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# Adolescent Substance Use in Texas

## Abstract

*Adolescent alcohol and drug use has been a major national concern. Treatment, prevention, and education efforts have focused on reducing the demand of substances. The statewide studies of youth use patterns have been conducted to better understand the scope of problem. Reliable data on the prevalence of use, trends in the use of different substances, and behaviors and attitudes associated with substance use are necessary to plan and evaluate efforts to reduce demand.*

*The data presented in this article are based on self-reports of secondary school students sampled in the 2006 Texas School Survey of Substance Use. In the spring of 2006, the Texas Department of State Health Services, in conjunction with the Public Policy Research Institute at Texas A&M University, conducted its tenth biennial survey of drug and alcohol use among 141,905 students in grades seven through twelve from 81 school districts in the state. Alcohol, tobacco, and marijuana were the most widely used substances by young people in Texas. About 48% of adolescents used either alcohol, tobacco, inhalants, or illicit drugs during the past school year.*

## Methodology

In order to make school survey administration practical, students were selected using a multi-stage stratified sampling procedure. This involved sampling districts within 11 strata, schools within districts, and classrooms within districts. All students in a sampled classroom were asked to participate in the survey. School districts in 28 counties along the Texas-Mexico border were encouraged to participate in the survey and had been over-sampled since 1998, so that substance use among border students could be examined in detail. In 2006, a total of 37,450 students in grades seven through twelve were sampled from 22 school districts located in border counties. The comparison group of students was the 104,455 secondary students sampled from the other 59 school districts elsewhere in Texas.

The 6-page survey instrument for secondary students asked about use of alcohol, tobacco, inhalants, and illicit drugs, as well as student attitudes,

extracurricular involvement, sources of information, and other related problems. The questionnaire was self-completed and formatted for optical scanning, similar to those used in achievement tests and other forms of standardized testing. Relevant personnel in the selected districts and campuses were provided with complete instructions and materials necessary to administer the survey. Information was provided on the number of students that should have taken the survey but were absent, and the number that were present but failed to complete the survey. This information was useful for computing error estimates.

To ensure the quality of the statewide survey data, a number of internal checks were put into place to guide survey processing, including the litho-coding on the instrument, pre- and post-analysis quality control procedures, and cross-analysis for data consistency. Exaggerated responses, such as those claiming to

use a false drug or extremely high levels of drug and alcohol use, were also identified and dropped from the analyses. If students failed to report both their grade level and age, the data were dropped from the analyses as well. Confidence is high that these quality control features will ensure valid and reliable survey findings.

Each case was weighted based on the strata, district, and campus. The weights were applied so that the aggregation of students in each campus, district, and strata reflected their proportions in the actual district, campus, and strata populations. All the survey findings in this report are weighted. Table 1 shows the survey participant composition.

### Patterns of Substance Use by Drug

- Alcohol continues to be the most widely used substance among Texas secondary school students with 66% in 2006 reporting they had used alcohol at some point in their lives, down from 68% in 2004 and 81% in 1990 (Figure 1). Past-month use of

alcohol also decreased from 44% in 1990 to 32% in 2006 (Figure 2).

- Heavy consumption of alcohol or binge drinking, defined as drinking 5 or more drinks on one occasion in the past 30 days, is of concern. About 22% of secondary school students reported binge drinking in 2006.
- Lifetime use of tobacco (cigarettes or/and smokeless tobacco) among secondary school students showed a continuous decrease from 56% in 1990 to 39% in 2004 and to 35% in 2006. Past-month use of tobacco was 15% in 2006, down from the recent peak of 26% in 1998.
- The term “inhalants” refers to many different household and commercial products that can be abused by sniffing or huffing (inhaling through the mouth). Inhalants include volatile substances (such as gasoline, glue, and paint), anesthetics (such as ether and nitrous oxide), aerosols (such as hair spray and Freon), and nitrites (poppers and Locker Room). Lifetime inhalant use in 2006 was

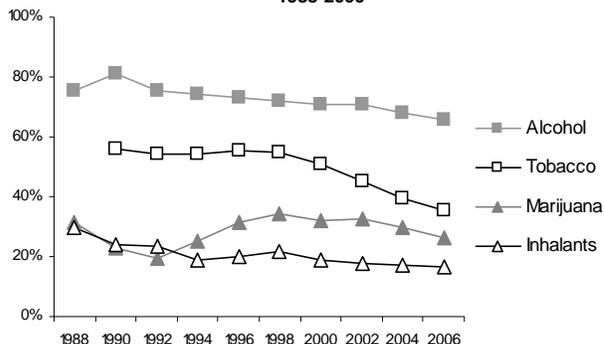
**Table 1. Total Number of Secondary Students Participating in the 2006 Texas School Survey, by Grade and Demographic Characteristic**

	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Total
<b>Total Sample</b>							
All Students	29,646	25,484	26,966	21,455	20,971	17,383	141,905
<b>Gender</b>							
Males	14,463	12,236	13,115	10,033	9,965	8,195	68,007
Females	15,118	13,181	13,777	11,370	10,962	9,125	73,533
<b>Ethnicity</b>							
Anglos	9,113	8,083	9,033	7,524	8,074	6,372	48,199
African American	3,744	3,153	2,981	2,435	2,526	1,800	16,639
Hispanics	13,415	11,423	11,593	8,935	7,715	6,885	59,966
Asian Americans	825	766	911	711	718	683	4,614
Native Americans	297	249	254	172	173	124	1,269
Others	1,700	1,363	1,665	1,339	1,416	1,222	8,705

Notes: 1. Numbers reported for each demographic characteristic by grade may not add to the total sample of students due to missing values within the specific category.

2. More Hispanic students were included in the sample due to over-sampling of border area where the majority of the students are Hispanic.

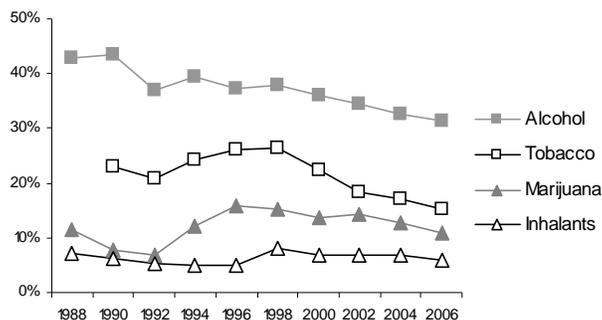
**Figure 1. Percentage of Texas Secondary School Students Who Had Ever Used Selected Substances: 1988-2006**



17% and the past-month use was 6%.

- Marijuana remained the most commonly used illegal drug among 7-12 graders. About 26% in 2006 reported having smoked marijuana in their lives, down from 30% in 2004. Past-month use of marijuana was 11% in 2006, compared to 13% in 2004. The 2006 prevalence rates were still higher than the lowest rates in 1992.
- Cocaine and/or crack use remained a problem among teens, with 8% reporting lifetime use and 3% past-month use. Both prevalence of use showed a decrease from the peak level in 1998.
- Use of Ecstasy decreased sharply at all grade levels during the past 4 years. About 5% reported lifetime use of Ecstasy in 2006, compared to 9% in 2002.
- Six percent of secondary school students reported using uppers (stimulants, speed, Ritalin etc.) at least once in their lifetime. More than 2% admitted past-month use of uppers.
- Lifetime use of downers (sleeping pills, barbiturates, sedatives,

**Figure 2. Percentage of Texas Secondary School Students Who Had Used Selected Substances in the Past Month: 1988-2006**



tranquilizers, etc.) remained level at 6% in 2006. Past-month use of downers was about 3%.

- Reported lifetime use of hallucinogens (LSD, PCP, Mushrooms, etc.) among this age group has leveled at 5% in recent years. Similar patterns held for past-month use of hallucinogens at 1 to 2%.
- Rohypnol is known by street names such as roches, roofies, or roach. Lifetime use of Rohypnol showed a notable decrease from 1998 (7%) to 2006 (3%).
- Some 1.5% of Texas secondary school students reported lifetime use of steroids, and less than one percent had used steroids during the month before the survey.
- Lifetime use of heroin was reported at 1.5% among all secondary students in 2006.
- About 6% of students in grades 7-12 were considered heavy drug users, those who used an illicit drug on a daily or weekly basis.

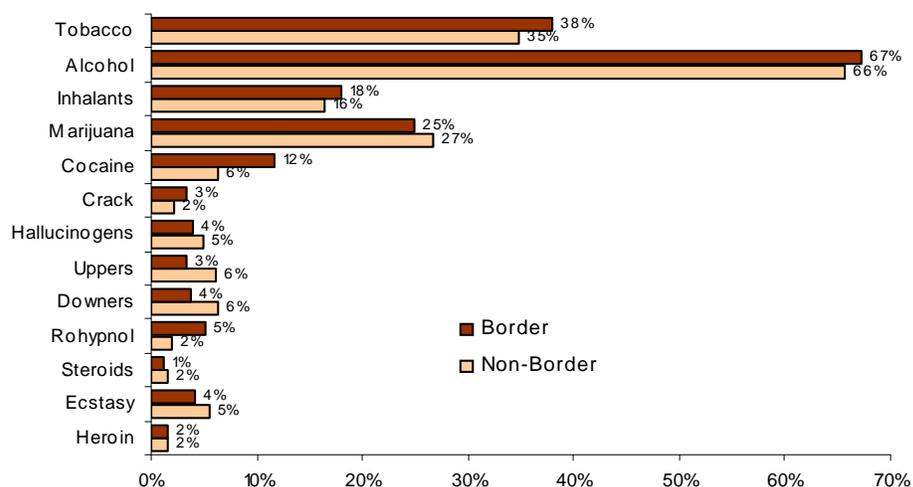
Over-the-Counter (OTC) or Prescription-Type Drugs

- Use of OTC or prescription-type drugs was first reported in the 2004 school survey. About 5% of secondary students in 2006 said they had ever taken Dextromethorphan (DXM), Triple C's, Skittles, or Coricidin to get high during their lifetime, a 16% increase from 2004 (4.3%). Similar patterns held for the past-month use.
- In the 2006 survey, 8.1% of secondary students reported using codeine cough syrup to get high at some point in their lives, and 3.0% did so in the past month. Both prevalence of use showed an increase in the lower grades, but a decrease in the upper grades between 2004 and 2006.
- Girls (68%) in 2006 reported a higher rate of lifetime alcohol use than boys (64%), although both girls and boys reported similar rates in past-month drinking.
- Boys were more likely to have a higher prevalence use of tobacco and most illicit drugs, except for uppers, downers, and Rohypnol.
- Overall, Hispanic youths reported the highest rates of lifetime and past-month use of alcohol, inhalants, marijuana, cocaine/crack, Rohypnol, and heroin, and the highest lifetime use of tobacco.
- Adolescents who lived with both of their parents were less likely to use substances than those who lived in other family structures. For example, 9% of secondary school students living with both parents reported past-month use of marijuana, compared to 15% of those from other family structures.
- Students making poor grades were more likely to use substances, although this survey did not collect information to determine whether

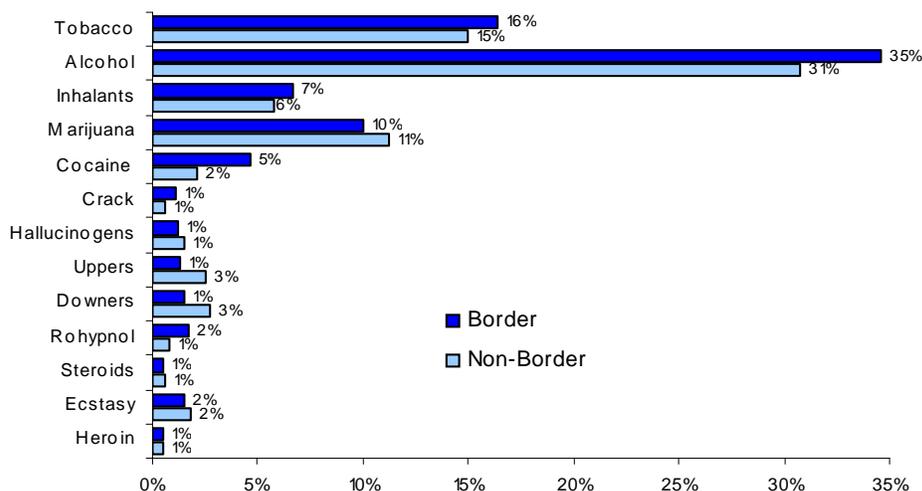
### Demographic Correlates of Substance Use

- Prevalence use increased linearly by classroom grade for most substances except for inhalants, where students in grades 7-8 reported higher use of inhalants than did students in the upper grades.

**Figure 3. Percentage of Texas Secondary School Students Who Had Ever Used Substances, Border vs. Non-Border Area: 2006**



**Figure 4. Percentage of Texas Secondary School Students Who Had Used Substances in the Past Month, Border vs. Non-Border Area: 2006**



poor grades are a cause or a consequence of substance use.

- In terms of regional differences, students from the border schools reported higher lifetime and past-month use of tobacco, alcohol, cocaine, crack, and Rohypnol than students living elsewhere in the state (Figure 3 and Figure 4). The differences in use between border and non-border students were greater in the upper grades.

### Protective and Risk Factors Related to Substance Use

#### Age at First Use of Substances

- Adolescents start using licit substances earlier than they begin using illicit drugs. This observation is consistent with the views of substance use progression, which maintain that alcohol, tobacco, and inhalants are “gateway drugs” into the continuum of substance use.

- Fifty-three percent of Texas students in grades 7-12 reported initiating alcohol use before 13 years of age, 45% reported first using tobacco before 13 years of age, and 28% reported first use of marijuana before 13 years of age.

#### Peers' Substance Use and Behaviors

- While 26% of the students in 2006 reported ever having used marijuana, they estimated that 48% of their close friends had ever used marijuana. This overestimation may be a factor in increased drug use because students may be more likely to use a drug if they believe (incorrectly or not) that most other students use drugs.
- Substance users were more likely than non-users to say that all or more of their friends carried weapons, belonged to a gang, or wished to drop out of school.
- Seniors (15%) were more likely than seventh graders (2%) to say that

illicit drugs were always used at parties they attended.

#### Perceived Danger of Substance Use

- Youths who believed substances were dangerous to use were less likely to use them. The perceived danger of substance use varies among grade levels, which reflects the expanding variety of drugs to which older students have been exposed.
- Only 3% of adolescents who thought marijuana was very dangerous to use had actually used it in the past month, whereas 51% of those who believed marijuana was not dangerous at all had used it.

#### Perceived Availability of Substances

- Older students said that it was easier to get substances than did younger students. Parties were still the major source of alcoholic beverages for youths, with friends as the second most common source.
- The easier it is to obtain a substance, the higher the rate of use by students. Forty-four percent of students who said that alcohol was very easy to obtain actually drank alcohol in the past month before the survey, compared to only 7% of those who said alcohol was impossible to get actually drank in the previous month.

#### Perceived Parental Attitudes

- Youths who said that their parents disapproved of teens their age using substances were less likely to use these substances.

- In the 2006 survey, only 17% of secondary students whose parents strongly or mildly disapproved of their drinking beer actually drank in the past month, compared to 53% of those whose parents strongly or mildly approved.
- As students get older, their parents are less likely to disapprove of the students' drinking alcohol or smoking cigarettes, although parental attitudes toward marijuana use do not change much as the students age.

#### Perceived Safety of the Environment

- Substance users felt less secure in their homes, neighborhoods, and schools than did those who did not use substances.

#### Extracurricular Activities

- Participation in extracurricular activities could be a protective factor. Students who participated in such activities reported lower use of substances than did those who did not participate, although the levels of use varied among the different activity groups.
- The 19% of secondary school students who participated in school band/orchestra reported the lowest lifetime and past-month use of most substances.
- Younger students, girls, Anglo students, and non-border students were more likely to participate in multiple extracurricular activities.

## Alcohol- and Drug-Related Problems

- About 21% of seniors admitted they had driven a car after having had “a good bit to drink” at least once in the past year, and 16% drove while they were high on drugs.
- Students who missed class or had conduct problems in school were more likely to have used alcohol or drugs. Marijuana users reported having school conduct problems on an average of 5.1 days in the school year as compared to 1.5 days for non-users.
- During the past school year, 9% of secondary school students went to school drunk, and 10 percent went to school high on marijuana on at least one occasion.
- More students in the upper grades said they had trouble with the law because of alcohol consumption.

## Sources of Information and Assistance for Problems

- The percentage of secondary school students who reported receiving substance abuse information from any school source has decreased since 1990.
- Fifty-six percent of secondary school students also reported receiving information on drugs or alcohol from TV, radio, or other audio/video.
- The most often-reported sources of help-seeking intentions were friends for all grades, except the seventh graders who said they would most likely to go to their parents for help.

- About 7% of secondary school students in 2006 said they had sought help, other than from family or friends, since school began for problems related to their substance use.

## Comparisons to the National Survey

- Table 2 shows that in 2006, Texas students were more likely to report lifetime use of cigarettes, alcohol, cocaine/crack, and Ecstasy than their peers nationally (2006 Monitoring the Future study).<sup>1</sup> These patterns held for past-month use between the national and state surveys, except for the use of cigarettes among eighth graders.
- While Texas eighth and tenth graders reported higher lifetime use of marijuana than their counterparts nationally, Texas seniors were less likely to have ever used marijuana than the national sample.
- National prevalence levels were higher for smokeless tobacco among eighth and tenth graders, and for steroids among seniors.

*Prepared by Liang Y. Liu, PhD,  
Community Mental Health and  
Substance Abuse Program Services,  
Texas Department of State Health  
Services*

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<sup>1</sup>Johnston LD, O'Malley PM, et al. December 21, 2006. Teen drug use continues down in 2006, particularly among older teens; but use of prescription-type drugs remains high. University of Michigan News and Information Services: Ann Arbor, Michigan. <http://www.monitoringthefuture.org/data/06data.html#2006data-drugs>

**Table 2. Lifetime and Past-Month Use of Selected Substances  
Among 8th, 10th, and 12th Graders Nationwide and in Texas: 2006**

	Lifetime Use		Past-Month Use	
	USA	Texas	USA	Texas
<b>Cigarettes</b>				
Grade 8	24.6%	25.8%	8.7%	8.3%
Grade 10	36.1%	38.4%	14.5%	16.2%
Grade 12	47.1%	48.2%	21.6%	24.7%
<b>Smokeless Tobacco</b>				
Grade 8	10.2%	7.0%	3.7%	2.3%
Grade 10	15.0%	11.5%	5.7%	4.4%
Grade 12	15.2%	15.5%	6.1%	6.7%
<b>Alcohol</b>				
Grade 8	40.5%	59.7%	17.2%	22.9%
Grade 10	61.5%	72.7%	33.8%	36.8%
Grade 12	72.7%	77.9%	45.3%	46.3%
<b>Marijuana</b>				
Grade 8	15.7%	17.0%	6.5%	6.9%
Grade 10	31.8%	32.3%	14.2%	13.4%
Grade 12	42.3%	41.6%	18.3%	17.3%
<b>Cocaine/Crack</b>				
Grade 8	3.4%	4.9%	1.0%	1.7%
Grade 10	4.8%	9.4%	1.5%	3.4%
Grade 12	8.5%	12.9%	2.5%	4.5%
<b>Ecstasy</b>				
Grade 8	2.5%	3.0%	0.7%	1.0%
Grade 10	4.5%	6.8%	1.2%	2.4%
Grade 12	6.5%	8.9%	1.3%	2.9%
<b>Steroids</b>				
Grade 8	1.6%	1.5%	0.5%	0.5%
Grade 10	1.8%	1.7%	0.6%	0.7%
Grade 12	2.7%	1.8%	1.1%	0.8%

Note: The Monitoring the Future survey gathered information from eighth, tenth, and twelfth graders in a regional nationwide sample annually.