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Student Perceptions of the Effectiveness of a Student Random Drug Testing Program in One New Jersey High School

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DEDICATION

To my mother, Yole Amoroso Brady, who would have been very proud of me.

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Abstract

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As a nation, the citizenry hold varied views on many issues but there is one issue upon which most Americans agree: they do not want young people to engage in the dangerous behavior of using illegal drugs. Most Americans will also agree that schools should be places where children can learn free from the influences of drugs and violence. These basic premises however, in spite of engendering such broad agreement, remain a challenge for our society and our schools.

This case study endeavors to present a picture of the effectiveness of a student random drug testing program. It provides an in-depth view of the school district's journey down a path designed to target the school's problems with drugs and alcohol. It is a case study of whether or not the students in the school perceive the random drug testing program to be effective and whether their perceptions influence their behavior and that of their peers. It highlights a principal's efforts to cast a spotlight on a problem that was so bright a community joined forces and unified around a controversial approach to attack the challenge.

The purpose of this case study is to describe a high school and its challenges with issues related to the use of drugs and alcohol use by its students and present a picture of the myriad prevention strategies undertaken to combat the problem. The study embraces multiple aspects of the issue and presents not a snapshot, but the total picture of the school and its challenge with this problem by using data collected through the administration of a questionnaire, data reported by students on the American Drug and Alcohol Survey and the New Jersey School Report Card.

Chapter I

Introduction

General Background of the Problem

Americans hold varied views on many issues, but most agree on one issue: they do not want young people to engage in the dangerous behavior of using illegal drugs. Most Americans also agree that schools should be places where children can learn free from the influences of drugs and violence. However, in spite of engendering such broad agreement, these basic premises remain a challenge for our society and our schools.

This case study provides an in-depth view of one school district's efforts to target problems with drugs and alcohol, and the choice to pursue a controversial solution. It is a case study of whether or not the students in the school perceive the program to be effective. It is a case study of whether their perceptions of the program's effectiveness--or lack of effectiveness--influence their behavior and that of their peers. It highlights a principal's efforts to cast a spotlight on the problem that was so bright a community joined forces and unified around a controversial approach to attack the challenge. At stake was the school's reputation as an academically excellent Blue Ribbon School where 77% of students take the Scholastic Aptitude Test (SAT) for a combined score of 990, as reported on the New Jersey 2005-2005 School Report Card (State of New Jersey Department of Education [NJDOE], 2005). It is a blue-collar town where 86% of graduates attend either two-year or four-year colleges and 99% of high school seniors pass the New Jersey High School Proficiency Assessment (HSPA).

Hackettstown High School is a school of highly competitive sports teams and seventeen varsity-level sports that compete in the highly regarded Skylands Conference.

Friday nights in the fall find the townsfolk packed onto the high school football field, where they rally to support the hometown team. Many of the parents attended school there and played on the Hackettstown team as well. The town is proud of its school and its students; but in recent years the school has gained a reputation in areas unrelated to academics and athletics. On the streets and in the school, it has slowly gained a reputation as "Heroin High."

In a series of community forums held during the 2003-2004 academic year, the principal reported that the drug and alcohol education and prevention programs in place at Hackettstown High School were not having the desired effect. The school employs the services of a full-time student assistance counselor and three guidance counselors, teaches the State of New Jersey mandated curriculum for drug and alcohol education in grades 9–12, and holds student assemblies and parent drug education programs each year. Despite these efforts as well as those of a strong student group called TREND, which advocates a drug-free and alcohol-free lifestyle, many students were choosing another path. On weekends, students were often arrested for drug- and alcohol-related offenses, according to local newspaper reports and local law enforcement officers. In addition, the principal reported during the community forums that increasing numbers of students had been identified as under the influence of drugs while at school.

With the support of the board of education, the principal formed a school/community task force to explore the issue and based on the task force recommendation, made the decision to administer the American Drug and Alcohol Survey (ADAS) to all students in grades 9–12 in order to ascertain the extent of the problem and to provide a framework from which to make recommendations. This survey

is a self-report instrument that has been administered to more than 1.5 million students nationwide. Based on the results, the task force was able to benchmark the school's drug and alcohol use data with that of other high school students in New Jersey and across the nation.

The National Picture

Nationally, the rate of marijuana use among youths was 8.2% in 2002, 7.9% in 2003, and 7.6% in 2004 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2004), indicating a steady but not statistically significant decline. However, declines in past-year and lifetime marijuana use among youths from 2002 to 2004 were statistically significant (Johnson, O'Malley, & Bachman, 2004).On another positive note, the percentage of youth aged 12 to 17 who indicated that smoking marijuana once a month was a great risk increased from 32.4% in 2002 to 34.9% in 2003; however, no change was evident between 2003 and 2004 (35.0%). The percentage of youths perceiving a great risk in using cocaine and heroin declined between 2003 and 2004. Youths reporting that it would be easy to obtain marijuana declined from 55% in 2002 to 53.6% in 2003, and again to 52.2% between 2003 and 2004.

Also encouraging on the 2004 National Survey on Drug Use and Health (SAMHSA) was that 89.8% of youths reported that their parents would strongly disapprove of their trying marijuana once or twice; among these, only 5.1% had used marijuana in the past month. However, among youths who perceived that their parents would only somewhat disapprove or neither approve nor disapprove of their trying marijuana, 30% had used marijuana. This data is consistent with the data collected at Columbia University at the National Center on Addiction and Substance Abuse (CASA)

in 2005, which showed that teens who said their parents would be "a little upset" or "not upset at all" if they used marijuana were six times more likely to have tried marijuana than those who believed their parents would be "extremely upset" (76% vs. 12%). Such data puts parents squarely on the front line of teen drug prevention.

Prevention and education programs also remain important. One in eight youths reported in 2004 that they had participated in drug, tobacco, or alcohol prevention programs outside of school in the past year (CASA, 2005). Participation in such programs increased from 12.7% of youths in 2002 to 13.9% in 2003, but then declined to 12.2% in 2004. Although the prevalence of alcohol use was generally lower among youths who reported participating in these programs than among youths who did not, rates of illicit drug use did not differ significantly between the two groups.

A question that is central to this research study is whether this fight can be won, at least in part, on the battleground of public and private schools. A study conducted by CASA in 2005 reported information that bears on this issue. In a survey of 1,000 teens ages 12 to 17 years (503 boys, 497 girls), CASA (2005) found, "This year, as in every year since we began the survey in 1996, more teens (29 percent) cite drugs as their number one concern than any other matter." Of the teens surveyed nationally, 62% attended schools where drugs were used, kept, or sold--a 41% increase since 2002. In addition, 28% of middle school students attended schools where drugs were used, kept, or sold--a 47% increase since 2002. Compared to teens that attended drug-free schools, teens who attended schools where drugs were used, kept, or sold were three times more likely to try marijuana, three times more likely to get drunk in a typical month, and twice as likely to drink alcohol. Another troubling find in the 2005 survey was that the

percentage of teens who reported that they knew a friend or classmate who had abused prescription drugs jumped 86% (from 14% to 26%) from 2004 to 2005, and that the percentage of teens who knew a friend or classmate who had used Ecstasy was up 28% (from 18% to 23%).

The practical meaning of these statistics is that in the 2004 -2005 academic year, 10.6 million high school students and 2.4 million middle school students attended schools where drugs were kept, used, or sold (CASA, 2005). Students and their parents (896 parents were surveyed) generally agreed as to whether their school was drug-free; and, surprisingly, a large percentage (87% of students and 86% of parents) agreed that the school was a safe place (CASA). The authors of the study, however, questioned this finding, based on previous CASA research that found a high correlation between the presence of drugs in a school and the incidence of violence against teachers and students, weapons confiscated from students, and a general lack of discipline. The importance of securing a drug-free school environment was underscored in their study by finding that in non-drug-free schools, 40% of the students believe that conditions were "worsening," with 15% saying it was the same and 36% saying it was getting better. Forty-eight percent of the parents surveyed reported that drugs were used, kept, or sold on the grounds of their teens' school, and 56% of those parents believed that the goal of making their child's school drug-free was unrealistic.

The Research Problem

Drug prevention strategies have demonstrated limited and unstable success since the 1960s, when most experts agree that the current drug epidemic in this country had its start. A variety of drugs have emerged and re-emerged over the years. The wide

divergence in trajectories of the different drugs over time helps to illustrate the point that, to a considerable degree, the detriments of use are often specific to the drugs (Johnson et al., 2004). These detriments include both the perceived benefits and the perceived risks that young people come to associate with each drug. To a considerable degree, prevention must occur drug by drug because people will not necessarily generalize the adverse consequences of one drug to the use of other drugs. Because young people's attitudes and beliefs are at quite different levels for the various drugs, they often trend differently over time (Johnson et al.). The result has been fractured prevention efforts aimed at curbing use of specific drugs, as opposed to drug use in general.

An additional challenge is the continuous flow of new drugs onto the scene and of older ones being rediscovered by young people (Johnson et al., 2004). Many drugs—most notably, heroin, LSD, and methamphetamine--have made a comeback, often because young people's knowledge of their adverse consequences faded as generational replacement, also termed "generational forgetting," occurred.

Clearly, the problems of substance abuse are sufficiently widespread to warrant continued efforts to deal with this national problem. Today, about half (51%) of all teenagers have tried an illicit drug by the time they finish high school, as measured in the 2004 Monitoring the Future Survey (Johnson et al., 2004). If inhalant use is included in the definition of an illicit drug, nearly a third (30%) have done so as early as eighth grade, when most students are only 13 or 14 years old.

When the United States Supreme Court ruled in 1995 (*Vernonia School District 47J v. Acton*) that student athletes could be randomly tested for drug use, few schools responded to this non-conventional approach to the problem. Since that time, the Federal

Court has ruled once again in favor of school-based student random drug-testing programs. This 2002 decision (*Board of Education of Tecumseh Public School District Independent School District No. 92 of Pottawatomie County v. Earls*) involved an Oklahoma school district. This time, the federal court expanded the *Vernonia* ruling to include not only students involved in athletics but also those involved in non-athletic extracurricular activities.

During the past three decades, a wide range of prevention efforts have been designed and implemented to reduce adolescents' use of illegal drugs. Some have produced solid, positive results. Nevertheless, the drug epidemic retains a powerful hold on American teenagers. Of special concern is the fact that the declines in eighth graders' use of inhalants has ended and even begun to reverse, with evidence that use may be rising in the high school grades as well (Johnson et al., 2004).

Over the past two years, largely as a result of the spotlight cast on the implementation of student random drug testing as a prevention tool by the White House Office of National Drug Control Policy (ONDCP) and the U.S. Department of Education (DOE), the number of schools engaging in student random drug testing is on the rise. The ONDCP and the DOE announced the release of $7.2 million in federal grants for schools to implement student drug-testing programs in October 2005. Fifty-five grants were awarded to fund random student drug-testing programs in 352 schools. The competitive grant program supports schools in the design and implementation of a confidential and non-punitive program for the screening of randomly selected students, and in the assessment, referral, and intervention for students whose test results indicate they have used illicit drugs. Because the legal issues have been put to rest by the 1995 and 2002

Supreme Court rulings in favor of student random drug-testing programs, it is reasonable to expect the expansion of school-based drug testing. Objections continue, however, and should be addressed by student drug-testing proponents at the local and national levels.

At the heart of the legal challenges are privacy issues. Also in question is what level of drug use in a school community is sufficient to justify student random drug testing and whether these programs target students who are most at risk. Beyond the purely legal concerns is the belief that the apparent mistrust and accusatory implications behind student random drug testing may alienate youth in their dealings with adults. Additional concerns are that students identified as drug users will be arrested and subject to the criminal justice system. Another concern is that drug-using students who are identified through random testing programs will have their future prospects in college and the workplace compromised by documented positive drug-test results. Critics focus on the negative impact of suspending drug-using students from athletics and/or extracurricular activities and assert that such repercussions may place these students at an increased risk for continued drug use. In addition, some opponents contend that the money spent on random drug testing could be better spent on other prevention programs or on enhancing the quality of education in economically pressed schools. Finally, opponents argue that random drug testing that fails to detect alcohol and drug use in the tested students may give teachers and parents a false sense of security about how "drug free" the students really are.

Purpose of the Study

The purpose of this case study is to describe a high school's challenges with issues related to the use of drugs and alcohol use by its students, and to present a picture

of the myriad prevention strategies undertaken to combat the problem. The study embraces multiple aspects of the issue and presents not a snapshot, but the total picture of the school and its challenge with this problem by (a) studying and analyzing results from the ADAS administered to the student body in 2003-2004, (b) examining information reported by the school on the New Jersey School Report Card for 2004-2005 (NJDOE, 2005), (c) gathering perceptions of high school students who are participants in their school's random drug-testing program on the effectiveness of the random drug-testing program on substance abuse, and (d) determining if the program provides an effective deterrent to drug and alcohol use.

Although perceptions do not necessarily mean fact, they have a clear influence on behaviors. This case study revolves around determining whether students in the school perceive the random drug-testing program to be effective and if this perception influences their behavior. The determination was made through the use of a written questionnaire designed to ascertain whether the respondents have noted changes in their own behavior and that of their peers regarding the use of drugs and alcohol since the implementation of the school's random drug-testing program. The questionnaire also asks questions designed to measure the perceived deterrent effect of the program.

Significance of the Study

Especially in the urban centers, concerns over elevated and ever-increasing levels of drug use as well as the association between drug use and adverse consequences (e.g., low academic achievement, school dropout rate, accidents, and violence) have led to an increasing interest in various drug prevention programs. The school that is the focus of the present study is not a low-achieving school, does not have a high dropout rate, and

does not report elevated numbers related to school violence However, the school and community were alarmed at increased student arrests and students found under the influence of dangerous drugs such as heroin and Ecstasy. An emerging strategy being proposed to deal with this issue is drug testing of high school students who are involved in athletics and extracurricular activities. Such a program has been endorsed by the Supreme Court, which held that drug testing of students in extracurricular activities is an effective means of addressing legitimate concerns in preventing, deterring, and detecting drug use. However, little conclusive evidence or comprehensive, systematic scientific evaluation of such a program has been reported.

Research Questions

1. Is a student random drug-testing program an effective deterrent against drug use among the population of students being tested?
2. Do students in the randomly selected testing pool perceive the drug-testing program to be effective in deterring drug use among those who are tested?

Limitations of the Study

The following limitations are inherent within the context of this case study regarding the student survey:

1. Only students whose parents grant permission for the researcher to survey them will be included in the study.
2. The study involves only students in one high school with a random drug-testing program.
3. Since the study involves students from a single school district, exposure to drug and alcohol education curriculum as part of elementary and middle school should

be quite similar; however, varying degrees of parental interventions and attitudes at home may affect students' propensity to use or not use drugs and alcohol, independent of the random drug-testing program.

4. The study involves only students who are involved in athletics or other extracurricular activities, or who park on campus; results cannot be generalized to students outside of these groups.

Other Limitations

Because the study is limited geographically and demographically, transferability may not be appropriate. The scope of the study is confined to examining what is occurring at one school in a rural blue-collar area; the results may not apply to urban or suburban schools.

Definition of Terms

Within the context of this study, the following definitions apply:

Illegal Drugs–substances that are not prescribed and/or approved by the FDA for over-the-counter distribution to the general public

Substance Use–the social use of illegal drugs by teens

Substance Abuse–repeated and continued use of illegal drugs by teens over time, often resulting in the need for treatment as measured by national surveys

Extracurricular Activities–school-sponsored opportunities (e.g., clubs, band, and athletics) that take place outside the parameters of the normal school day, usually after school

School-Based Drug-Testing Program–the weekly screening of urine (urinalysis) or saliva (oral fluids) for the presence of metabolites related to a variety of illegal drugs

Random Drug Testing–selection of students by lottery for the administration of a urine drug test

Under Suspicion Drug Testing - drug tests administered when a student is suspected of being under the influence of drugs and/or alcohol

Student Assistance Programs–formal initiatives usually comprised of counseling and education at the school; often funded with Safe and Drug Free Schools money provided by grants at the state and national level

Chapter II

Review of the Literature

The literature is rich with research on drug abuse prevention programs and treatment options, but the idea of suspicionless random drug testing of students was not legal in the U.S. until 1995. The research has been slow and is relatively new. A dearth of scholarly research exists regarding the effectiveness of student random drug-testing programs. Most of the literature addresses the legality of these programs but does not speak to their effectiveness. Due to this lack of refereed literature, the researcher must resort to the use of more non-refereed literature than she would like in order to paint a picture of program effectiveness as it is currently known. Hence, the use of unpublished papers and other works not published in scholarly journals may appear in this review.

It was not until May 1992, with a dissertation by John Charles Walker at the University of Virginia, that the literature began to turn toward the effectiveness of mandatory random drug-testing programs. Prior to the *Vernonia* decision (*Vernonia School District 47J v. Acton*, 1995), only a handful of schools across the country conducted mandatory random drug-testing programs with high school athletes. In his dissertation entitled *The Substance Use Habits and the Perceptions of the Effectiveness of Drug Testing of Lynchburg City Schools' High School Athletes*, Walker (1992) launched a study with two purposes: (a) to determine the extent of substance use by high school athletes in Lynchburg (VA) City Schools and (b) to determine the effectiveness of mandatory and random drug testing in deterring substance use by Lynchburg City Schools' high school athletes.

Using a stratified random sample from the fall and winter squads as well as a written questionnaire, Walker (1992) tabulated descriptive data. Results indicated that the majority of substance use began prior to entering the tenth grade, and reasons most frequently given for using substances were the desire to feel good and social reasons. The athletes who did not use or who had stopped using substances reported health concerns, lack of desire for the effects, dislike of them, or lack of a need to use them as reasons for abstaining from substance use. In his analysis, Walker indicated that neither group expressed concern about getting caught using drugs, and that substance use increased for some athletes and decreased for others during the competitive season when drug testing was conducted. A majority of the athletes did not consider mandatory or random drug testing as effective for deterring substance use or as effective for curbing substance use in the off-season.

Upon looking closely at the data, however, this researcher takes exception to Walker's assessment (1992) of the effectiveness of the program, especially by today's standards. In actuality, 38% of respondents in the Lynchburg study strongly agreed that the initial drug testing at the start of the season had deterred them from using drugs during the season. In addition, 36% strongly agreed that periodic random drug testing had deterred them from using drugs during the season, and 21% strongly agreed that the program had deterred them from using drugs during the off-season. Also interesting is the fact that of the 39 students who took the time to write comments on the questionnaire, 21 favored drug testing and perceived the program as effective.

Because the study used a Likert scale to collect student data on the effectiveness of the drug-testing program, no data indicates the actual drug use of the students; it

addresses only their perceptions of the program's effectiveness. Walker's study (1992) is important because it reflects some of the earliest efforts to obtain data on the effectiveness of student random drug testing; however, it is limited, due to the sample size and the lack of pre- and post-test data reflecting actual drug use.

In March 1998, Robert DuPont, President of the Institute for Behavior and Health and Clinical Professor of Psychiatry at the Georgetown University School of Medicine, issued one of the first reports on the topic. In his report, he linked the growing levels of teenage drug use in the U.S. with the serious limitations of drug prevention efforts that were not associated with consequences. He was one of the first to contend that the most effective way to prevent drug use is to test for recent use and to link positive tests with consequences.

> This is the primary drug abuse prevention strategy used today in drug abuse treatment programs, in the criminal justice system, and in the U.S. military. In the last two decades it has also been the major strategy for the U.S. workplace and among professional and Olympic athletes .

DuPont's assertion was the first reference in the literature to make a correlation between student drug abuse prevention and the strategies used in the military and the workplace. However, a body of literature was available at this time suggesting that random drug testing in these areas was cost-effective and efficient.

In October 2002, a two-year study (McKinney) of student drug-testing programs was conducted in Indiana. This study compared drug use in Indiana high schools during the 1999-2000 academic year, when student drug-testing programs were operational, with use during the following school year, when student drug-testing programs had been

suspended due to a court ruling. After the suspension, the Indiana Supreme Court heard the case and then permitted student random drug testing to be reinstated (*Linke v. Northwestern School Corp.*, 2002). Principals at 71 high schools (88% of the 80 Indiana high schools with student random drug-testing programs) participated in the study, reporting the following data as related to student drug use during the non-testing school year in comparison to the year during which the schools were testing:

1. Eighty-five percent reported an increase in either drug or alcohol use, with an 80% reported increase in illicit drug use.
2. Seventy-eight percent reported an increase in the number of students who provided information that drug and alcohol use was on the rise since the drug-testing program had been suspended.
3. Five hundred eighteen students were suspended or expelled for drug/alcohol related incidents, compared to 352 for the 1999-2000 school year.
4. Fifty-five percent of principals reported that coaches provided information regarding an increase in drinking incidents among student athletes after the drug-testing programs had been suspended, and 57% reported an increase in drug use among student athletes after suspension of the program.
5. Eighty-nine percent of principals participating in the study believed that drug testing did, in fact, limit the effects of peer pressure by providing students a reason to say no to illegal drugs and alcohol.

As a result of the Indiana Supreme Court ruling (*Linke v. Northwestern School Corp.*, 2002) in favor of the school district, McKinney (2004) conducted a follow-up survey of high school principals during the 2002-2003 school year to determine how many of the schools reinstated random drug-testing programs and the effectiveness of the drug-testing programs. In this survey, principals reported the following:

1. Ninety-four percent indicated that they believed the random drug-testing policy to be effective in discouraging drug and alcohol use by students.
2. Eighty-eight percent of schools re-implemented random drug-testing programs.
3. Seventy-three percent of principals reported decreases in drug use for the 2002-2003 school year, as compared to the previous year without random drug testing.
4. Fifty-one percent of principals reported decreases in alcohol use for the 2002-2003 school year, as compared to the previous year without random drug testing.
5. Forty percent reported that fewer students had been suspended (for drug use) from participation in athletics since re-implementing the testing program.

In July 2002, the Institute for Behavior and Health in Bethesda, Maryland, published a report on a study funded by the U.S. DOE (Dupont & Mazza, 2002). During the 2001-2002 school year, seven public and two private schools from suburban, rural, and urban locations were surveyed. These schools were located in several states throughout the U.S. All had programs that involved student random drug testing that had

been in place for an average of three to four years. The focus of the study was on the elements of a successful school random drug-testing program; however, none of the schools in the study had conducted a formal evaluation of its effectiveness in curbing adolescent drug use. They did, however, have anecdotal evidence and, in some instance, survey data to support the value of the program. All of the school officials surveyed strongly supported the student random drug-testing programs, and all were convinced that their programs benefited their entire school communities. None of the school officials (e.g., principals, assistant principals, counselors, athletic directors and student assistance counselors) wanted to give up these programs, and none would make major changes if they were to begin again. In addition, all indicated that they would encourage other schools to implement student random drug-testing programs.

The results of the study (Dupont & Mazza, 2002) also indicated that all the schools enjoyed much support and faced little opposition within their communities when they started the drug-testing programs. All reported increased support from their communities over time. In addition, they reported that the programs were not disruptive to student life, and none had been considered by their schools to be hugely expensive or administratively burdensome.

Over the past four years, intense interest has focused on the use of steroids by professional as well as high school athletes. Adolescent athletes use anabolic steroids more frequently than their non-athlete peers, with a total of 4% to12% of all athletes using anabolic steroids at some point in their lives, according to both national and regional studies (Johnson, et al. 2004; Goldberg et al., 2003). Issues surrounding adolescent male athletes' use of alcohol and other drugs have expanded to the idea that

participation in sports may encourage the use of performance-enhancing substances, especially anabolic steroids (Goldberg et al., 2003). From 1994 through 1996, Goldberg et al. (1996) studied 31 high school football teams that comprised 3,207 athletes in three successive annual cohorts. The intervention included interactive classroom and exercise training sessions given by peer educators and facilitated by coaches and strength trainers. Before and after the program and up to one year later, questionnaires were administered to assess anabolic steroid use; the use of sports supplements, alcohol, and other illicit drugs; and potential risk and protective factors. The study concluded that the use of alcohol and other illicit drugs and associated harmful activities can be prevented with a sex-specific, team-centered education, and that school athletic teams provide an optimal environment in which to provide drug prevention and health promotion education.

In 1997, Robert Taylor cited a slow but steady rise in the number of schools subjecting all students who participated in extracurricular activities to random drug testing. He was concerned that future improvements in testing technologies that lower costs and increase reliability would accelerate the spread of such testing. He explored the conditions under which the random drug testing of athletes would lead to increased student drug use and asserted that the random drug testing of athletes may be a risky policy innovation. Taylor presented a compensating behavior model in which individual responses to a government regulation diminish or even reverse the regulation's intended effect. The study was a combination of two questionable assumptions at the outset: (a) increasing the cost of being an athlete by imposing drug testing reduces athletic participation, and (b) ex-athletes will revert to the higher drug use levels of their non-athlete peers. Both would guarantee some degree of compensating behavior.

The implications of the study are troublesome since Taylor (1997) did not actually use students to collect data; instead, he based his assertions on a hypothetical model of a school that implemented random drug testing. He based his conclusions on unfounded premises such as what would happen if 50% of student athletes quit the team after the implementation of random drug testing. In reality, in the nine years following the Taylor study, the schools that had implemented random drug-testing programs did not see a decrease in athletic participation (Goldberg et al., 2003). Also troublesome is Taylor's conclusion that schools with thriving "drug cultures" that encourage experimentation with narcotics are especially likely to experience an increase in overall usage. Taylor made additional overreaching assumptions that seriously compromised his study. For example, he asserted that some sports--track, cross-country, and golf, in particular--have low prestige and therefore are more likely to see reductions in drug use as a result of testing; however, high prestige sports such as football and basketball will experience less success. Classifying sports as high-prestige and low-prestige smacks of the personal bias of the author, who also interjected tremendous bias on the issue of perceived privacy invasion. These biases may be partly attributable to the fact that the study was conducted in 1997, before drug testing in the general population was as pervasive as it currently is. It is certainly not uncommon today for teenagers to be subjected to urine screening either for employment or as part of a routine physical.

By 1999, several studies were being conducted on the effectiveness of random drug-testing programs for high school athletes. In 2000, Goldberg, MacKinnon, Elliott, and Moe reported on the results of a survey designed to assess the use of alcohol and other drugs among athletes. In one of the earliest large-scale studies, the research team

surveyed male high school football players (n=1,506) and adolescent females (n=2,085). Results included lifetime use of alcohol (76.2% male and 65.3% female), marijuana (29.4% male and 14.8% female), and amphetamines (8.4% male and 7.8% female). Using a confidential questionnaire, the researchers also surveyed 1,299 students from 28 high schools to determine the potential deterrent effects and acceptability of drug testing. Of those surveyed, only a small minority (<9%) said they would use drugs and only 12% claimed they would continue to use alcohol if random drug testing were a school policy. An important aspect of this work was its finding that drug testing received broad support although no empirical trials suggested its efficacy. The preliminary data from this study suggested high acceptability and a potential benefit of random drug-testing programs. The researchers recommended that drug testing be assessed as a potential deterrent to drug use among adolescent athletes.

In January 2003, the results of a study (Goldberg et al.) conducted in Oregon were published. This study was designed to assess the deterrent effect of mandatory random drug testing among high school athletes in a controlled setting. In this study, two high schools--one with mandatory signed drug testing consent forms before sports participation and a control school without drug testing--were assessed during the 1999-2000 school year. At the beginning and the end of the academic year, athletes and non-athletes in each high school completed confidential anonymous questionnaires developed for the study. Thirty percent of the athletes at the drug-testing school were tested, and data were analyzed using the end-of-the-school-year measure. Results demonstrated that the drug testing policy may have led to a significant reduction in athletes' past 30-day use of both athletic-enhancing substances and illicit drugs at the end of the school year.

Despite the findings of reduced past 30-day illicit and ergogenic substance use, athletes in the drug-testing group believed that testing was less effective and produced fewer perceived benefits. These negative features may be due to the fact that drug testing was a new school policy, as well as the perception that this change resulted in the loss of the students' individual freedom.

Goldberg in 2003 suggested that before these findings, several theorists proposed reasons as to why drug testing could be an effective deterrent. Some research confirmed that when students believe schools and parents are explicitly intolerant of drug use, less drug and alcohol use occurs among students. Although parental consent and school initiation of a mandatory drug surveillance program could send a message that substance abuse is not tolerated, the 2003 study did not analyze parental factors. Also, the possibility of a drug test could provide a reason for teens to resist drug and alcohol offers. According to the research team, however, in this study, students did not believe that drug testing was a reason to decline drug offers. Despite these findings, the study concluded that the concurrent decrease in use and increase in attitudes favoring drug use among athletes in the intervention school may reflect the importance of the immediacy of the consequences. The tangible results of testing may be a more relevant factor in deterring use than other factors. This result is consistent with prior studies, which showed that programs emphasizing adverse effects that may occur in the future have not been effective in reducing substance abuse, as reported by the National Institute on Drug Abuse (1997).

In response to the findings reported by Goldberg et al. (2003) regarding the SATURN (Student Athlete Testing Using Random Notification) study, (questions about

ethics arose concerning whether research can be conducted with high school students in conjunction with a mandatory drug-testing program, while adhering to prevailing ethical standards regarding human subjects research and specifically the participation of children in research (Shamoo & Moreno, 2004). In December 2005, New Jersey became the first state in the nation to require mandatory testing for steroid use by high school athletes who achieve championship play status beginning in September 2006. However, due to the Active Consent Law (N.J.S.A. 18A:36-34), constraints surrounding the issue of obtaining parental consent to survey students in New Jersey have been challenging and problematic.

In another example that involved such ethical disputes, the allegations leveled against Goldberg and the Oregon Health and Science University in relation to the SATURN Study in 2003, in no way disputed the data collected or the conclusions drawn regarding the effectiveness of the random drug-testing program; instead, they were directed at issues regarding informed consent. In its determination letter of October 2, 2002, the U.S. Office of Human Research Protections (OHRP, 2002a) found the Oregon Health and Science University in violation of numerous federal regulations for the protection of human subjects, but stated that it was not yet prepared to address the SATURN study. In its subsequent determination letter of October 24, 2002 (OHRP, 2002b), the SATURN program was suspended. Among the OHRP's findings were that "the goal of mandatory drug testing of student athletes and the scientific aims of the study are so closely interwoven as to be indistinguishable." The OHRP also found that the study failed to meet the requirement that informed consent should be obtained under circumstances that would minimize coercion and undue influence: OHRP cited the

linkage of athletic participation and a drug testing requirement, as well as the use of formal classrooms and coaches during the contact with students. In addition, OHRP found that the study had been initiated prior to obtaining IRB approval and that the informed consent form lacked complete descriptions of such elements as randomization, parental notification if a drug test was positive, and the longitudinal nature of the study.

Shamoo and Moreno (2004) suggested the development of other study designs that are not inherently coercive, although they "might be less efficient and provide somewhat less secure conclusions". The present research study represents an attempt to obtain information on the effectiveness of a mandatory random drug-testing program without violating core ethical values, as determined by OHRP.

In April 2003, Yamaguchi, Johnston, and O'Malley published a report entitled the "Relationship between Student Illicit Drug Use and School Drug Testing Policies." Their study provided information based on results from national surveys and provided descriptive information on drug-testing practices by schools from 1998 to 2001. It examined the association between drug testing by schools and use by students. School-level data on drug testing were obtained through the Youth, Education and Society Study, and student level survey data were obtained from the schools participating in the Monitoring the Future Study.

The study by Yamaguchi et al. (2003) emphasized the extent to which such policies were actually being used and examined the association between drug testing and reported drug use by students. Student data were obtained from the Monitoring the Future Study, supported by the National Institute on Drug Abuse. The sample consisted of nationally representative students in grades 8, 10, and 13. Data on school characteristics,

including drug testing policies, were obtained from administrators of the relevant schools under a separately funded research project, the Youth, Education and Society Study supported by the Robert Wood Johnson Foundation. From 1998 through 2001, self-administered questionnaires were collected from approximately 30,000 eighth-grade students in 260 schools, 23,000 tenth-grade students in 227 high schools, and 23,000 twelfth-grade students in 235 high schools.

Results from the study (Yamaguchi et al., 2003) indicated that a relatively small number of schools employed drug testing. Across the four years (1998 to 2001), 18.14% of surveyed schools reported using drug testing of any kind, and they contained 19.23% of all students in the national samples. Among groups of students drug-tested from 1999 to 2001, those suspected of using drugs were most likely to be tested, with 14% of schools testing such students. From 1998 to 2001, drug testing of students involved in extracurricular activities occurred in only 2.28% of schools (containing 2.49% of students). A general upward trend appeared in drug testing of students in extracurricular activities. Specifically, in 1999, only 0.57% of surveyed schools (affecting 1.62% of students in the school sample) reported drug testing of students in extracurricular activities; in 2000, 2.92% of schools (affecting 3.10% of students in the school sample) did so; in 2001, 3.30% of schools (affecting 2.81% of students in the sample) did so.

The study (Yamaguchi et al., 2003) also reported that from 1999 to 2001, drug testing of student athletes occurred in only 4.93% of schools (which had 5.86% of the students in the school sample). A general upward trend appeared in drug testing of athletes. For example, in 1999, 2.87% of schools (affecting 4.59% of students in the sample) reported drug testing of student athletes and in 2002, 7.02% of schools (affecting

7.39% of students). In 2001, 4.95% of schools (affecting 5.68% of students) drug-tested their student athletes. Among schools in this study that reported any form of drug testing, the most common reason was cause or suspicion. While a general upward trend emerged in drug testing based on cause or suspicion, this trend was not statistically significant. Similarly, drug testing by other methods (e.g., routine, random, volunteer, and mandatory) followed a general upward trend. Such trends, however, were not statistically significant. The 2003 study by Yamaguchi et al. concluded that although much media attention had focused on drug testing in schools, the proportion of schools that tested students for drugs remained relatively low and involved mostly high schools. Among the eighth-grade, tenth-grade, and twelfth-grade students surveyed in the study, school drug testing was not associated with either the prevalence or the frequency of student marijuana use or of other illicit drug use. The study also concluded that drug testing of athletes was not associated with lower-than-average marijuana and other illicit drug use by high school male athletes. Even among those who identified themselves as fairly experienced marijuana users, drug testing also was not associated with either the prevalence or the frequency of marijuana or other illicit drug use.

The study (Yamaguchi et al., 2003) garnered a high level of attention from the media, and those involved in the student random drug testing movement expressed concern. Most importantly, the schools in the study were dichotomized based on each school principal's response to the question, "In the school year, did your school test any students for illicit drug use?" Approximately 18% of the schools that answered "yes" were further subdivided into schools that conducted either random testing or suspicion-based testing. Principals were asked which groups of students at their schools were

tested: students participating on an athletic team, students in other extracurricular activities, selected students based on suspicion or cause, students on school probation, students who volunteered to be tested, all students, and "other." Principals checked as many of these as applied to the drug tests conducted each year at their schools.

Yamaguchi et al. (2003) then compared the drug use rates in the 18% of the schools that tested "any students for illicit drug use" with those in the 82% of the schools that did not. The results revealed no consistent difference between the schools that tested and the schools that did not. Upon reflection, these results are not surprising,, since no assessment measured the number of drug tests that each school conducted. A school that conducted a single drug test in a year would be included in the "yes" category, along with a school that had a comprehensive drug prevention program that included carefully structured student random drug testing.

The debate on the effectiveness of student drug testing will continue to dominate conversations among schools, communities, and the health sector in the years ahead. Clearly, the appropriation of over $7,000,000 in federal funds sheds light on the level of interest shown by the government on this issue. This evaluative case study is one opportunity to share data, provide description, and communicate knowledge about one school's experience in this emerging arena of drug abuse prevention for American teenagers.

Chapter III

Subjects, Data Collection/Procedures, and Data Analysis

Overview of Methodology

This researcher designed an evaluative case study to answer the research questions introduced in the first chapter. This methodology was selected because it involves description, explanation and judgment (Merriam, 1998) and thus allows the researcher to draw conclusions regarding students' perceptions of the effectiveness of the school random drug-testing program and whether or not it has a deterrent effect on their behavior and that of their peers. The value of case study research exists in its attempt to provide a comprehensive understanding of actions within a system (Merriam). It allows the researcher to collect aggregate data in the public domain to describe the struggle of the school and community surrounding the issue of drug use among students in their high school. It also allows the researcher to collect and analyze data to present patterns and themes that help shed light on the perceptions of the students themselves about the effectiveness of the school's drug-testing program.

Descriptive research methodology is the basis for the survey section of this study. Krathwohl (1998) explained that survey research usually attempts to provide an understanding of the group being surveyed. In this study, the researcher hopes to provide an understanding of the students who are randomly tested for drugs. This researcher uses three data sources to make a case: a survey questionnaire, information from the New Jersey School Report Card (NJDOE), and data collected from the administration of the ADAS to the student body.

Survey Questionnaire

Walker (1992) designed a questionnaire to determine the effectiveness of the random and mandatory drug-testing program of high school athletes in Lynchburg City, Virginia, schools. Permission from the author was obtained to use the survey. For the present study, the survey was modified to allow for this study's inclusion of students involved in extracurricular activities other than athletics, as well as those who park on campus.

New Jersey School Report Card

The mission of Hackettstown High School is to nurture and enhance the intellect and character of its students, as reported on the 2004-2005 New Jersey School Report Card (NJDOE, 2005), which also indicates that the climate of the school promotes communication and a shared decision-making model. The school has a 94.5% attendance rate, compared to the 94.4% attendance for the state; it has a .4% dropout rate, compared to 1.9% rate for all high school students in New Jersey. Almost all dropouts at Hackettstown High School are male. The school had no expulsions in 2004-2005 and had a suspension rate of 7.2%, compared to the state average of 13.6%. Fourteen percent of the student population is classified as eligible for special education services, compared to the state average of 8.8%. This average for special education students is consistent with averages for other schools in Warren County and neighboring Hunterdon County.

On the 2004-2005 HSPA, 89.3% of students scored in either the proficient or advanced proficient range for language arts and 84.2% scored in either the proficient or advanced proficient range for math. The comparative per pupil cost is $10,563 for the

school, compared to the state average of $11,172 as reported on the New Jersey School Report Card.

American Drug and Alcohol Survey (ADAS)

In the 2004-2005 school year, the school implemented a student random drug-testing program for all students involved in athletics and other extracurricular activities, and for those granted campus parking permits. The program was implemented after conducting the ADAS in 2003-2004, which was administered to the entire student body. The random testing program was implemented after a year-long process involving parents and community members, who received the survey results, as well as anecdotal information that was shared at five community meetings held at the school. Concerns were raised in response to local newspaper reports on recent heroin overdoses among former graduates, and an increase in heroin use by high school students, as evidenced by the increased number of "under-suspicion" drug testing cases that had been documented at the high school in recent years. The principal indicated that some sectors regarded Hackettstown High School as "Heroin High." The district applied for and was awarded a random drug testing grant from the U.S. DOE in the amount of $87,696 for fiscal year 2005, with projected awards of $89,057 for 2006 and $90,114 for 2007.

The ADAS is a self-report survey produced by the Rocky Mountain Behavioral Science Institute (RMBSI) in 1990. The survey, developed under a National Institute on Drug Abuse (NIDA) grant, was presented in the *Journal of Consulting and Clinical Psychology* (1990). It has been administered to more than 1.5 million students nationwide since 1990, and to more than 650,000 students nationwide in the last five years. It has been used in peer-reviewed studies (Oetting, 1990) and by schools across the country.

Completion of the basic 57-question survey, with multiple parts for some questions, requires approximately 30 minutes. The items ask about students' history of drug and alcohol use, as well as the frequency and intensity of their current drug and alcohol use. The survey provides information on what students say they are doing, what drugs they have tried, what they are currently using, and how heavily they are involved with drugs. It uses multi-item scales to measure involvement with drugs and has Chronbach Alpha reliabilities on these scales, ranging from .72 to .97 across five major ethnic groups.

Subjects for the Survey

This case study is designed to ascertain the perceptions of Hackettstown High School students regarding the effectiveness of their school's random drug-testing program for students involved in athletics and other extracurricular activities, and those who hold campus parking permits. The subjects for this study were students in grades 9 through 12 who participated in athletics or other extracurricular activities, park on campus, or any combination of these. Participation in the school's random drug-testing program is mandatory for participation in any of these activities. Both student and parent consent is obtained by the school for the drug testing at the beginning of each school year, and students remain in the random drug-testing pool for the duration of each school year, even after the end of their sport season.

A proportional stratified random sample was selected from each of the seven groups (strata) in the testing pool (athletes, extracurricular activities, parkers, and combinations). Combinations included students who were involved in two or more of the other groups (e.g., students who played basketball, were on student council, and parked their cars at school). The stratified random selection procedure was used because the total

population was relatively small (n=813), and the seven strata served to divide the total population into more homogeneous groups. Random sampling from each stratum allowed for representativeness while reducing the sample size (Krathwohl, 1998). A more stable estimate results from selecting the sampling units randomly from each group in proportion to the total number of students in the entire population (Krathwohl). Additionally, the researcher wanted to maximize the study by using the largest number of surveys possible from the total of 147 surveys collected, based on the smallest number of surveys in the smallest subgroup. The number of surveys used from each group was proportionally adjusted based on the ratio of surveys received for each subgroup. Because the groups divided the subjects into strata from the entire population, greater generalization was realized than through random sampling only. This procedure was also important since an argument could be made that students in one group may be more likely to use drugs than students in another. For instance, accepting the common belief that involvement in school activities is correlated to decreased use of drugs and/or alcohol might lead one to assume that students who only park their cars but are not involved in any other activities may be more likely to use drugs. The proportional stratified sample ensured that an equal proportion of students was represented from all the groups and the results were not skewed toward any one group.

The subjects from each group were randomly selected with the use of numbers assigned from a computer program. Each student participating in the drug-testing pool was assigned to the stratum to which they belonged and then assigned a random number. Random selection was applied to the subjects assigned to each group, in proportion to the entire population of the random drug-testing pool.

A Brief History of Hackettstown

Located in a valley along the banks of the Musconetcong River in Northwest New Jersey, Hackettstown was founded in 1853. It is home to Centenary College and M&M/Mars, Inc. The town sits on 3.7 square miles in scenic Warren County and is 50 miles west of New York City and 65 miles northwest of Philadelphia. With a 2004 population of 9,339, the town has three elementary schools, one middle school, and one high school.

The first settlers came to the area in 1754 and began to establish homesteads. Few sites in the colony of New Jersey could have presented a more inviting scene than did the fertile Musconetcong Valley. Farming was the principal source of livelihood for the residents until 1763, when a grist mill began operation to process farmers' grain and a saw mill opened to supply lumber for construction of the many homes being built.

Although no Revolutionary War battles were fought in or near Hackettstown, it was nevertheless a strategic area visited more than once by George Washington as he traveled from Morristown and the battlefront to the north. The village continued to grow following the Revolutionary War and into the 19th century; in 1853, it became the county seat of the newly established Musconetcong County.

After the turn of the century, Hackettstown continued to attract businesses and industries. The Board of Trade's efforts reached their fruition when the American Saw Mill Machinery Company and the Lackawanna Leather Company located in

Hackettstown in 1903. Another major industry, the M&M Mars candy company, moved from Newark to Hackettstown in 1958.

A Brief Overview of Hackettstown High School

Hackettstown High School serves 972 students in grades 9–12 from the communities of Allamuchy, Hackettstown, Independence, and Liberty Township. The high school's co-curricular program includes 17 varsity sports and over 40 clubs and organizations. As reported on the New Jersey School Report Card, English is the first language spoken at home for 78.9% of the students, and 12.9% speak Spanish as their first language. Another 3.3% speak Bosnian as the first language. Of the Hackettstown High School students, 4.6% are designated as Limited English Proficient (LEP).

The mission of the high school is to nurture and enhance the intellect and character of its students; in the 2004-2005 school year, it saw the introduction of a character education initiative that supports the school's vision. The culture and climate of the school promotes communication and a shared decision-making model where students, parents, teachers and community members engage in monthly forums for the purpose of dialogue and idea-sharing.

The academic curriculum includes over 115 courses, including nine Advanced Placement courses, as well as opportunities to earn college credit in thirteen different subjects in a dual-credit program with Warren County Community College and Seton Hall University. The school also has an agreement with Centenary College that allows Hackettstown High School students to take courses for credit at a discounted rate. Hackettstown High School has embraced the challenge set forth by the State of New

Jersey to develop multiple and diverse pathways for students to earn credits toward graduation and employs innovative strategies designed to enrich the senior-year experience.

Some encouraging news came from the self-report 2004 National Survey on Drug Use and Health, formerly the National Household Survey on Drug Abuse (SAMHSA, 2004), which indicated that drug use among teenagers in the U.S. has declined. Still, 63.8% of the 2.1 million recent marijuana initiates were younger than 18 years of age when they first used (Merline, O'Malley, Schulenbert, & Bachman, 2004). At Hackettstown High School, rates of drug and alcohol use remain above the national average, as indicated in the ADAS results.

Data Collection/Procedures

Permission to conduct the survey was granted by the superintendent of the school district and the high school principal. Letters of permission are in Appendix B. The researcher attempted to obtain parental permission to survey all 900 students in the random drug-testing pool, even though not all students in the pool participated in the study. Informed consent information as well as goals and the need for the study were clearly explained and mailed to parents. Students also received information on the study, which was shared with them via a school counselor.

Surveys were administered by a research assistant who was working with the researcher. The survey was administered in a large-group instruction classroom, and the research assistant was the only person present in the room other than the students.

It was explained by the research assistant that the results of the survey could not be linked to the individual participants in any way, and that compiled data would

represent the entire group of students in the random drug-testing pool. Participants remained anonymous, and no information on the survey identified the participant's age, race, grade, sex, or activity. Upon completion of the survey, the subjects placed their surveys in a sealed box, which the research assistant took with him. No school personnel viewed the completed surveys.

A written questionnaire was chosen because it could be quickly administered to a large population (Krathwohl, 1998) and required less administrative time and expense than other data collection procedures. Confidentiality of responses can also be ensured when the questionnaires are returned anonymously (Krathwohl). The survey was designed to answer two research questions:

1. Is a student random drug-testing program an effective deterrent against drug use among the population of students being tested?
2. Do students in the randomly selected testing pool perceive the drug-testing program to be effective in deterring drug use among those who are tested?

The questionnaire deals with the perceptions of the high school students being surveyed regarding the effectiveness of the random drug-testing program in their school. Research question one is addressed through the first six survey questions, which were designed to assess the *deterrent* value of the random drug-testing program. Survey questions seven through nine were designed to assess students' perceptions regarding the *effectiveness* of the random drug-testing program. The questions are short, grammatically simple, specific, and concrete (Krathwohl).

The survey questions for the written questionnaire (Appendix A) were adapted from those in Walker's dissertation *The Substance Use Habits and the Perceptions of the*

Effectiveness of Drug Testing of Lynchburg City Schools' High School Athletes (1992) and were tested for face and content validity. In addition, *Questionnaires: Design and Use* (Berdie, 1974) was used as a guide.

Data Analysis

Since this is a case study model of one school, the survey data were analyzed quantitatively and reported in percentages, based on responses to the first eight questions. Content from the open-ended response question was analyzed qualitatively for themes and recurring patterns of meaning.

Results from the administration of the ADAS were also analyzed. The actual self-reported use of drugs and alcohol by students in the school constitutes a large portion of the case, since it speaks to the need for the random drug-testing program in the school and validates students' perceptions that a drug problem does, in fact, exist at their school. Data from this survey was also used to demonstrate that the drug use among students at Hackettstown High School exceeds national averages but is on a par with other high schools in New Jersey.

Data from the New Jersey School Report Card (NJDOE, 2005) helped create the complete picture of Hackettstown High School in terms of student demographics and academic performance. The School Report Card suggests that Hackettstown may face some unique challenges (e.g., with the number of LEP students) that could, in some ways, impact academic performance. The blue-collar nature of the community also makes it different from some other suburban communities in this part of the state.

Chapter IV

Findings

This chapter presents an analysis of the data that were collected during the study. The results include data from the questionnaire administered to Hackettstown High School students in June 2006, data from the administration of the ADAS to the students in 2003-2004, and data collected from the New Jersey School Report Card (NJDOE, 2005). This chapter provides answers to the research questions that are the basis for the study, regarding whether students perceive the school's random drug-testing program as an effective deterrent against drug use in the population being tested. The chapter also shares data about the students' actual use of drugs and alcohol, as well as information necessary to present a clear picture of this particular student population.

A total of 259 students successfully completed the research survey questionnaire. This population was divided into seven strata or subgroups, reflective of the strata that exist in the total testing pool of 813 students. One limitation of the study is the small sample size in the subgroups. In order to increase the size of the subgroups and maximize the largest number of surveys, the researcher proportionally adjusted the number of surveys that could be used from each subgroup, based on the smallest number of surveys in the smallest subgroup. This method provided the best picture of the entire population and ensured statistical validity. This study involved the analysis of a total of 147 questionnaires taken proportionally from all seven subgroups in an effort to provide a proportional, stratified random sample. Random sampling was achieved by assigning a number to every survey and using SPSS to make the random survey selection.

Table 1

Subgroups

Subgroup	Total # by Subgroup	Total % by Subgroup	Total # of Surveys	Total # of Samples	Total # of Samples (rounded)	Total # of Samples (proportioned)
	N	%N	Z	X	Y	Y*3
Park only	40	5%	27	1.35	2	6
Athletics only	68	8%	26	2.08	2	6
Other extracurricular only	113	14%	35	4.9	5	15
Athletics and Park	80	10%	18	1.8	2	6
Other extracurricular and Park	100	12%	22	2.6	3	9
Athletics/Other extra	252	31%	77	23.8	24	72
Park/Athletics/ and Other extra	160	20%	54	10.8	11	33
Total	813	100%	259		49	147

Responses to the first eight questions were tabulated for frequencies and percentages. Short-answer questions asking students to rate the effectiveness of the school's drug-testing program were analyzed for common themes. The use of numerous quotations from the short-answer responses in the presentation of the data provides a

richness that would be lost in paraphrase and is essential in painting a clear picture of the students' experiences as related to the school's program. It is important to note that the survey directed the students, "If you do not or have not used drugs and drug testing does not influence your decision, mark Strongly Disagree (SD)."

Table 2 illustrates student responses to the survey questions related to student random drug testing (RDT):

Table 2

Lichert Scale Responses to Survey Questionnaire

Question	**Agree/ Strongly Agree**	**Disagree/ Strongly Disagree**
RDT has deterred you from using drugs during the school year.	32.7%	67.4%
RDT has deterred you from using alcohol during the school year.	16.4%	83.6%
RDT has deterred you from using steroids during the school year.	36.7%	63.3%
During the summer (off-season), RDT deters you from using drugs.	20.4%	79.6%
During the summer (off-season), RDT deters you from using alcohol.	15.6%	84.4%
During the summer (off-season), RDT deters you from using steroids.	29.9%	70.1%

Table 3

Yes/No Responses to Survey Questionnaire

Question	Yes	No	Don't Know
Is the drug-testing policy easy to beat?	22.4%	12.2%	65.3%
Have you ever beaten a drug test administered by your school?	3.4%	54.4%	42.2%

In the analysis of responses to the open-ended question asking students to rate the effectiveness of their school's drug-testing program, 10 common themes emerged. Themes were coded by number and noted each time an open-ended response used a specific word or phrase related to one or more of the common themes. The 147 surveys used by the researcher included 155 coded responses, since some responses used more than one of the themes. For instance, the student may have written that the program is a waste of money and violates one's civil rights.

Table 4

Common Themes for Open Ended Response Question

Common Themes	Numerical Code	Frequency	%
Confusion regarding "under suspicion" and "random" drug testing	1	6	4
Lack of understanding and/or misinformation related to "beating a drug test"	2	13	9

Have no idea if the program is working	3	14	10
Wrong kids being tested	4	7	5
Civil rights being violated	5	4	3
Waste of money	6	5	4
Program is effective.	8	46	45
Program is ineffective.	9	27	19
Program has limited effectiveness.	10	22	15
Program has no influence.	11	11	7

The students wrote the following comments regarding the effectiveness of the drug-testing program at Hackettstown High School:

Athlete Only

It works sometimes but the kids who should get tested don't get tested

Very bad; they don't do it enough

It's OK. I had drug tests but since I don't do drugs, it doesn't bother me.

I would rate it as 6 because there is [sic] still people that do drugs when we have drug tests. They still do it even though they can get in trouble.

8

People still take drugs whether they get tested or not. Maybe some people stopped but I'm really not sure.

Athletics and Extracurricular Activities

I think it is very effective

Don't know

I think it's about a 3 out of 10

I think it is very effective (8). Athletes should be tested because they are supposed to be examples.

I'm not really sure, I'm pretty positive that it helps and that it is effective.

Pretty good but many kids find loopholes.

Not very effective. I'd give it a 5 ½.

No because they don't care.

I really don't know. I never got tested. But people still do drugs.

Good

It's not great because a lot of people do drugs anyway.

Not very effective because most of the people who drink and do drugs don't participate in sports or extracurricular activities.

I never got tested for drugs. The people who do drugs don't get tested and the people who don't do drugs do.

Not that effective because you can carry something in your shoe or clothes to make it negative. You should test people who do sports because they have a chance of being positive.

I assume it is somewhat effective. If non-users are tested then it's obviously not working.

I think it is very uneffective! People who you are testing probably won't do drugs anyway. Although I will never do drugs, of a small percentage of people do drugs, they can beat the test by having their friends pee into an M & M Bag.

10 – caught drug people.

It's really no big deal. If you don't use anything then there is nothing to worry about.

Pretty good, I guess. Never been tested. People beat it though. People still do it.

Pretty good.

Fine

It isn't good

It's cleaned up the school a lot and kept kids from smoking or using drugs.

It does not help. People still do drugs.

It is very effective, although some students still do drugs.

It probably works for most people.

No idea. For me, it came out correct but I've heard rumors that it is not effective.

I don't know. I have never been drug tested and I do not use drugs.

About a 6. Nothing is perfect and there are some faults in the way they do it here.

I don't know.

I think it doesn't really help sometimes because people could do it over the weekend and have it clear by the time they're in school.

It is really good. It's very effectiveness keeps druggies out of school where they can get into trouble. Helps students not to be influenced to do drugs.

It is really good. It keeps druggies off of sports teams. It keeps everyone safe. This helps students to stay away from drugs.

It deters many people from doing drugs.

It sucks. You should stop trying to get any one on drugs.

I don't know. It doesn't affect me or most of the people I know because we're drug free.

I know a lot of kids who do drugs a lot but they've never been tested, whereas kids who don't or who have only done it once do get tested.

Is zilch a legal word? I don't think it gives anything but a slap on the wrist.

Very effective in stopping drug use during the school year.

It really tests the wrong group of people. Doesn't stop people from using.

I don't know because I don't do drugs nor know anyone who has.

I have no idea because I've been drug tested.

Good

I don't take drugs and I don't care what the drug testing effectiveness is.

I think if you're going to test people, test those NOT involved in the school. Plus, it's not voluntary. If you want to get into college you have to do this. There is no choice. It hasn't influenced me or anyone I know.

It doesn't affect me. Never been tested.

I don't know.

4 out of 10

Deters a lot of people

Somewhat effective

Very effective

Yes, it's good

I'm not quite sure. I have been tested twice and it was accurate. People still do drugs so I guess it's good and bad.

I think the drug testing is effective.

It helps those that have a problem relieve their problem.

I'm not sure if it's very effective but it probably doesn't have a big effect.

Pretty good. Should be more often. Isn't often enough to deter people from taking drugs/alcohol. Not frequent enough.

Works for some people but not others.

It's pretty effective.

It's sweet!

It's pretty OK but it pretty much is stupid.

It has stopped people from using.

Sweet, yo

I would rate it as very effective because it has caught many drug users in our school.

Most people who do drugs or drink don't care if they are drug tested. Also, most parents know so it's not a big deal if they're tested.

It makes a lot of people mad.

They shouldn't do it.

10

Stop doing it. It's a waste of our money.

Effective because a lot of athletes won't do drugs so they can play.

It's effective for those that are involved with drugs. However, the pool of candidates should not be subjected to the students that are least likely to do drugs.

It's been semi-effective. It is very easy to beat and they do not test enough suspicious students.

Not that high because so many people still do drugs and everything and it doesn't catch everyone who uses them.

I think it violates student's privacy.

It stops people from doing it in the school year.

They should drug test some teachers.

Athletics and Parking

On a scale of 1 to 10 5

Testing wrong people

Don't know

Not really effective. People who should be drug tested are not and those who don't do drugs are being drug tested. It's not really working.

It is a 5 but I wouldn't know

There are many ways around them and by now kids know them. But I don't do drugs. Most people in the high school drink a lot and smoke.

Extracurricular Activities and Parking

Violates rights

Mediocre

I think it's good.

I don't know.

Good. Keeps people from doing it.

Definitely prevents kids from using.

I think it's fine. It doesn't really relate to me.

Not very effective. People still use drugs even though there is drug testing. Many kids I know beat it.

Extracurricular Only

Pretty effective. Then again, I've never done drugs so it always comes out negative.

Pretty effective it seems – however, it does not test people who are not involved with activities who are more likely to take drugs.

I really don't know because I don't do drugs and haven't been tested.

I'd say it's fairly effective

Not that good.

Not too good.

May not stop students from using drugs but it keeps drug use out of the school.

It does not test those who are not involved in something, they would seem to be the ones who would do drugs/alcohol. It is not effective for everyone

I believe it is threatening enough to stop kids from using drugs.

I don't believe if somebody wants to take drugs that a test will stop them

I've never been tested but its kind of stupid to test anyone since not everyone does drugs or drinks so I would rate it pretty low

I do not nor ever will do drugs so it has not affected me. However, I do believe it is a wonderful program to keep children off drugs

It only helps during the school year but it won't make a difference during the summer.

It's good. It helps kids stay off drugs.

Parking Only

Unaffective, but it doesn't apply to me

Random drug testing is a waste of money

Pointless, people pass who shouldn't and the tests never work or they don't know how to use them.

Don't know

It's not effective

It's good.

Parking, Athletics and Extracurricular Activities

8

People are going to do drugs and drink even if we have drug testing. It seems like a waste of school money.

Effective but testing wrong kids.

Everyone in school uses drugs.

10 but a waste of taxes.

I would say the drug testing program sucks and it does not work.

From what I've heard, it's pretty easy to beat. So perhaps it isn't that effective. I love weed!

Our policy has been somewhat effective in that it has cut down on some of the drug use.

Effective

It catches the idiots. The students who show up hung over or with steroids really obviously on drugs. The Friday night party goers drink four gallons of water and get their hair cleaned over the weekend can beat the test.

I think it deters the occasional drug user from using drugs. I believe that is the main point and it is very effective.

Haven't heard much about it so I don't know.

It's alright

Waste of money

Testing wrong people – not effective.

7 – You don't really know who to test because it's random.

It hasn't influenced me not to do drugs because I choose not to on my own.

It's horrible.

It only helps during the school year but it won't make a difference during the summer
It's OK except usually the people involved in sports and activities are less likely to use drugs anyway. (makes up majority of the pool)

I guess they work pretty well.

Terrible, doesn't work and is a waste of time and money.

Caught drug users and deters moderate amount of users from using.

Poor. People I know have passed when they shouldn't have.

I think that it's a waste of time. It does not deter me. Common sense and a good head on my shoulders stops me from drinking or using steroids. I don't do drugs because I am smart, not because I am scared.

It doesn't really catch the people who need to .....It gives us a disadvantage in sports because we are too afraid to use steroids but I get my ass stomped by people who can because there is no testing.

Very effective

Not effective because what about the kids who aren't involved in sports and clubs.

Good – absolutely

I think it is fairly effective, however to be more effective the whole student body should be subjected to testing.

It may be helping a small portion of people but over all, I don't really think it affects people. If you don't do drugs, it's because you know it's wrong.

Fairly effective. The kids that use drugs don't get tested though.

American Drug and Alcohol Survey (ADAS) Results

The survey involved a total of 821 Hackettstown High School students, which constitutes 92% of the school's 2003-2004 total enrollment, as illustrated in Table 5 by grade level:

Table 5

Proportion of Hackettstown High School Students Surveyed

Grade Level	**Number Surveyed**	**Number Enrolled**	**Percent of Total Enrollment**
Grade 9	227	241	94%
Grade 10	229	246	93%
Grade 11	209	227	89%
Grade 12	156	176	92%
Total	821	890	92%

Table 6

Patterns of Drug Use Among Hackettstown High School Students

Level of Involvement	**9th graders**	**10th graders**	**11th graders**	**12th graders**
Level 1 – High Involvement				
1. Drug-Dependent and Multi-Drug Users	1.8%	5.0%	8.3%	11.3%
2. Stimulant Users	1.4%	0.9%	2.9%	0.7%
3. Heavy Marijuana Users	0.0%	0.5%	0.5%	4.6%

4. Heavy Alcohol Users	2.3%	2.7%	5.9%	4.6%
Level II – Moderate Involvement				
5. Occasional Drug Users	5.1%	5.0%	6.4%	6.0%
6. Light Marijuana Users	5.1%	9.0%	16.2%	18.5%
Level III – Low Involvement				
7. Tried a Drug (no current use)	4.6%	7.2%	12.3%	15.9%
8. Light Alcohol Users	24.4%	21.3%	19.1%	17.2%
Level IV – No Involvement				
9. No Use	55.3%	48.4%	28.4%	25.8%

Based on the survey results, 11.3% of seniors, 8.3% of juniors, and 5% of sophomores were classified as drug-dependent/multi-drug users. In addition, 97% of seniors, 95% of juniors, 91% of sophomores, and 89% of freshmen reported that alcohol was either fairly easy or very easy to get at their high school (Table 7).

Table 7

Perceived Availability of Drugs among Hackettstown High School Students: Percent marking either "fairly easy" or "very easy" to get each drug

	9th graders	**10th graders**	**11th graders**	**12th graders**	**National 12th graders***
Alcohol	89%	91%	95%	97%	94%
Marijuana	61%	71%	85%	91%	87%

Cocaine	25%	34%	45%	39%	43%
Uppers	26%	33%	42%	42%	55%
Inhalants	79%	80%	82%	84%	***
Downers	26%	35%	46%	42%	35%
Hallucinogens	14%	22%	34%	28%	47%
PCP	13%	24%	30%	25%	22%
Heroin	21%	33%	30%	26%	28%
Narcotics Other than Heroin	26%	40%	38%	41%	39%
Cigarettes	85%	89%	95%	95%	***

*The national data on 12th graders are from the Monitoring the Future Surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.

*** Data not available

As Table 8 indicates, across all grade levels, 14% of students reported that they used drugs other than alcohol at home with the knowledge of their parents, and 20% of juniors and 12% of seniors reported that they used drugs other than alcohol before school events. In addition, 39% of juniors and 36% of seniors reported that they used drugs other than alcohol at night with their friends, and 37% of students in Grades 11 and 12 reported that they used drugs other than alcohol at parties. In almost all categories, drug and alcohol use at Hackettstown High School exceeded the national norms, which are also reported as part of the survey feedback information.

Table 8

When and Where Do Hackettstown High School Students Use Drugs Other than Alcohol?

	9th graders	10th graders	11th graders	12th graders
On the way to school	1%	4%	9%	9%
During school hours at school	<1%	2%	2%	3%
During school hours away from school	2%	4%	9%	10%
Right after school	6%	10%	19%	18%
Before school events	2%	10%	20%	12%
At school events	2%	6%	11%	6%
After school events	3%	8%	20%	15%
At parties	8%	18%	37%	37%
At night with friends	10%	21%	39%	36%
While driving around	3%	8%	21%	21%
At home (parents knew)	1%	4%	3%	6%
At home (parents didn't know)	6%	15%	25%	19%

Information on steroid use was also reported on the survey, with 5% of seniors, 2% of juniors, 1% of sophomores, and 0% of freshmen indicating that they had tried steroids. In the twelve months prior to the administration of the survey, 4% of seniors, 2% of juniors, and 1% of sophomores had used steroids.

Table 9 shows the extent to which the students who use drugs had friends who also use drugs. The "users" are the first three groups in Table 6. The "non-users" are those in the last two groups of Table 6 and those who have never tried a drug.

Table 9

Percent of Hackettstown High School Students Who Have Friends Who Use Drugs

	Marijuana	**Cocaine**	**Uppers**	**Downers**
Users	100%	77%	50%	52%
Non-Users	54%	8%	6%	6%

Among students who used drugs and alcohol, 2% said their friends would try to stop them from using marijuana, and 38% said their friends would try to stop them from using cocaine. Thus, it can be assumed that 98% of their friends would not try to stop them from using marijuana and 62% of their friends would not try to stop them from using cocaine. This result lends credence to the commonly held belief that youth who use drugs tend to have drug-using friends. By contrast, among students classified as non-drug users, 59% reported that they had friends who would try to stop them from using marijuana, and 82% reported that they had friends who would try to stop them from using cocaine.

Among Hackettstown seniors, 46% reported that they had drunk alcohol and could not remember what happened, while 42% reported that they had drunk alcohol until they passed out. Another 30% reported that they had done something sexual while intoxicated and later regretted it. As related to problems experienced from drugs other

than alcohol, 15% of juniors report that they had done something sexual and regretted it later, and 10% of juniors and 12% of senior reported that they had had a "bad" trip.

The average age of "first time being drunk" among Hackettstown seniors was 14.8 years and the age of first marijuana use was 15.1 years. The average for use for inhalants was 15.4 years, although 90% of students reported that they had never tried inhalants.

Among ninth-grade students, 76% reported that they intended never to use drugs, and 9% reported that they had used drugs and would probably use them again. Another 9% indicated that they had never used drugs but might in the future. The attitudes of these younger students are considered significant in relation to the random drug-testing program, since the program was designed to deter the use of these substances. For example, a young person who has not used drugs but might in the future is likely to try drugs soon unless something happens to change his or her mind. Most of the ninth graders indicated that they did not plan to use drugs in the future, and it is important that they have good intentions. However, statistics indicate that some will start using drugs within the next few years. Although many pressures work against a youth's best intentions to remain drug-free, cooperative school and community intervention can work to alleviate those pressures and maintain the drug-free teenagers' good intentions.

New Jersey 2004-2005 School Report Card Data

The following data charts are presented in an effort to present the characteristics of Hackettstown High School, including its instructional program and the demographics of the student population.

Table 10

Average Class Size

Grade	School	State
Grade 9	20.5	21.4
Grade 10	18.3	21.1
Grade 11	18.3	20.4
Grade 12	17.0	20.0
Special Education	14.0	8.8
Total School	18.4	19.2

The percentage of students with disabilities, which includes all students with Individualized Education Programs (IEPs) regardless of placement/programs, is 14.3%, and 4.6% of the student population is LEP.

Table 11

First language spoken at home in order of frequency

Language	Percent
English	78.9
Spanish	12.9
Bosnian	3.3
Mandarin	1.7
Others	3.2

On the New Jersey HSPA, 89.3% of students scored proficient or advanced proficient in language arts, and 84.2% were proficient or advanced proficient in math. Table 12 presents the percentage of students satisfying the state testing requirements, including those who passed the HSPA by route of the Special Review Assessment (SRA), an alternative process for students who were unable to pass the test but demonstrated mastery through portfolio work and/or other assessment measures.

Table 12

Percentage of students satisfying the state testing requirements through different means

	School	**State Average**
Regular education students graduated by passing HSPA	92.1%	85.8%
All who graduated by passing HSPA	80.3%	77.8%
All who graduated via SRA process	7.3%	14.2%
All who graduated via LEP SRA process	0.5%	1.1%
All who graduated exempt from passing HSPA	12.5%	7.7%

In the 2004-2005 school year, 7.2% of Hackettstown High School students were suspended from school during the school year, compared to the state average of 13.6%. No student expulsions occurred at Hackettstown High School, whereas 69 student expulsions occurred statewide.

Also noteworthy is that the average per-pupil cost for the Hackettstown School District is $11,646, compared to the state average per-pupil cost of $12,567.

Chapter V

Conclusions and Recommendations

Conclusions

The ADAS results collected from 92% of the student population of Hackettstown High School during the 2003-2004 school year paints the picture of a typical suburban New Jersey high school with a fairly typical New Jersey high school drug problem. As is the case with most high schools in New Jersey, drug and alcohol use among students at all grade levels exceeds national norms. In many cases, drug and alcohol use at Hackettstown High School exceeds national averages by more than 8% to 10%, especially as related to alcohol and marijuana.

The research questions, however, pertain to whether or not Hackettstown High School students perceive the school's use of a random drug-testing program for students involved in athletics and other extracurricular activities and those who park on campus as having a deterrent effect on student drug and alcohol use. Of the school's 972 students, 813 (80%) are subjected to the random drug-testing program. Because the ADAS was administered to students prior to the start of the random drug-testing program as part of the district's exploration of "need for the program," data should be collected on students' actual drug and alcohol use now that the program has been in place for two years. The district is encouraged to survey the student population again in the near future, in order to determine if implementation of the program has affected student drug use.

In the spring of 2006, 259 students completed this study's research survey, and 147 surveys were randomly selected for analysis. The researcher concludes that the program does in fact have a deterrent effect for some students, since 32.7% of students

indicated that it deterred them from using drugs and 36.7% reported that it deterred them from using steroids during the school year. This data is close to the results obtained in the 1992 study conducted by Walker in Lynchburg, Virginia, where 36% of the respondents strongly agreed that the random drug-testing program had deterred them from using drugs during the sports season. It is also consistent with the results obtained by the SATURN study conducted in Oregon by Goldberg et al, 2003 during the 1999-2000 school year, which demonstrated that the drug-testing policy may have led to a significant reduction in athletes' drug use of performance-enhancing substances.

An analysis of written responses to the question asking students to rate the program's effectiveness at Hackettstown revealed that 45% of the respondents believed the program was effective, while 19% did not think it was effective. Reading the written responses, this researcher concluded that some confusion existed among the students surveyed in regard to the difference between "under suspicion" testing and "random" drug testing. For instance, students apparently believed that the wrong students were being tested, as evidenced by such statements as "The people who you are testing probably don't do drugs anyway" and "If non-users are tested then it's obviously not working." These statements indicate that students are unaware of the philosophy that underpins a random drug-testing program. Since random drug testing is designed to prevent or deter teenagers from ever starting to use drugs, the program would clearly be testing students who are non-users or not already doing drugs. Such confusion is not uncommon; it mirrors some of the confusion surrounding the study conducted by Yamaguchi et al. (2003), which surveyed school principals about drug testing in their schools but did not differentiate between random and suspicion-based testing. The

pervasive lack of understanding about drug testing among school administrators as well as students and parents often clouds the issue as to whether or not these programs are accomplishing what they are meant to achieve. This researcher recommends that schools make an effort to educate the student population, school administrators and community members regarding the philosophy behind student random drug testing and provide information about the specifics of the program. Ideally, this education should occur across the curriculum, with health classes covering program specifics and philosophy. Science classes might include a unit on the technology behind drug testing and the differences among various types of drug screens, including oral screening as well as urine and hair sampling. This approach would give students relevant information and potentially help with their perceptions regarding whether or not drug tests are easy to beat.

At no time did Hackettstown students indicate that a drug problem did not exist in their school. This situation is not uncommon, as indicated in the professional literature. For example, the CASA study conducted in 2005 revealed that 62% of the nation's high school students reported that they attended schools where drugs were used, kept, or sold. Clearly, they were aware of substance abuse among their peers, as evidenced by such responses as "The main flaw with our school is that the underclassmen who are not in a sports program or in a club make up the greatest percentage of drug users in our school" and "I think the program does nothing because so many people still do them (drugs) and that they should have a harder consequence if found out to have something in their system." In addition, the data collected from 92% of the student population in 2003-2004

proved that drug and alcohol use by students in the Hackettstown High School exceeded national averages.

The need for prevention and intervention programs in Hackettstown High School cannot be denied. The research questions, however, look at whether student random drug testing is *perceived by the students* to have a deterrent effect, not whether it actually does. With over 35% of students in general reporting that they believed the program had a deterrent effect, this researcher encourages the school to continue with the program, as this percentage is significant and suggests that 285 of the 813 students in the drug-testing pool are positively motivated by the program's deterrent effect. In light of the known serious effects of steroid use by teens, it is noteworthy that almost 30% of the students surveyed reported that the random drug-testing program deterred them from using steroids during the off-season and 37% indicated that the program deterred steroid use during the school year. This finding is supported by the research done by Goldberg et al. (2003) on the SATURN study, which indicated a significant reduction in past 30-day illicit and ergogenic substance use when the students were being randomly tested, even though the students being tested believed that testing was not effective and had few benefits. The issue of athletes' steroid use has garnered national attention and has resulted in the New Jersey State Interscholastic Athletic Association (NJSIAA) requirements, which include mandatory steroid testing at the level of championship play for all high school students. New Jersey is the first state to have such a requirement. The random drug-testing program's perceived effectiveness is in alignment with Dupont's 1998 research, which pointed to the serious limitations of prevention efforts that are not associated with consequences. Consequences for a positive drug screen in Hackettstown

High School include a referral to counseling and a temporary removal from athletics, other extracurricular activities, and/or parking privileges. For the detection of athletes' steroid use by the NJSIAA, school sports teams could forfeit their wins, and individual student athletes are banned from participation for a period of one year as stated in the NJSIAA Random Steroid Testing Policy.

Most of the available research on the deterrent effect of student random drug testing does not involve directly asking students about perceived program effectiveness. Only Walker's 1992 Lynchburg study does so. Additional controlled studies that measure actual student drug and alcohol use before and after program implementation should be undertaken. Currently, studies of this type are being conducted as part of the student drug-testing grant programs overseen by the Office of National Drug Control Policy and the U.S. DOE in a number of schools across the country. No results are yet available. Available studies on the perceptions of program effectiveness among school administrators (McKinney, 2004) do shed a positive light, indicating that 94% of school administrators surveyed in Indiana believed random drug-testing policies were effective in discouraging drug and alcohol use by students.

The data collected as part of the New Jersey School Report Card (NJDOE, 2005) verifies that Hackettstown High School is fairly typical of suburban high schools in New Jersey, thus strengthening the data collected on both the questionnaire and the ADAS in terms on generalness. The percentage of students with disabilities is higher than the state average; but at 14.3%, it is consistent with the 13% to 16% norm in other suburban Warren County high schools.

Table 13

Percentage of students with IEPs

Hackettstown High School	14.3%
Phillipsburg High School	15.2%
Warren Hills High School	16.1%
North Warren Regional High School	13.1%
Belvedere High School	13.0%

The Report Card data (NJDOE, 2005) suggests a greater diversity in the student population at Hackettstown, reflecting that the school's population is more blue-collar than that in some other northern and central New Jersey suburban schools. The percentage (4.6%) of the student population that is classified LEP is higher than the average in other high schools in Warren County.

Table 14

Percentage of Limited English Proficient (LEP) Students

Hackettstown High School	4.6%
Phillipsburg High School	.7%
Warren Hills High School	1.7%
North Warren Regional High School	0%
Belvedere High School	0%

Hackettstown students' performance on state-mandated tests was higher in both language arts and mathematics than that of students in other schools in the District Factor

Group (DFG). The DFG is comprised of similar schools in terms of demographics and socioeconomic status in the state. The percentage of Hackettstown students passing the language arts portion of the HSPA was 89.3%, whereas 86.8% of the students in the schools in the DFG passed. In math, 84.2% of Hackettstown students passed, while 77.5% of those in the DFG successfully passed. Seventy-seven percent of Hackettstown students took the SAT, compared to 72% in the DFG (Table 15). Although Hackettstown High School students scored lower than students from other schools in the DFG on the math portion of the test, they outscored other schools in the DFG on the verbal section by 10 points.

Table 15

Scholastic Aptitude Test (SAT) Results

	Students Taking Test	**Math Average Score**	**Verbal Average Score**
Hackettstown	77%	493	497
DFG	72%	502	487

The data collected from the New Jersey School Report Card (NJDOE, 2005) suggests that Hackettstown High School more than likely faces some challenges in student academic performance, which may be correlated to the school's higher percentage of students who are classified as LEP. No evidence suggests whether or not this issue is related to increased student use of drugs and/or alcohol in the school, since the drug and alcohol use by Hackettstown High School students is fairly consistent with drug and alcohol use in other New Jersey high schools, all of which exceed national norms.

Recommendations

1. Hackettstown High School officials should make plans to re-administer the ADAS to the student body at the end of the 2006-2007 school year in an effort to collect comparative data on actual student drug and alcohol use before and after the implementation of the program.
2. The district should deliver instruction about student drug testing, both "random" and "under suspicion," so that students understand these programs. This instruction should take place within the confines of the health education and science curriculum so that all students are exposed to the information in a timely manner.
3. The Hackettstown High School administrators and faculty should coordinate information with the middle schools in the district to ascertain the need for middle school testing and/or to educate middle school students about what they can expect upon entry into the high school regarding drug testing and participation in athletics and other extracurricular activities. Data collected as part of the ADAS regarding drug and alcohol use among ninth graders suggest that use often occurs in the middle school (more than likely in Grades 7 and 8).
4. This study should be replicated with students who are not involved in athletics and other extracurricular activities in order to determine if random student drug testing has a deterrent effect on this group.
5. This study should be replicated to compare schools within the same DFG.

6. This research should be replicated to include an additional question, asking if the student random drug testing was the deciding factor in the student's decision not to use drugs.

Implications for Further Research

Controlled studies should be undertaken to monitor student drug and alcohol use before, during, and after the implementation of random drug-testing programs in an effort to quantify the effect of these programs on actual student drug and alcohol use. Although some studies have been conducted, schools with similar demographics must be studied, using a control school and a treatment school model in order to ascertain program effectiveness.

Broader studies that examine the impact of these drug-testing programs on drug and alcohol use by regions in the country would also be of value. Although marijuana and alcohol are overwhelmingly the drugs of choice among American teenagers in general, other drugs present themselves in different parts of the country at different times. It is important to determine whether or not these programs are effective in the face of all drugs of abuse (i.e., methamphetamine, a particularly difficult drug to control).

Studies on the long-term impact of student random drug testing are also necessary. Since research suggests that teenagers who do not begin using drugs in high school are not likely to begin drug use later, it would be useful to know if this same tendency applies to students who claim not to have used drugs as a result of being randomly drug-tested. One can assume that prior research refers to teenagers who made decisions not to use drugs because of solid decision-making skills. However, it would be

useful to know if students subjected to random drug testing in high school remain drug-free in college or the work force when they are not subjected to testing.

It would also be interesting to conduct studies on whether or not student drug testing has more, less, or the same deterrent effect on students receiving special education services under IDEA, compared to its effect on students who do not receive these services. Such studies might be especially interesting if they addressed the current commonly-diagnosed disorders (e.g., Attention Deficit Hyperactivity Disorder (ADHD) and Attention Deficit Disorder (ADD)), which are often treated beginning in early childhood with such stimulant medications as Ritalin, Concerta, and other mood-altering substances. It would be enlightening to determine how a student with a behavior disorder responds in a random drug-testing situation, compared to a student who has not been classified as behavior-disordered.

Results of student random drug-testing programs can take many forms, in addition to the data on drug and alcohol use before, during, and following the implementation of the programs. A strong argument can be made for the importance of sending a clear message to teenagers that the use of drugs and alcohol is unacceptable. The implementation of a student random drug-testing program sends this important message in a way that students, parents, and community members understand.

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Appendix A

Please check all that apply:

I am involved on an athletic sports team at school _____

I am involved in extracurricular activities at school _____

I have a valid school parking permit _____

There has been a lot of discussion about whether or not athletes and students in extracurricular activities should be physically tested for illegal drug use. So you agree or disagree with the following? If you do not find an answer that fits exactly, use the one that comes the closest. (***Mark one for each line***)

Strongly Agree = SA, Agree = A, Disagree = D, Strongly Disagree = SD **If you do not or have not used drugs and drug testing does not influence your decision, mark Strongly Disagree (SD).**

1. Random drug testing has deterred you from using drugs during the school year.

   SA A D SD

2. Random drug testing has deterred you from using alcohol during the school year.

   SA A D SD

3. Random drug testing has deterred you from using steroids during the school year.

   SA A D SD

4. During the summer (off season), random drug testing deters you from using drugs.

   SA A D SD

5. During the summer (off season), random drug testing deters you from using alcohol.

   SA A D SD

6. During the summer (off season), random drug testing deters you from using steroids.

   SA A D SD

7. Is the drug testing policy "easy to beat" (test results are negative when you know they should be positive)? ***(Mark one)***

   A. Yes
   B. No
   C. Don't know

8. Have you ever "beaten" a drug test administered by your school (test results are negative when you know they should be positive)? ***(Mark one)***

   A. Yes
   B. No
   C. Don't know

9. How would you rate the effectiveness of your school's drug testing program? ***Write a short answer***

Appendix B

HACKETTSTOWN HIGH 2004-05 SCHOOL REPORT CARD

COUNTY: WARREN
DISTRICT: HACKETTSTOWN

School Environment

Length of School Day	
Amount of time school is in session on a normal school day.	
School	6 hours: 26 minutes
State Average	6 hours: 49 minutes

Instructional Time	
Amount of time per day students are engaged in instructional activities.	
School	5 hours: 22 minutes
State Average	5 hours: 52 minutes

Student/Computer Ratio		
Numbers of students per computer available for the purposes of supervised instruction.		
	School	**State Average**
2004-05	4.6	3.7
2003-04	4.3	3.7
2002-03	4.6	3.9

Average Class Size	2004-2005	
	School	**State**
Grade 9	20.5	21.4
Grade 10	18.3	21.1
Grade 11	18.3	20.4
Grade 12	17.0	20.0
Special Ed. (ungraded)	14.0	8.8
Total School	18.4	19.2

Internet Connectivity

Percents of room locations in the school that have access to the Internet.

	2004-05		2003-04		2002-03	
Locations	School	State Average	School	State Average	School	State Average
Classroom/ Instructional	100.0%	96.7%	100.0%	96.2%	93.2%	94.3%
Library/ Media Centers	100.0%	97.1%	100.0%	94.7%	100.0%	98.9%
Computer Labs	100.0%	99.5%	100.0%	96.5%	87.9%	96.3%
All Locations	100.0%	97.3%	100.0%	96.2%	91.5%	94.9%

Student Information

Enrollment by Grade				
Counts of students "on-roll" by grade in October of each school year.				
Grade	**2004-2005**	**2003-2004**	**2002-2003**	**2001-2002**
Grade 9	267.0	236.0	246.5	213.5
Grade 10	238.0	243.5	232.5	170.0
Grade 11	238.0	225.0	208.0	195.5
Grade 12	220.5	201.0	212.5	204.5
Special Ed. (ungraded)	14.0	17.0	16.0	131.0
Total School	977.5	922.5	915.5	914.5

Student Mobility Rate		
Percentage of students who entered and left during the school year.		
	School	**State Average**
2004-05	11.2%	10.3%
2003-04	10.9%	10.9%
2002-03	6.3%	10.6%

Students with Disabilities

▸Percentage of students with IEPs (Individualized Education Program) regardless of placement/programs: **14.3%**

Language Diversity	
First language spoken at home in order of frequency.	
Language	**Percent**
ENGLISH	78.9%
SPANISH	12.9%
BOSNIAN	3.3%
MANDARIN	1.7%
OTHERS	3.2%

Limited English Proficient (LEP)

▸Percentage of LEP students: **4.6%**

Student Performance Indicators

ASSESSMENTS

High School Proficiency Assessment (HSPA) LANGUAGE ARTS LITERACY		Year	Number Tested	Proficiency Percentages		
				Partial	Proficient	Advanced
All Students »details for subgroups for Language Arts Literacy	School	2004-05	242	10.7%	61.2%	28.1%
		2003-04	230	13.0%	72.2%	14.8%
	District	2004-05	242	10.7%	61.2%	28.1%
		2003-04	230	13.0%	72.2%	14.8%
	DFG	2004-05	14334	13.2%	69.5%	17.3%
		2003-04	×	×	×	×
	State	2004-05	94858	16.8%	63.6%	19.6%
		2003-04	90946	17.8%	65.0%	17.2%

*To protect the privacy of students, the Department of Education suppresses sufficient information to eliminate the possibility that personally identifiable information will be disclosed.

× The DFG data for 2003-04 were omitted because they were based on the 1990 Census. For 2004-05, the source for DFG data is the 2000 Census.

High School Proficiency Assessment (HSPA) MATHEMATICS		Year	Number Tested	Proficiency Percentages		
				Partial	Proficient	Advanced
All Students »details for subgroups for Mathematics	School	2004-05	241	15.8%	56.8%	27.4%
		2003-04	230	23.5%	55.2%	21.3%
	District	2004-05	241	15.8%	56.8%	27.4%
		2003-04	230	23.5%	55.2%	21.3%
	DFG	2004-05	14209	22.5%	53.6%	23.9%
		2003-04	×	×	×	×
	State	2004-05	93939	24.5%	47.1%	28.4%
		2003-04	90712	30.0%	45.6%	24.5%

*To protect the privacy of students, the Department of Education suppresses sufficient information to eliminate the possibility that personally identifiable information will be disclosed.

× The DFG data for 2003-04 were omitted because they were based on the 1990 Census. For 2004-05, the source for DFG data is the 2000 Census.

Graduation Type		
Percentage of students satisfying the state testing requirements through different means.		
	School	State Average
Regular students graduated by passing HSPA	92.1%	85.8%
All who graduated by passing HSPA	80.3%	77.8%
All who graduated via SRA process	7.3%	14.2%
All who graduated via LEP SRA process	0.5%	1.1%
All who graduated exempt from passing HSPA	12.5%	7.7%
The percents appearing in the last four rows sum to 100%.		

Scholastic Assessment Test (SAT) Results										
	Students Taking Test		Mathematics				Verbal			
				Percentile Scores				Percentile Scores		
	#	%	Average Score	25th	50th	75th	Average Score	25th	50th	75th
2004-05										
School	170	77%	493	430	490	550	497	440	500	560
DFG	9295	72%	502	430	500	570	487	420	480	550
State	64612	75%	519	430	520	600	501	420	500	580
2003-04										
School	148	74%	503	440	500	570	501	440	500	560
DFG	×	×	×	×	×	×	×	×	×	×
State	60936	73%	516	446	515	586	499	432	498	566
2002-03										
School	167	79%	508	450	510	570	502	450	510	560
DFG	×	×	×	×	×	×	×	×	×	×
State	60196	75%	518	448	518	589	499	433	499	566

× The DFG data for 2003-04 were omitted because they were based on the 1990 Census. For 2004-05, the source for DFG data is the 2000 Census.

Advanced Placement Results		
Test Name	# of Students in Class	# of Students Taking Test
ENGLISH LITERATURE & COMP	4	4
MATH - CALCULUS AB	1	1
STUDIO ART - DRAWING	1	1
TOTAL*	6	6

*This number is a duplicated number, because students may take more than one course.

Advanced Placement Results Summary

Number of test scores 3 or higher: *

Advanced Placement Participation for Grades 11 and 12		
	School	State Average
2004-05	1.3%	14.8%
2003-04	1.4%	15.5%
2002-03	0.2%	15.8%

OTHER PERFORMANCE MEASURES

Attendance Rates	2004-2005		2003-2004	
Percentage of students present on average each day.	School	State	School	State
Grade 9	95.6%	93.7%	94.1%	93.5%
Grade 10	94.8%	93.7%	94.4%	93.6%
Grade 11	94.0%	93.4%	92.4%	93.2%
Grade 12	93.5%	92.1%	94.0%	92.0%
Special Ed. (ungraded)	89.4%	91.3%	88.2%	90.9%
Total School	94.5%	94.4%	93.7%	94.4%

Dropout Rates	2004-2005		2003-2004	
Percentage of students in grades 9-12 who dropped out during the school year.	School	State	School	State
White	0.5%	1.2%	2.0%	1.0%
Black	0.0%	3.4%	0.0%	3.4%
Hispanic	0.0%	3.8%	4.6%	3.6%
American Indian & Alaska Native	0.0%	4.9%	0.0%	4.9%
Asian & Pacific Islander	0.0%	0.7%	0.0%	0.7%
Male	0.6%	2.2%	2.5%	2.0%
Female	0.2%	1.6%	1.7%	1.6%
With Disabilities**				
Limited English Proficiency**				
Economically Disadvantaged**				
Total	0.4%	1.9%	2.1%	1.8%

** Data not available for this school year.

Graduation Rate		
	School	State Average
Class of 2005 (2004-05)	94.8%	91.3%
Class of 2004 (2003-04)	97.1%	90.5%
Class of 2003 (2002-03)	97.3%	89.5%

Post-Graduation Plans			
Percentage of graduating seniors pursuing various self-reported post-high school plans.			
Intended Pursuits	**Class of 2005**	**Class of 2004**	**Class of 2003**
Four-year College/University	43.1%	43.8%	53.9%
Two-year College	42.2%	36.8%	24.7%
Other College			
Other Post-secondary School			2.1%
Military	2.3%	1.5%	
Full-time Employment	6.8%	7.0%	7.8%
Part-time Employment			
Undecided	3.4%	3.0%	
Other	2.3%	8.0%	11.5%

Student Suspensions		
Percentage of students who were suspended from the school during the school year.		
	School	State Average
2004-05	7.2%	13.6%
2003-04	6.3%	14.9%
2002-03	5.5%	14.4%

Student Expulsions		
The number of students who were expelled from the school during the school year.		
	School	State Total
2004-05	0	69
2003-04	0	102
2002-03	0	82

Staff Information

Student/Administrator Ratio		
Numbers of students per administrator.		
	School	State Average
2004-05	325.8	182.3
2003-04	307.5	186.7
2002-03	114.4	189.6

Student/Faculty Ratio		
Numbers of students per faculty member.		
	School	State Average
2004-05	14.0	11.4
2003-04	11.8	11.6
2002-03	12.2	11.6

Faculty Attendance Rate		
Percentage of faculty present on average each day.		
	School	State Average
2004-05	98.5	96.3
2003-04	98.3	96.2
2002-03	97.5	96.1

Faculty Mobility Rate		
Percentage of faculty who entered and left the school during the school year.		
	School	State Average
2004-05	5.7%	7.1%
2003-04	32.1%	6.9%

There are three essential components of a highly qualified teacher in accordance with the *No Child Left Behind (NCLB) Act*:

- Hold at least a bachelor's degree;
- Be fully certified/licensed by New Jersey; and
- Demonstrate competence in each of the core academic subjects in which the teacher teaches.

Teachers can demonstrate competence in the subject(s) they teach by either:

- Passing a rigorous state test or completing an academic major, graduate degree, coursework equivalent to an undergraduate academic major, or national certification or credentialing; OR
- Meeting the requirements of the NJ High, Objective Uniform State Evaluation (HOUSE) Standard.

Teacher Information			
Percentage of teachers teaching with emergency or conditional certificates.			
	School	District	State
2004-05	0.0%	0.0%	1.6%

Faculty and Administrator Credentials			
Percentage of faculty and administrators possessing a bachelor's, master's, or doctoral degree.			
	BA/BS	MA/MS	PhD/EdD
2004-05	41.1%	56.2%	2.7%
2003-04	46.9%	49.4%	3.7%
2002-03	46.2%	52.6%	1.3%

National Board Certification			
Number of teachers who have been certified by the National Board for Professional Teaching Standards.			
	School	District	State
2004-05	0	0	98
2003-04	0	0	63
2002-03	0	0	16

District Financial Data

Administrative and Faculty Personnel

In FTE (Full-time Equivalents).

	# of Administrators		# of Schools		# of Students per Administrator		# of Faculty per Administrator	
	District	State Average	District	State Average	District	State Average	District	State Average
2004-05	14	28	4.0	7.5	139.1	165.4	12.5	15.1
2003-04	14	27	4.0	7.5	141.4	168.5	13.1	15.2
2002-03	15	27	4.0	7.4	128.0	165.5	12.4	14.8

Median Salary and Years of Experience of Administrative and Faculty Personnel

	2004-05	2003-04	2002-03
Administrators			
Salary - District	$101,450	$98,011	$96,597
Salary - State	$102,755	$99,483	$96,282
Years of Experience - District	20	19	26
Years of Experience - State	26	26	26
Faculty			
Salary - District	$54,435	$52,167	$47,820
Salary - State	$52,563	$51,809	$51,137
Years of Experience - District	13	12	12
Years of Experience - State	10	10	11

Teacher Salaries and Benefits

Percents of teacher salaries and benefits of the total comparative expenditures. The percent increase or decrease represents the expenditure change in teacher salaries/benefits from one year to the next.

	% for Teachers Salaries/Benefits		% Change - Increase/Decrease (+/-)	
	District	State Average	District	State Average
2004-05	57%	55%	12%	8%
2003-04	54%	55%	5%	4%
2002-03	55%	56%	1%	8%

Administrative Salaries and Benefits

Percents of administrative salaries and benefits of the total comparative expenditures. The percent increase or decrease represents the expenditure change in administrative salaries/benefits from one year to the next.

	% for Administrative Salaries/Benefits		% Change - Increase/Decrease (+/-)	
	District	State Average	District	State Average
2004-05	9%	9%	6%	8%
2003-04	9%	9%	5%	5%
2002-03	9%	9%	5%	1%

Revenues

Percents of total revenues from various sources.

	2004-2005		2003-2004		2002-2003	
	District	State Average	District	State Average	District	State Average
LOCAL	50%	51%	49%	50%	51%	51%
STATE	20%	41%	21%	40%	22%	42%
FEDERAL	3%	3%	3%	4%	2%	4%
OTHER	27%	5%	27%	6%	25%	3%

Per Pupil Expenditures

Two calculations of the average cost per pupil in the district.
(See #1 and #2 below).

	2004-2005		2003-2004		2002-2003	
	District Budget	State Average	District Actual	State Average	District Actual	State Average
Classroom - Salaries and Benefits	$5,982	$6,144	$5,827	$5,854	$5,515	$5,668
Classroom - General Supplies/Textbooks	$246	$285	$201	$271	$220	$252
Classroom - Purchased Services and Other	$105	$182	$68	$179	$63	$201
Total Classroom Instruction	$6,333	$6,612	$6,096	$6,305	$5,797	$6,121
Support Services - Salaries and Benefits	$1,605	$1,505	$1,682	$1,371	$1,739	$1,306
Support Services - other	$126	$218	$120	$306	$119	$288
Total Support Services	$1,731	$1,723	$1,802	$1,677	$1,858	$1,594
Administration - Salaries and Benefits	$944	$968	$965	$929	$916	$885
Administration - other	$203	$267	$212	$242	$205	$241
Total Administration Costs	$1,147	$1,235	$1,177	$1,171	$1,121	$1,126
Op./Maint. of Plant - Salaries and Benefits	$363	$710	$337	$678	$371	$643
Op./Maint. of Plant - other	$577	$598	$591	$574	$585	$538
Total Operations and Maintenance of Plant	$940	$1,308	$928	$1,252	$956	$1,181
Total Food Services Costs	$1	$22	$0	$28	$0	$27
Total Extracurricular Costs	$405	$201	$384	$183	$354	$176
(1)TOTAL COMPARATIVE COST PER PUPIL	$10,563	$11,172	$10,877	$10,411	$10,091	$9,901
(2)TOTAL COST PER PUPIL	$11,646	$12,567	$11,966	$12,221	$11,524	$11,646

(1) The Comparative Cost Per Pupil represents comparisons with districts of similar budget type. The components that comprise the comparative cost per pupil are as follows: classroom instructional costs; support services (attendance and social work, health services, guidance office, child study team, library and other educational media); administrative costs (general administration, school administration, business administration, and improvement of instruction); operations/maintenance of plant; food services, and extracurricular costs. The total of these expenditures is divided by the average daily enrollment to calculate a total comparative cost per pupil.

(2) Total Cost Per Pupil, in addition to all of the costs listed above for the comparative cost, includes costs for tuition expenditures; transportation; other current expenses (lease purchase interest, residential costs, and judgments against schools); equipment; facilities/acquisition; and restricted expenses less nonpublic services and adult schools, as well as students sent out of district. The total of all these expenditures is divided by the average daily enrollment to calculate a total cost per pupil.

Appendix C

DRUG AND ALCOHOL USE AMONG HACKETTSTOWN HIGH SCHOOL STUDENTS

DETAILED REPORT
9th, 10th, 11th and 12th Graders

2003-04

Report Sponsored by:
Hackettstown School District

Report Prepared by:
RMBSI, Inc.

305 West Magnolia Street, #291
Fort Collins, CO 80521
1-800-447-6354

The American Drug and Alcohol Survey™

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INTRODUCTION

Drug use among adolescents has become a serious national problem. Those concerned about the welfare of the Hackettstown High School students have, therefore, sponsored **The American Drug and Alcohol Survey™**. This report presents the results of that survey and should lead to a better understanding of the local adolescent substance abuse problem.

We encourage those charged with disseminating this information on the local level to study the entire report carefully. The text and accompanying tables are designed to help the community place the local youth drug abuse problem in the proper perspective.

THE SURVEY

The survey is a paper and pencil questionnaire given anonymously that takes less than 35 minutes to complete. The survey items ask students about their history of drug and alcohol use and the frequency and intensity of their current drug and alcohol use. This report summarizes what the Hackettstown High School students who were surveyed said they were doing; what drugs they have tried, what they are using now, and how heavily they are involved with drugs.

The survey used has had extensive development. Similar versions have been given to more than 650,000 students over the last five years. Since drug use changes over time, there have been periodic revisions to make sure that it asks the right questions.

HOW ACCURATE ARE THE SURVEY RESULTS?

Experience with this survey has shown that students are usually very cooperative and give honest answers about their drug use when they know that their names are not on the surveys, and that no one will ever know how any individual answered the questions. The people who handed out the surveys were instructed to make sure that this anonymity was preserved; that no one saw how a student answered the questions, and that surveys were collected in a way that prevented anyone from knowing who filled out what survey. There are questions on the survey that test whether the students believe their answers will be anonymous. The responses to those questions showed that most students believed the survey was anonymous and felt they could be honest. More information about honesty on adolescent drug surveys and about reliability and validity of **The American Drug and Alcohol Survey™** is presented in the article, "Adolescent Drug Use: Findings of National and Local Surveys," in Vol. 58 of the Journal of Consulting and Clinical Psychology (1990).

A few students in a class may giggle, make jokes, and not treat the survey seriously. Several safeguards are used throughout the survey and during compilation to detect erroneous or exaggerated responses. The survey, for example, includes "fake" drugs and other checks to detect exaggerations. If there were individual surveys that showed signs of exaggeration, they were removed before the results were compiled. Less than one percent of Hackettstown High School students showed signs of exaggeration.

A few students may also become confused while taking the survey or have trouble reading and understanding the questions. These students can also be identified through inconsistent answers to questions that are purposely repeated on the survey or because they mark answers that would not be logical, saying, for example, that using alcohol once or twice is more dangerous than using it regularly. Approximately 40 different consistency checks were made on each survey. If there were any students who were inconsistent three or more times, their surveys were removed before the survey results were compiled. Only 2 percent of Hackettstown High School students were classified as "inconsistent responders."

There are also statistical ways of assessing the reliability of tests and surveys. The reliability coefficients (Cronbach's alpha) for the drug use scales on the survey average around .90.

The following table shows the total number of Hackettstown High School students surveyed and the percent of total enrollment they represent.

Proportion of Hackettstown High School Students Surveyed

	Number Surveyed	Number Enrolled	Percent of Total Enrollment
9th Graders	**227**	**241**	**94%**
10th Graders	**229**	**246**	**93%**
11th Graders	**209**	**227**	**92%**
12th Graders	**156**	**176**	**89%**
Total	**821**	**890**	**92%**

Source: The American Drug and Alcohol Survey

A high enough proportion of students was surveyed to insure that the results would provide a good estimate of the drug and alcohol use of the students who are attending school.

No attempt was made to survey school dropouts or absentees. However, in communities where absentees and dropouts are surveyed, their drug use is usually slightly higher than students who are in school. Those working with dropouts and chronic absentees will probably find higher drug involvement among them than is found in students who are attending school. More information about drug use of dropouts is presented in an article by R. Swaim, F. Beauvais, E. Chavez, and E. Oetting, titled "The Effect of School Dropout Rates on Estimates of Adolescent Substance Use Among Three Racial/Ethnic Groups" in Vol. 87 of the American Journal of Public Health (1997).

There are three main parts to this report:

Part I is an overview. It repeats tables from the **Executive Summary** showing how many students have used or are using alcohol and other drugs, and discusses those tables in more detail.

Part II provides additional information about drug use among Hackettstown High School students: the availability of different drugs; where and with whom drugs are used; and how much harm these students feel is done by drugs.

Part III lists each drug on the survey and shows how much the regular users among Hackettstown High School students are using each drug. This section also provides information about how the different drugs are used and what effects they are likely to have.

There is also a **Media Kit** at the end of this report. Following the **Media Kit**, a brief section on the reliability and validity of the survey is included, along with a sample of the questionnaire that was used.

PART I

AN OVERVIEW OF DRUG USE

Part I provides a brief, but complete, overview of the results of the survey. The tables and graphs give an accurate summary of the patterns of drug and alcohol use in Hackettstown High School. More information about the use of individual drugs is available in **Part III** of this report.

HOW MANY HACKETTSTOWN HIGH SCHOOL STUDENTS HAVE TRIED DRUGS?

The first table presented here lists the percentage of students who have "ever tried" alcohol or drugs. The "ever tried" statistic is a very general measure, since it includes any amount of a drug ever taken. A student who had a small glass of wine at a family celebration would be included as having "ever tried" alcohol -- so would the student who drinks enough to get drunk every week. That is one of the reasons why the next row lists the percent who have ever been drunk. While alcohol may be tried by children in relatively innocuous settings, getting drunk involves excessive use and almost always occurs among peers. This table would also not distinguish between the student who tried marijuana once several years ago and one who is now using it every day; both would be listed as having tried marijuana. However, **Table 3** shows the percent who used in the last month, an indication of current use, and **Table 15** shows how often marijuana was used during that month.

Despite its limitations, the ever tried statistic is useful. It shows the total exposure that a group has had to a particular drug. It also shows how many students were willing to experiment with a drug.

Furthermore, the ever tried measure is highly reliable, and because it is used on most other surveys, it allows us to make comparisons between Hackettstown High School 12th graders and other high school 12th graders across the country. **Table 1** has a column marked 'National 12th Graders.' The rates given in that column were obtained from a national sample of over 15,000 seniors who were surveyed in 2003.

TABLE 1

Percent of Hackettstown High School Students and 12th Graders Across the Country Who Have Ever Tried a Drug (2003-04)

	9th Graders	10th Graders	11th Graders	12th Graders	National* 12th Graders
Alcohol	62%	76%	84%	85%	77%
Been Drunk	35%	48%	70%	77%	58%
Cigarettes	31%	32%	52%	58%	54%
Marijuana	14%	25%	49%	54%	46%
Cocaine	3%	3%	12%	12%	8%
Stimulants	2%	3%	6%	7%	14%
Legal Stimulants	4%	9%	19%	20%	***
Inhalants	8%	7%	15%	11%	11%
Nitrites	0%	<1%	4%	2%	2%
Downers**	1%	6%	5%	6%	9%
Tranquilizers**	2%	6%	11%	12%	10%
Hallucinogens	3%	8%	9%	14%	11%
PCP	<1%	<1%	2%	3%	3%
Heroin	<1%	<1%	0%	2%	2%
Narcotics other than heroin	5%	9%	13%	15%	13%

Source: The American Drug and Alcohol Survey

* *The national data on 12th graders are from the Monitoring the Future surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.*

** *Use of these drugs under a doctor's orders is not included in these figures.*

*** *Data not available.*

Information about crack, methamphetamines, smokeless tobacco, ketamine, ecstasy, GHB, and rohypnol is presented in Part III

CURRENT DRUG USE AMONG HACKETTSTOWN HIGH SCHOOL STUDENTS

The "ever tried" figures that were presented in **Table 1** showed how many Hackettstown High School students have experimented with drugs, but do not show how many are using drugs now. Many young people try a drug for a while, but then stop using it. In a national study, for example, almost a fourth of the high school seniors who had tried marijuana when they were younger did not use it during their senior year, and, in the same study, about half of those who had tried other drugs were not using them at the time of the survey.

Tables 2 and **3** provide estimates of current drug use. **Table 2** shows how many students used each drug during the last 12 months. **Table 3** shows how many used drugs during the last month prior to the survey. **Tables 2** and **3** also include data on 12th graders nationwide for comparison with the local 12th graders.

TABLE 2

Percent of Hackettstown High School Students and 12th Graders Across the Country Who Have Used Each Drug in the Last 12 Months

(2003-04)

	9th Graders	10th Graders	11th Graders	12th Graders	National* 12th Graders
Alcohol	60%	70%	81%	83%	70%
Been Drunk	30%	43%	62%	68%	48%
Marijuana	12%	22%	42%	45%	35%
Cocaine	2%	3%	9%	9%	5%
Stimulants	1%	3%	5%	4%	10%
Legal Stimulants	3%	9%	16%	14%	***
Inhalants	5%	5%	7%	5%	4%
Downers**	1%	6%	5%	4%	6%
Hallucinogens	2%	6%	5%	9%	6%
PCP	<1%	<1%	1%	<1%	1%
Heroin	<1%	<1%	0%	<1%	1%
Narcotics other than heroin	2%	5%	7%	8%	9%

Source: The American Drug and Alcohol Survey

****Data not available.*

TABLE 3

Percent of Hackettstown High School Students and 12th Graders Across the Country Who Have Used Each Drug in the Last Month

(2003-04)

	9th Graders	10th Graders	11th Graders	12th Graders	National* 12th Graders
Alcohol	39%	42%	59%	59%	48%
Been Drunk	19%	23%	39%	41%	31%
Cigarettes	14%	18%	32%	38%	24%
Smokeless Tobacco	2%	2%	5%	10%	7%
Marijuana	7%	10%	26%	26%	21%
Cocaine	1%	2%	4%	6%	2%
Stimulants	<1%	2%	1%	1%	5%
Inhalants	3%	3%	3%	1%	2%
Downers**	<1%	3%	3%	1%	3%
Hallucinogens	<1%	2%	<1%	1%	2%
PCP	0%	<1%	0%	0%	<1%
Heroin	0%	0%	0%	0%	<1%
Narcotics other than heroin	<1%	2%	1%	5%	4%

Source: The American Drug and Alcohol Survey

* *The national data on 12th graders are from the Monitoring the Future surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.*

** *Use of these drugs under a doctor's orders is not included in these figures.*

Information about crack, methamphetamines, smokeless tobacco, ketamine, ecstasy, GHB, and rohypnol is presented in Part III

PATTERNS OF DRUG USE AMONG HACKETTSTOWN HIGH SCHOOL STUDENTS

It is rare for an adolescent who is using drugs to use one drug exclusively. Usually if one drug is being used, another will also be used, if only occasionally. There are also many different levels and patterns of drug use. One person may use a drug occasionally, and only use small amounts of that drug. Another may use the same drug, but use it regularly and in large amounts.

A way of classifying young people has been developed that describes their total involvement with drugs (see **Table 4**). The classification is determined both by the different drugs that are being used and by how heavily each of those drugs is being used. Every student surveyed is classified into one drug use type that briefly describes their total drug use. In order to be placed in a particular type, the student must meet all of the requirements for that type. Those requirements are almost entirely based on current use of drugs -- how often they are used, how they are used, and whether the student sees himself or herself as a drug "user."

A student may meet the requirements for more than one type but is always placed in only one type. For example, Type 4 consists of Heavy Alcohol Users. These are all youth who use alcohol heavily, but do not use other substances. There may, therefore, be heavy alcohol users who are not placed in Type 4. If a youth is a light marijuana user and uses stimulants heavily, that youth would be placed in the more serious group, Type 2, Stimulant Users.

Similarly even though a student uses stimulants, they might not be placed in the Stimulant Users group. It should be noted that analyses of methamphetamine users show that most users of methamphetamines (a stimulant) also use a variety of other drugs. Therefore, many students who regularly use stimulants are placed in the Multi-Drug User group.

The students who are included in any one group are using the same kinds of drugs and are using them in just about the same way. They are also probably similar in other aspects of their lives. They are likely to be associating with other youth classified in the same drug use group. Within their groups, students tend to share values, friends, and hold a similar outlook on life, school, and work.

There are nine drug use types, or groups, arranged in descending order of seriousness of drug use. **Table 4** shows the percentage of Hackettstown High School students in each of these nine drug use types. A description of each of the drug use groups appears after **Table 4**. It is important that the reader become familiar with each group in order to fully understand **Table 4**.

TABLE 4

Patterns of Drug Use Among Hackettstown High School Students (2003-04)

	9th Graders	10th Graders	11th Graders	12th Graders
LEVEL I* (High Involvement)				
1. Drug Dependent and Multi-Drug Users	1.8%	5.0%	8.3%	11.3%
2. Stimulant Users	1.4%	0.9%	2.9%	0.7%
3. Heavy Marijuana Users	0.0%	0.5%	0.5%	0.0%
4. Heavy Alcohol Users	2.3%	2.7%	5.9%	4.6%
LEVEL II* (Moderate Involvement)				
5. Occasional Drug Users	5.1%	5.0%	6.4%	6.0%
6. Light Marijuana Users	5.1%	9.0%	16.2%	18.5%
LEVEL III* (Low Involvement)				
7. Tried A Drug (no current use)	4.6%	7.2%	12.3%	15.9%
8. Light Alcohol Users	24.4%	21.3%	19.1%	17.2%
LEVEL IV* (No Involvement)				
9. No Use	55.3%	48.4%	28.4%	25.8%

Source: The American Drug and Alcohol Survey

* *See figures on next pages.*

Percent of Hackettstown High School Students By Level of Drug Involvement (2003-04)

Figure 1 - 9th Graders

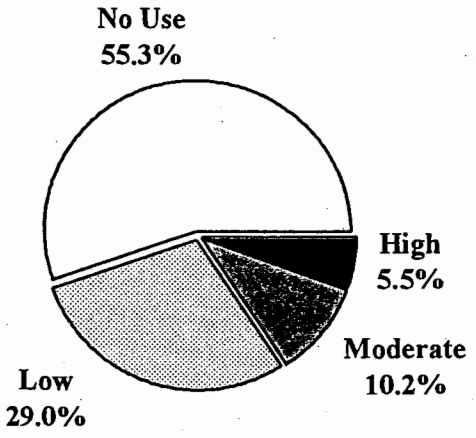
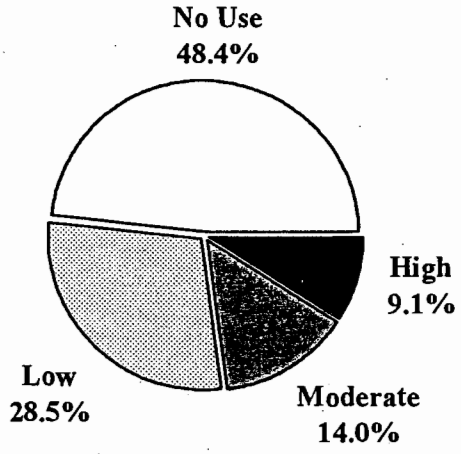


Figure 2 - 10th Graders



Source: The American Drug And Alcohol Survey

Percent of Hackettstown High School Students By Level of Drug Involvement (2003-04)

Figure 3 - 11th Graders

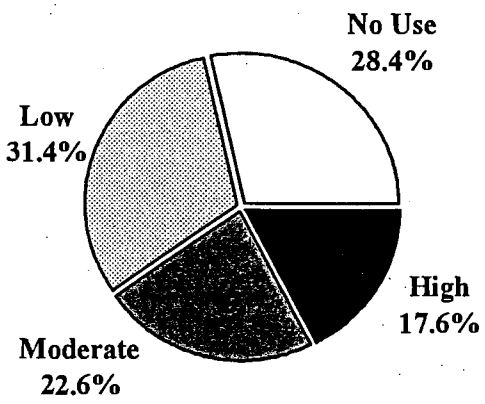
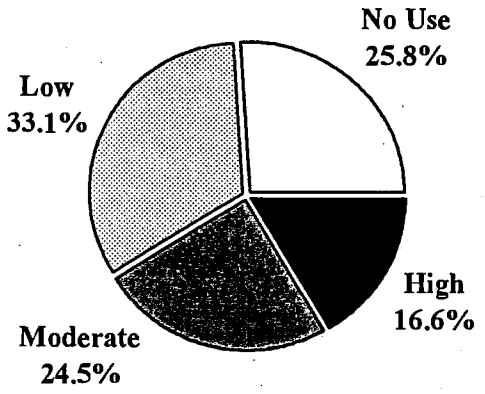


Figure 4 - 12th Graders



**Source: The American Drug And Alcohol Survey*

DESCRIPTION OF ADOLESCENT DRUG USE TYPES

1. Drug Dependent and Multi-Drug Users

Anyone who uses alcohol, marijuana or any other drug (except tobacco) every day is classified as a Multi-Drug User because their drug use is chronic and highly serious. Daily users of alcohol or marijuana almost always take other drugs as well, particularly when they cannot get their "drug of choice." Other students who are classified as Multi-Drug Users show current regular use of two or more different types of drugs, other than alcohol and marijuana. Older Multi-Drug Users, for example, generally take some kind of downer and also use stimulants. Younger Multi-Drug Users, on the other hand, may use inhalants heavily and regularly and take other drugs when they can get them. These Multi-Drug Users are also likely to use marijuana and get drunk often.

2. Stimulant Users

Stimulant Users take amphetamines, methamphetamines, and/or cocaine regularly. They prefer drugs that make them feel "up." Most Stimulant Users also use alcohol and marijuana, often quite heavily but not daily, and some of them use hallucinogens. Stimulant Users, unlike Multi-Drug Users, rarely use drugs like downers, heroin, or PCP.

3. Heavy Marijuana Users

Heavy Marijuana Users do not use marijuana every day -- if they did, they would be classed, according to this system, as Multi-Drug Users. The students in this group, however, do use marijuana often and in large amounts. They generally use marijuana during the week as well as on weekends. Heavy Marijuana Users are also likely to use alcohol and marijuana together. Other drugs may be taken occasionally, but not regularly. In order to intensify the effect, many Heavy Marijuana Users take strong forms of marijuana such as sensimilla or hashish, and/or use various methods for concentrating the smoke.

4. Heavy Alcohol Users

Students classified as Heavy Alcohol Users drink alcohol every week and get drunk frequently, but do not use other drugs regularly. Any Heavy Alcohol User who does use other drugs regularly would be classified in one of the above groups, and not in this one. Many of these Heavy Alcohol Users get drunk nearly every weekend. While Heavy Alcohol Users do not take other drugs regularly, some will use marijuana occasionally and a few might take another drug occasionally. Alcohol, however, is the substance they prefer.

5. Occasional Drug Users

Occasional Drug Users use drugs other than marijuana, but rarely use any drug more than once a month. Most of them also use marijuana occasionally. While the drug use of the Occasional Drug Users is not heavy, these students have shown a willingness to take drugs and could easily move toward heavier drug involvement.

6. Light Marijuana Users

The young people in this group use marijuana occasionally, possibly only a few times a year. They are also likely to use alcohol occasionally. They rarely take other drugs, but some of them may have tried other drugs.

7. Tried a Drug

The members of this group have tried a drug at some time, but they are not using drugs now and they do not think of themselves as drug users. The drug they have tried is usually marijuana, although some may have tried other drugs, particularly inhalants.

8. Light Alcohol Users

Light Alcohol Users use some alcohol, but rarely, if ever, get drunk. They have never tried any other kind of drug.

9. No Use (Drug Free)

Some of these students may have tried alcohol, but it is not being used now, even socially. These students have never tried any other drug.

HACKETTSTOWN HIGH SCHOOL STUDENTS LEVELS OF DRUG INVOLVEMENT

Level I (High Involvement) Drug Users. Any Hackettstown High School student who is classed in the first four groups may be at considerable risk from drug or alcohol use. Young people in these groups get drunk and/or use drugs nearly every weekend or even more frequently. They are in danger of becoming dependent on alcohol or drugs and at risk from accidents while intoxicated or high. Use of alcohol or drugs can also disrupt their social and psychological development.

Level II (Moderate Involvement) Drug Users. The youth in the next two groups, Occasional Drug Users and Light Marijuana Users, are in less danger from their drug use. They are, however, using drugs occasionally, most of them only a few times a year. The majority of these students do not take a lot of any particular drug. However, whenever any drug is used there is always some risk of danger. More importantly, they are showing a willingness to take drugs. The students that are Occasional Drug Users or Light Marijuana Users are, therefore, at some risk from their drug use.

Level III (Low Involvement). The students who are members of the next two groups are not now at risk from their use of alcohol and other drugs. The Hackettstown High School students who have Tried a Drug and those who are Light Alcohol Users, are not currently in significant danger from their drug use. The Tried a Drug group (Type 7), however, are not strangers to drugs. As mentioned above, it is possible their drug use could increase in the future.

Level IV (No Involvement). The Hackettstown High School students who are in Type 9 can be considered drug-free. There is some risk that they could be affected by the bad judgment of another person who is drinking or using drugs, and there remains a possibility that some of these students will begin using drugs in the future. However, at this time, they are essentially safe from the risks of substance use.

As a cautionary note, it would be wrong to assume that any student not in a low drug involvement group must be "addicted to drugs." Such an overstatement would ignore the detailed information available about the drug use patterns among these students. To understand drug use among Hackettstown High School students, one must neither overstate nor understate the problem, but be as accurate and precise as possible.

The Institute for Social Research at the University of Michigan has been providing national data for high school seniors since 1975. In the early 1990's this group expanded their work to include drug use rates for 8th and 10th graders. The following three tables provide this data for the 2002-2003 school year. If you surveyed any of these grades, the information in these tables can be used to compare the drug use rates at your school or district with national norms. (Note: If your survey included 12th graders, the 12th grade data in **Tables A-C** have already been included in **Tables 1-3**. They are reprinted here for completeness).

TABLE A

Percent of 8th, 10th and 12th Graders Across the Country Who Have Ever Tried a Drug (2003)

	8th Graders	10th Graders	12th Graders
Alcohol	46%	66%	77%
Been Drunk	20%	42%	58%
Cigarettes	28%	43%	54%
Marijuana	18%	36%	46%
Cocaine	4%	5%	8%
Stimulants	8%	13%	14%
Inhalants	16%	13%	11%
Nitrites	***	***	2%
Downers*	***	***	9%
Tranquilizers*	4%	8%	10%
Hallucinogens	4%	7%	11%
PCP	***	***	3%
Heroin	2%	2%	2%
Narcotics other than heroin	***	***	13%

The national data on 8th, 10th and 12th graders are from the Monitoring the Future surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.

* *Use of these drugs under a doctor's orders is not included in these figures.*

*** *Data not available.*

TABLE B

Percent of 8th, 10th and 12th Graders Across the Country Who Have Used Each Drug in the Last 12 Months (2003)

	8th Graders	10th Graders	12th Graders
Alcohol	37%	59%	70%
Been Drunk	15%	35%	48%
Marijuana	13%	28%	35%
Cocaine	2%	3%	5%
Stimulants	6%	9%	10%
Inhalants	9%	5%	4%
Nitrites	***	***	1%
Downers*	***	***	6%
Hallucinogens	3%	4%	6%
PCP	***	***	1%
Heroin	1%	1%	1%
Narcotics other than heroin	***	***	9%

The national data on 8th, 10th and 12th graders are from the Monitoring the Future surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.

* *Use of these drugs under a doctor's orders is not included in these figures.*

*** *Data not available.*

TABLE C

Percent of 8th, 10th and 12th Graders Across the Country Who Have Used Each Drug in the Last Month (2003)

	8th Graders	10th Graders	12th Graders
Alcohol	20%	35%	48%
Been Drunk	7%	18%	31%
Cigarettes	10%	17%	24%
Smokeless Tobacco	4%	5%	7%
Marijuana	8%	17%	21%
Cocaine	1%	1%	2%
Stimulants	3%	4%	5%
Inhalants	4%	2%	2%
Nitrites	***	***	<1%
Downers*	***	***	3%
Hallucinogens	1%	2%	2%
PCP	***	***	1%
Heroin	<1%	<1%	<1%
Narcotics other than heroin	***	***	4%

The national data on 8th, 10th and 12th graders are from the Monitoring the Future surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.

* *Use of these drugs under a doctor's orders is not included in these figures.*

*** *Data not available.*

PART II

HACKETTSTOWN HIGH SCHOOL STUDENTS' EXPERIENCES AND ATTITUDES REGARDING DRUGS AND ALCOHOL

In addition to the types and amounts of drugs being used, the survey assessed the attitudes local youth hold toward drugs and alcohol. If the community wants to create an environment where young people are able to remain drug-free, they must understand what factors contribute to the decisions local youth make about drugs.

Part II presents information on the availability of drugs, where drugs are used, problems caused by these substances, and students' attitudes toward drugs.

HOW AVAILABLE ARE DRUGS TO HACKETTSTOWN HIGH SCHOOL STUDENTS?

The students were asked how easy it would be to obtain each of the different types of drugs. (Note: This question asks about the availability of drugs in general. It does **not** mean drug availability at school.) The following table shows how many students felt it would be either "fairly easy" or "very easy" to get each drug.

TABLE 5

Perceived Availability of Drugs Among Hackettstown High School Students
Percent Marking Either "Fairly Easy" or "Very Easy" to Get Each Drug

	9th Graders	10th Graders	11th Graders	12th Graders	National* 12th Graders
Alcohol	89%	91%	95%	97%	94%
Marijuana	61%	71%	85%	91%	87%
Cocaine	25%	34%	45%	39%	43%
Uppers	26%	33%	42%	42%	55%
Inhalants	79%	80%	82%	84%	***
Downers	26%	35%	46%	42%	35%
Hallucinogens	14%	22%	34%	28%	47%
PCP	13%	24%	30%	25%	22%
Heroin	21%	33%	30%	26%	28%
Narcotics other than heroin	26%	40%	38%	41%	39%
Cigarettes	85%	89%	95%	95%	***

Source: The American Drug and Alcohol Survey

* *The national data on 12th graders are from the Monitoring the Future surveys conducted for the National Institute on Drug Abuse by the Institute for Social Research, University of Michigan, 2003.*

*** *Data not available.*

Alcohol and tobacco are, of course, the most accessible drugs because they are legal for adults. Other drugs are usually less available, but in most communities at least some students believe that almost any drug is available.

WHERE DO HACKETTSTOWN HIGH SCHOOL STUDENTS USE ALCOHOL AND OTHER DRUGS?

Tables 6A and **B** show some of the places where these students used alcohol and other drugs during the last year. While these tables do not include every place that alcohol and other drugs can be used, they do show generally where these substances have been used.

TABLE 6A

Where Hackettstown High School Students Have Used Alcohol

	9th Graders	10th Graders	11th Graders	12th Graders
On the way to school	0%	<1%	5%	<1%
During school hours at school	0%	1%	2%	2%
During school hours away from school	4%	4%	8%	7%
Right after school	6%	10%	13%	9%
Before school events	4%	11%	28%	24%
At school events	4%	8%	18%	18%
After school events	16%	20%	37%	38%
At parties	35%	50%	62%	70%
At night with friends	40%	52%	66%	70%
While driving around	2%	3%	13%	10%
At home (parents knew)	27%	30%	35%	36%
At home (parents didn't know)	29%	36%	50%	39%

Source: The American Drug and Alcohol Survey

TABLE 6B

Where Hackettstown High School Students Have Used Drugs Other Than Alcohol

	9th Graders	10th Graders	11th Graders	12th Graders
On the way to school	1%	4%	9%	9%
During school hours at school	<1%	2%	2%	3%
During school hours away from school	2%	4%	9%	10%
Right after school	6%	10%	19%	18%
Before school events	2%	10%	20%	12%
At school events	2%	6%	11%	6%
After school events	3%	8%	20%	15%
At parties	8%	18%	37%	37%
At night with friends	10%	21%	39%	36%
While driving around	3%	8%	21%	21%
At home (parents knew)	1%	4%	3%	6%
At home (parents didn't know)	6%	15%	25%	19%

Source: The American Drug and Alcohol Survey

In nearly all communities, drugs are used mostly at parties and with friends. Even when drug use is reported as "at home," that drug use is probably with friends and when the parents are away, or in the privacy of a youth's room. Drug use in front of parents can occur, but such cases are less common.

There is usually less drug and alcohol use at school than outside of school. Any use at school is, however, of great concern because alcohol and other drugs interfere directly with learning. Unfortunately, use outside of school is also a problem for the school because drugs, such as alcohol, can still interfere with a student's studies even if he or she is not using those substances at school. Many drugs, including marijuana, stay in the body for long periods of time. They may still be present when these youth are in school, and thus interfere with attention and learning. Using drugs also places a youth outside the mainstream of society and generally involves attitudes that make a youth unwilling to listen to a teacher's or a counselor's advice.

The fact that there is usually less substance use at school than in most other settings is a very important point. Media reports often give the mistaken impression that schools are the source of most adolescent drug use. The reason for this misunderstanding is very simple -- schools are the places where young people spend most of their day and it is where there is a lot of talk about drugs. If someone wants to interview young people, where do they find them? -- at school, of course. All of the talk about drugs then gets associated with the schools.

Even the fact that this drug survey was given in school may lead some people to blame the school for drug use. The school, however, is simply the most convenient place to collect this information. While drug and alcohol use at school is a very serious problem, it must be remembered that drug use is a community problem. Even the level of substance use at school events, as reported in **Tables 6A** and **B** should be considered a community problem. As **Tables 6A** and **B** show, most drug and alcohol use occurs in the community away from school. Where does the responsibility lie, for example, when youth sneak beer into football games or arrive at school dances intoxicated? The real answers to such problems must come from the community and from individual homes in conjunction with the school's efforts.

HOW HARMFUL DO HACKETTSTOWN HIGH SCHOOL STUDENTS THINK DRUGS ARE?

The attitudes that young people have about the dangers of drugs often shape their decisions about whether they will use drugs or not. For example, if a youth believes that no harm is attached to using marijuana, he or she is much more likely to give it a try.

Table 7 shows the percentage of students who think that trying a drug (using it just once or twice) will lead to a lot of harm. Students who think this way will probably not even try a drug.

TABLE 7

Percent of Hackettstown High School Students Who Believe That Using a Substance Once or Twice Will Lead to "A Lot" of Harm

	9th Graders	10th Graders	11th Graders	12th Graders
Alcohol	2%	2%	2%	<1%
Get Drunk	12%	12%	8%	4%
Marijuana	11%	8%	5%	4%
LSD	40%	39%	37%	41%
Inhalants	22%	27%	26%	29%
Uppers	24%	22%	21%	21%
Cocaine	31%	34%	35%	34%
Cigarettes	17%	14%	12%	12%

Source: The American Drug and Alcohol Survey

Notice in **Table 7**, however, that quite a few students do not think that trying a drug is harmful. It is much more likely that these students may at least experiment with a drug.

Table 7 also shows that there is greater fear of some drugs than of others. Even for those drugs considered more dangerous, however, there are still youth who do not believe that using them once or twice will lead to much harm. They may, therefore, be willing to experiment with those drugs.

Table 8 looks at this issue a little differently. This table shows how many Hackettstown High School students think that using drugs regularly will harm them.

TABLE 8

Percent of Hackettstown High School Students Who Believe That Using a Substance Regularly Will Lead to "A Lot" of Harm

	9th Graders	10th Graders	11th Graders	12th Graders
Alcohol	25%	20%	24%	26%
Get Drunk	85%	78%	77%	74%
Marijuana	59%	45%	32%	32%
LSD	71%	73%	69%	75%
Inhalants	69%	68%	68%	76%
Uppers	60%	59%	49%	57%
Cocaine	78%	81%	78%	84%
Cigarettes	58%	58%	57%	65%

Source: The American Drug and Alcohol Survey

The numbers are higher than those in **Table 7** showing that many students do see regular use of drugs as harmful. Some students, however, see no harm attached to regular use. This group of students is at higher risk of drug use since they do not believe that using drugs regularly is dangerous.

The fact that some young people in this district do not see regular drug use as harmful indicates that educational programs detailing drug hazards could be useful. However, programs that focus only on the dangers of drugs are not as effective as programs that educate students about other aspects of drug abuse as well. One reason is that the relationship between beliefs about drug hazards and drug use is a complex one. Some youth, for example, will actually use a drug because it is dangerous. The risk is part of the appeal.

Another important factor is the way that peer influence interacts with belief about drug dangers. Studies have shown that younger children who believe drugs are harmful will almost always discourage drug use among their friends. By the time these students are seniors, however, many of them will not attempt to discourage drug use among their friends -- even if they personally believe drugs are dangerous. Therefore, an effective drug prevention program, in addition to providing a realistic assessment of the dangers of drug use, must address such things as the roles friends play in helping each other to avoid or stop using drugs.

DO FRIENDS OF DRUG USERS ALSO USE DRUGS?

The first row of the following table shows the extent to which the students who use drugs have friends who also use drugs. The "Users" are those in the first three groups in **Table 4** (page 10). "Non-Users" are those in the last two groups of **Table 4**: they have never tried a drug.

TABLE 9

Percent of Hackettstown High School Students Who Have Friends Who Use Drugs

	Marijuana	Cocaine	Uppers	Downers
Users	100%	77%	50%	52%
Non-Users	54%	8%	6%	6%

Source: The American Drug and Alcohol Survey

Young people tend to form small, close-knit groups called *peer clusters*. A peer cluster could be a pair of best friends, a couple, or a small group. Members of a peer cluster tend to use the same drugs, use them to about the same extent, and usually use drugs when they are together. When approached with drugs, it is very rare for young people to "just say no" to their closest friends. It is not surprising, therefore, to find that, in nearly all communities, drug-using youth have friends who also use drugs. Conversely, youth who do not use drugs are likely to have friends who also do not use drugs.

HOW MANY OF HACKETTSTOWN HIGH SCHOOL STUDENTS HAVE FRIENDS WHO ASK THEM TO USE DRUGS?

When friends ask a youth to use drugs, it is hard to say "No." **Table 10** shows how many students have friends who ask them to use. The table shows that there is more peer encouragement for some drugs than for other drugs. There are many programs that suggest a youth should say "No." It might be a good idea to suggest that "real friends don't ask you to use."

TABLE 10

Percent of Hackettstown High School Students Whose Friends Ask Them to Use Drugs

	Marijuana	Cocaine	Uppers	Downers
Users	87%	19%	19%	19%
Non-Users	6%	<1%	<1%	<1%

Source: The American Drug and Alcohol Survey

WOULD FRIENDS OF HACKETTSTOWN HIGH SCHOOL STUDENTS TRY TO STOP DRUG USE?

If their friends would try to stop them from using drugs, young people might not use drugs. How much does that actually happen? The following table shows how many Hackettstown High School students have friends who would try to stop them from using four types of drugs.

TABLE 11

Percent of Hackettstown High School Students Who Have Friends Who Would Stop Drug Use

	Marijuana	Cocaine	Uppers	Downers
Users	**2%**	**38%**	**37%**	**37%**
Non-Users	**59%**	**82%**	**75%**	**74%**

Source: The American Drug and Alcohol Survey

Not only do youth who use drugs tend to have drug-using friends, but their friends would not apply as much pressure against using drugs. Even some of the drug-free youth, however, have friends who would not try to stop them from using drugs. While young people might not approve of drugs, they may also have a strong feeling that "People should be allowed to make their own choices." Such an attitude can prevent someone from helping a friend to "say no to drugs."

WHAT PROBLEMS HAVE HACKETTSTOWN HIGH SCHOOL STUDENTS HAD BECAUSE OF ALCOHOL OR DRUGS?

The survey also asked the students whether they had ever experienced any problems because of their alcohol or drug use. The figures in **Tables 12A** and **B** show how many students admit that alcohol or drugs have caused them problems, and what types of problems they have had. These percentages are only a base. People who abuse alcohol or drugs often avoid admitting that they are hurting themselves. Thus the following figures are a conservative estimate of these students' problems with alcohol and other drugs.

TABLE 12A

Admitted Problems of Hackettstown High School Students from Alcohol

	9th Graders	10th Graders	11th Graders	12th Graders
Got a traffic ticket	0%	0%	0%	3%
Had a car accident	<1%	0%	0%	2%
Got arrested	<1%	<1%	4%	4%
Had money problems	2%	2%	10%	11%
Gotten you in trouble in school	1%	2%	2%	5%
Hurt your school work	5%	5%	8%	5%
Fought with other kids	11%	12%	20%	18%
Fought with your parents	9%	11%	13%	15%
Damaged a friendship	3%	9%	12%	11%
Passed out	13%	22%	41%	42%
Couldn't remember what happened	23%	32%	48%	46%
Made you break something	12%	18%	28%	26%
Did something sexual and later regretted it	10%	15%	33%	30%
Hurt self	6%	10%	16%	8%
Hurt someone else	2%	5%	12%	9%

Source: The American Drug and Alcohol Survey

TABLE 12B

Admitted Problems of Hackettstown High School Students from Drugs Other Than Alcohol

	9th Graders	10th Graders	11th Graders	12th Graders
Got a traffic ticket	0%	0%	0%	<1%
Had a car accident	<1%	<1%	0%	1%
Got arrested	1%	0%	4%	3%
Had money problems	3%	5%	12%	13%
Got in trouble in school	0%	3%	4%	4%
Hurt your school work	6%	5%	8%	5%
Fought with other kids	4%	7%	4%	3%
Fought with your parents	4%	5%	9%	6%
Damaged a friendship	2%	6%	8%	7%
Made you break something	4%	5%	13%	6%
Had a "bad" trip	3%	4%	10%	12%
Did something sexual and later regretted it	3%	5%	15%	4%
Hurt self	5%	3%	7%	3%
Hurt someone else	2%	2%	5%	3%

Source: The American Drug and Alcohol Survey

Some Hackettstown High School students admit that alcohol and other drugs have led to problems. Alcohol causes problems for more people than drugs do, but more students use alcohol. Particular note should be taken of any youth who have had fights and damaged friendships because of alcohol or drug use. Friends are extremely important to young people and convincing young people that alcohol and other drugs can endanger friendships could help prevention efforts among these youth.

AGE OF FIRST USE

Students were asked at what age they began using alcohol, marijuana and inhalants. Other drugs were not asked about since these three are the ones that young people usually begin using first. **Table 13** shows the age at which 12th graders who have used these three drugs began using them. The students who have never tried the drug are not included in these averages. Knowing the age of first use among students is important in planning prevention programs. Once students have started using drugs it is much more difficult to intervene or to reduce their use. Therefore the most effective prevention programs should be in place just prior to the age when most students who are going to use a drug begin using it. Also it is well known that students who use drugs at very young ages are more likely to have serious and continuing problems later in life. Early intervention with this group is very important in reducing the amount of distress these young people will encounter in the coming years.

TABLE 13

Age of Hackettstown High School 12th Graders When They First Tried Drugs

	7-9 Years	10-12 Years	13-15 Years	16 or Older	Never Tried
Getting Drunk	**1%**	**7%**	**41%**	**28%**	**23%**
Average age of first drunk:	**14.8 years**				
Marijuana	**1%**	**3%**	**29%**	**20%**	**47%**
Average age of first use:	**15.1 years**				
Inhalants	**0%**	**1%**	**3%**	**6%**	**90%**
Average age of first use:	**15.4 years**				

Source: The American Drug and Alcohol Survey

Note: The percentage of 12th graders who indicate they have "never tried" a substance on the questions about Age of First Use may differ slightly from the percentage of "never tried" that could be derived from Table 1 due to a few students not answering one or the other of the questions.

INTENT TO USE DRUGS

What will happen to the younger students during the next few years? The survey asked students whether they intend to use drugs in the future. The 9th graders' responses to those questions are presented in **Table 14** because it is the attitudes of these younger students that are most significant in this respect. For example, if a young person has not used drugs, but "may in the future," that youth is very likely to try drugs soon -- unless something can be done to change his or her mind.

TABLE 14

Hackettstown High School 9th Graders' Intentions Regarding Future Drug Use

	Percent
Never used drugs and never will	**76%**
Never used drugs, but may in the future	**9%**
Used drugs, but do not plan to use them again	**6%**
Used drugs and probably will use them again	**9%**

Source: The American Drug and Alcohol Survey

Most of the 9th graders indicate that they do not plan to use drugs in the future. It is important that these youth are starting with good intentions. Yet we know that there will be some who will start using drugs in the next few years. Although there are many pressures that work against a youth's best intentions to remain drug free, cooperative school and community intervention can work to alleviate these pressures and maintain these good intentions.

PART III

THE USE OF INDIVIDUAL DRUGS

The substances most commonly used by students are alcohol, marijuana and tobacco. Inhalants are sometimes used by younger children. Use of other drugs occurs less often among these students. All of the different types of drugs are, however, discussed in this section because experience shows that any drug eventually becomes available in every community. This is true no matter how small or isolated that community may be. A brief description of each drug, even if it is not used locally, is included to inform readers about the drug and to warn that it may become available locally in the future. When a drug is available, some students are likely to try it. **Table 15** shows how much each drug has been used during the last month by Hackettstown High School students. There is one table section for each grade.

TABLE 15A

Use During the Last Month by Hackettstown High School 9th Graders

	1-2 Times	3-9 Times	10 or More Times
Alcohol	**25%**	**12%**	**2%**
Been Drunk	**15%**	**3%**	**1%**
Marijuana	**2%**	**1%**	**4%**
Cocaine	**<1%**	**<1%**	**0%**
Stimulants	**<1%**	**0%**	**0%**
Inhalants	**2%**	**1%**	**0%**
Downers	**<1%**	**0%**	**0%**
Hallucinogens	**<1%**	**<1%**	**0%**
PCP	**0%**	**0%**	**0%**
Heroin	**0%**	**0%**	**0%**
Narcotics other than heroin	**<1%**	**0%**	**0%**

Source: The American Drug and Alcohol Survey

TABLE 15B

Use During the Last Month by Hackettstown High School 10th Graders

	1-2 Times	3-9 Times	10 or More Times
Alcohol	26%	15%	1%
Been Drunk	17%	6%	<1%
Marijuana	3%	3%	4%
Cocaine	2%	0%	0%
Stimulants	2%	<1%	0%
Inhalants	3%	0%	0%
Downers	2%	<1%	<1%
Hallucinogens	2%	0%	0%
PCP	0%	<1%	0%
Heroin	0%	0%	0%
Narcotics other than heroin	1%	1%	0%

Source: The American Drug and Alcohol Survey

TABLE 15C

Use During the Last Month by Hackettstown High School 11th Graders

	1-2 Times	3-9 Times	10 or More Times
Alcohol	30%	22%	7%
Been Drunk	22%	15%	2%
Marijuana	12%	8%	6%
Cocaine	4%	0%	0%
Stimulants	<1%	<1%	0%
Inhalants	3%	0%	0%
Downers	2%	0%	1%
Hallucinogens	<1%	0%	0%
PCP	0%	0%	0%
Heroin	0%	0%	0%
Narcotics other than heroin	1%	0%	0%

Source: The American Drug and Alcohol Survey

TABLE 15D

Use During the Last Month by Hackettstown High School 12th Graders

	1-2 Times	3-9 Times	10 or More Times
Alcohol	26%	28%	5%
Been Drunk	27%	12%	2%
Marijuana	8%	7%	11%
Cocaine	4%	2%	0%
Stimulants	0%	1%	0%
Inhalants	1%	0%	0%
Downers	<1%	0%	<1%
Hallucinogens	1%	0%	0%
PCP	0%	0%	0%
Heroin	0%	0%	0%
Narcotics other than heroin	2%	3%	0%

Source: The American Drug and Alcohol Survey

Table 16 lists a number of high risk behaviors. It shows how many Hackettstown High School students are increasing the risk of drug use by the way they use alcohol and/or drugs.

TABLE 16

High Risk Behaviors Among Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Daily alcohol use	<1%	0%	1%	1%
Daily marijuana use	1%	2%	5%	11%
Passed out while drinking	13%	22%	41%	42%
Couldn't remember what happened	23%	32%	48%	46%
Did something sexual while drinking and regretted it later	10%	15%	33%	30%
Did something sexual while on drugs and regretted it later	3%	5%	15%	4%
Had a car accident while drinking	<1%	0%	0%	2%
Had a car accident while on drugs	<1%	<1%	0%	1%
Used marijuana and alcohol together	9%	15%	41%	45%
Used a needle to inject a drug	0%	<1%	2%	<1%
Shared a needle	0%	<1%	2%	0%

Source: The American Drug and Alcohol Survey

Note: These data are referred to throughout the text of Part III

DESCRIPTIONS OF INDIVIDUAL DRUGS

Adolescents who use drugs usually describe them in positive terms. Indeed drugs do have short term effects that appear very desirable. If this were not the case very few people would try drugs and even fewer would continue to use them. The descriptions of drugs, therefore, include many of the effects that drug users are seeking. This is not meant to put drug use in a positive light -- rather the intent is to show why young people may be attracted to drugs.

Keep in mind that continuing use, or even occasional use, of any drug has detrimental effects. These effects may be physical, such as increasing the chances of accidents, or they may be emotional. Adolescents are going through a very important period of emotional growth. They have to confront many difficult tasks such as learning to make friends or learning how to deal with many of the pressures and strains of moving into the adult world. If young people resort to drugs to get through these normal phases of development, they may never achieve the emotional maturity necessary for effective adult living.

Alcohol

Alcohol has been, and continues to be, the most widely used substance among students. Alcohol is, of course, a legal substance for adults, thus it is both readily available and widely accepted by society.

Alcohol use could involve anything from a single beer to getting drunk, thus it is important to know how much alcohol is being used. **Table 15** shows how many Hackettstown High School students have been drunk during the month prior to the survey. These figures are the students' own judgments about whether or not they were drunk, and not actual estimates of the amount of alcohol they consumed. Some students who believe they were drunk may not have been legally intoxicated, while others who were legally intoxicated might not think they were. Experience suggests these factors balance each other out, and the numbers in the tables provide a close estimate of how many students have actually been drunk.

Some students may have been extremely drunk, greatly increasing the risk from drinking. The number of students who had so much to drink that they "passed out" appears in **Table 16**. Some young people may also have had enough to drink that they do not remember what happened. The number of Hackettstown High School students who claim to "not remember" what they did appears in **Table 16**.

Recent evidence suggests that when young people describe what happened to them, when they got drunk or got high on drugs, they will tell a fairly clear story about the incident. The story will often explain in some detail what led up to drinking or using drugs, who was there, and what happened early in the episode. The story will then reach a point where it is clear that something bad may have happened, a fight, a sexual assault, a humiliating incident, or some other unpleasant occurrence. At that point the youth often says, "I don't remember what happened after that." While we cannot know what really happened to those students who said they "couldn't remember what happened" it is likely that many of them had something happen that was quite bad, and that they just don't want to remember.

While alcohol is legal for adults to use, and while there is considerable social tolerance for adolescent drinking, alcohol is a dangerous substance. For one thing, alcohol is addictive. Heavy use over a long period can lead to all of the attendant physical and social problems of alcoholism. Many alcoholics report that they started heavy drinking as adolescents. At least some youth who are drinking heavily now are on the path to alcoholism.

In addition to potential alcoholism, there are some immediate hazards linked to heavy alcohol use by young people. The most obvious danger is from drunk driving. In addition, each year a significant number of young people lose their lives directly to alcohol poisoning simply because they do not know when to quit drinking.

Some youth who use alcohol also take drugs while drinking, and the effects from taking drugs along with alcohol can be very dangerous. When marijuana and alcohol are used together, the effects on judgment and on driving skills are greater than when those substances are taken separately. Using alcohol with other drugs also increases the danger. See **Table 16** for the percent of Hackettstown High School students who have used alcohol and other drugs together.

Less obvious damage from alcohol use occurs when a youth is unable to study or concentrate because of residual intoxication or hangovers. Damage is also done when heavy alcohol use interferes with emotional development.

Tobacco

Tobacco, like alcohol, is a legal substance for adults and is easily accessible to young people. In recent years the dangers from tobacco use have received wide publicity and use has decreased among students. About 16% of American high school seniors now smoke cigarettes daily, down from 25% in 1997.

TABLE 17

Tobacco Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
CIGARETTES				
Ever Used	31%	32%	52%	58%
Total Daily Users	3%	6%	14%	25%
Daily: Less Than Half a Pack	1%	4%	4%	10%
Daily: Half a Pack or More	2%	2%	10%	15%
CIGARS				
Ever Used	19%	22%	43%	49%
SMOKELESS TOBACCO				
Ever Used	5%	8%	10%	19%
Total Daily Users	<1%	0%	1%	0%
Daily: Less Than Six Times	<1%	0%	1%	0%
Daily: Six or More Times	0%	0%	0%	0%

Source: The American Drug and Alcohol Survey

Nicotine is highly addictive, and young people who use tobacco regularly may have trouble if they want to stop later. The adolescent years are very important in determining whether or not people will smoke as adults. Research suggests that nearly every young adult who smokes today smoked regularly before the age of 19, and that hardly any youth who regularly smoke half a pack a day or more will quit before they reach the age of 30.

Marijuana

Marijuana has, unfortunately, gained wide social acceptance among young people; it is now second in popularity only to alcohol. In 1980, more than 60% of high school seniors surveyed nationally had tried marijuana. This rate dropped until 1992, but then began increasing. About 40% of high school seniors had tried marijuana in 1995, and about 50% in 1997. Small declines since then have lead to a 46% "ever tried" rate in 2003. Marijuana is usually smoked, like tobacco - in a pipe or rolled in cigarette paper. The user gets high very quickly, within a few minutes, and stays high for two to three hours. When eaten, it may take 20 to 30 minutes for marijuana to "hit" -- the high is likely to be less intense but may last longer. Many users will stay high for several hours at a time by taking more of the drug.

As with other drugs, the effect of marijuana on the user is likely to depend on the action of the drug, the amount used, the immediate social setting, and the user's expectations. The usual response to marijuana is a light and relaxed sensation. Under some conditions, everything may seem hysterically funny. Colors and sounds may seem very bright and intense, time may seem to slow down and appetite often increases for the user. These pleasant sensations are generally associated with the light use of those new to marijuana. As marijuana use continues, however, other less desirable effects are felt.

When marijuana is used in situations that create anxiety or by people already having emotional problems, it can intensify such feelings as depression, anxiety, or fear. Some youth may believe that they are going crazy while on marijuana. These negative responses are more likely with heavy doses of the drug, but even light doses can intensify such moods for particularly sensitive people.

Even in low doses, marijuana interferes with judgment. Young people who have limited experience with the world are likely to make errors that endanger them -- marijuana use increases the opportunities for such errors.

Extremely negative emotional and personal experiences, "bad trips," are frequent among people who use marijuana heavily. There is also evidence that long term, heavy marijuana use may ultimately cause harm to a youth's physical and emotional health.

Since marijuana is passed out of the body slowly, students who use it daily or even several times a week have some of the drug in their systems all the time. **Table 16** shows the percent of Hackettstown High School students who use marijuana daily.

Most of the psychoactive drugs influence the brain because the drug attaches to specific receptors in the brain. The location of those receptors and their normal function in the brain determine whether the drug's effect is to block pain, work as a depressant, or act as a stimulant. Researchers worked for decades before identifying the receptors for THC, the chemical in marijuana that leads to its effects. They still do not know what the receptors do in the normal brain, but the THC receptors are spread throughout the brain. There are more of them in some parts of the brain, which may help explain some of the effects of marijuana. There are, for example, very few THC receptors in the parts of the brain that effect breathing and the heart, and marijuana has little effect on those functions. The parts of the brain that control movement, thinking and

memory, however, have many THC receptors, helping to explain why marijuana leads to deficits in coordination, problem solving, and recall.

Many of the parents of today's adolescents experimented with marijuana when they were young. Some of these parents may feel that marijuana is a relatively innocuous drug, and may, somehow, communicate that to their children without intention. These parents should know that the marijuana available today may be 3 to 4 times stronger than the marijuana they used. Sensimilla, for example, is produced by separating out female plants and preventing them from being pollinated. Plants that are not pollinated produce incredible amounts of the active drug, THC, and marijuana from these plants is a very powerful drug.

Cocaine

Cocaine is a white powder derived from the South American coca plant. It is usually "sniffed" or "snorted," but is also dissolved and injected by heavy drug users.

Cocaine is a very powerful stimulant. When sniffed, it is rapidly absorbed into the blood stream through the membranes in the nose. The drug immediately dries out and numbs the nose and sinuses, thus the user often feels "a breath of cold, clean air." When sniffed or "snorted," cocaine hits the brain very fast, and the user generally feels excited, energetic, and capable of great mental and physical feats. Injecting cocaine leads to a similar response, but the feelings are even more intense because of the large amounts suddenly reaching the brain.

The initial effects of cocaine seem extremely pleasant to the user. But when the "rush" wears off, it usually leaves the user feeling tired and let down. The user, in turn, often tries to alleviate this depression with another dose of cocaine. The result is an extended cycle of ups and downs as the user develops an insatiable appetite for cocaine while trying to maintain the high.

Some users are high on cocaine virtually all the time; their lives center around the drug while their work and personal relationships are destroyed. Fortunately, most cocaine use by students is still occasional use, with very few students using it more than once or twice a month (see **Table 15**).

Crack

"Crack" is a form of cocaine quite different from the powdered form taken by most cocaine users. Powdered cocaine is processed from the coca plant with the use of several liquid chemicals. This mixture is dried resulting in a powder which is usually sniffed ("snorted") through the nasal passages. Powdered cocaine is absorbed by the bloodstream and travels to the brain where it has its effect. This regular cocaine powder, however, vaporizes at a very high temperature and therefore cannot be smoked.

Powdered cocaine can be treated so that it vaporizes at a lower temperature. When it is treated this way it comes out in small, hard lumps called "crack," or "freebase." In the past, the usual way of producing "freebase" used flammable chemicals, such as ether, and was very dangerous. However, a new chemical procedure has been developed that is not flammable. This simple, inexpensive process produces crack. In some places, crack is also called "rock cocaine." The term "Rock," however, is also used in a few locations to describe drugs other than cocaine.

While cocaine powder cannot be smoked because it burns up before it vaporizes, crack can be smoked because it turns to gas at a lower temperature. This smoked form of cocaine delivers a lot of vapor into the lungs where it is rapidly absorbed into the bloodstream. The result is a very intense and immediate high.

Crack is a very serious problem in some cities. Crack is relatively cheap, it produces a very intense high, and because it does not need to be injected, it is easy to take. A crack high does not last very long. When it wears off, crack, like other forms of cocaine, leaves the user feeling let down, and the user often tries to maintain the high with successive doses of crack. For those reasons, crack is an extremely dangerous drug. Results from small towns and rural areas that have used **The American Drug and Alcohol Survey™** suggest that crack is available almost everywhere.

TABLE 18

Crack Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	3%	2%	5%	5%
Used in Last 12 Months	2%	<1%	3%	3%
Used in Last Month	2%	<1%	1%	1%

Source: The American Drug and Alcohol Survey

Stimulants

Stimulants are usually amphetamine or amphetamine-like drugs. They are sometimes called "prescription stimulants" because, to take them legally, they would have to be obtained through a doctor's prescription. Some stimulants, however, are manufactured and sold illegally. While marijuana and cocaine are derived from naturally occurring plants, stimulants are produced artificially in a laboratory. Stimulants cause sensations of alertness and excitement. Stimulants are usually referred to as "uppers" or "speed" by drug users. Stimulant use is usually associated with a dry mouth and a loss of appetite.

Stimulants can be taken in pill or capsule form. They are most often taken orally and absorbed through the digestive system. It takes about 15 to 20 minutes to get high. The high then lasts from two to six hours and may be followed by a "let down" feeling or serious depression if large or repeated doses are taken. Heavy drug users may also inject stimulants, although this is infrequent among adolescents.

The majority of young people who take stimulants once a month or more belong to a peer group that is involved in a drug lifestyle. They use drugs in conjunction with nearly every gathering or social occasion.

Lighter stimulant use, however, is also dangerous, partly because uppers will keep a person awake while making them feel perfectly competent even when there is considerable loss in reaction time. Judgment may be distorted, but stimulant users often cannot detect that anything is wrong. This is particularly true if alcohol and uppers are taken together. Such users may think they are functioning well when actually they are simply wide-awake drunks, and therefore dangerous ones, particularly behind the wheel.

Methamphetamines

Methamphetamine is a particular type of stimulant that is also called "crank," "speed," "crystal meth" or "ice". It can be injected, smoked (usually as a powder sprinkled on tobacco), sniffed or taken orally. Recently crystal meth has become more popular and is often used instead of cocaine. One reason some people prefer it is that it gives a very intense high, similar to cocaine, but the effect lasts much longer. Another reason for its popularity is that it can be illegally manufactured in large quantities from common industrial chemicals.

Crystal meth has all of the negative effects described above for other stimulants although there is good reason to believe that the effects are intensified. In part this is because it is a more potent chemical, but also it is used in ways that put more of it into the bloodstream very rapidly, for instance by smoking or injecting. The emotional effects are very strong and crystal meth users often suffer severe psychological crises including paranoia and depression.

TABLE 19

Methamphetamine Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	1%	1%	2%	3%
Used in Last 12 Months	1%	0%	2%	1%
Used in Last Month	0%	0%	0%	0%

Source: The American Drug and Alcohol Survey

Methamphetamine use increased throughout the 1990s among both adult and adolescent populations, particularly in the Western states. Nationally, 6.2% of high school seniors have tried methamphetamine. However, in some communities in the Western and Southern U.S. the American Drug and Alcohol Survey has found that over 15% of 12th graders have tried this drug.

Legal Stimulants

In some states it is possible to buy mild stimulants and pep pills legally, often by mail. These are called fake pep pills, imitation speed, look-alikes, or have brand names similar to those that drug users apply to illegal prescription stimulants. A few years ago, many legal stimulants contained several different drugs, but federal guidelines now restrict these substances to one active ingredient per dose, which is usually a concentrated amount of caffeine. The response from taking legal stimulants is similar to that from taking other stimulants, but not as intense.

Stay-awake pills can also be bought over the counter and have similar ingredients. Many students use stay-awake pills when they have a lot of homework to do or are studying for tests. Sometimes, however, these pills are taken strictly for the purpose of getting high.

The nature of available legal stimulants is always changing. Recently there has been an increase in the use of ephedrine and ephedrine related products. **The American Drug and Alcohol Survey™** now contains a question about the use of these drugs. The effects of ephedrine can include a perceived increase in energy and alertness, reduced need for sleep, increased blood pressure and a loss of appetite. These compounds are also used in some over the counter medications for bronchial dilation. Natural compounds that contain ephedrine related substances are sold in health food stores and are unregulated. All of these products can be taken in large amounts to achieve the effect similar to that of other stimulants. Although serious effects do not occur all of the time, substances containing ephedrine are not necessarily safe. They have caused heart attacks, epileptic seizures, nausea, fatigue and even death; in Texas, eight deaths have been reported.

While all legal stimulants available over the counter are not very strong and are not harmful in normal doses, many people take huge amounts in order to get high and serious physical or psychological damage can occur. In addition, the use of legal stimulants accustom youth to the use of drugs and may encourage the use of illegal stimulants or other drugs.

Ritalin

Ritalin (methylphenidate) is a mild stimulant prescribed for attention deficit disorder. When used appropriately with children who are hyperactive, instead of stimulating them further it calms them down and helps them focus their attention for longer periods of time. As with other stimulants, Ritalin can be used to get high. It can be injected or taken orally. The drug is chemically similar to the amphetamines, and in high doses, the effects are essentially the same.

TABLE 20

Ritalin Use* by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	1%	1%	6%	7%
Used in Last 12 Months	<1%	<1%	6%	7%
Used in Last Month	<1%	<1%	1%	1%

Source: The American Drug and Alcohol Survey

** Only use to get high is included in this table*

Inhalants

Some youth inhale many different substances, ranging from gasoline to typewriter correction fluid, to get high. The most commonly used inhalants are glue, gasoline, spray paint and

paint thinner. Almost anything that has a solvent that evaporates at room temperature can be abused in this manner. The inhalant is usually smeared on the inside of a paper, or plastic bag, rag or old sock. The fumes are "sniffed" (breathed in through the nose) or "huffed" (breathed in through the mouth).

Inhalants are rapidly absorbed into the blood stream through the nasal passages and lungs, and the user gets high in minutes. Depending on the amount taken, once the user stops inhaling the high lessens and is gone usually within a half hour. Thus, many inhalant users continue to "sniff" in order to stay high. An inhalant high is essentially the same as an alcohol high, with an initial stage of euphoria followed, as the youth continues to inhale, by greater intoxication, dizziness, and loss of physical and mental control.

Inhalants are used mostly by very young drug abusers. The average age of children who use inhalants regularly is between 12 and 13. These youth use inhalants because they are cheap and easily available. Younger children who use inhalants have a tendency to move on to other drugs as they get older, which is one reason why inhalant use tends to be lower among high school seniors than it is among junior high or middle school students. Another reason is that many of the heavier inhalant users never make it to the senior year before dropping out of school, often at least partly because of their drug use.

Some people, usually young adults in their mid-20's or early 30's, use inhalants constantly. These people may use inhalants every day, staying high for hours at a time. Such heavy inhalant use places the user in grave danger. Inhalants can damage the liver, cause an imbalance in blood chemicals, and lead to coma or even death. These inhalant dependent adults are often seriously disturbed -- they have a reputation for violence and bizarre behavior. Occasionally, a younger person develops this type of severe inhalant dependence, which inevitably becomes a critical problem.

Most of the students who use inhalants, however, do not use them very often and the amount that they use is unlikely to do any irreparable physical damage. Fortunately, while the substances that are most often inhaled -- glue and gasoline -- are damaging, they are among the least toxic of inhalants and seem to do little permanent damage when used only occasionally and in small amounts. Inhalant users, however, typically do not know whether the substance they are using is dangerous or not. There are some vapors that can be fatal and others that can sensitize the heart so that suddenly being startled or frightened could kill. Inhalant vapors are also flammable and there is often a danger of explosion or fire. Inhalant intoxication is similar to alcohol intoxication -- it interferes with judgment and motor skills, and can cause inhalant-intoxicated youth to get into serious trouble as a result.

Communities should be aware that small groups of children can become obsessed with using inhalants. Occasionally this pattern spreads to other groups of children, thus creating a serious, widespread problem in their community. Such behavior rarely involves older youth, but can remain an epidemic among the younger children. A severe inhalant problem can appear suddenly in one grade or class even when previous classes have not shown it. It is wise to watch for a sudden increase in the number of elementary or junior high school students using inhalants 10 or more times a month.

Nitrites (Amyl, Butyl, or Isopropyl)

Amyl and butyl nitrites, when sold by prescription, consist of small capsules holding a gas. Patients with heart problems sometimes use these capsules; the capsule is broken and the gas inhaled to help the heart. These substances, however, are also sold in spray cans, purportedly as "room odorizers" or for other uses. They are often sold under brand names with sexual connotations. The drugs are used by some young people because, when inhaled, they produce a quick surge of energy. The effect passes off almost immediately. The street names for these drugs -- poppers, snappers, jolt and rush -- describe these feelings.

Nitrites are not viewed as highly dangerous, partly because they are rarely used by youth. Anything that suddenly shocks the system or stimulates the heart, however, could lead to problems, particularly if a young person has an existing physical problem or condition. The sudden drop in blood pressure caused by the drug can lead to fainting and injury. There have been rare cases where youth have taken "poppers" or "snappers" many times on a daily basis -- a practice likely to do significant physiological damage.

TABLE 21

Nitrite Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	**0%**	**<1%**	**4%**	**2%**

Source: The American Drug and Alcohol Survey

Downers

"Downers" is a street name that covers nearly all barbiturates, sedatives and sleeping pills. When prescribed by a physician, these drugs relieve muscle spasms, relax the patient, block pain to some extent, and lead to a sleepy, drowsy state. The effect of these drugs is almost identical to that of alcohol, and they have been called "a drink in a pill." The initial response to taking a downer is often the same kind of euphoria felt in early drunkenness. As more drug is taken or more of the drug is absorbed, the response is nearly the same as being drunk -- staggering, loss of coordination, dizziness, drowsiness, poor judgment, slurred speech, etc.

Downers are administered in either liquid or pill form, but most illegal downers are sold as pills or capsules for convenience. Also, a major source of downers is the family medicine cabinet. Some youth steal downers that were prescribed to other family members or get them from old, unused prescriptions. The more commonly used prescriptions include Phenobarbital and Seconal. While downers can be injected, adolescents usually take them orally. Different downers have different reaction times, but it usually takes the digestive system time to absorb any of them -- thus it can take 20 to 30 minutes to get high. The high from one dose may last from two to four hours, depending on the specific drug. A small percentage of users take additional doses to stay high for longer periods of time.

The major differences between downer intoxication and alcohol intoxication relate to the settings where these substances are taken, and to beliefs about their effects. Young people who use downers usually take them in small amounts and with friends in private surroundings. These occasional users rarely find themselves in fights or involved in aggressive behavior when they are taking downers.

Downers can be very dangerous since they pose the same dangers as alcohol intoxication, with the accompanying poor judgment and loss of coordination. Furthermore, downers and alcohol potentiate each other. Thus, taking downers with alcohol is like taking very large doses of alcohol. Such use can lead to extreme intoxication, or even to coma or death.

Downers are also highly addictive. While most adolescents do not use them enough to become addicted, taking downers heavily and over a considerable period of time can lead to addiction -- the need to take downers constantly and in increasing doses. Heavy addiction to downers can be life-threatening, especially if the person stops taking them abruptly. Withdrawal from downers, as from any addictive substance, should be done under medical supervision.

Quaaludes

Quaaludes ("ludes") are also a form of downer. Quaaludes became so popular among drug abusers that they are no longer manufactured by any legitimate company in the United States. However, some illegal manufacturing of them continues.

The physical and emotional response to Quaaludes and the dangers from their use are the same as the effects and hazards of other kinds of downers.

TABLE 22

Quaaludes Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	**0%**	**<1%**	**2%**	**<1%**

Source: The American Drug and Alcohol Survey

Tranquilizers

Some young people also use tranquilizers, such as Librium or Valium, to get high. The figures in the tables in this report do not include use of tranquilizers that were prescribed by a doctor as medicine, but only when tranquilizers were taken just to get high. The effects are similar to those of downers, although tranquilizers are actually very different drugs. A heavy dose of tranquilizers, like downers, creates an initial euphoria, but then drowsiness, inattention and impaired judgment set in. Although some tranquilizers are milder drugs, the dangers are similar to those from taking downers. These drugs are often prescribed for legitimate medical purposes but they are also used illegally. If tranquilizers have been used heavily and on a daily basis, withdrawal should be done under medical supervision.

GHB/GBH

GHB (gamma hydroxybutyrate) is a powerful nervous system depressant that causes strong feelings of relaxation and inhibition of behavior. Large doses can lead to unconsciousness and even coma. GHB or the chemicals necessary to make it are often sold over the internet with instructions for manufacture. Since it is often made in an uncontrolled environment, GHB sometimes contains dangerous contaminants.

TABLE 23

GHB/GBH Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	**0%**	**0%**	**<1%**	**3%**

Source: The American Drug and Alcohol Survey

Rohypnol

Rohypnol (sometimes called ruffies) is a sedative like Valium, yet it is 10 times stronger. The drug causes muscle relaxation, reduces inhibition, and is often used in combination with other drugs, such as alcohol, to enhance the effects. Large doses of Rohypnol can cause memory loss of up to 8 hours. It is often secretly inserted into the drink of another person at parties, making them vulnerable to unwanted sexual activity. For this reason, Rohypnol has been called the "date rape" drug.

TABLE 24

Rohypnol Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	**<1%**	**0%**	**1%**	**0%**

Source: The American Drug and Alcohol Survey

Hallucinogens

Hallucinogens, a class of drugs also known as psychedelics, interfere with the nerve impulses in the brain resulting in strange physical and emotional sensations, such as hallucinations. LSD (lysergic acid diethylamide), the most common hallucinogen, is a substance that appears naturally in a fungus, but is often artificially produced in a laboratory.

Other hallucinogens are derived from plants. The best known among drug users are psilocybin, from a mushroom of that name, and mescaline, from the peyote plant.

Hallucinogens are taken orally, and take from 20 minutes to an hour to take effect. The effects of a hallucinogen can last from less than an hour to a day or longer. The effects of LSD usually last five to six hours.

The response to any drug is caused, of course, by the drug itself, but also to a great extent, by the user's expectations. This is particularly true of hallucinogens. The amount taken is also important; light doses, for example, rarely lead to vivid hallucinations.

After taking a hallucinogen, light, sound, and skin sensations often become very intense. Users may feel disconnected from their bodies, or that their bodies are strange or distorted. On heavier doses, users may see or hear things that are not there or get strange mixed sensations, such as the feeling that they are seeing music or hearing lights.

Hallucinogen users frequently feel happy and relaxed when high, particularly in early stages, but emotional responses can be extreme, particularly with heavy dosages. Most users, however, know that their hallucinations are not real and are caused by the drug. Intense "religious" or mystical feelings may be aroused, particularly if the user anticipates such effects.

Some young people who use hallucinogens believe that if the drugs are "natural" they are safe to use. Psilocybin ("mushrooms" or "shrooms"), for example, are often cited as an "organic" drug by users. Many times, however, the psilocybin mushrooms that they buy are actually grocery store mushrooms soaked in LSD. There are some other hallucinogens that are also viewed as different from LSD, but which are also often simply LSD disguised as something else. It should also be noted that whether or not a drug is "organic" has little relevance to the dangers involved in using that drug.

Many young people use hallucinogens without getting into direct trouble. Hallucinogens, however, can cause problems with some users, such as bizarre behavior or accidents. Sometimes the user experiences strong feelings of paranoia or fear of going insane. Flashbacks (hallucinations that occur long after taking the drug) may occur fairly frequently, but usually do not cause problems unless they lead to panic or fear. Although it is quite rare, a person who has taken hallucinogens can later develop serious emotional problems, problems that cannot be distinguished from the symptoms of severe mental illness.

While these serious problems are infrequent, hallucinogen use can cause other, more subtle problems. These young people are at an age when they are struggling to develop their own attitudes, beliefs, and values. Taking hallucinogens sometimes convinces them that they are developing creative ideas and thoughts and learning the answers to life's problems; so they take the drug instead of seeking real solutions or actually developing creative and intellectual abilities.

Ecstasy

Ecstasy (XTC) is a street name for MDMA (Methylenedioxymethamphetamine). This drug is a synthetic hallucinogen that is often used in large parties of young people, or raves. It is reported to cause feelings of openness, lack of fear, and strong empathy for the feelings of others.

Physiologically, ecstasy increases heart rate and blood pressure. When used with alcohol, as it often is, it can produce a fever. Ecstasy use has killed, sometimes from heart or kidney failure and sometimes because users don't realize that they are thirsty and die of dehydration. Because it elevates blood pressure, ecstasy has also caused strokes in some young people; anyone who has a severe headache after taking any stimulant, cocaine, amphetamines, or ecstasy is at high risk for having a stroke.

Ecstasy also produces brain damage. Memory loss can be found two weeks after taking ecstasy, and the drug damages the parts of the brain that produce serotonin, an important neurotransmitter. Although we do not know yet how much damage is done or how persistent it will be, low levels of serotonin are associated with damage to brain function and with emotional problems, particularly depression.

Ecstasy is a dangerous drug. What makes it more dangerous is that, among adolescents, it has a good reputation. That good reputation is a lie.

TABLE 25

Ecstasy Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	**<1%**	**3%**	**9%**	**8%**
Used in Last 12 Months	**<1%**	**2%**	**5%**	**5%**
Used in Last Month	**1%**	**<1%**	**3%**	**3%**

Source: The American Drug and Alcohol Survey

PCP

Phencyclidine (PCP) is a drug developed as an anesthetic for large animals. PCP acts differently in humans. It is taken illegally as a pill or capsule, injected, sniffed or huffed. PCP is often smoked, frequently as an additive to marijuana. When taken orally, it may take about an hour to take effect. When injected or inhaled, the effects are felt in minutes. The user may stay intoxicated for three to six hours on a dose.

With a light dose of PCP, there is often a feeling of euphoria. With a heavy dose, the muscles become rigid, particular movements may be repeated over and over again, and there may be hallucinations and delusions, particularly feelings of paranoia. There was an epidemic of PCP use in the late '70s, but PCP developed a reputation as a very dangerous and damaging drug, even among drug users, and its use subsequently dropped off.

PCP is a very dangerous drug. In heavy doses, which are no more than about four times the dose most often taken by PCP users, the drug can cause coma, convulsions and even death. Chronic PCP users also have a reputation for bizarre and violent acts, including suicide and murder. A number of reports suggest that these behaviors can occur days after the drug was taken.

Ketamine

Ketamine (Ketalar) is produced for use as an animal anaesthetic. When injected in the proper dose, it can be used as a human anaesthetic, but it is not very useful because it only leads to a short period of unconciousness (15 minutes) and there are many side effects including short recovery, muscle spasms, headache, nausea, hallucinations, and confusion.

It is usually sold on the street as "Special K" and comes as a powder that can be injected or sniffed. Users report that they feel like they are floating and that they sometimes experience intense sensations of happiness. They are likely to have slurred speech, stumble, be dizzy, and have problems thinking clearly. Hallucinations are common. Users can also "go into the K-hole", becoming motionless, heavily sedated, and not responsive to what is going on around them. "Bad trips" resembling psychotic episodes can also occur. Use at all night "raves" is reported to be common.

TABLE 26

Ketamine Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	**<1%**	**1%**	**1%**	**2%**
Used in Last 12 Months	**0%**	**<1%**	**0%**	**<1%**
Used in Last Month	**0%**	**0%**	**0%**	**0%**

Source: The American Drug and Alcohol Survey

Heroin

Heroin, morphine, and opium are all opiates. Opium is a drug derived from the opium poppy. It can be smoked or taken orally and has long been used to block pain or to induce sleep. Morphine is a stronger, concentrated form of opium. Heroin is produced by chemical treatment of morphine; it works more rapidly and is more effective because it can get into the brain more readily than morphine. While these are all essentially the same drug, users prefer heroin because of its potency. Heroin is not legally available in the United States.

If injected, heroin takes effect almost immediately, and the sensations will peak in less than five minutes. The high from a single dose lasts from four to six hours. The rapid and intense effect (the "rush") from injecting the drug is popular among the drug's users, thus they often prefer to administer it with a needle. In recent years, however, there has been a shift in the way that heroin is used. There is less injection (possibly because of fear of AIDS) and more use by snorting and smoking. Tests by the National Institute on Drug Abuse showed that smoking led to

essentially the same physical and psychological responses as injection, although more heroin is needed when it is smoked to achieve the same effect.

The response to taking the drug is usually a drowsy, relaxed state, with feelings of euphoria, particularly if the user has experience with the drug. Although the usual response is euphoric, it is not at all rare for a user to feel depressed after taking the drug. When the drug wears off, there is a melancholy feeling that encourages repeated use.

Heroin use by students is still rare. Only about 2% of high school seniors throughout the United States have tried heroin although in certain regions use is higher. Students who have tried heroin are likely to be Multi-Drug Users who have experimented with many different drugs. There is a concern that heroin use may spread more easily as smoking and snorting have become more common ways of using the drug.

Heroin intoxication is, in many ways, similar to alcohol intoxication -- judgment, motor skills, memory and attentiveness are affected. Heroin also reduces the user's motivation. It is a highly addictive drug as many users begin to crave the sensations heroin causes and become very anxious when they do not have the drug. When the user comes down from a high, there are often feelings of depression, discomfort and a craving to continue using the drug. Frequent use over a long period of time can trigger an obsession with heroin that dominates the user's life.

Sometimes there are a few younger students in a community who report that they have tried heroin, and an even smaller number of high school seniors who say that they have tried the drug. This may seem odd since the comparisons of 8th and 12th grade students, for example, usually show considerably less drug use among the younger students. There can, however, be an exception to this trend. Occasionally there are a few more very heavy drug users in the earlier grades, and sometimes more younger students have tried heroin than local high school seniors. In many instances these younger, heavier drug users drop out of school before their senior year.

Who are the young heavy drug users who claim to have tried heroin? Are these children exaggerating their drug use? Younger students, particularly boys, have a greater tendency to exaggerate on surveys. But there are a number of checks in the survey that almost always identify such students. The researchers doing the analyses check for signs of exaggeration such as students claiming the use of a fake drug; answers indicating improbable heavy drug use; and responses claiming the use of very dangerous drugs despite no indication of use of the less dangerous and more common drugs. Youth who exaggerate their responses on the survey are not counted in the reported results.

There are also many internal checks to identify students who were confused by the survey, and those students are also removed before tabulating the results. Any students who are listed in **Tables 1, 2** or **3** as heroin users, therefore, probably really believe that they have tried heroin.

It is possible that some young people may think that they are getting heroin when they have actually been sold a phony street drug. If so, using that drug could be almost as serious as taking heroin. The drug may be a "designer" drug that could do very severe damage, and even if the drug is innocuous, young people who take it are showing a willingness to use heroin, and are likely to actually try heroin later on.

Narcotics other than heroin

Many other narcotics have effects similar to heroin. Morphine and opium are, of course, the same basic drug as heroin, but not as concentrated. Demerol is a potent pain killer and narcotic. Codeine has similar effects, but is less powerful. Methadone was developed as an alternative to heroin for treatment of heroin addicts. It can be taken orally and lasts for a day or more. Methadone does not make the user as drowsy and lethargic as heroin, thus the addict can use it while working. Methadone, however, can also be abused. The physical and psychological effects and the hazards of these other narcotics are essentially the same as those of heroin. The survey questions ask only about the use of narcotics to "get high." Use under a doctor's care is excluded.

Steroids

Certain types of steroids are a group of chemicals that under certain circumstances can increase physical strength and endurance. These chemicals imitate hormones naturally found in the body. Steroids are most often taken to improve athletic performance but they are sometimes used by young people to improve how they look. While steroids are not usually taken for their mood altering effects, many users do report feelings of euphoria and an improved self-image, and some report depression when they stop.

A number of studies show that steroids are used more by males than by females. Most young people who use steroids start around age 15 or 16, although about a third of users started at younger ages.

Steroids can be taken in pill form or injected with a needle. Many users will take them both ways, taking one type of steroid by pill and another by injection. This is called "stacking", and it is believed by those who use them that this combination greatly increases effectiveness. Whether it really does or not is open to question. Steroids are usually taken in cycles lasting from several days to two weeks and their use is coordinated with body building exercise routines. From one to several doses may be taken per day, but it is often difficult for an individual to tell how much they are actually using since the quality and quantity of the supply may be unreliable.

Young steroid users who are still going through puberty may experience serious physical damage. If use starts young enough, steroids can stunt growth by stopping bone development. Other serious effects for males include degeneration of the testes and impaired sexual and reproductive ability. Females encounter a range of symptoms that make them appear more masculine, such as increased growth of hair and deepening of the voice. Menstrual and reproductive problems also occur. In heavy, extended doses serious and even fatal liver damage may occur for both sexes. There are some reports of increased heart problems, but this is an area where more study is needed.

In addition to physical problems, steroid users often experience a wide range of emotional disturbances. It is not unusual to find an increase in anger and aggression, anxiety, depression, and sleeping problems. Certain users may also progress to very serious psychiatric problems such as paranoia and hallucinations.

TABLE 27

Steroid Use by Hackettstown High School Students

	9th Graders	10th Graders	11th Graders	12th Graders
Ever Tried	0%	1%	2%	5%
Used in Last 12 Months	0%	1%	2%	4%

Source: The American Drug and Alcohol Survey™

CONCLUSION

This report shows that there are a significant number of young people from Hackettstown High School who are at risk from their use of drugs. The report also provides more details about some of those risks. For example, **Tables 12A** and **B** show some of the consequences of alcohol and drug use that these students admit they have encountered, and **Table 16** lists some of the high risk alcohol and drug behaviors.

The report also shows that the school cannot deal with this problem alone. While some youth may come to school high on alcohol or drugs, **Tables 6A and B** show that most drug and alcohol use is with friends and outside of school. These associations with drug using friends are very important in understanding drug use. Young people who use drugs tend to have friends who use drugs. Young people who do not use drugs, on the other hand, have friends who would try to stop them from using drugs.

Drugs seem to be available anywhere in the United States, and **Table 5** shows that at least some students at Hackettstown High School believe that most drugs are available here. Preventing drug use and limiting the damage done by alcohol and other drugs will require a concerted effort by the whole community: schools, parents, community leaders, and youth.

MEDIA KIT INSTRUCTIONS
AND GUIDE TO USING THE PRESS RELEASE

Unless the press release is going to be distributed at a press conference, it is best to hand deliver copies of the press release to local editors, broadcast stations and reporters. If a press conference is planned, a copy of the press release may accompany the invitation (also personally delivered). Personal distribution of press releases and invitations often works best with media personnel who are usually swamped with mail and phone calls.

SELECTING A SPOKESPERSON

When the sponsors of the survey project release the results to the public, it is best to have a single representative deal with the media. Ideally, this spokesperson is someone who is respected as an objective, yet concerned, member of the community. Frequently the person who coordinated the survey process will also fill the spokesperson role.

Sometimes this spokesperson also serves as a media coordinator. The media coordinator arranges interviews and develops one-on-one relationships with reporters. Depending upon the size of the community and the demands of the position, someone other than the spokesperson may function in that role.

It is much easier for one spokesperson to present information in a consistent fashion to the various branches of the local media during the initial release of survey results. Reporters, however, often want to speak to additional sources for more background. The media coordinator can create a list of other pertinent representatives, such as school officials, parents and local health professionals to assist reporters.

HOLDING A PRESS CONFERENCE

A press conference is a very effective way of releasing information to the local media. There are no absolute rules for designing a press conference. The main objective is to give the media access to the spokesperson(s) in a controlled environment.

A business-like atmosphere, such as a spacious meeting room in a public building, usually works best. Most press conferences require a table with chairs for the speakers, with plenty of seating for media representatives on the opposite side. In some cases, a lecture hall with a podium will suffice. Good lighting and minimal distractions are also important considerations. Avoid such frills as special flower arrangements or banners.

The Press conference does not need to be an extravagant event, but it must be well-planned. It should begin punctually and end after a reasonable length of time. Press conferences of this nature often run 20 to 30 minutes. If copies of the press release are to be distributed at the press conference, it would probably be best to distribute them a few minutes before things get underway.

The spokesperson might open with a brief address reiterating the information in the press release before answering questions. If the spokesperson is accompanied by a panel of other representatives, he or she should introduce these individuals before accepting questions.

If the primary spokesperson and the media coordinator are the same person, another individual will be needed to coordinate the press conference. Even with a small press conference, it can be difficult for the spokesperson to coordinate the event while simultaneously fielding reporters' questions.

It is often difficult to bring a press conference to a graceful conclusion. One smooth tactic is to use the warning, "We only have time for one more question". After the final question is answered, the coordinator steps in and thanks the reporters for their interest. A good closing statement can end the press conference on a positive note. For example: "We appreciate your interest and your willingness to help us address this issue which currently affects so many local youth. If any of you should need additional information please feel free to contact us".

MAKING PRESENTATIONS TO PARENTS AND COMMUNITY GROUPS

For many survey representatives, the public presentation is the climax of the entire project. Such presentations often motivate parents, educators and the members of other concerned local groups to become involved in the effort to reduce drug use. Coordinators can summarize the survey results in a concise and relevant format relying upon the **Detailed Report**, **Overhead Transparencies** and the **Presentation Script**. This is an excellent way to communicate important information to people who, while interested, would not be inclined to read the entire **Detailed Report**.

It is important that the presenters be completely familiar with the **Detailed Report** and the accompanying graphs. As with the press release, however, there is always a temptation to try to convey a large amount of information. The presenters should try to limit their talk to the most significant aspects of the survey results. Additional points can usually be covered during the question-and-answer session. The main goal of the initial presentation to the public should be to present the survey results objectively.

The **Presentation Script** is included in **The American Drug and Alcohol Survey** report to help participants focus their program. The **Overhead Transparencies** enhance the effectiveness of the presentation. Presentations are also more effective if they are kept reasonably brief. Such presentations usually run 10 to 15 minutes if the presentation is part of a larger event **(i.e. PTA or school board meetings)**. The presentation can go longer, of course, if discussion of the survey results is the main purpose of the meeting.

OPENING PRESENTATIONS TO THE MEDIA

In some communities, the media are invited to attend a presentation being made to a third party, such as the school faculty or parents' group. These situations, however, may not work as well for several reasons. Often, the reporters' presence can cause the main audience to feel like bystanders. Also, members of the intended audience may become inhibited if they must compete with reporters during the question-and-answer session. Another problem occurs if strong objections to the survey project are raised in the presence of reporters. Even when such issues are resolved on the spot, reports of vocal objections have a way of overshadowing the original intent of the presentation. Thus, subsequent media accounts could focus on minor conflicts instead of on the survey results.

For such reasons it is usually best to take the time to hold a formal press conference. In fact, additional presentations of the survey results may run much smoother if well-prepared stories have already run in the local media. Attendance is usually higher at presentations after some initial coverage has occurred, and the informed audience members are then able to ask good questions.

ADDRESSING PROBLEMS

Most problems in dealing with the media can be avoided by following these suggestions. Some conflicts, however, are inevitable. A common problem occurs when reporters demand confidential information, such as survey result breakdowns by different schools, or by ethnic group. In such cases, a frank explanation of why such breakdowns are seldom productive should suffice. Do not be afraid to have such explanations appear in news reports. In fact, group representatives should avoid speaking off the record. The safest strategy is to assume that anything said to a reporter can appear in print or on a broadcast.

Most media representatives are unlikely to dig for negative information if the survey's representatives are showing a sincere desire to inform the public. However, if a particular reporter should appear to be overly aggressive, the individual may have to be tactfully addressed. In such cases, remind the reporter that the survey's primary purpose is to help young people--and that the media is playing an important role in this effort. If friction persists between the reporter and the survey project representatives, a written complaint to the editor or station manager may be necessary.

Do not overreact, however, to misinformation, misquotes or negative stories. A simple request for a correction or a clarification usually will set matters straight. Most newspapers and some stations will even invite guest editorials. Your best bet, of course, is to maintain a solid, positive relationship with the media. Again, be careful not to play favorites with different branches of the media, regardless of how they are handling the story. Competent media personnel will respect your objectivity.

SUMMARY

Organization and attitude are essential to good media relations and effective presentations. Like any working relationship, a high degree of mutual trust is necessary. While the group that coordinated the survey can utilize press releases, spokespersons and press conferences, there are no guarantees of what will appear in print or be broadcast over the air. Similarly, overhead transparencies and personal presentations do have limitations. The only factor within your control is the way in which you present the information. If the survey's coordinators have good communication among themselves and have developed a solid public information strategy, they are likely to succeed in winning good cooperation from the media and the public at large.

PRESENTATION SCRIPT

PRESENTATION SCRIPT
RESULTS FROM THE AMERICAN DRUG AND ALCOHOL SURVEY

Note to the speaker:

It is important when you present the results of this survey to be thoroughly familiar with the **Detailed Report** and the accompanying **Overhead Transparencies**. If you have questions as you read the report you may call **RMBSI, Inc.** at **1-800-447-6354** for clarification. This outline script is a suggested format. You, of course, may want to vary from this script depending upon your own style and particular circumstances. The best approach, however, is to present the results objectively, allowing participants to draw their own conclusions.

I. Background of the local survey project.

A. Why this information is important to this district.

B. How these results will be utilized **(ex., to help design prevention programs)**.

C. The survey was given at school during a regular class period. The students who participated were assured that the survey was anonymous.

II. Background of the American Drug and Alcohol Survey

A. This survey is the product of 15 years of university-based research.

B. The survey was developed and refined while testing over 200,000 adolescents throughout the nation.

C. It has been given to more than 1.5 million students nationwide since 1987.

III. Substance abuse is a community problem, not just a "school problem."

A. Some people may perceive the schools' willingness to help as an admission of guilt for adolescent substance use just because the survey was given in school. However, while the schools are an important part of any drug prevention effort, the entire community must share this responsibility.

B. In fact, the survey results show that local youth are more likely to use drugs away from school, on weekends, or after school hours than they are during school. (Refer to tables entitled **Where Students Have Used Alcohol** and **Where Students Have Used Drugs** in **Part II** of the **Detailed Report**).

IV. Validity and reliability of the American Drug and Alcohol Survey

A. While no survey is 100% accurate, **The American Drug and Alcohol Survey** has gone through numerous revisions over the past decade to insure its accuracy and reliability.

B. A number of checks and measures were used to enhance the accuracy of these results. Answers from students who responded inconsistently to the survey, or from those who exaggerated, were eliminated before the results were tabulated.

Note: Some people will question the accuracy of any survey despite its credentials. Listen to their concerns, but try to avoid an extended, technical discussion about statistics during this presentation. You may provide copies of information on **reliability & validity** found in the back of the **Detailed Report** binder.

V. Levels of drug use.

A. Explain the significance of **"levels of use"**, warning against overreaction to these figures. (Refer to the bar chart **Overhead Transparencies**).

1) The **"ever used"** figures include students who only tried a drug once as well as those who use that drug regularly.

2) The **"ever used"** figures are important in that they show the overall level of exposure to drugs by students and the availability of each drug in this community.

B. Alcohol and marijuana are the most commonly used drugs among youth locally and nationally.

C. Regarding alcohol, we must not let the focus on other drugs overshadow the major role that alcohol plays among these students. (For emphasis on this point refer to **Tables** entitled **Where Students Have Used Alcohol and Admitted Problems of Students from Alcohol** in **Part II** of the **Detailed Report**).

D. **Note:** This is an appropriate place in your presentation to cite any drugs which, in addition to alcohol and marijuana, show particularly high levels of use among local students. For additional information, refer to the text on a specific drug in **Part III** of the **Detailed Report**.

VI. Patterns of drug use among young people

A. The research used to develop this survey has found that adolescent drug use follows certain patterns. These levels of involvement are based upon current drug use rather than on the "ever tried a drug" data. (Refer to the **Pie Chart Overhead Transparencies** and **Table 4** in **Part I** of the **Detailed Report**).

1) These patterns range from the **"Multi-Drug Use"**, which is the category of the heavier drug users, to the **"Negligible or No Use"** category.

2) Youth who use drugs will show preferences for certain substances. These same patterns are seen among adolescents throughout the nation.

B. Some students are at risk because of their drug use, as seen by these patterns. **(Present the pie charts, proceeding from youngest to oldest students)**.

Note: It is generally more meaningful to discuss percentages rather than actual numbers of students.

1) Percent in **"High Involvement"** pattern -- these students are using drugs and/or alcohol heavily, to the point that their lives center around substance abuse.

2) Percent in **"Moderate Involvement"** pattern -- these students do not have as intense drug or alcohol use as the High Involvement students, but they do get high or intoxicated enough to represent a hazard to themselves and others. These students show potential to become more heavily involved with drugs and alcohol in the future.

3) Percent in **"Low Involvement"** pattern – these students may be light alcohol users, who rarely, if ever, get drunk, or they may have experimented with some other type of drug. Even if they have experimented with other drugs, they are not using now, and they have identified themselves as "non-users."

4) Percent in the **"No Drug Involvement"** pattern – these are the students who are the students who are drug-free. A few of them may have tried alcohol, but have never been drunk, and are currently not using alcohol at all. They have never used marijuana, inhalants, or any other type of drug.

VII. Where to go from here.

At this point, the presentation may conclude with a discussion on how these survey results relate to local efforts to combat adolescent substance abuse.

RELIABILITY AND VALIDITY OF THE AMERICAN DRUG AND ALCOHOL SURVEY

Staff members at RMBSI, Inc. are frequently asked questions related to the reliability and validity of our survey. Following is a brief discussion of several of these topics:

Exaggerating Drug Use

This could be a very critical problem, and one that could lead to skepticism about the survey results. We do, however, have evidence that not many students are exaggerating their drug use on the survey.

First, we have a fake drug on the survey - we ask students if they have used a drug that does not exist. If a student says he or she uses this **"drug"**, we would suspect there might be exaggeration on the use of other drugs as well. We find, however, that on average, slightly less than 2% of all students indicate they use this **"drug"**.

In the past, we have found a few students who are obviously exaggerating their drug use. We have analyzed these surveys individually and developed computer code for detecting them. The computer checks every survey and eliminates the obvious exaggerators from the analysis. Their results do not appear in the report. As just one example of how this is done, we **"flag"** anyone who says they have used heroin, but have never used marijuana. While this is certainly a possible drug use pattern, it is extremely unlikely, and may be the result of an attempt to fake the survey. Using this pattern, and nineteen others like it, we have to exclude less than 3% of all surveys when calculating the results.

Finally, if we consider that there are at least a few undetected minimizers as well, there tends to be a **"canceling out"** effect and the overall results are probably very accurate. In other words, if one student falsely claims to have not used marijuana and another falsely claims he or she has, these responses negate each other and thus do not affect the average reported rate of marijuana use in the school or district.

Random Responding

This is potentially another very serious problem and one to which we have given considerable attention. If students are marking their answers randomly, just to get the survey over with, to try to invalidate it, or because they don't understand the questions, the reports we send back to the schools could be extremely inaccurate. Fortunately, we have quite a bit of evidence that the students are answering the survey very consistently and honestly.

A lot of the evidence for consistency comes from the fact that we ask about the use of each drug several different times. For instance, below are listed the items for marijuana use. Similar items are used for the 18 other drugs on the survey.

Have you ever used marijuana?

_____ Yes
_____ No

How often in the last month have you used marijuana?

_____None
_____1-2 Times
_____3-9 Times
_____10-19 Times
_____20 or More Times
_____Several Times Every Time

How often in the last 12 months have you used marijuana

_____ 1-2 Times
_____ 3-9 Times
_____10-19 Times
_____20-49 Times
_____50 or More Times

In using marijuana are you a...

_____Non-User
_____Very Light User
_____Light User
_____Moderate User
_____Heavy User
_____Very Heavy User

On every student's answers, we run what we call **"consistency checks"**. If, for example, a student marks "never used" on the first question and then "heavy user" on the fourth question, the computer would label that student as inconsistent. Approximately 50 checks are made, and if there are two or more inconsistencies on the survey, that student's survey is deleted from the report data. Each year this amounts to less than 3% of all students.

There is another more complex way of measuring inconsistency based on statistical methods. Whenever we have a group of items measuring the same thing (such as the items above measuring marijuana involvement) we can compute what is known as a **"internal consistency reliability index"**. This basically says how well the students responded in the same way to each of the similar items. The **"index"** can range from 0 to 1 and anything above .80 is considered highly accurate for this type of survey. For the majority of schools, indices for the 12 major drug categories is about .80.

Next consider the possibility of random marking. Suppose that the majority of students just went through the survey and marked their answers in a totally disorganized way. If this were to happen, we would expect to get about a 50-50 split between students saying **"yes"** and students saying **"no"** to the questions on lifetime use of each drug. For instance, 50% would say they had ever used heroin and 50% would say they had not. Random answering would give us the same 50-50 split for each drug. In fact, however, the percentages for each drug vary widely in a logical way, and in a manner consistent with results from large national surveys. In addition, the results on these questions often show different patterns in different communities. These results demonstrate that as a group, students do make discriminations between drugs when answering the survey - that is, they are not marking randomly.

The final evidence for the students being truthful and thoughtful on the survey comes from the extensive research we have done on the relationships, of the drug use questions to the questions on student characteristics and attitudes. (See Swaim, R.C., Oetting, E.R., Edwards, R.W., and Beauvais, F. (1989) The Links from Emotional Distress to Adolescent Drug Use: A Path Model, Journal of Consulting and Clinical Psychology, 57 (2), 227-231).

Trends in Use and Comparisons with Other Surveys

If the responses on a survey were the result of some inexplicable or chaotic process, we would not expect to see any orderly change over time in drug use rates. Each year would appear as some random point on a curve with no discernible pattern. This is not, however, what we have found in communities which have used the survey over a number of years.

In addition, the survey results obtained from **The American Drug and Alcohol Survey** bear a strong similarity to what has been found by surveys in other parts of the country, in particular the highly respected University of Michigan's National Monitoring the Future Survey. The similarity exists not only for the overall levels of drug use, but also for the decrease seen from 1981 to 1989 and the increasing use rates from 1990 to 1996. While it is conceivable that students in one small location may "collude" in the faking of survey results, it is hard to imagine a national conspiracy on the part of students across the country over a fifteen year span. Some very real changes in drug use have been occurring, and our survey, as well as others, has been able to track these changes.

Summary

We have looked at a wide range of evidence supporting the accuracy of **The American Drug and Alcohol** for surveying in schools. No claim is made that all possible sources of error have been eliminated, but evidence indicates that we are getting good estimates of the levels of drug use in a school district. These estimates are probably conservative due to elimination of inconsistent surveys and exclusion of the high risk groups of absentees and school dropouts.

For more information on reliability and comparison with other surveys, see:

Oetting, E.R. and Beauvais, F. (1990) Adolescent Drug Use: Findings of National and Local Surveys. Journal of Consulting and Clinical Psychology, 58 (4), 385-394.