.

An effective way to combat the problem of drug use is a combination of bot direct and indirect programs, in which the school and community cooperate on establishing an education/prevention program that is designed to meet common goals and objectives. A broad-based, community-wide approach, involving all elements of the community (parents, children, educators, police, governmental officials, counselors, etc.) is required to alleviate the problem of teenage smoking, drinking, and drug-taking behavior.

Table 3
Lifetime Experience with One or More
Chemical Substances
1983 and 1987
Fairbanks North Star Borough School District
Grades 7-12

Drug	Lower* Limit	1987 (n=836)	Upper* Limit	1982 (n=421)	Change
Marijuana	44.4	47.8	51.2	40.1	+ 7.7%
Cocaine	13.4	15.9	18.4	15.9	- 0.0%
Stimulants	25.7	28.8	31.9	27.8	- 1.0%
Hallucinogens	16.2	18.9	21.6	9.5	+ 9.4%
Depressants	9.4	11.6	13.8	14.7	-3.1%
Heroin	2.0	3.2	4.4	2.1	+1.1%
Inhalants	27.4	30.5	33.6	21.4	+ 9.1%
Tranquilizers	12.1	14.5	16.9	11.6	+ 2.9%
Crack	3.3	4.7	6.1	--	--

*95% Condifence Interval. These figures repesent the lower and upper confidence intervals within which the true population value lies (95 out of 100 times).

Figure 1
Lifetime Experience with One or More Chemical Substances
Fairbanks North Star Borough School District
Grades 7-12

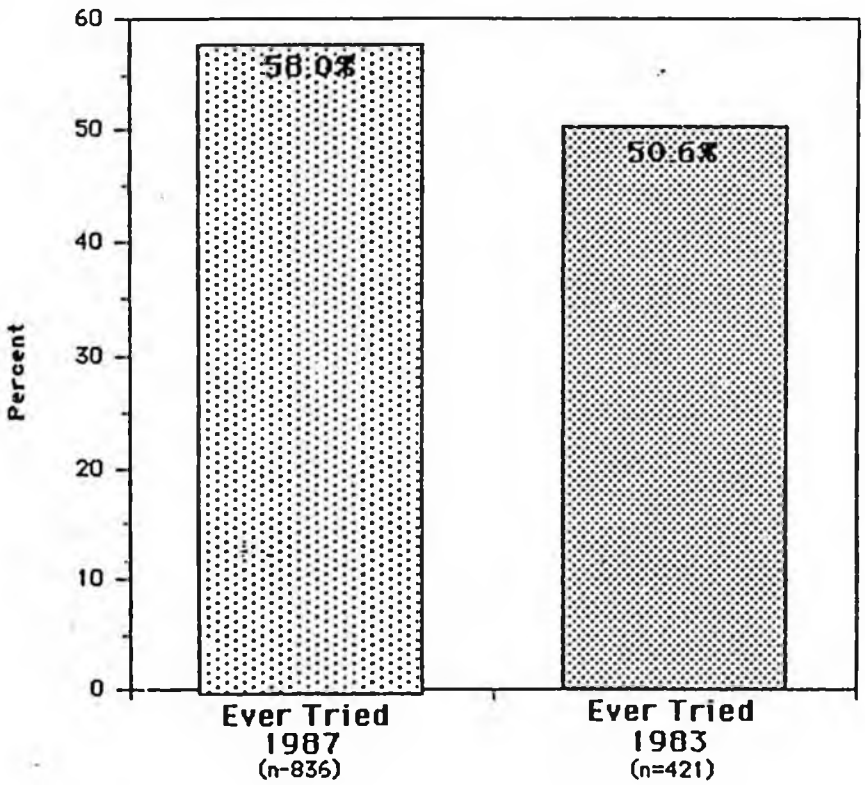


Figure 2
Experience with Drugs by Grade Level
Fairbanks North Star Borough School District

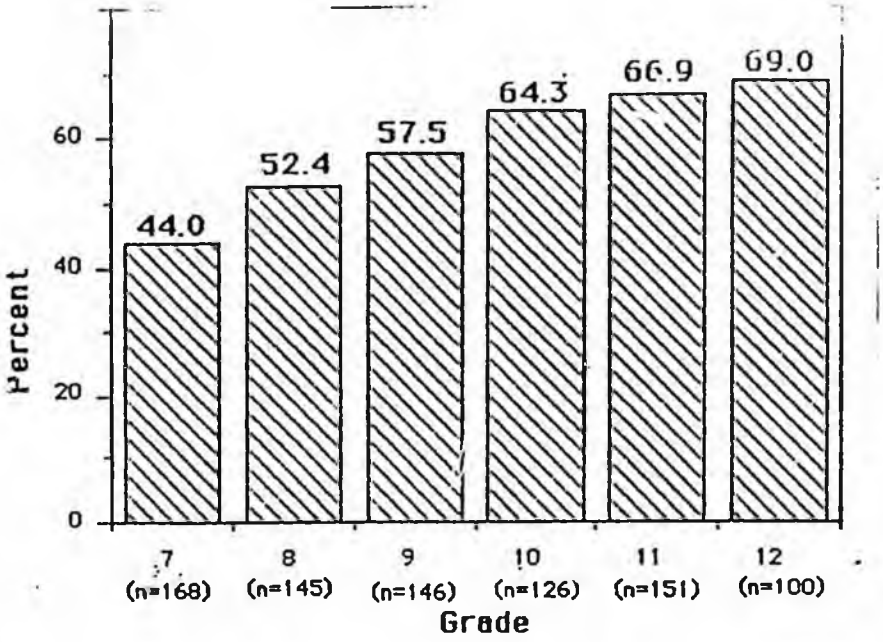


Figure 3A
Frequency and Recency of Marijuana Use
Fairbanks North Star Borough School District
Grades 7-12

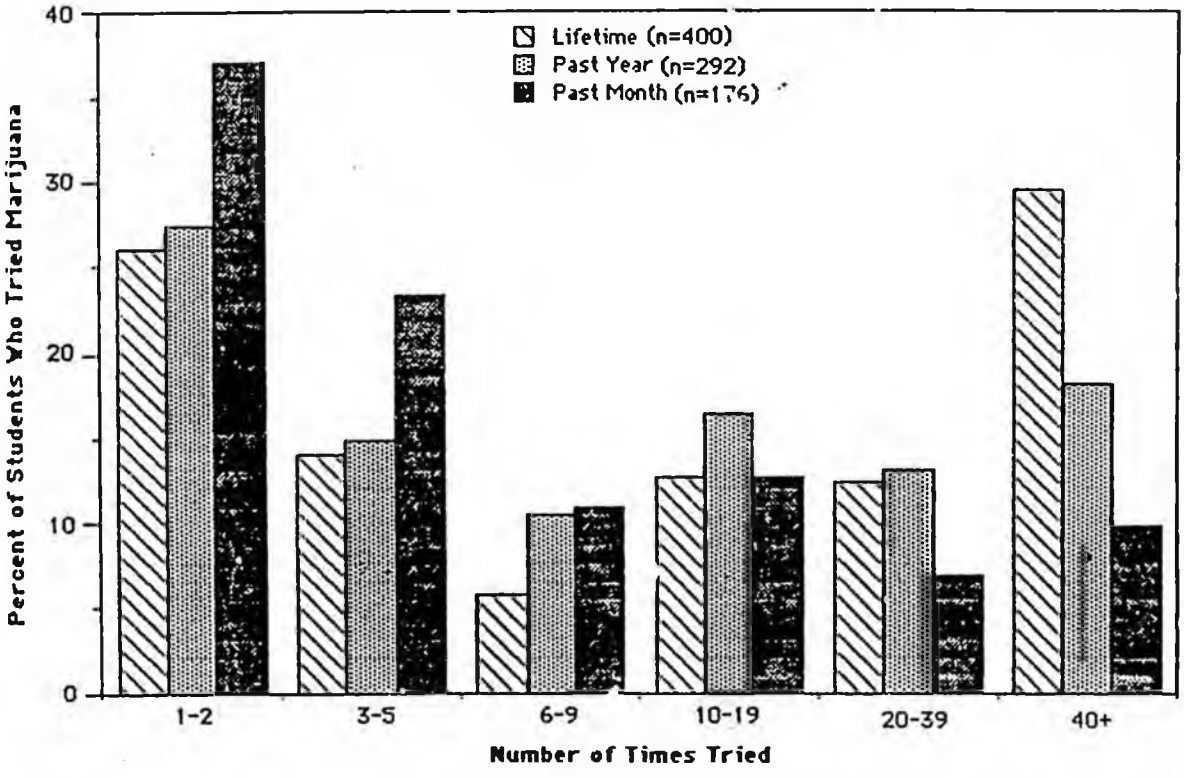


Figure 3B
Frequency and Recency of Cocaine Use
Fairbanks North Star Borough School District
Grades 7-12

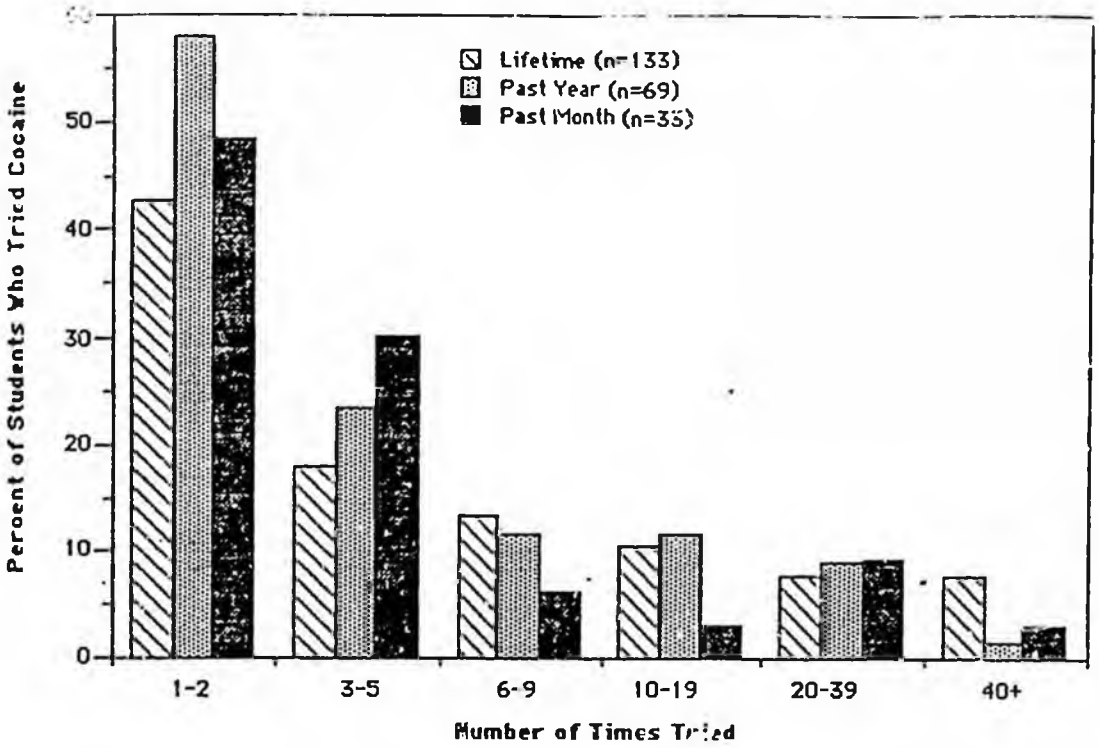


Figure 3C
Frequency and Recency of Stimulant Use
Fairbanks North Star Borough School District
Grades 7-12

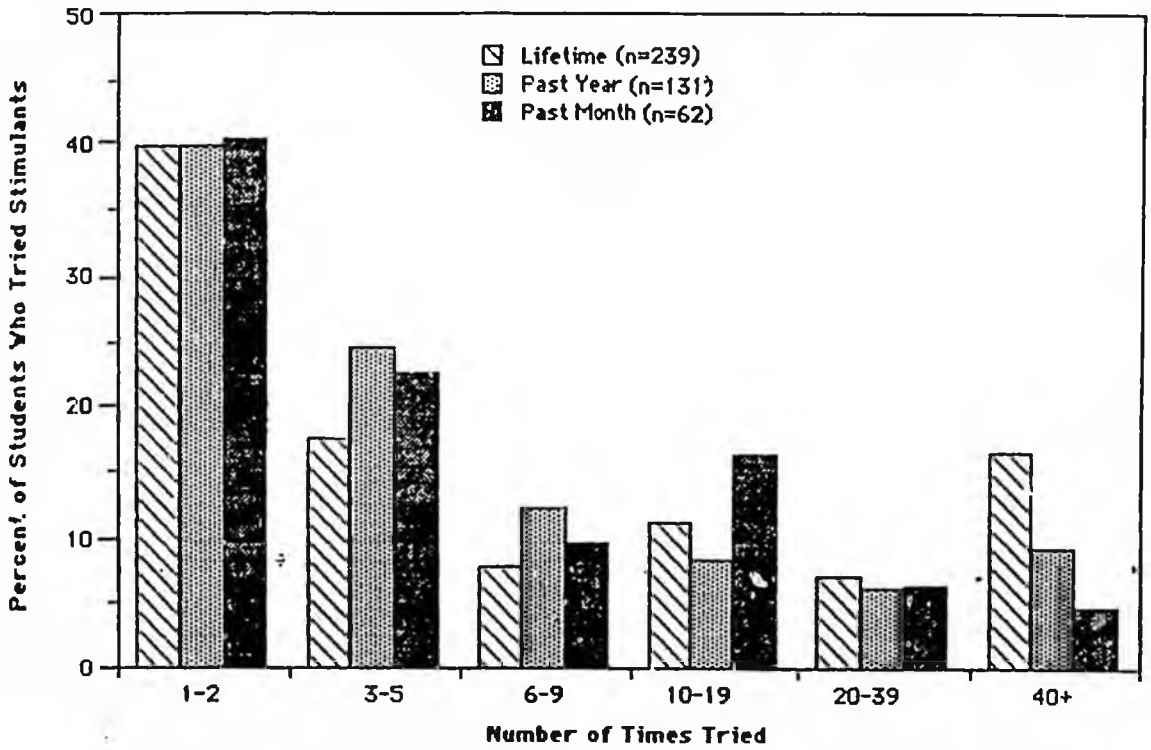


Figure 3D
Frequency and Recency of Hallucinogen Use
Fairbanks North Star Borough School District
Grades 7-12

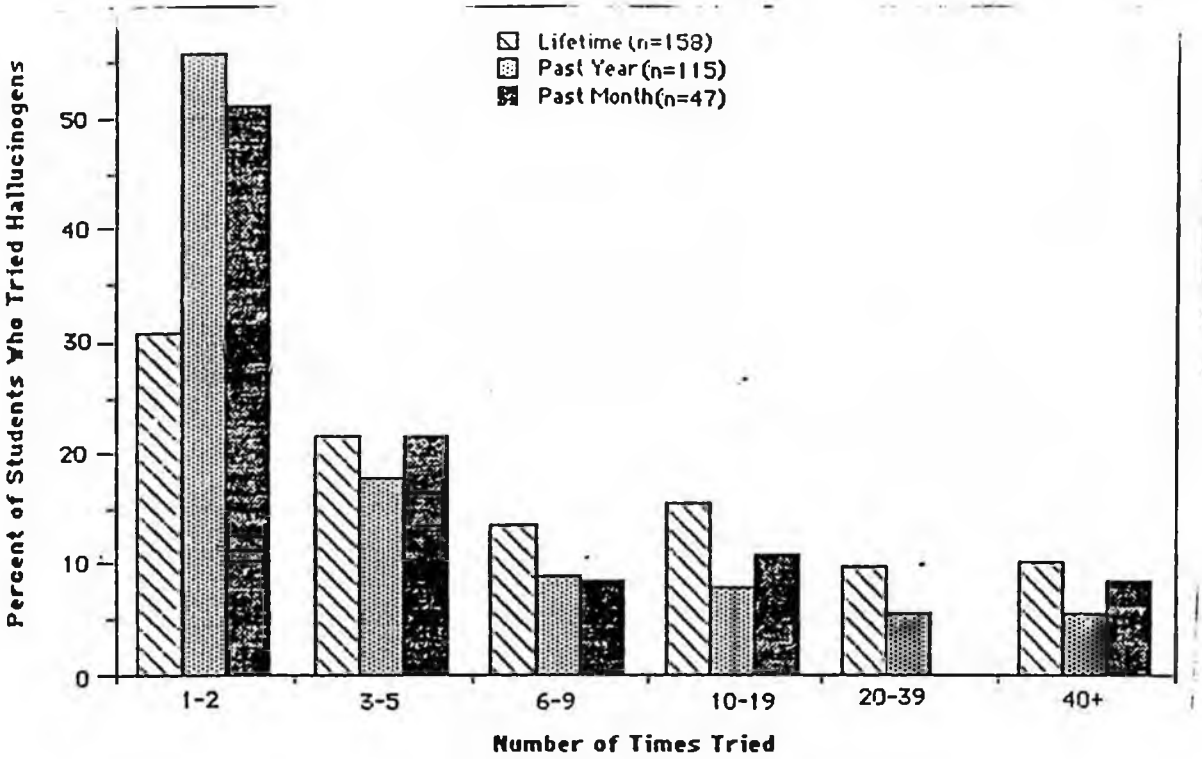


Figure 3E
Frequency and Recency of Depressant Use
Fairbanks North Star Borough School District
Grades 7-12

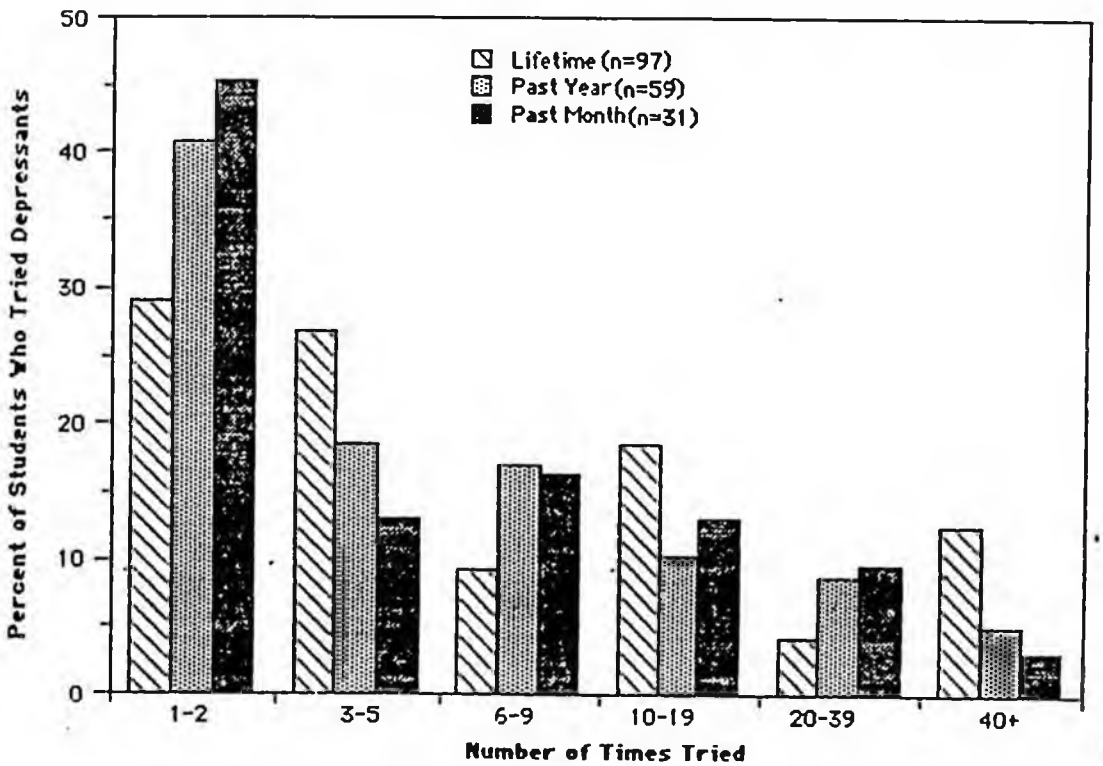


Figure 3F
Frequency and Recency of Inhalant Use
Fairbanks North Star Borough School District
Grades 7-12

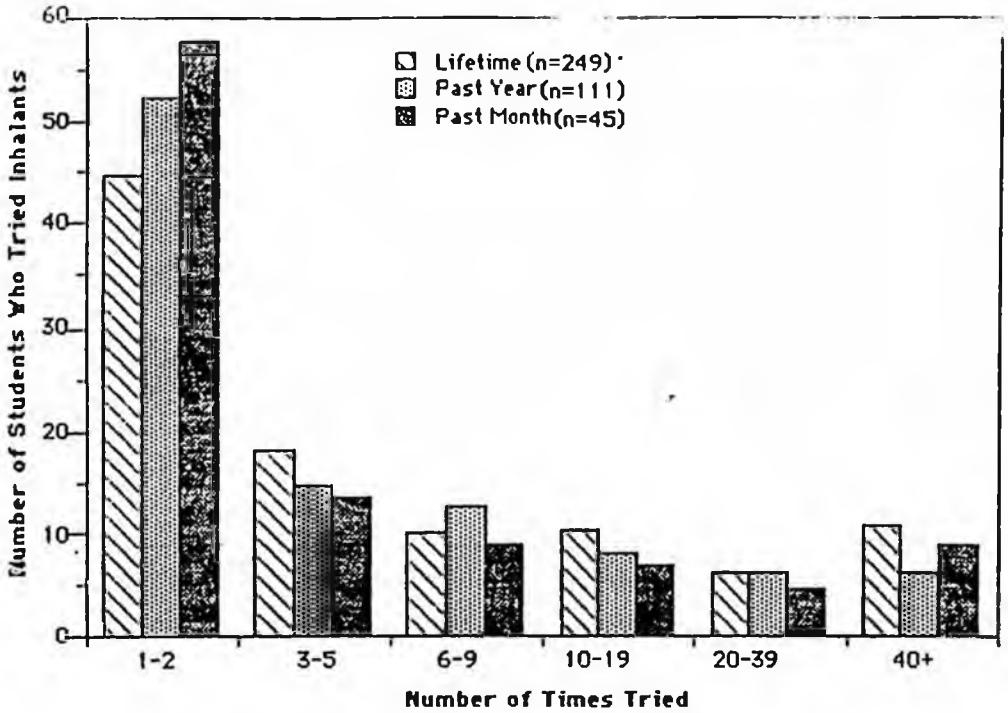


Figure 3G
Frequency and Recency of Tranquilizer Use
Fairbanks North Star Borough School District
Grades 7-12

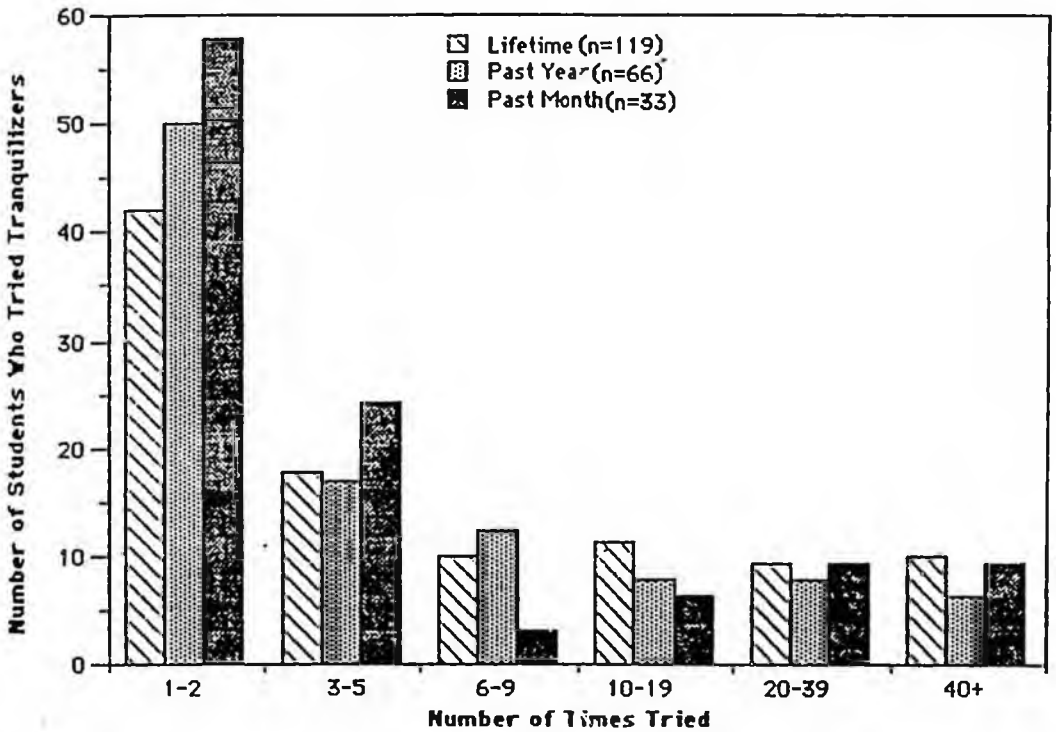


Figure 4
Age of Initiation Into
Marijuana, Stimulants, and Inhalants
Fairbanks North Star Borough School District
Grades 7-12

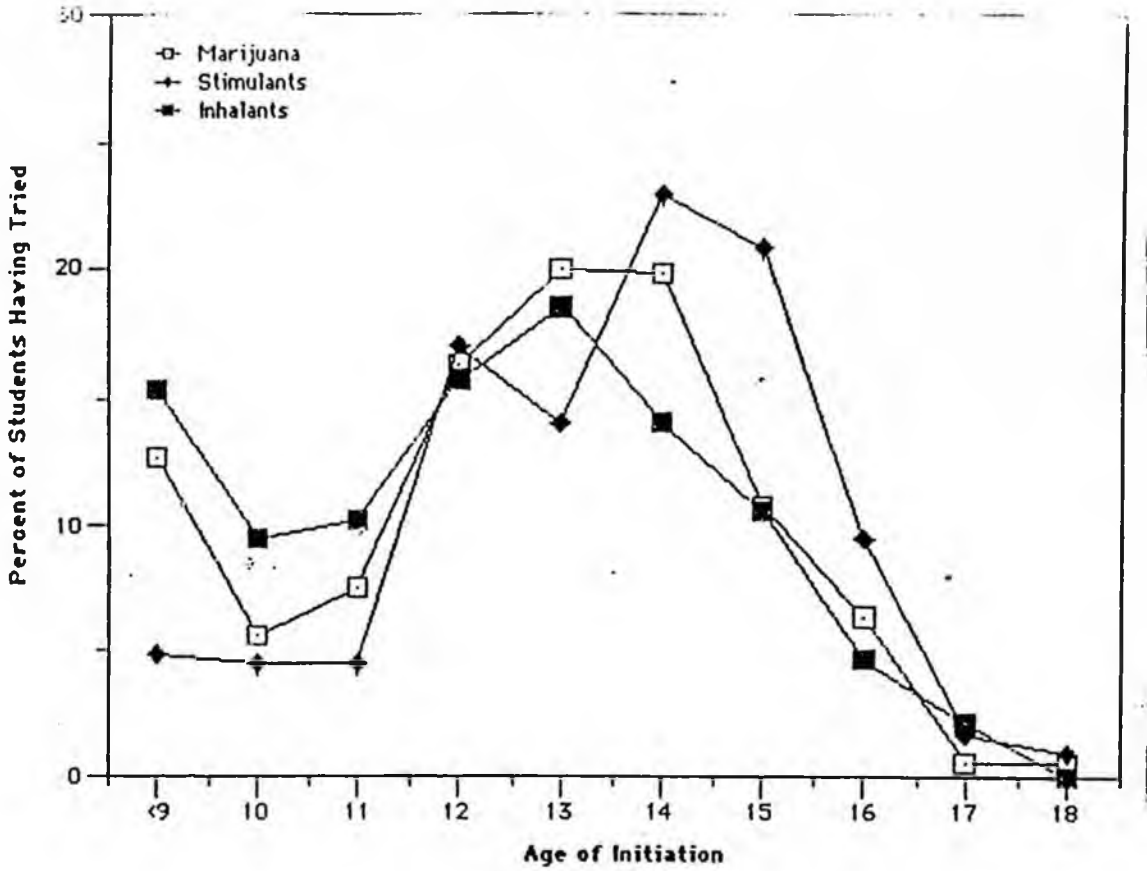


Figure 5
Lifetime Experience with Alcohol
Comparisin of 1983 and 1987 Findings
Fairbanks North Star Borough School District
Grades 7-12

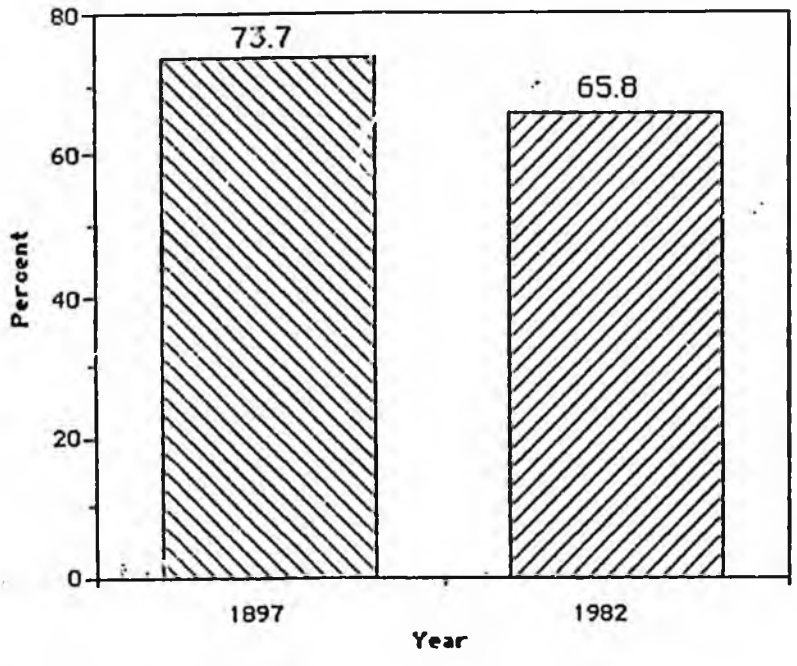


Figure 6
Frequency of Drinking Past 30 Days
Fairbanks North Star Borough School District
Grades 7-12

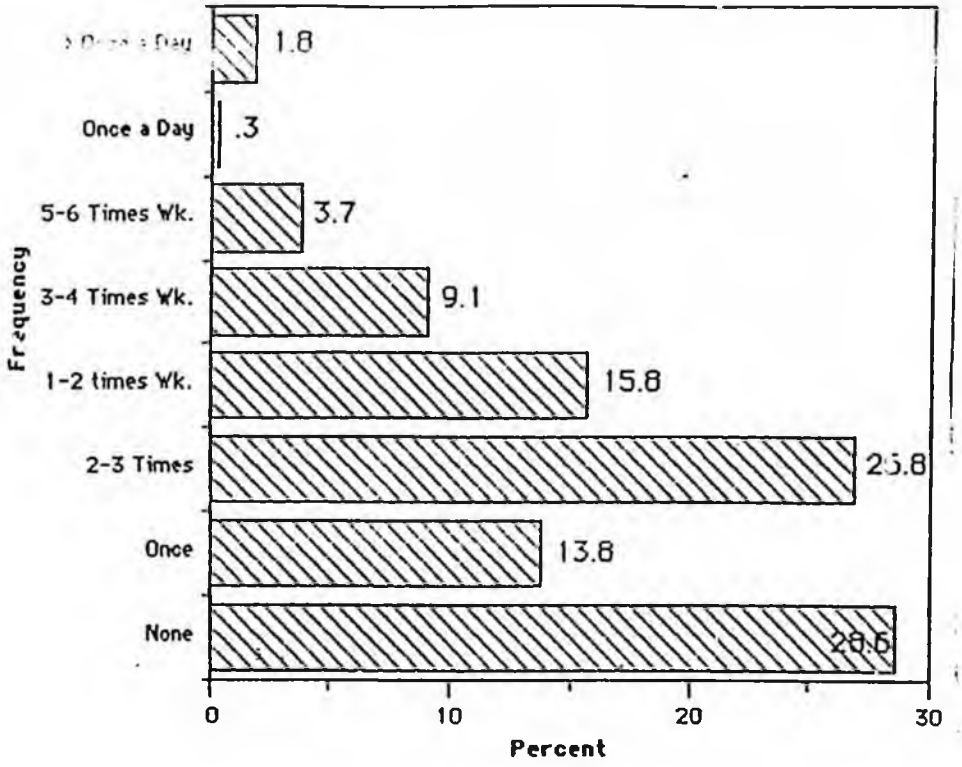


Figure 7
Consequences of Drinking During
the Past year
Fairbanks North Star Borough School District
Grades 7-12

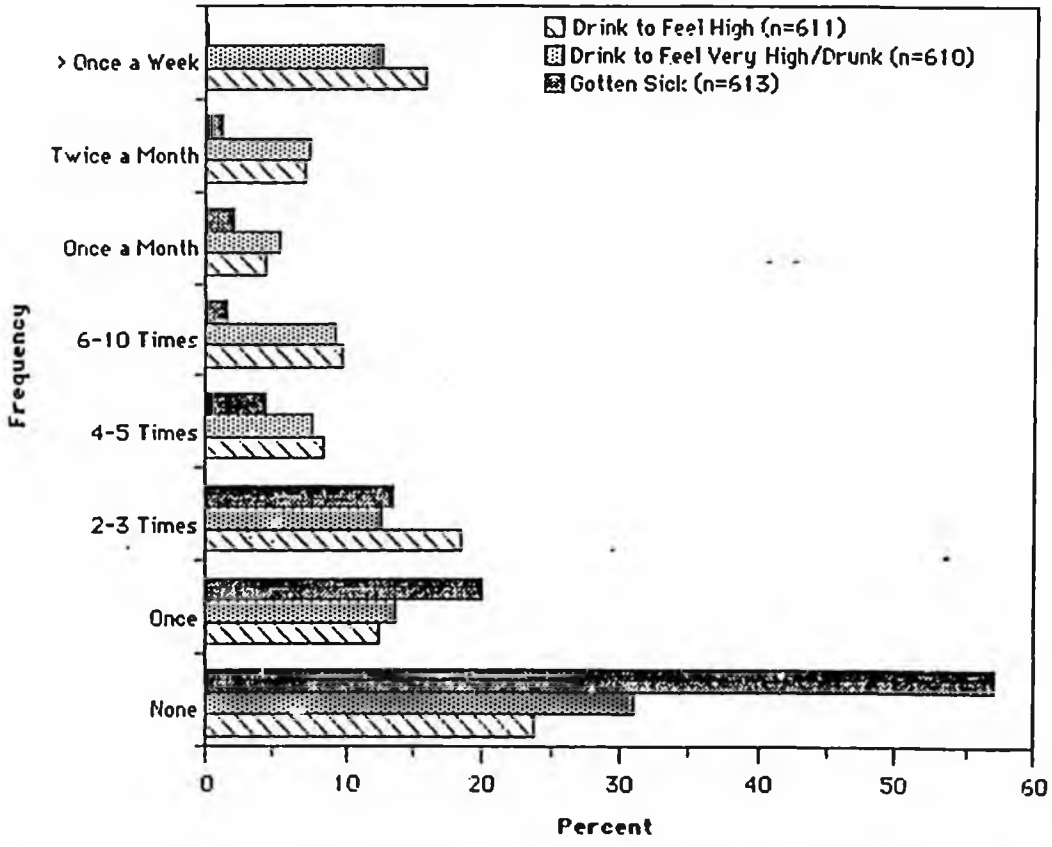


Figure 8
Experience With Cigarettes
and Chewing/Smokeless Tobacco
[illegible] North Star Borough Schools
Grades 7-12

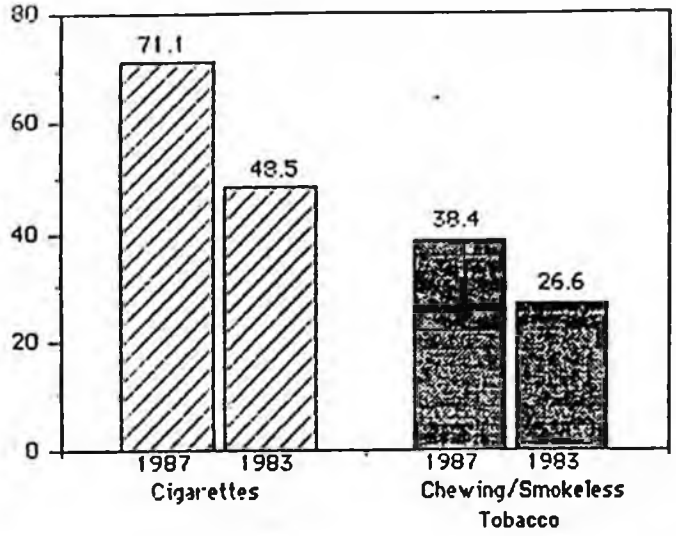
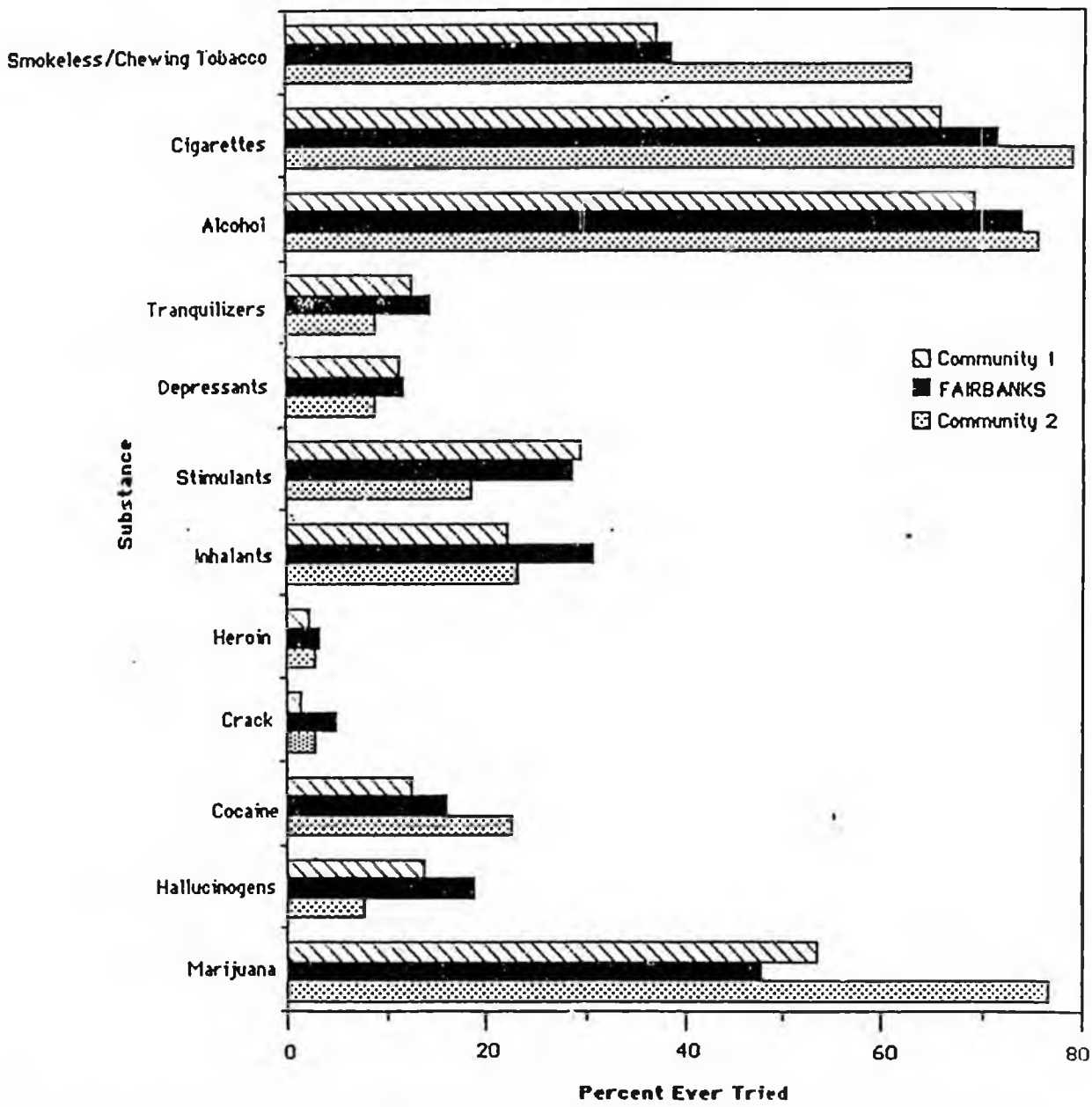


Figure 9
Comparisons of Lifetime Experiencce with
Chemical Substances
Three Alaska Communities
1987



It is important to note that the findings reported herein are based on self-report questionnaires. Although the research literature continues to indicate that such data are valid, a note of caution should be introduced. The findings can only reflect what the adolescent respondents say they think they have taken, and not what was actually used. It is well known that counterfeit and lookalike drugs exist, and that youngsters may have taken such substances thinking that they were the "real thing." In this instance what is important is that drug-taking behavior occurred, and that it was reported as having had occurred. Furthermore, it is always possible that some adolescents who may have tried a chemical substance may not have reported such use, or that some students may have either over- or under-reported their use. Each questionnaire was reviewed for consistency of responses to attempt to obtain reliable and valid data.

Confidentiality and Anonymity

The purpose of this research was to gain an understanding of drug-taking behavior among Alaskan Adolescents, and not to identify those who use or have experimented with a drug. Considerable effort was undertaken to obtain the most reliable and valid responses from the students choosing to participate in the study by ensuring their anonymity and confidentiality. The student's names were not asked for in any phase of the research, nor were any identifying measures used except to identify the community in which surveying was undertaken. The only identifying information on the questionnaire was age, gender, grade, and ethnicity, none of which could be used to identify any single student.

Method

Questionnaire

The questionnaire used in the 1987 study was similar to the one used in the previous study, but with a different format. The questionnaire was designed to be self-administered and restricted to an administration time of one class period (about 50 minutes). The types of data items outlined below were collected through the questionnaire shown in Appendix A.

(1) Demographic

This section included question that inquired about: gender, ethnic background, age, participation in drug education programs, grades obtained, and length of time lived in community.

(2) Drug Usage

Information on drug usage included an extensive set of question on nonprescriptive or social/recreational use of marijuana, cocaine, crack, stimulants, hallucinogens, depressants, heroin, inhalants, and tranquilizers, with specific reference to recency and frequency of use, problems resulting from use, age of first use, and estimates of level of peer use.

(3) Alcohol

This section includes information about the quantity and frequency of consumption, and about some adverse consequences of drinking.

(4) Tobacco

Information on cigarette smoking and on use of smokeless tobacco products, including the quantity and frequency of use.

(5) Personality Items

The use or nonuse of drugs is in part influenced by personality characteristics. The incorporation of a measure of personality attributes facilitates an evaluation of what personality traits are related or unrelated to nonuse of drugs and to different patterns of drug use.

The Sample

Sampling within the Fairbanks schools was undertaken by the School District itself, utilizing the method of disproportional stratified random sampling to obtain a representative sample of students in grades 7-12. Stratification was based on school, grade, and gender. Individual students were obtained by means of a simple random sample. Based on a computer generated list of all students in the district, who were classified into the appropriate strata, a total sample of 1450 students was then randomly selected for participation in the study. At the time of sampling, which occurred on May 12, 1987, each student selected was asked to report to a central location within their school at a given time. An explanation of how and why each student was selected was conveyed, and each student was then asked to volunteer to complete the questionnaire. A total of 836 completed questionnaires were obtained. Based on a target of 1450 students, a response rate of 57.7% was obtained, a level which is considered adequate based on an anticipated return of 50%. A description of the samples is provided in Table 1 and its component sections.

Table 1
Part I

Gender	N	%	Ethnicity	N	%	Grade	N	%
Males	468	56.0	Alaska Native	51	6.1	7	168	20.1
Females	366	43.8	White	661	79.1	8	145	17.3
Unreported	2	.2	Am. Indian	17	2.0	9	146	17.5
Total	836		Asian-Pacific	18	2.2	10	126	15.1
			Black	46	5.5	11	151	18.1
			Hispanic	22	2.6	12	100	12.0
			Other	15	1.8			
			Not reported	6	.7			

Table 2
Opportunity to Try and Trying Drugs:
Comparison of 1983 and 1987 Findings
Fairbanks North Star Borough School District
Grades 7-12

Drug	1987 (n=836) Percent of Sample Having a Chance to Try	1983 (n=421) Percent of Sample Having a chance to Try
Marijuana	66.9	58.2
Cocaine	30.1	33.5
Stimulants	41.4	37.8
Hallucinogens	28.6	24.9
Depressants	22.1	24.0
Heroin	9.3	12.4
Inhalants	49.6	32.8
Tranquilizers	23.7	17.8
Crack	11.5	--

EXECUTIVE SUMMARY

PATTERNS OF DRUG USE: SCHOOL SURVEY

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I

EXECUTIVE SUMMARY:
Highlights of the Study

A. Introduction

This report presents the findings from a study conducted by the Center for Alcohol and Addiction Studies (CAAS) of the University of Alaska, Anchorage. The research, sponsored by the State Office of Alcoholism and Drug Abuse (SOADA), surveyed students in grades 7-12 in school districts in eight locations in the state: Anchorage, Barrow, Bethel, Kotzebue, Fairbanks, Juneau, Nome and Sitka. The project was designed to obtain information on the use or nonuse of a broad spectrum of chemical substances, ranging from legal socially-sanctioned drugs for those of legal age, such as alcohol and tobacco, to illegal and unsanctioned drugs taken for nonmedical purposes, such as marijuana, cocaine, hallucinogens and stimulants, among others.

In recent years American society has experienced an increase in the frequency and intensity of substance use and abuse, particularly among college and secondary school age youth. In particular, the nonmedical use of illicit mood-altering drugs by youth of elementary, junior and senior high school age has become a problem of major concern. Although legal and social sanctions exist to preclude nonmedical use of psychoactive drugs for recreational or social purposes, they continue to be taken, and youngsters who take them are placing themselves at risk for potential legal, social, and health problems.

Recent research (c.f., Richards, 1981) has shown that the prevalence of drug use is generally fairly low among elementary school youth, but that the prevalence increases dramatically among junior and senior high school students. The

use of drugs among school age youth began to emerge slowly in the early 1960's, and increased dramatically during the mid to late 1970's. Although the prevalence of drug use is believed to be moderating (Miller, 1983; Johnston, Bachman, & O'Malley, 1982), the overall level of drug use by youth remains a significant concern.

Interest in learning about the nature and extent of drug use by school age youth has prompted a number of national surveys sponsored by the National Institute of Drug Abuse (NIDA), as well as a myriad of research studies directed at investigating adolescent drug use (c.f., Richards, 1981). Alaska has been isolated from participation in these studies, thereby leaving a void with respect to reliable information on the use and nonuse of drugs by Alaska's school age youth. Without this information state and local agencies are hampered in their planning for drug related services, education, and prevention programs.

The present research is directed at achieving information concerning experiences with mood-altering drugs by school age youth. It is the specific aim of the study to identify current trends and patterns of use by these youthful Alaskan residents, and to also obtain knowledge about students' perceptions and consequences of using drugs. In order to achieve these objectives, surveys were conducted in eight school districts (listed above) in diverse locations within the state. The major topics to be addressed from the results of the survey in this report are the current prevalence of drug use among the students and an analysis of some of the characteristics of those who have had experiences with psychoactive drugs. Also reported are data on use by grade, age of first use, intensity of drug use, and perceptions about taking drugs. Emphasis is also given to addressing the non-using student, and to explore why they did not experiment with chemical substances.

The results to be presented have been summarized in a series of tables, charts and graphs; a discussion of results follows the presentation of the tables. In the following section a glossary has been provided to help define terms and to provide a key to the interpretation of the graphic figures. When appropriate, comparisons of the Alaskan data have been made with comparable school age youth included in some of the national survey research.

It is envisioned that the findings of the drug survey will be useful to schools in their efforts to develop education programs designed to address the issue of drug-taking behavior. Additionally, the study is designed to assist SOADA with respect to its planning and policy development, as well as to be of value to local and state governments and governmental agencies in their efforts to understand and deal with the health, social and legal consequences of drug-taking behavior by school age youth.

In summary, the five sets of results share several critical characteristics which contribute to the integration of findings, and which also contribute to their utility to estimate drug use among the general population of school age youth in Alaska:

- data collection from students in grades 7-12, which consistently includes those in age from 12 to 18;
- adequate and consistent sampling methodology;
- comparability of drugs investigated;
- comparability of question formats; and
- accessibility of detailed tabular data.

Each of the five data sets are found in Chapter III, the section on results. Chapter IV contains a discussion of the results, followed by conclusions and recommendations (Chapter V).

B. Glossary

This section is provided to acquaint the reader with precise definitions of the terms and concepts used in this report. Included in this glossary are definitions of substances and frequently used terms, as well as information on reading tables, and clarification of the statistical terms used in the report. Phrases are listed in alphabetical order.

Adults	This category includes persons age 26 years and older. For other age groups see: Youth and Young Adults.
Alcohol	Alcoholic beverages - beer, wine, and whiskey, such as gin, and other hard liquors.
Barbiturates	See depressants.
Cocaine (see stimulants)	A behavioral stimulant drug taken to induce a "rush" which involves a feeling of intense euphoria and a sense of well-being.
Confidence Level (Interval)	A range of values within which the true statistic or value may be found, or where there is a probability of locating the true population value.
Current Use	Has used within past month.
Depressants	Chemical substances which act to exert a nonselective general depressant action upon the central nervous system, and which are taken to induce a mild state of euphoria similar to alcohol intoxication. Sedatives are divided into four subgroups: intermediate/long acting barbiturates, nonbarbiturate/ nonbenzodiazepine sedatives, short acting barbiturates and Dalmane.
Drug	For purposes of the study, a drug is defined as any chemical substance that alters mood, perception, or consciousness.
Frequency	How often a drug was taken, e.g., once a week, weekly, etc.
Ever Used	Taking/trying a drug one or more times during one's lifetime.
Hallucinogens	Drugs classified as hallucinogens and/or psychedelics have the capacity to induce visual, auditory, and other hallucinatory experiences, and to separate the individual from reality. Such drugs as LSD, phencyclidine (PCP), mescaline, psyote, psilocybin, and DMT, among others, are included within general data on hallucinogens.
Heroin	A semisynthetic opiate produced by a chemical modification of morphine, taken to induce a subjective experience characterized by an extremely pleasant, euphoric state, feelings of warmth, well-being, peacefulness and contentment.

Inhalants	For the purpose of this report, substances currently being inhaled to alter subjective states are being defined as inhalants. Inhalants may be classified into three basic classes: commercial and related volatile solvents, aerosols, and anesthetics. The following substances have been defined as inhalants: 1) Gasoline or lighter fluids; 2) Spray paints; 3) Other aerosol sprays (PAM or deodorants); 4) Shoe shine, glue, or toluene; 5) Lacquer thinner, or other paint solvents; 6) Amyl nitrite, "poppers"; 7) Halothane, ether, or other anesthetics; 8) Nitrous oxide, whippets; 9) Locker room odorizer; 10) Other substances used as inhalants.
Lifetime Prevalence (Ever Used)	Percent who ever used; i.e., has used the drug one or more times in lifetime.
Marijuana	A mixture of the crushed leaves, flowers, and small branches obtained from the hemp plant, and taken to induce feelings of well-being, relaxation, tranquility, and a heightened state of awareness.
Nonuse	A "No" answer to any of the questions which inquire whether one had ever taken a chemical substance.
Opiates	Any natural or synthetic drug that acts in the same way as morphine to relieve pain, such as codeine, demerol and other such drugs.
Past Month, Past Year Use	See: Use in Past Month, Use in Past Year.
Percents/ Percentage	A given part or amount in every hundred, e.g., a 20% rate means 20 in every 100. Percents are shown to the nearest tenth for the data in this study.
Prevalence	The incident of drug taking, represented by the percent of respondents who tried a drug, such as 40% tried a drug 6 or more times.
Recency of Use	The categories of recency are: past 30 days, past year, and lifetime use.
Relative Percent	The amount or number of persons among those within a specific group, e.g., taking or not taking a specific drug, who have responded to questions which pertain only to use or non-use of the drug.
Rounding	The tables sometimes add to 99% or 101% when they should add to 100%. Similarly, tables shown to one decimal place sometimes add to 99.9% or 100.1% instead of 100%. These discrepancies are due to the rounding of percents.
Sedatives	See depressants.
Significance (Level of)	The reliability of finding or the dependability one can place on an obtained statistic as an indicator of the true population

value. Significance always refers to probability, or how much an obtained value can be explained as a chance occurrence. The significance value used in this research is p = .05, which means that we anticipate that 95 times out of 100 chances we have obtained reliable statistics.

Stimulants — Any drug that increases behavioral activity is defined as a stimulant drug. Stimulants are divided into amphetamines, nonamphetamine anorectics, Ritalin, and Cylert. These drugs are generally taken to feel more alert, to achieve a "rush," or to enhance the effects of other drugs.

Tranquilizers — Psychoactive drugs which are used principally to reduce anxiety, stress or tension and to treat neurotic disorders. The tranquilizers concerned in this survey are Librium, Valium, Equanil and other such types.

Use in Past 30 Days — Reports given which indicate have taken a drug one or more times during the past 30-day period.

Use in Past Year — Respondent reports use one or more times during year prior to interview date.

Young Adults — This category includes persons age 18 to 25 years. For other age groups see: Youth and Older Adults.

Youth — This category includes persons who participated in Junior and Senior High School samples. Age of respondents will vary but will generally range from 12 to 18. For other groups see Adults and Young Adults.

Key to Graphs and Figures

MJ - Marijuana
HL - Hallucinogens
CK - Cocaine
HR - Heroin
IH - Inhalants
AL - Alcohol
ST - Stimulants
DP - Depressants
TQ - Tranquilizers
OP - Opiates
TB - Tobacco

C. Major Findings

The major findings of the study are summarized in the tables, graphs and figures which follow, and in the summary statements listed below:

- Half the students sampled have reported experiences with one or more illicit mood-altering drugs. A substantial proportion of these experiences involved marijuana. The percentages of students who tried different illicit drugs is illustrated in Figure 1. After marijuana, the other drugs experienced reflect the following order of lifetime prevalence: stimulants, cocaine, inhalants, depressants, tranquilizers, hallucinogens and heroin.

- The level of lifetime experiences with psychoactive drugs among students is high. The extent to which drugs have been tried/taken among Alaska's students is illustrated vividly when the present findings are compared to results of a national survey of drug use among a sample of 12-17 year olds. Although the ages of the two samples are not exactly comparable, the national data nevertheless provides a "baseline" which helps to achieve a perspective on drug use by Alaska's youth. The comparison in Figure 2 shows clearly that Alaskan students are having more experiences with psychoactive drugs than their counterparts in the "lower 48."

- Although many students have tried drugs, the majority of such use has been chiefly experimental. Only a small percent of students have taken drugs with any consistency or regularity. Marijuana, however, is the exception, with about 4% of the sample using it once or more a day.

FIGURE 1

LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS

TOTAL SCHOOLS

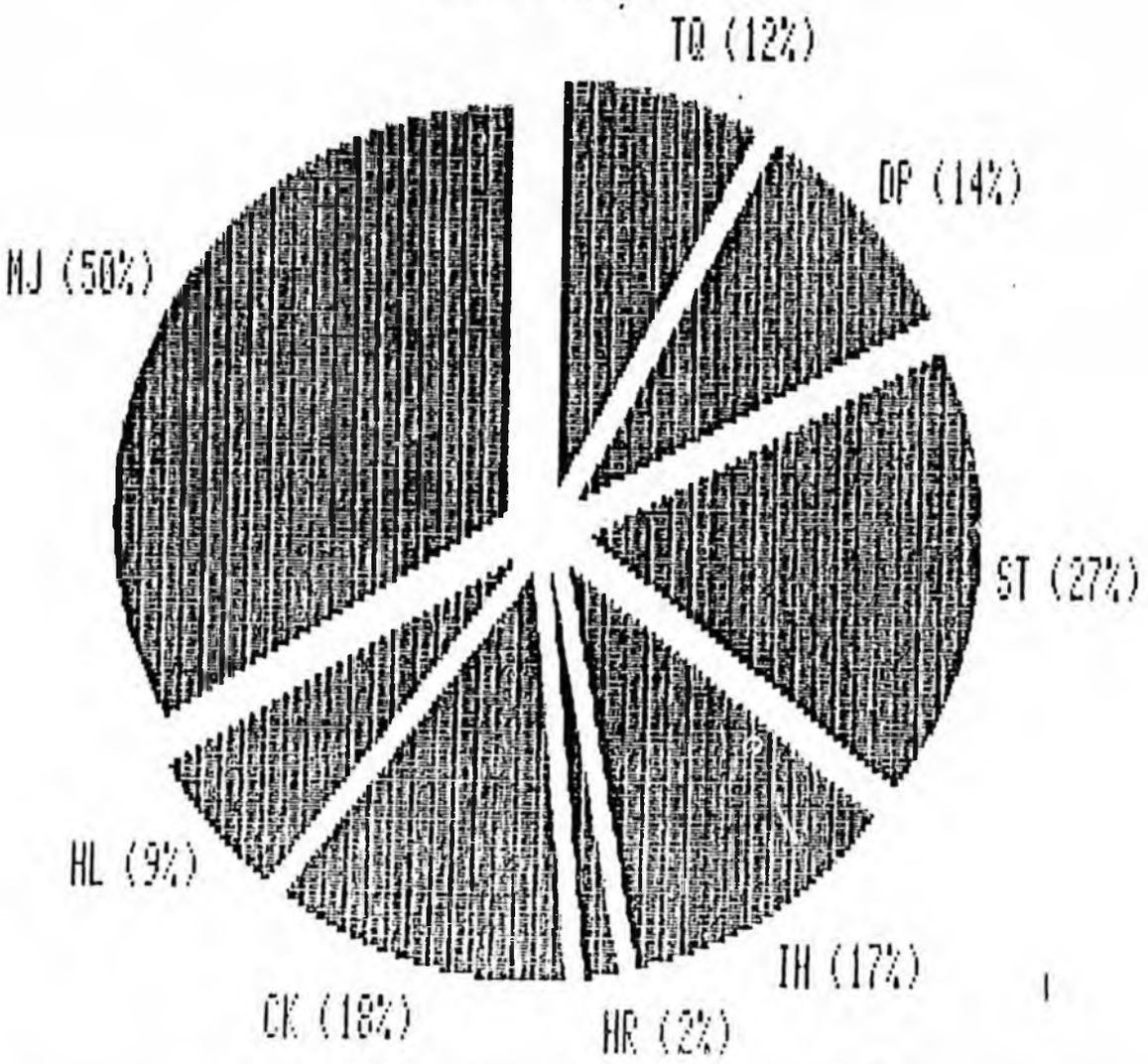
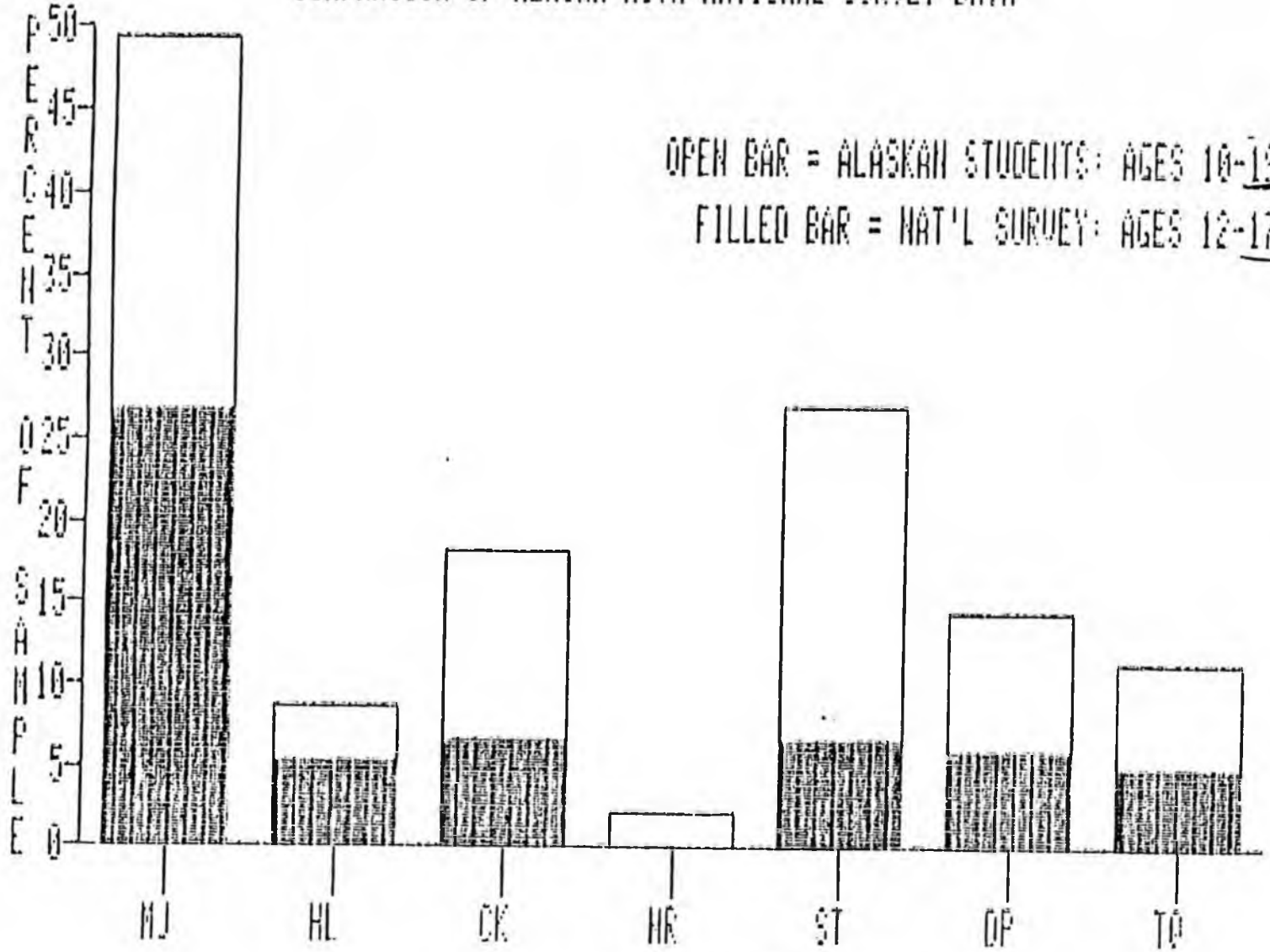


FIGURE 2

COMPARISON OF ALASKA WITH NATIONAL SURVEY DATA



- Slightly higher proportions of males than females are involved in taking/trying drugs.

- Distinct relationships exist between age, grade, and drug-taking behavior. These relationships are represented by the following results:

(1) Age and First Trying Psychoactive Drugs

As age increases, the proportion of students who try/take drugs increases correspondingly, but this relationship appears to be non-linear. That is, as age increases, the number of students who try different drugs varies at different age levels, thereby presenting distinct patterns for trying each drug. Figure 3 illustrates this process for the three most widely tried/taken drugs - marijuana, stimulants and cocaine - for all but the Anchorage school sample (where the question of age of first trying each drug was not asked).

(2) Grade and Drug-Taking Behavior

A direct, almost linear, relationship exists between grade level and the taking of drugs. As grade level increases, the percent of students who have tried/taken drugs increases correspondingly. The nature of this relationship is illustrated in Figure 4, for the three most tried drugs - marijuana, stimulants and cocaine.

(3) Junior-Senior High School Comparisons

The extent of drug-taking behavior differs significantly between junior high school (grades 7-9) and senior high school (grades 10-12) students. Senior high school students experiment with taking drugs more frequently than junior high school students.

- Most students who do not try drugs report that it is because of concern that drugs would "hurt" their minds, and because of fear that drugs would also cause physical harm.

FIGURE 3

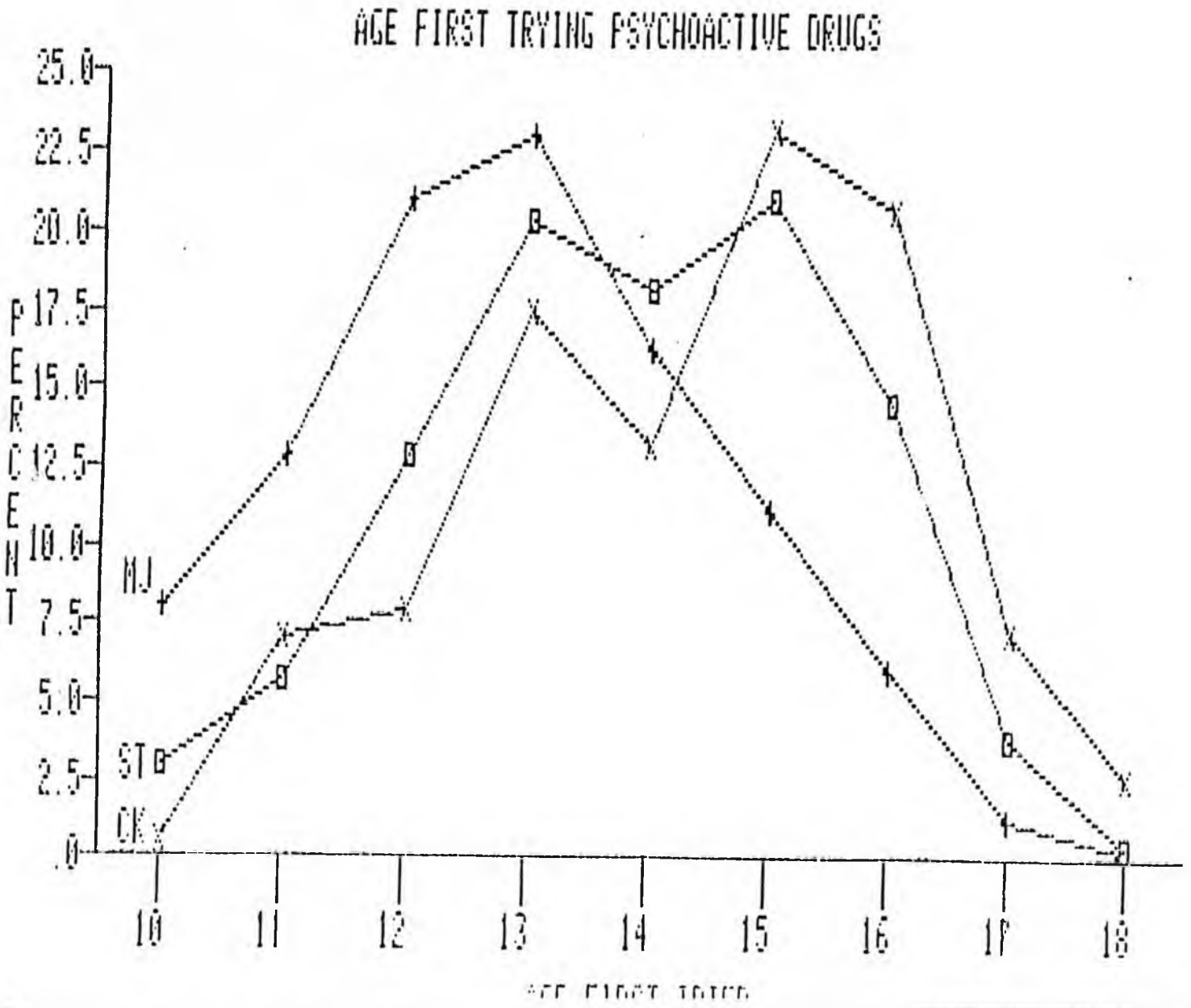
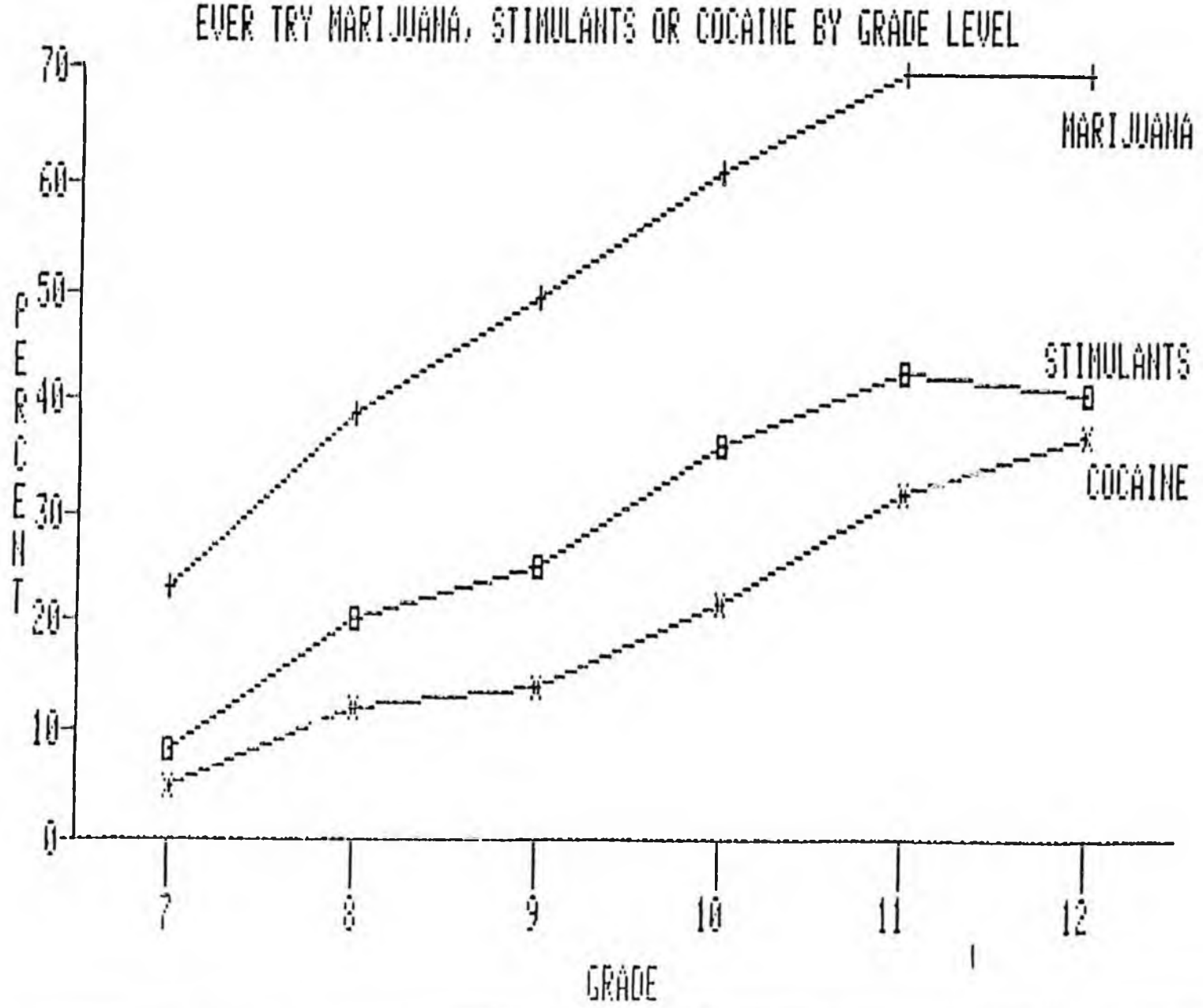

AGE FIRST TRYING PSYCHOACTIVE DRUGS
PERCENT
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0
MJ
STP
CK
10
11
12
13
14
15
16
17
18

FIGURE 4


EVER TRY MARIJUANA, STIMULANTS OR COCAINE BY GRADE LEVEL
PERCENT
70
60
50
40
30
20
10
0
7
8
9
10
11
12
GRADE
MARIJUANA
STIMULANTS
COCAINE

- Of those who have tried/taken drugs, the reasons for stopping are also mainly because of concern over psychological and physical harm.

- More students who have tried drugs express a need for drug education than those who did not try drugs.

- Corresponding to the relationship between grade level and drug-taking behavior, problems related to drug-use increase as grade level increases, but there is much variation within and between grade levels.

D. Abstraction of Summary and Conclusions

In reviewing the overall findings from the statewide study, it is readily apparent that the opportunities to try mood-altering drugs are very high, and that the rate of trying drugs is also correspondingly high. Athough it is not known whether it is the "real thing" as opposed to a "look-a-like" or a substitute chemical that students are taking/trying, the important fact is that students report that they are involved in drug-taking behavior. A question which arises is, Why is the opportunity to try drugs so very high?

The most apparent answer is that the drugs are available for them to try. It is clear the these youth are reflecting what is alleged about drug use in general in Alaska, especially in the larger communities - that it is high. The drugs that are available - albeit illegally - find their way down to adolescents and early teenagers in the school system. Also, a large percent of students are willing to try certain illicit drugs such as marijuana, cocaine and stimulants among those available.

Another questions is, Why do so many students experiment with drugs? There are several possible answers to this question. One is that many of the illicit drugs such as marijuana, stimulants and cocaine have become incorporated into

the "lifestyle" of so many people that adolescents themselves experiment with them as part of their own "normative" behavior. That is, the wide scale prevalence of drug use in general makes it a phenomenon which adolescents may pursue in order to know what drug experiences are like. It thus appears that adolescent drug use may be related to the attitudes and behavior found in the larger adult society. Research by Segal (1983), which has shown that experimentation with drugs and even moderate drug taking by a significant percentage of youth is divorced from any particular pattern of deviant behavior or severe emotional distress, tends to support the above conclusion.

The implications from the study are clear. Efforts need to be directed toward reducing the high rate of experimentation with drugs by a large number of students, as well as reducing the on-going usage by the small percentage of students who are involved in such behavior. The data suggest that intervention strategies should be emphasized within grades 8 and 9, or at least prior to age 14, since experiences with drugs tend to peak by 14 years of age.

III

RESULTS

Overview

This section provides the report of the results of the school surveys with respect to nonmedical drug-taking behavior by students in eight different locations within the state in grades 7 through 12. Also included is data on alcohol consumption and cigarette smoking.

Information compiled from surveying over 3,000 students, utilizing a comprehensive questionnaire, can be very extensive. There are a multitude of different ways of reporting results, some may have either special or unique significance, and some may be too general to be of value. It was therefore necessary to place some limitations on the reporting of the survey findings with the aim of presenting data which would be best utilized by the schools, by the State Office of Alcoholism and Drug Abuse (SOADA), by health planners, and by governmental bodies. Thus, the primary emphasis of this section, in keeping with the study's research objectives, is to present information which describes the extent, type, patterns, frequency, and distribution of nonmedical drug use among a large sample of Alaska's junior and senior high school students. Additionally, the results also describe age and grade differences with respect to drug-taking behavior, as well as data on some of the motivations for trying or not trying drugs, and on some consequences of drug-taking.

The data to be reported are presented in tabular and graphic form. They illustrate the prevalence and frequency of drug use for eight major drug categories (marijuana, inhalants, hallucinogens, cocaine, heroin, stimulants, sedatives, and tranquilizers) listed by frequency of occurrence, by gender, and by

selected school-related characteristics such as grade and comparison of junior and senior high school. A table and graph illustrating the relationship between age and first experience with drugs is also included.

Contingency tables have been utilized to help describe the results. This procedure is a way of showing the relationship between two or more classificatory variables. The display of the distribution of cases by their positions on two or more variables is the chief component of contingency table analysis and is a commonly accepted and popular procedure used by social scientists. The joint frequency distributions can be systematically analyzed by certain tests of significance (e.g., the Chi Square statistic) to determine whether or not the variables are statistically independent; these distributions can also be summarized by a number of measures of association, such as the contingency coefficient, which describes the degree to which the values of one variable predict or vary with those of another.

Contingency tables or cross-tabulation tables also allow for a determination of whether the differences which occur with respect to selected variables (e.g., specific sample characteristics such as selected demographic variables) are significantly different.

Finally, the surveys from the eight school districts have been grouped together to form five sets of results. This procedure was followed for two basic reasons: (a) to account for the procedural differences which necessitated using revised forms of the school survey in different school districts, and (b) to facilitate regional comparisons. The classification of results is as follows:

1. Total Sample (Tables T-1 - T-14)

This section links together all similar items which were used in Anchorage, Barrow, Bethel, Fairbanks, Juneau, Kotzebue, Nome and Sitka. It provides a

comprehensive summary of the responses of 3,609 students, giving an extensive overview of the nature and pattern of drug use by students in grades 7-12. The remaining four sets of tables represent subsets of the total results and, except for items not in the total sample, they essentially mirror the total findings, with some minor fluctuations.

2. Total Less Anchorage (Tabes A-1 - A-14)

This data set contains the aggregated results from all the communities less Anchorage. Thus, Barrow, Bethel, Fairbanks, Juneau, Kotzebue, Nome, and Sitka are represented. Since the Anchorage sample constitutes such a large percent of the total (44%), and since Anchorage is the state's largest school district it was decided to compare the aggregated data from all other locations with the Anchorage sample.

3. Anchorage, Barrow, Kotzebue, Nome, and Sitka (Tables A1-1 - A1-13)

The results were aggregated because they were obtained from a total school district or were obtained from a random survey of students representative of the district. These compiled results not only link the findings from different sections of the state, but they are also used to contrast with schools where nonrandom samples were obtained.

4. Bethel, Fairbanks, and Juneau (Tables A2-1 - A2-13)

This aggregation represents those school districts in which a nonrandom sample was obtained. These districts required parental permission and only students with such authorization were surveyed.

5. Barrow, Kotzebue, and Nome (Tables A3-1 - A3-13)

This aggregated unit links the three northern communities into a single data set, and also provides a means of maintaining the anonymity of each location.

In summary, the five sets of results share several critical characteristics which contribute to the integration of findings, and which also contribute to their utility to estimate drug use among the general population of school age youth in Alaska:

- Data collection from students in grades 7-12, which includes those in age from 12 to 18;
- Adequate and consistent sampling methodology;
- comparability of drugs investigated;
- comparability of question formats; and
- accessibility of detailed tabular data.

Each of the five data sets are found in the following pages. The next chapter contains a discussion of the results.

TABLE T-1

OPPORTUNITY TO TRY AND TRYING DRUGS
Lifetime Experiences

Total Schools
Students Grades 7-12
(N = 3609)

	1	2	3	4	5
Drug	Number of Students Having a Chance to Try a Drug	Percent of All Students Having a Chance to Try a Drug	Number of Students Reporting Having Tried a Drug	Percent of Students who Had a Chance to Try and Did Try a Drug	Percent of All Students Trying a Drug
Marijuana	2384	66.1	1784	74.8	49.5
Hallucinogens	653	18.1	314	48.1	8.7
Cocaine	1046	29.0	662	63.3	18.3
Heroin	261	7.2	78	29.9	2.2
Inhalants	968	26.8	595	61.5	16.5
Stimulants	1288	35.7	982	76.2	27.2
Depressants	725	20.1	516	71.2	14.3
Tranquilizers	573	15.9	416	72.6	11.5

FIGURE T-1

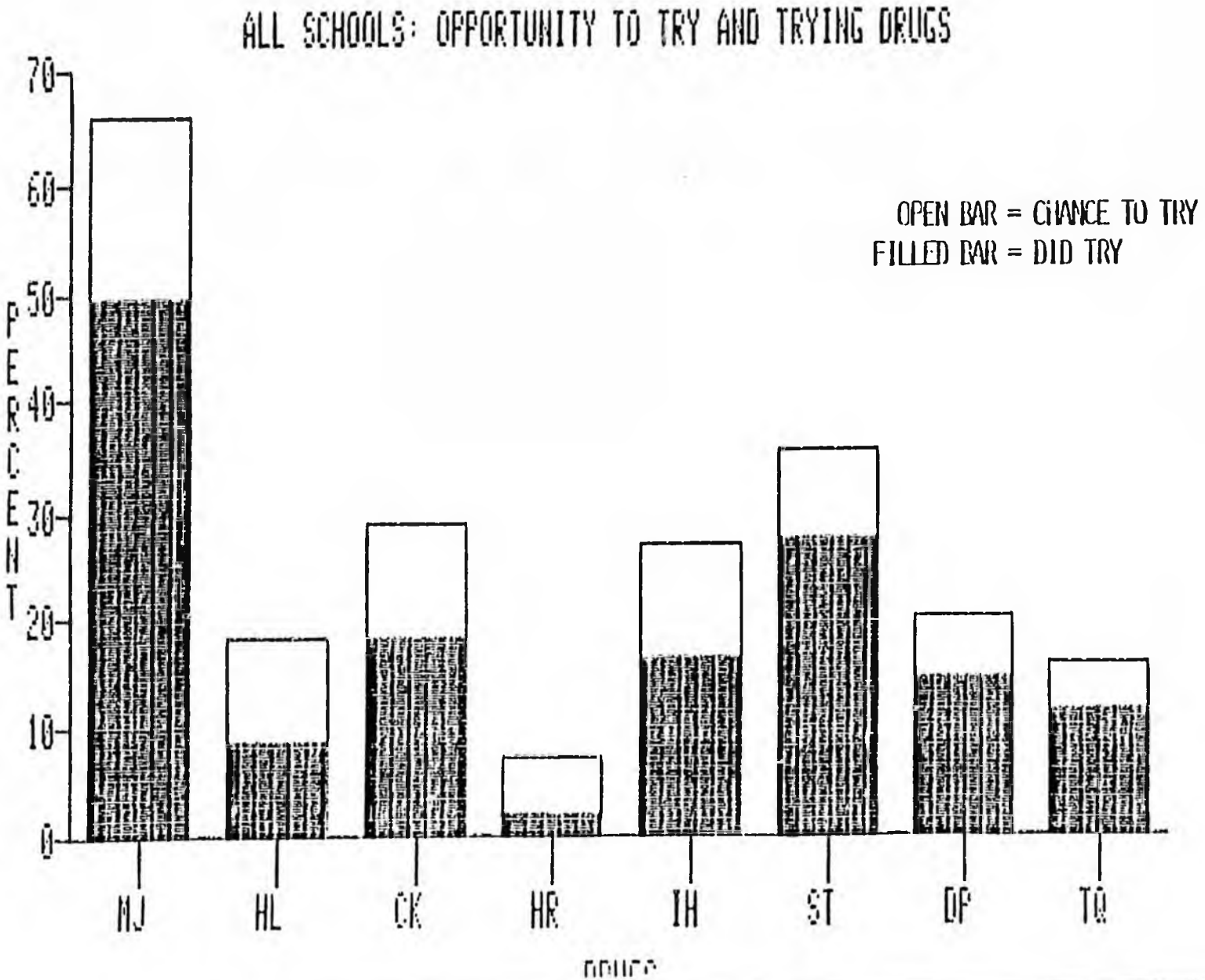

ALL SCHOOLS: OPPORTUNITY TO TRY AND TRYING DRUGS
OPEN BAR = CHANCE TO TRY
FILLED BAR = DID TRY
PERCENT
70
60
50
40
30
20
10
0
MJ
HL
CK
HR
IH
ST
DF
TQ
DRUGS

TABLE T-2

LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS

Total Schools
Students Grades 7-12
(N = 3609)

Drug	Number of Students Reporting Trying	Lower* Limit	Percent of Sample who Ever Tried	Upper* Limit	Percent of Sample who Tried Within Past Year
Marijuana	1784	47.2	49.5	51.6	42.6
Hallucinogens	314	7.5	8.7	10.0	7.1
Cocaine	662	18.3	18.3	16.6	15.6
Heroin	78	1.9	2.2	2.7	1.7
Inhalants	595	15.1	16.5	18.0	11.9
Stimulants	982	25.4	27.2	29.2	22.0
Depressants	516	12.5	14.3	16.2	11.8
Tranquilizers	416	10.2	11.5	11.6	11.4
Alcohol	2589	69.7	71.7	73.8	-
Tobacco	1986	3.3	55.0	57.2	56.9

*Confidence Limits

TABLE T-3

FREQUENCY OF DRUG-TAKING BEHAVIOR
Past Year Experiences

Percent of Students Who Have Tried/Taken a Drug

Total Schools
Students Grades 7-12
(N = 3609)

Drug	Percent of Sample Responding	Not Taken	Frequency*						Total Once or More
			Once a Month or Less	2-3 Times a Month	Once A Week	2-5 Times a Week	Daily	More Than Once a Day	
Marijuana	88.0	46.6	19.0	7.1	4.0	6.0	2.6	2.8	41.5
Hallucinogens	82.0	75.5	4.9	0.7	0.2	0.2	0.2	0.0	6.4
Cocaine	83.0	67.7	11.0	2.5	0.6	0.7	0.3	0.4	15.5
Heroin	81.9	79.4	1.7	0.2	0.1	0.1	0.1	0.3	2.5
Inhalants	82.6	72.2	7.4	1.4	0.5	0.4	0.4	0.4	10.5
Stimulants	83.1	62.1	112.2	4.0	1.7	1.3	0.8	0.9	20.9
Depressants	82.2	70.9	7.3	2.1	0.6	0.6	0.2	0.5	11.3
Tranquilizers	81.7	72.3	6.5	1.4	0.6	0.3	0.2	0.4	9.4

*Because of missing responses, those who report having tried a drug in the past year will not always correspond to the percent who reported ever trying a drug.

TABLE I-4

LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS BY GENDER

Females and Males Who Reported Ever Having Tried a Drug*

Total Schools
Students Grades 7-12
(N = 3609)

	Males (N=1770)			Females (N=1732)		
	1	2	3	1	2	3
Drugs	Number Having Tried	Percent of Males who Tried a Drug	Percent of All Students who Tried Drug	Number Having Tried	Percent of Females who Tried a Drug	Percent of All Students who Tried Drug
Marijuana	904	51.1	51.9	837	48.3	48.1
Hallucinogens	185	10.5	60.5	121	87.0	39.5
Cocaine	351	19.8	54.4	294	17.0	45.6
Heroin	57	3.2	73.1	21	1.2	26.9
Inhalants	317	17.9	54.7	262	15.1	45.3
Stimulants	466	26.3	46.8	489	28.2	49.1
Depressants	272	15.4	53.5	236	13.6	46.5
Tranquilizers	219	12.4	53.8	188	10.9	46.2

*107 students did not report gender.

TABLE T-5

LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS
Junior-Senior High School Comparisons

Total Schools
Students Grades 7-12
(N = 3609)*

	Junior High School** Grades 7-9 (N=1950)				Senior High School** Grades 10-12 (N=1567)			
		1	2	3		1	2	3
Drugs	F***	Percent of Jr. H. S. Students who Ever Tried (N=479)	Percent of All Students who Have Tried each Drug	Percent of Total Sample (N=798)	F***	Percent of Sr. H. S. Students who Ever Tried (N=291)	Percent of All Students who Have Tried each Drug	Percent of Total Sample (N=798)
Marijuana	716	36.7	40.9	19.8	1033	65.9	59.1	28.6
Hallucinogens	105	5.4	34.1	2.9	203	13.0	65.9	5.6
Cocaine	199	10.2	30.7	5.5	450	28.7	69.3	12.5
Heroin	32	1.6	41.0	0.9	46	2.9	59.0	1.3
Inhalants	290	14.8	50.0	8.0	290	18.5	50.0	8.0
Stimulants	343	17.6	35.7	9.5	618	39.4	64.3	17.1
Depressants	207	10.6	40.5	5.7	304	19.4	59.5	8.4
Tranquilizers	151	7.7	37.1	4.2	256	16.3	62.9	7.1

*89 students did not report grade level.
**The differences in frequencies and percentages between junior and senior high students are statistically significant for each drug ($p < .01$).
***F=Frequency or number of students reported having tried each drug.

FIGURE T-5

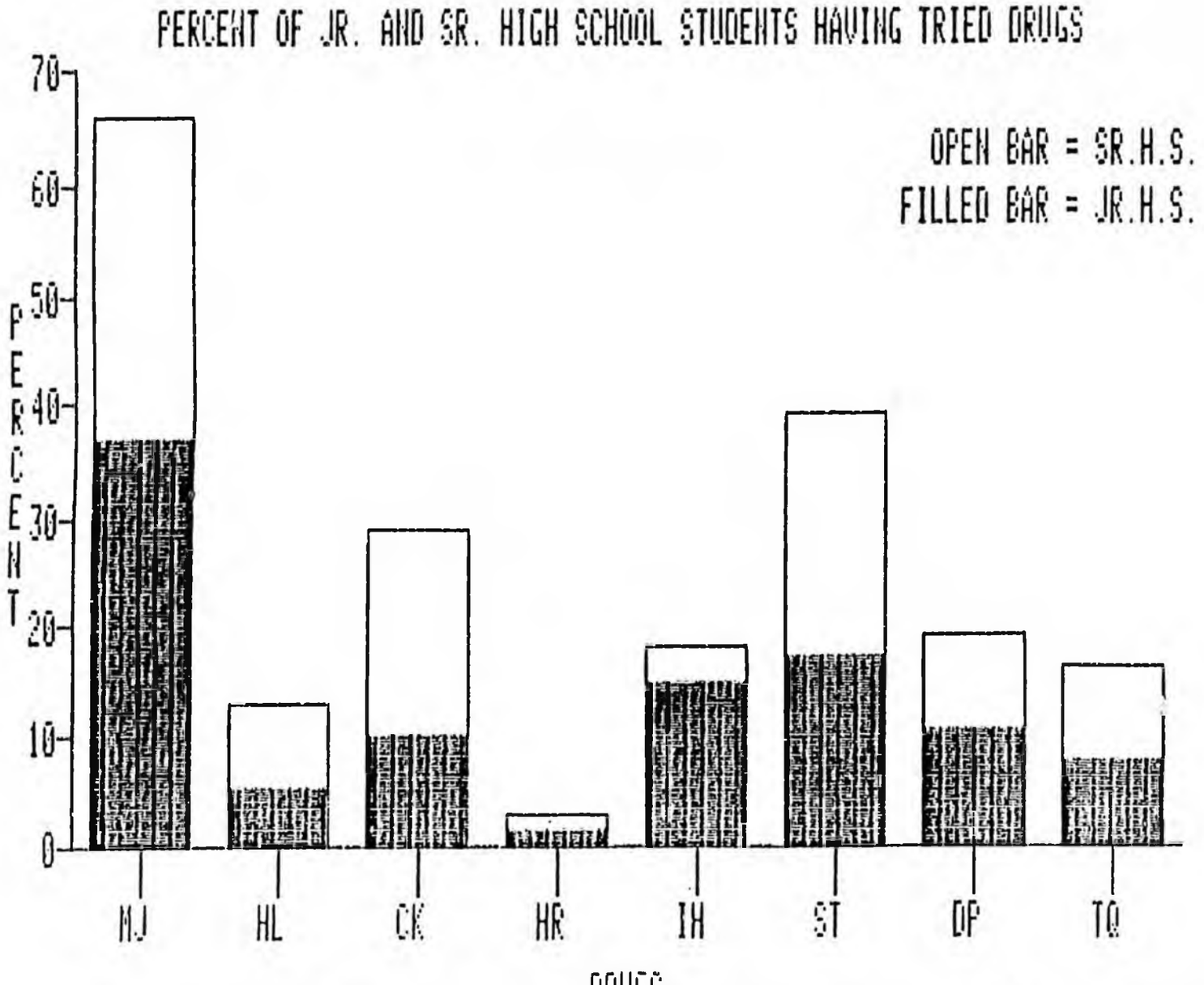

PERCENT OF JR. AND SR. HIGH SCHOOL STUDENTS HAVING TRIED DRUGS
OPEN BAR = SR.H.S.
FILLED BAR = JR.H.S.
PERCENT
70
60
50
40
30
20
10
0
MJ
HL
CK
HR
IH
ST
DP
TQ
DRUGS

TABLE T-6A

FREQUENCY OF TAKING DRUGS:
Past Year Experiences

Total Schools
Junior H. S.*
(N = 1953)

Drug	Percent of Jr. H. S. Students Responding	Not Tried	Percent of Jr. H. S. Students who Have Tried Up to 3 Times a Month	Percent of Jr. H. S. Students who Have Taken Once a Week or More
Marijuana	86.4	63.6	24.5	11.9
Hallucinogens	80.9	94.8	4.5	0.7
Cocaine	81.9	88.0	10.6	1.4
Heroin	80.8	97.3	2.0	0.4
Inhalants	82.0	86.9	11.0	2.1
Stimulants	82.0	82.9	13.6	3.5
Depressants	81.4	89.3	8.9	1.8
Tranquilizers	80.5	91.7	6.9	1.4

*304 students did not report grade level.

TABLE T-6B

FREQUENCY OF TAKING DRUGS:
Past Year Experiences

Total Schools
Senior H. S.*
(N = 1567)

Drug	Percent of Sr. H. S. Students Responding	Not Tried	Percent of Sr. H. S. Students who Have Tried Up to 3 Times a Month	Percent of Sr. H. S. Students who Have Taken Once a Week or More
Marijuana	90.8	39.9	35.9	24.2
Hallucinogens	84.1	88.7	9.9	1.4
Cocaine	85.3	73.4	23.1	3.5
Heroin	83.9	96.6	2.3	1.1
Inhalants	84.1	88.2	9.9	1.8
Stimulants	85.3	64.7	26.8	8.5
Depressants	84.1	82.3	14.8	2.9
Tranquilizers	83.9	84.6	12.7	2.7

*304 students did not report grade level.

TABLE T-7

DRUG-TAKING BEHAVIOR BY GRADE

Percent Within Each Grade Who Reported
Trying/Taking a Drug

Total Schools
Students Grades 7-12
(N = 3609)

	Grade*					
	7	8	9	10	11	12
Drug	(N=665)	(N=685)	(N=603)	(N=658)	(N=564)	(N=345)
Marijuana	23.3	38.7	49.1	60.6	69.9	69.6
Hallucinogens	2.9	5.5	8.0	10.9	13.8	15.4
Cocaine	4.8	12.1	13.9	21.9	31.6	37.1
Heroin	0.9	1.8	2.3	2.6	4.4	1.2
Inhalants	12.0	18.0	14.4	18.8	18.8	17.4
Stimulants	8.1	20.0	25.2	36.0	42.6	40.9
Depressants	6.2	12.4	13.4	18.7	21.1	18.0
Tranquilizers	3.8	9.6	10.0	15.7	18.3	14.5

*304 students did not report grade levels.

FIGURE T-7

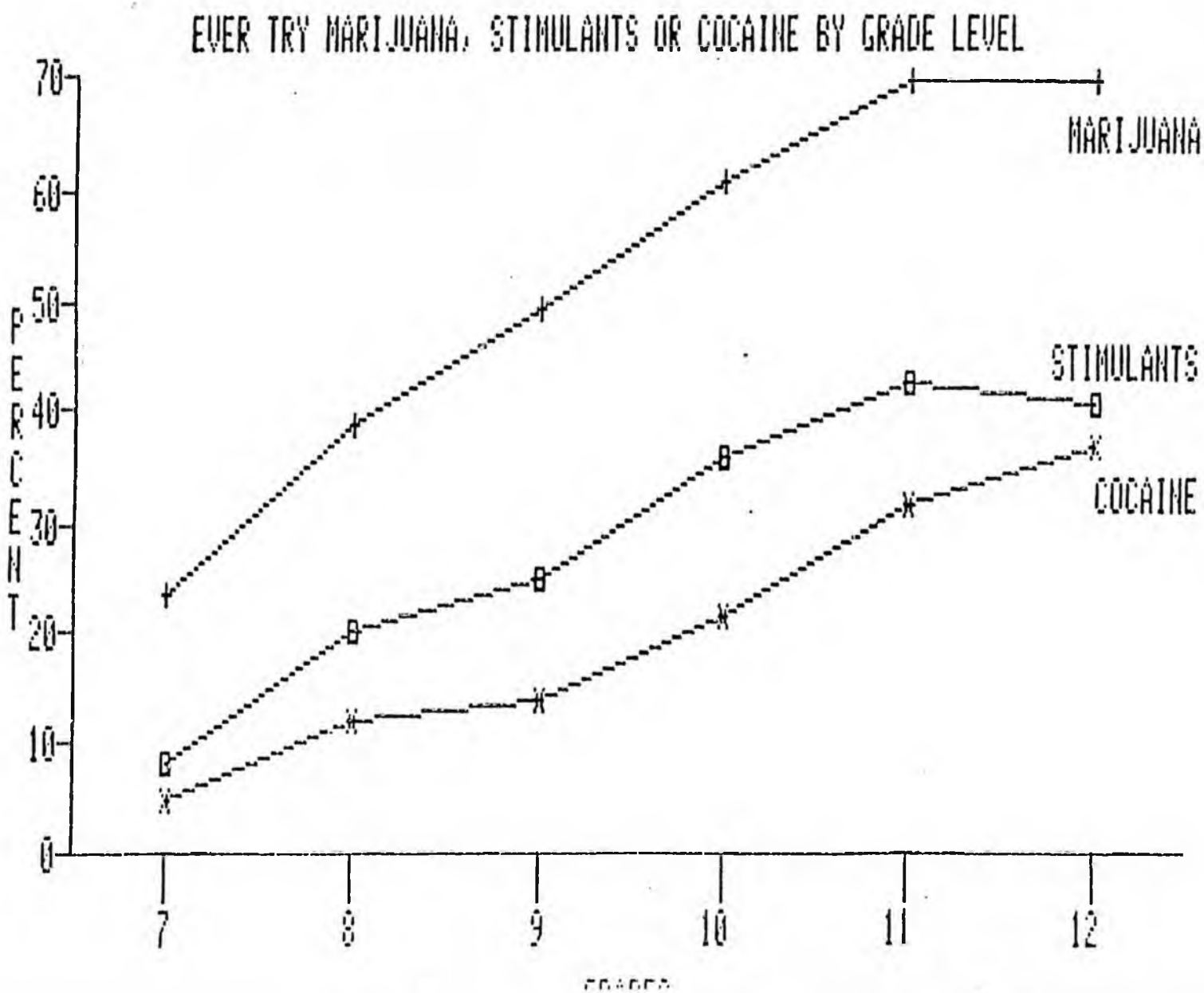

EVER TRY MARIJUANA, STIMULANTS OR COCAINE BY GRADE LEVEL
70
60
50
40
30
20
10
0
PERCENT
MARIJUANA
STIMULANTS
COCAINE
7
8
9
10
11
12
GRADE

TABLE T-8

REASONS FOR NOT TRYING OR HAVING STOPPED
EXPERIMENTING WITH PSYCHOACTIVE DRUGS

Total Schools
Students Grades 7-12
(N = 3609)

Reasons Given:	Total Number of Students Responding	For Not Trying Drugs: Percent of Respondents Not Trying for each Reason	For Having Stopped Experimenting with Drugs: Percent of Respondents who Tried and Stopped for each Reason
1. May hurt my body.	2779	18.3	41.9
2. May hurt my mind.	2780	15.8	44.6
3. May cause addiction.	2744	20.6	40.0
4. Friends disapprove.	1675	37.4	17.9

TABLE T-9

DRUG EDUCATION AND TRYING DRUGS

Percent of Students Responding

Total Schools
Students Grades 7-12
(N = 3609)

Drug	Percent of Students Responding	Have Had Drug Education and Have Tried	Have Had Drug Education and Have Not Tried	Have Not Had Drug Education and Have Tried	Have Not Had Drug Education and Have Not Tried
Marijuana	72.2	28.6	18.3	34.2	18.9
Hallucinogens	45.2	7.9	38.0	9.9	44.2
Cocaine	50.5	13.5	31.8	20.1	34.6
Heroin	37.7	2.1	42.5	3.0	52.4
Inhalants	47.7	15.4	31.5	16.2	36.9
Stimulants	54.5	20.5	26.0	25.1	28.4
Depressants	42.9	13.0	32.0	17.2	37.8
Tranquilizers	40.2	10.8	33.9	16.0	39.3

TABLE T-10

STUDENTS' PERCEPTIONS OF DRUG-TAKING BEHAVIOR

Total Schools
Students Grades 7-12
(N = 3080)

Percent of Students who*

Students who:	Expressed a need for drug education	Expressed no need for drug education	Total
Have Tried Drugs	43.2	12.8	56.0
Have Not Tried Drugs	37.1	6.9	44.0
Total	80.3	19.7	100.0

*The differences between classifications are not statistically significant: $X^2 = 14.1$, d.f. = 1, $p < .001$.

TABLE T-11

PERCENT OF STUDENTS RESPONDING "TRUE" TO VARIOUS STATEMENTS

Total Schools
By Grade Levels
(N = 3609)

Statement	Grades*						
	7	8	9	10	11	12	Total
1. I have missed school because of drug use.	2.1	5.8	8.2	11.7	14.8	17.3	9.2
2. I have had problems in school because of drug use.	4.3	5.6	8.5	11.1	11.4	12.9	8.6
3. I have had problems outside of school because of drug use.	6.3	10.0	11.6	16.0	15.8	15.0	12.1

*Each statistic represents the proportion of students within each grade who answered "yes" to each question. The total represents the percent of all students responding "yes" to each question.

TABLE T-12

COMPARISONS OF LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS

Surveys: Percent Who Ever Tried Each Drug

Total Schools
Students Grades 7-12

Drug	Total Sample (N=3609)	Anchorage Sitka Nome Barrow Kotzebue (N=2811)	Total Sample Less Anchorage (N=2021)	Bethel Juneau Fairbanks (N=798)	Barrow Kotzebue Nome (N=600)	Anchorage (N=1588)	1982* National Survey of 12-17 Yr. Olds (N=1581)
Marijuana	49.5	50.7	50.8	44.9	58.8	51.4	26.7
Hallucinogens	8.7	8.7	9.4	8.6	9.2	9.4	5.2
Cocaine	18.3	18.5	17.0	17.8	18.0	23.5	6.5
Heroin	2.2	2.1	1.8	2.3	2.2	3.2	<.1
Inhalants	16.5	15.5	17.3	20.1	15.0	18.4	-
Stimulants	27.2	26.9	28.6	28.2	25.8	29.6	6.7
Depressants	14.3	14.6	12.5	13.2	10.5	19.9	5.8
Tranquilizers	11.5	12.0	8.9	9.9	6.3	17.9	4.9
Alcohol	71.7	44.8	65.8	66.2	62.0	82.1	65.2
Tobacco	55.0	34.0	50.9	47.5	54.7	64.9	49.5

*Miller, 1983.

FIGURE I-12

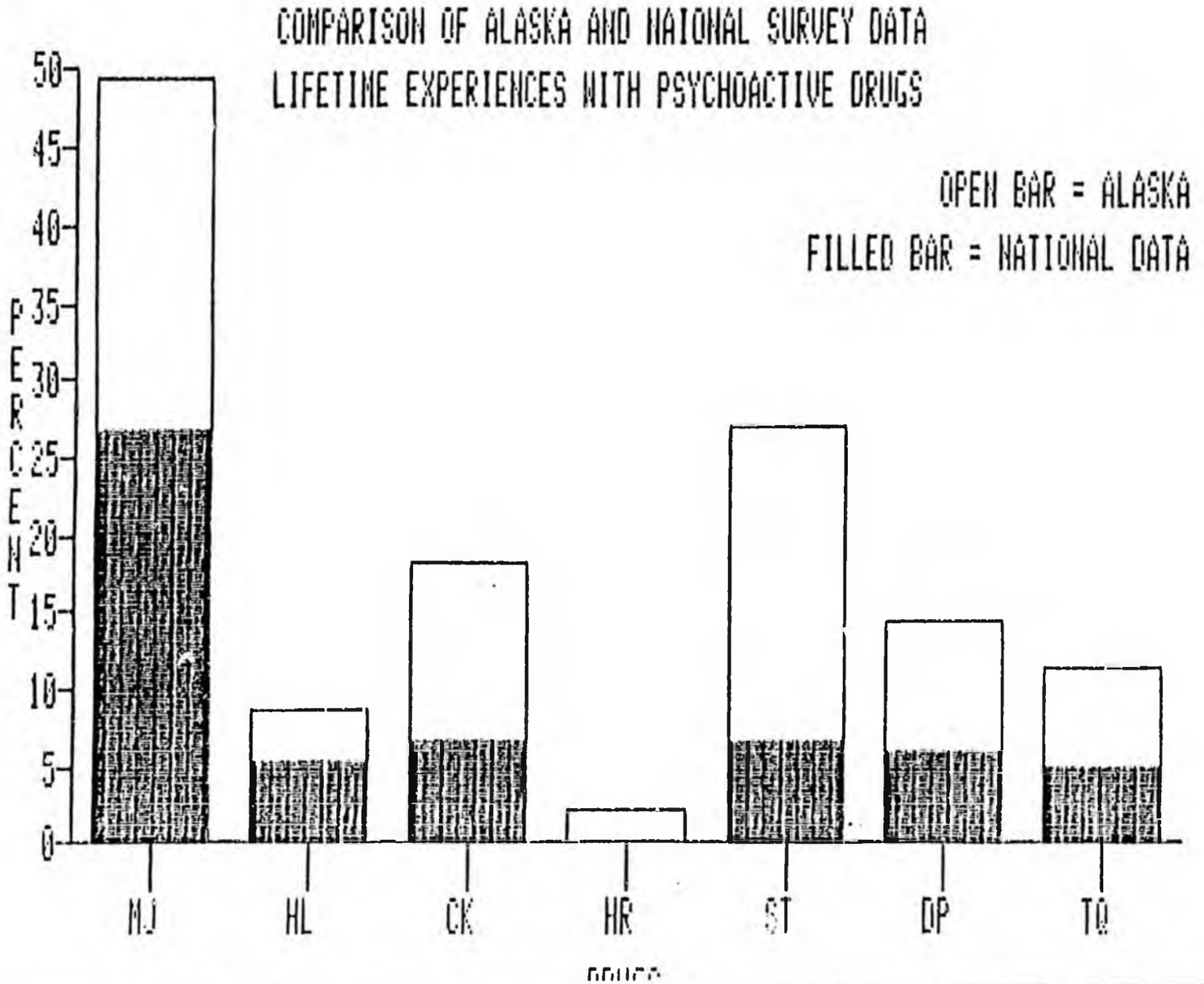

COMPARISON OF ALASKA AND NATIONAL SURVEY DATA
LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS
OPEN BAR = ALASKA
FILLED BAR = NATIONAL DATA
PERCENT
50
45
40
35
30
25
20
15
10
5
0
MJ
HL
CK
HR
ST
DP
TQ
DRUGS

TABLE T-13

COMPARISONS OF LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS
ALASKAN SENIORS AND NATIONAL STUDENT SURVEY

High School Seniors Who Ever Tried Each Drug

Total Schools
Students Grades 7-12

Drug	Total Sample (N=345)	Anchorage Sitka Nome Barrow Kotzebue (N=277)	Total Sample Less Anchorage (N=215)	Bethel Juneau Fairbanks (N=68)	Barrow Kotzebue Nome (N=73)	Anchorage (N=123)	1982* National Survey of 12-17 Yr. Olds (N=17500)
Marijuana	69.6	77.2	77.2	72.1	78.9	60.2	58.7
Hallucinogens	15.4	17.7	17.7	14.7	9.4	12.2	12.5
Cocaine	37.1	40.0	40.0	42.6	39.7	34.1	16.0
Heroin	1.2	1.4	1.4	0.0	4.1	0.8	1.2
Inhalants	17.4	19.5	19.5	17.6	17.8	14.6	18.0
Stimulants	40.9	48.8	48.8	42.6	49.3	29.3	27.9
Depressants	18.0	17.7	17.7	17.6	13.7	19.5	15.2
Tranquilizers	14.5	12.6	12.6	11.8	8.2	18.7	14.0

*Johnston, Bachman, & O'Malley, 1982.

V

CONCLUSIONS AND RECOMMENDATIONS

The major objective of this project was to assess the extent, type of patterns, frequency and distribution of drug-taking behavior among school age youth in grades 7-12 in eight locations of the state: Anchorage, Barrow, Bethel, Fairbanks, Juneau, Kotzebue, Nome and Sitka. The results of this undertaking found generally high rates of lifetime experiences with mood-altering drugs among students surveyed. This high level of drug-taking behavior contrasts dramatically with reports from surveys conducted in the "lower 48," which indicate that "American young people are continuing to moderate their use of illicit drugs..." (Johnston et al., 1982, p. 9). Reports from two recent national surveys (Johnston et al., 1982; Miller, 1983) indicate that there have been declines in use of marijuana and in other drugs and a leveling off of cocaine use by youth. Although there is no previous survey data of Alaskan youth to compare trends, a comparison of current findings of Alaskan youth with their counterparts in the "lower 48" shows considerably higher levels of drug use, except for heroin, which is just slightly higher.

One factor which may contribute to the extensive differences found between the National Survey of 12-17 year olds and Alaskan youth may be related to differences in methodology.[1] The National Survey conducted face-to-face interviews while our procedure involved anonymous responses to questionnaires. It may be that when youth are selected from a general population and interviewed, the reports of prevalence of drug use may be more guarded than when responding anonymously to a survey.

Prior to elaborating on these findings it should be restated that it is not known whether the students who report having tried a drug actually took the drug, that is, whether it is the "real thing" as opposed to a "look-a-like" or a substitute chemical. The important fact, however, is that students apparently believe that they took the reported drug. Also, students, whether taking real or substitute drugs, were involved in drug-taking behavior.

What is evident in the results is that when there is an opportunity to try a drug, particularly marijuana, large percentages of those students having the chance will try it. The question which arises is, Why is the opportunity to try drugs so very high among junior and senior high school students?

A factor which seemingly contributes to the high prevalence rates reported in our study is that drugs are generally available in the state, a phenomena which is supported by anecdotal evidence. The drugs which are available - albeit illegally - find their way down to adolescents and early teenagers who are willing to try them. Additionally, it also appears that these youngsters can afford to buy the available drugs.

Thus, with apparent opportunities to try, students are trying/taking drugs, and the number of students reporting such experiences is high. The pattern of drug use generally follows the pattern described for the "lower 48." Marijuana is the most frequently tried/taken drug, followed by experiences with stimulants and cocaine. While experiences with the other drugs vary, a consistency exists in that heroin is the least tried. In all, the findings indicate that at least half of all students are likely to try marijuana and/or some other drug by the time of high school graduation. More than 75% of students will have also have tried/consumed alcohol prior to their graduation from high school. Most of the "hard" drug use, however, will be experimental.

The important question is, Why do so many students experiment with and/or

take drugs? There are several possible answers to this question. One is that many of the illicit drugs such as marijuana, stimulants and cocaine, have become incorporated into the "lifestyle" of so many people that adolescents themselves experiment with them as part of their own "normative" behavior. That is, the wide scale prevalence of drug use in general makes it a phenomenon which adolescents may pursue in order to know what drug experiences are like. It appears that adolescent drug use may, to a large extent, be related to the attitudes and behaviors found in the larger adult society. Simply put, the "kids" do what the adults are doing!

Related to this "imitation" phenomena is what may be called a "curiosity" motive for trying drugs. This motive is discussed in greater detail in the Anchorage School District Report (see Appendix 2), in which an analysis of students' motives for trying/taking drugs was completed. Briefly, a common reason for many youngsters to try mood-altering drugs is curiosity -- just to see what it is like. Many students try a drug once, or several times, with no intention to continue use in the future. However, this motive may not be totally applicable to use of alcohol, cigarettes, marijuana and, to a lesser extent, stimulants and cocaine.

Another reason for the trying/taking of drugs, interrelated with the "curiosity" motive, is a willingness to seek new and different experiences. This motive was found to prevail within the Anchorage School sample and has been reported in other research (Segal, 1982; 1983, in press). Drugs do provide a new and different experience; some students seem to find it rewarding or gratifying whereas others do not find it pleasurable.

Some youngsters may use mood-altering drugs to gain the ability to cope with personal problems and/or stress. Drugs may not only temporarily help one to

escape from personal discomfort, but they also help to delay having to deal with conflict or stress. This motive for taking drugs has been found consistently in research investigating both adolescent and adult drug-taking behavior (Jessor & Jessor, 1977; Segal, Huba, & Singer, 1980). It is unlikely that the high level of drug use found in this study is attributable to this motive, but it is possible that a small percentage of students, particularly those who take a variety of drugs with some degree of frequency, may be using drugs to "feel better" as well as to feel "high."

An important finding in this study is that age, opportunity to try and first experiences with mood-altering drugs are signficantly interrelated and also vary greatly for each drug. As experiences with some drugs, such as marijuana, begin to taper off, first experiences with other drugs, such as cocaine, tend to increase. The relationship between age and first experiences with drugs is revealing itself to be curvilinear, that is, a relationship which can change direction at any given age level for any given drug. The most frequent ages for trying drugs are 13 and 15, which are related to beginning junior and senior high school. It may be, as advocated within some recent research literature (Huba, Winegard and Bentler, 1979; Segal, 1983; Segal, Huba and Singer, 1980; Segal, Cromer, Hobfoll and Wasserman, 1982) that drug-taking behavior by adolescents is mainly experimental and is in large part "normative" and unrelated to any pattern of deviance or serious emotional distress.

Another interesting finding which characterizes the Alaskan findings (as discussed more fully in the Anchorage School District Report) is that peer pressure or influences do not appear to be as significant a factor as is reported in other studies (Jessor & Jessor, 1977; Kandell, Kessler, & Margulies,

1978). Why this is the case is not totally clear; it may be that drug-taking behavior has become so acceptable among all youth that the traditional schism between "users" and "nonusers" no longer exists, thereby making it unnecessary for those who take drugs to seek mutual support from others who take drugs. Additionally, the generally widespread use of drugs may offset any special status attributable to those who take drugs, thus reducing the peer influences to try or not try drugs.

In summary, it is evident that drug-taking behavior is attributable to many interrelated factors, some exerting greater influences than others at different points during one's secondary school career. Further research is needed to focus more specifically on students' perceptions of why they take drugs and the particular expectations that they have of what drugs will do for them.

The results of the present study have a number of implications concerning drug education/prevention programs. One important consideration is that the students perceive a need for such programs, particularly the ones who have had experiences with psychoactive drugs. This finding suggests that the students may be inferring that if other students are "educated," or if they themselves learned more about "drugs," the risks of taking drugs may be reduced. It is presumed that presentation of information regarding the "dangers" and risks of taking drugs, especially in light of the findings that most students fear the harmful psychological and physical effects of taking drugs, can help to lessen the curiosity to experience the anticipated sensations which drugs can engender. The issue becomes one of how to develop and implement an effective drug education/prevention program. This question is one which educators and researchers have been struggling with for over a decade. While the evidence supports the continued need for educational efforts (Wepner, 1979), it is apparent that such programs generally tend to restrain young persons who were

not inclined to try drugs in the first place. The major problem is how to identify those who are at greater risk of trying drugs. A variety of drug education/prevention programs have been implemented over the country, each to a large extent providing a uniform curriculum across age and grade level.

An important implication concerning drug education from the foregoing analysis of age/grade trends is that <u>different prevention goals</u> should be devised for different points in the incidence and prevalence curves. The most logical starting point is that age in the curve at which positive acceleration begins in the prevalence curve. Prior to this point prevention efforts should focus on delaying or preventing the onset of nonmedical taking of mood-altering drugs, and/or extrafamiliar alcohol consumption. After this point intensive prevention efforts should concentrate on the reduction of prevalence, giving special emphasis to multiple substance use, frequency of drinking, regular use of marijuana, and on reducing the trying/taking of stimulants and cocaine. Emphasis should also be given to other types of mood-altering drugs, capitalizing on the apparent self-moderating factors that appear to already be "at work" with students to avoid taking drugs perceived as particularly harmful. What is needed is the involvement of a rational program of drug education/prevention - a program derived from an informational base which provides data on the prevalence and developmental trends of drug-taking behavior and on some of the psychosocial aspects related to use and nonuse of mood-altering drugs. This data base can serve as a conceptual basis for prevention strategies designed to prevent and reduce drug-taking behavior by school age youth.

Another important implication of the findings concerns the issue of availability of mood-altering drugs. It should be noted that if a reduction of experimentation with and continued use of drugs is to be achieved, the availabi-

lity of drugs needs to be reduced. There is, however, no easy solution to achieving such a reduction.

The recent history of attempts to address drug use in the United States has tended to deal with the problem through strong legislation aimed at reducing "drugs on the street" by increasing penalties for possession and use of drugs. Such an approach has led to a preoccupation with and elaboration of penalties associated with drug use which has not generally resulted in an overall reduction of "drug problems." Rather than focusing only on the elimination of drugs by legislation, efforts also have to be directed toward focusing on people and the circumstances which contribute to their use of drugs. It has been shown that the "legal" approach to drug misuse puts an unfair and sometimes overwhelming burden on the justice system, leading to the unrealistic expectation that this system will eliminate the problem.

Legal measures can only be effective if society perceives them to be reasonable and realistic. The experience of decades of having to confront drug use in this country makes it clear that without a comprehensive approach the likelihood of reducing drug use is low. This comprehensive approach, requires the joining together of legal, social, education and legislative bodies to pool resources, experiences and knowledge to develop an integrated, comprehensive and relevant approach to address problems of drug use in the community, as well as focusing on the drug-taking behavior of school age youth.

The accomplishment of the above goal requires that a price be paid. This price lies in the implications for policy decisions made by local and state governmental bodies regarding drug use. With respect to youth, in order to prevent the taking of drugs prior to the age at which most of the experimentation with and continued use of drugs occurs, and in order to reduce the incidence and prevalence thereafter, governmental bodies will have to appropriate program

funds. The level of funds will have to be sufficient to allow systematic research and comprehensive program development to be initiated, implemented, and evaluated over a period of time. Legislators and other governmental officials will also need to realize that the efforts of prevention programs are difficult to assess, especially since the effects may not be immediate. Efforts directed at fourth graders, for example, may not be realized until students reach junior high school, where exposure to drugs becomes more widespread and where influences to try drugs exert themselves. Additionally, the importance of drug education/prevention efforts directed at those students in the peak years of drug experimentation may not be fully realized until they reach young adulthood. What is important is the understanding that an investment in a rational educational/prevention program subject to ongoing evaluation, while costly at the point of initial undertaking, can save costs associated with health, social and legal consequences. Only through the acceptance and commitment to alter the attitudes and behaviors of the next generation can a reversal in the trend to take drugs be achieved.

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Prevalence of Drug-Taking Behavior Among Alaskan Youth: Comparisons With National Findings[1]

by Bernard Segal, Ph.D.[2]

ABSTRACT

The present research identified the prevalence and patterns of drug-taking behavior among a statewide sample of youth in grades 7-12. The findings indicated that lifetime experience with psychoactive substances was fairly high. When a comparison was made with national data, prevalence rates within Alaska were found to be quite higher than rates reported among youth in the lower-48 states. Some of the reasons for this high level of drug use and the implications of the findings are discussed.

INTRODUCTION

The United States has witnessed an increase in the frequency and intensity of substance abuse since the late 1960's. The non-medicinal use of illicit mood-altering drugs by elementary, junior and senior high school students, in particular, has become a problem of national concern. Although legal and social sanctions exist against non-medicinal use of psychoactive drugs for recreational or social purposes, drugs continue to be taken, and those youth who take them place themselves at risk for potential legal, social and health problems.

Interest in learning more fully about the nature and extent of drug-taking behavior among the nation's youth prompted the National Institute on Drug Abuse (NIDA) to sponsor a number of national surveys and specific research studies (1-3). Alaska, however, was not included in any of these projects. The current research was undertaken to gain comparable information about Alaska because educators, community planners, policy makers, legislators, and governmental officials and authorities needed to have contemporary knowledge about drug abuse in the state to most efficiently allocate resources to address the problem. High levels of drug use were anticipated due, in part, to the state's last frontier atmosphere which helped to attract many troubled people to the individualistic risk-taking attitude that prevails in the youthful population, and to significant disposable income, among other contributing factors.

The specific research objectives of this study were: (1) to assess the nature and extent of drug-taking behavior among Alaskan youth, (2) to examine age-cohort differences with respect to drug-taking behavior, (3) to identify psychosocial correlates of drug use, and (4) to explore some of the implications that such phenomena have for treatment and prevention programs. This paper presents the major findings pertaining to the prevalence of drug use in Alaska among youth, compares the findings with results from national surveys, and briefly reviews their implications. The findings pertaining to psychosocial correlates and age differences, as well as a complete description of the project, have been presented elsewhere (4-6).

METHODS

From 1981 through 1982 an extensive statewide study was undertaken to estimate the prevalence of drug use among Alaskan youth. The statewide survey involved eight widely separated urban and rural school districts, representative of the different regions of Alaska except for the Aleutian chain. The locations were Anchorage, Barrow, Bethel, Fairbanks, Juneau, Kotzebue, Nome, and Sitka. Sites were selected in order to obtain a representative sample of the state's junior and senior high school students, rather than sampling school districts. The schools in the sample contain over 75% of the state's junior and senior high school students. Representative samples in the Anchorage and Fairbanks school districts were obtained from each of the junior and senior high schools. Districts in the other locations contained only one junior and senior high school, of which the entire school populations were surveyed.

The sampling procedure within the schools involved two methods, each contingent upon the conditions prescribed by the school district: (1) a random sample from among all students in grades 7-12 whose parents

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gave parental consent (Anchorage, Fairbanks and Juneau); and (2) surveying the entire school population of students in grades 7-12 (the remaining five locations).

The first procedure could have presented a problem if the response rate for parental disapproval was high. The opposite happened. Very few (less than 2%) parents objected, thereby allowing a sufficiently large school population from which to obtain a representative sample. The requirement of parental permission did not appear to result in an underrepresentation of drug using students. This became evident when the results were analyzed separately by method of collection, by district, and by region. Despite the different sampling procedures the results were strikingly uniform across the state (6); no significant differences were noted, and the data was aggregated to form a comprehensive data base. The results reported herein are from the aggregated data.

Although the content of each survey was practically identical, in some cases wording and format were simplified to facilitate translation or to comply with school district's regulations. Survey administration was conducted or supervised by a member of the research team during a given school day. A total of 3,609 completed student surveys were obtained (which represented a 99% response rate); males and females were equally distributed (51% males, 49% females), and ages ranged from 11 to 19. The survey questioned nonprescriptive use of marijuana, stimulants, cocaine, hallucinogens, depressants, heroin, inhalants and tranquilizers. Inquiries were also made about use of alcohol and tobacco. Additional questions concerned age of first use of each drug, frequency and recency of use, reasons for use, and other related items.

RESULTS AND DISCUSSION

1. Lifetime Experience

Table 1 contains figures pertaining to opportunity to try different mood altering substances and the percentage of youth who reported having experienced one or more of these substances. Except for hallucinogens (48.1%) and heroin (29.9%), over half those students who had a chance to try one of the other drugs did so: marijuana 74.8%, depressants 71.2%, tranquilizers 72.6%, stimulants 76.2%, and cocaine 63.3%. It is readily apparent that large numbers of students have indicated an opportunity to try different types of psychoactive chemicals and that a correspondingly high number seem to have taken advantage of such opportunities.

Consistent with current national trends (1-2), marijuana is the drug that most students have had a chance to try and do try; half of the students (49.5%) reported using marijuana one or more times. It thus appears that marijuana was available around the state, and that it was the most widely used illicit substance. In contrast to this finding, and also consistent with national trends, heroin was the drug students were least exposed to and the one least used (2.2% reported having tried this drug). Whether this finding was attributable to an unavailability of heroin in the state or to a reluctance by students to try it is difficult to discern. It may be that both conditions contributed to the low reported incidence of experience.

Table 1

Opportunity to Try and Trying Psychoactive Drugs
Lifetime Experience
(N = 3,609)

Drug	Percent of Sample Having Opportunity	Percent Having Opportunity and Trying	Percent of Total Sample Trying
Marijuana	66.1	74.8	49.5
Hallucinogens	18.1	48.1	8.7
Cocaine	29.0	63.3	18.3
Heroin	7.2	29.9	2.2
Inhalants	26.8	61.5	16.5
Stimulants	35.7	76.2	27.2
Depressants	20.1	71.2	14.3
Tranquilizers	15.9	72.6	11.5

Stimulant-type drugs are second to marijuana in terms of lifetime experience (27.2%), followed by experiences with cocaine (18.3%), inhalants (16.5%), depressants (14.3%), tranquilizers (11.5%), and hallucinogens (8.7%).

The pattern of drug experience reported by the students suggested that they tend to have avoided the more "addictive" substances, such as heroin, and others that can induce severe adverse effects (e.g., inhalants, depressants and tranquilizers). What seemed to be preferred, instead, was the use of drugs that induce more pleasant effects such as a state of euphoria (marijuana) or a "rush" as is associated with stimulants or cocaine.

Of those who tried drugs, the largest percentage (35.9%) used only one drug, 21.3% tried two drugs, 11.5% experienced three, 29.8% tried four or more drugs, and 1.5% tried all eight of the drugs listed in the questionnaire.

2. Frequency and Recency of Drug-Taking Behaviors

The survey inquired about the frequency and recency of students' drug-taking behaviors. One set of these questions (concerning frequency of use) differed for the Anchorage sample, thereby precluding their inclusion in the report of aggregated data. The results of the findings

Table 2

FREQUENCY AND RECENCY OF DRUG-TAKING BEHAVIOR
Past Year Experience

Percent of Students Who Have Tried/Taken a Drug

Drug	(N = 3,609) Percent of Sample Respondin.	Percent of Sample Who Tried Within Past Year	Frequency* (N = 2,021) Once a Month or Less	2-3 Times a Month	Once a Week	2-5 Times a Week	Daily	More Than Once a Day	Total Once or More
Marijuana	88.0	42.6	19.0	7.1	4.0	6.0	2.5	2.8	41.5
Hallucinogens	82.0	7.1	4.9	0.7	0.2	0.2	0.2	0.0	6.4
Cocaine	83.0	15.6	11.0	2.5	0.6	0.7	0.3	0.4	15.5
Heroin	81.9	1.7	1.7	0.2	0.1	0.1	0.1	0.3	2.5
Inhalants	82.6	11.9	7.4	1.4	0.5	0.4	0.4	0.4	10.5
Stimulants	83.1	22.0	12.2	4.0	1.7	1.3	0.8	0.9	20.9
Depressants	82.2	11.8	7.3	2.1	0.6	0.6	0.2	0.5	11.3
Tranquilizers	81.7	11.4	6.5	1.4	0.6	0.3	0.2	0.4	9.4

*Because of missing responses, those who report having tried a drug in the past year will not always correspond to the percent who reported ever trying a drug.

describing frequency of students' use thus represent an aggregation of only seven districts (excluding Anchorage), while the findings pertaining to the recency of use represent the total sample.

Table 2 describes the recency and frequency of drug-taking behavior during the past year. The results indicate that marijuana is the drug experienced most, with 41.5% of the students indicating having experienced it one or more times, and 42.6% having used it during the past year.

Experiences with stimulants and cocaine are less extensive than those shown for marijuana, but are, respectively, the most commonly used substances. Most of the students who tried them did so less than 10 times and once-a-week or less. Experiences with the other drugs tended to be less frequent, with students expressing modest experiences with depressants, inhalants, and tranquilizer type substances. Except for marijuana, and to a lesser degree stimulants and cocaine, use of other drugs appeared to have been chiefly experimental.

3. Gender and Drug-Taking Behavior

Table 3 indicates that a higher percentage of males experienced all the mood-altering drugs except stimulants, for which females showed a slightly higher percentage. This finding is comparable to that reported by Johnston et al. (2) in describing drug use among high school seniors.

Table 3

LIFETIME EXPERIENCES WITH PSYCHOACTIVE DRUGS BY GENDER

Females and Males Who Reported *Ever Having Tried* a Drug*

Drugs	MALES (N = 1,770) Percent of Males who Tried a Drug	FEMALES (N = 1,732) Percent of Females who Tried a Drug
Marijuana	51.1	48.3
Hallucinogens	10.5	8.7
Cocaine	19.8	17.0
Heroin	3.2	1.2
Inhalants	17.9	15.1
Stimulants	26.3	28.2
Depressants	15.4	13.6
Tranquilizers	12.4	10.9

*107 students did not report gender.

4. Drug-Taking Behavior by Grade

As reflected in Table 4, there was a steady increase in experiences with all types of drugs rising to a peak at grades 11 and 12. The major exception to this pattern was for inhalants, where incidence of use peaked sharply

Table 4

DRUG-TAKING BEHAVIOR BY GRADE

Percent Within Each Grade Who Reported Trying/Taking a Drug

Students Grade 7-12

Drug	Grade* 7 (N = 665)	8 (N = 685)	9 (N = 603)	10 (N = 658)	11 (N = 564)	12 (N = 345)
Marijuana	23.3	38.7	49.1	60.6	69.9	69.6
Hallucinogens	2.9	5.5	8.0	10.9	13.8	15.4
Cocaine	4.8	12.1	13.9	21.9	31.6	37.1
Heroin	0.9	1.8	2.3	2.6	4.4	1.2
Inhalants	12.0	18.0	14.4	18.8	18.8	17.4
Stimulants	8.1	20.0	25.2	36.0	42.6	40.9
Depressants	6.2	12.4	13.4	18.7	21.1	18.0
Tranquilizers	3.8	9.6	10.0	15.7	18.3	14.5

*304 students did not report grade levels.

in the eighth grade. It may be that inhalant substances (such as gasoline, paint thinner, sprays, etc.,) are more readily obtainable and less expensive for these youngsters than other substances, allowing emulation of the "highs" that older students achieve through the use of the "hard" drugs.

It may be inferred from this table that an orderly progression of drug use may exist. Segal (4), when analyzing the relationship between age and initiation into drug-taking behavior, did find a predictable sequential pattern of drug use, beginning with marijuana, followed by stimulants, cocaine, depressants, tranquilizers, and hallucinogens.

The data in Table 4 also permit a general comparison of drug use between junior (grades 7-9) and senior high school (grades 10-12) students. The findings indicate clearly that more senior high students have tried drugs than junior high students. (A separate Chi-Square analysis comparing drug use between the two groups of students found that the differences are statistically significant.)

Although the drug-taking behavior was more extensive among high school students, the pattern of use was similar to that of junior high school students. Marijuana, stimulants and cocaine were the three most experienced drugs, respectively, while heroin, tranquilizers and hallucinogens were among the least experienced. Moderate use of inhalants and depressants was noted.

5. Comparison with National Survey Data

Table 5 provides a comparison of the Alaska data with findings from the 1982 National Survey on Drug Abuse (1). It should be noted that this comparison is not based on similar methodologies. The Alaskan study is based on responses to questionnaires, the national survey is based on responses to personal interviews; also the ecological environments of the two samples differ greatly. The comparison is provided, however, in order to demonstrate how patterns of use among Alaskan youth generally compare to those reported for youth in the "lower-48" states.

Table 5

COMPARISONS OF ALASKA WITH NATIONAL SURVEY FINDINGS OF LIFETIME EXPERIENCES WITH PSYCHOACTIVE SUBSTANCES

Drugs	Alaska Youth 12-17 Years (N = 3,103)	1982* National Survey 12-17 Years (N = 1,581)
Marijuana	47.4	26.7
Hallucinogens	7.9	5.2
Cocaine	16.6	6.5
Heroin	2.3	<0.1
Stimulants	25.9	6.7
Depressants	14.0	5.8
Tranquilizers	11.1	4.9
Alcohol	71.7	65.2
Tobacco	55.0	49.5

*Miller and Cisin (1).