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ABSTRACT

The program implementation and cost data, along with the student substance use and program exposure data, of the Drug, Alcohol, and Tobacco Education (DATE) Program are presented. The data came from a random sample of California public school districts. This evaluation concentrates on five components of the DATE Program: (1) Curriculum delivery; (2) Curriculum training; (3) Staff development; (4) Student identification and referral; and (5) Positive alternative activities. To address these components, the following questions were asked: What are schools doing to prevent the use of alcohol, tobacco, and other drugs (ATOD)? What ATOD prevention education do students receive? What are the costs associated with providing ATOD prevention in the schools? What are the current outcomes related to ATOD prevention education? What effects have ATOD prevention education yielded in the past two years? What were the effects of the loss of funds, as well as the threat of diminished funding, on ATOD prevention education? Results indicated that student ATOD use mostly remained constant over two years. These stable or constant ATOD-use rates seemingly indicate the inefficacy of the DATE Program, but, the evaluation concludes, the context in which this stability occurred renders this stability an impressive accomplishment. (RJM)

CG

CALIFORNIA PROGRAMS TO PREVENT AND REDUCE DRUG, ALCOHOL, AND TOBACCO USE AMONG IN-SCHOOL YOUTH: ANNUAL EVALUATION REPORT

Prepared by the Southwest Regional Laboratory
for the California Department of Education
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EXECUTIVE SUMMARY

This year's evaluation of the Drug, Alcohol, and Tobacco Education (DATE) Program represents the Southwest Regional Laboratory's (SWRL's) second annual effort to collect program implementation and cost data, and student substance use and program exposure data from a random sample of California public school districts. The data collected during the 1992-93 school year revealed that substantial amounts of curricula, student identification and referral services, and positive alternative activities were delivered to students in grades K-12. Teachers and other school staff received a considerable amount of curriculum and staff development training. These ample amounts of program delivery and training occurred despite reductions in DATE Program funds allocated by the Tobacco Use Prevention Education (TUPE) and Drug-Free Schools and Communities (DFSC). Although schools received fewer DATE Program funds, they leveraged more than a seven-fold return in support for the program that consisted of funds from other sources, donations, and contributions of resources.

In comparison to the 1991-92 school year, student exposure to DATE-related prevention education in 1992-93 generally increased for elementary school students and slightly decreased for secondary school students. Rates of student alcohol, tobacco, and other drug (ATOD) use remained constant between the two school years.

The data collected for this year's evaluation focused on five components of the DATE Program: (a) curriculum delivery; (b) curriculum training; (c) staff development; (d) student identification and referral; and (e) positive alternative activities. The DATE curriculum component was divided into curriculum delivery and curriculum-specific training to examine the extent of implementation and cost of these two components. The decision to focus on these components was based on the belief that many of the other components in the comprehensive model (i.e., involvement of law enforcement, community, and parents) were subsumed to a great extent in the components included in this year's evaluation. This summary of findings is organized according to the following key questions that guided this evaluation.

What Are Schools Doing in ATOD Prevention?

Curriculum Delivery

1. Students in grades 5-8 received the greatest amount of ATOD prevention instruction, with an average of 26-29 hours per student.

2. Students in grade 5 received the most instruction in tobacco use prevention (7.4 hours per student), followed by students in grade 8 (6.1 hours per student). Likewise, alcohol and other drug (AOD) issues were emphasized in grades 5-8, ranging from 7.2-7.9 hours per student.

3. As found in the 1991-92 evaluation, 11th and 12th graders were least likely to receive instruction in ATOD prevention curricula with less than 6 hours per student.

4. Health, Here's Looking at You 2000, and district-developed curricula were among the most widely implemented ATOD prevention curricula reported in the 1991-92 and 1992-93 evaluations.

5. Most of the ATOD prevention curricula addressed the following topics: information; health consequences of ATOD use; personal skills development; and social skills development.

6. Schools spent $27.55 per student on curriculum delivery during the 1992-93 school year.

Curriculum Training

1. Almost half of the curriculum training hours were devoted to two curricula: Here's Looking at You 2000 and Quest Skills for Growing.

2. Schools spent $5.05 per student on curriculum training during the 1992-93 school year.

Staff Development Training

1. Teachers received the most ATOD prevention training (77% of all training hours), followed by counselors and nurses (9%).

2. AOD issues accounted for 27% of all training hours, tobacco issues for 12%, and the remaining 61% were spent on other prevention strategies such as social skills training and building self-esteem.

3. Staff development training focused on alternative classroom strategies (15% of all staff training hours), dynamics of high-

risk behavior (14%), implementation of an early intervention model (12%), and risk and protective factors (12%).

4. Schools spent $7.12 per student on staff development training during the 1992-93 school year.

Student Identification and Referral

1. A total of 6.5% of the students enrolled in schools were identified as having ATOD-related problems during the 1992-93 school year.

2. Teachers identified twice as many students as any other source. Self-identifications were the next most common source.

3. Poor academic performance, changes in academic performance, or a change in overall behavior were reasons for student identifications in almost half of the cases. Interestingly, students identified specifically for AOD use and tobacco use comprised only 16% and 8% of the cases, respectively.

4. Five percent of the students enrolled in the schools were referred for on-campus services during the 1992-93 school year. Only 2.8% of the total student population were referred for services outside of school.

5. Most of the schools indicated that they had a formal procedure for identifying and referring students with ATOD-related problems. Not surprisingly, teachers played the most integral part of that process, being involved in identifying students at 85% of the schools and helping refer students at 73% of the schools.

6. Schools spent $28.69 per student on student identification and referral services during the 1992-93 school year.

Positive Alternative Activities

1. On the average, about one school day (6.3 hours) was provided to students in the form of positive alternative activities throughout the school year.

2. Recreational activities accounted for the largest portion (25%) of student hours, but only 3% of the students participated.

3. Eighteen percent of the students participated in Red Ribbon Week, the event attended by the most students, and the participation level was constant (within ±3%) across all grades.

4. Schools spent $15.38 per student on providing positive alternative activities during the 1992-93 school year.

What ATOD Prevention Education Do Students Receive?

Student Exposure to School-Based Tobacco Prevention Curricula and Activities

Grades 4-6

1. In elementary schools, 88% of the students were exposed to at least one tobacco lesson and activity event. Students experienced class speakers and a lesson or film the most; antismoking clubs the least; and in the middle were school contests, school assemblies, and a special day or week.

Grades 7-12

1. Forty-one percent of all secondary school students reported exposure to at least one tobacco lesson and activity event. The most frequent tobacco prevention event was a lesson in a health class followed by a class speaker. The general trend for secondary school students was that those in higher grades reported less exposure.

Student Exposure to School-Based Tobacco Services

Grades 7-12

1. More secondary school students were aware of a support group or class for help in quitting tobacco than any other tobacco cessation service. Almost half of the students (47%) indicated they did not know if any of the listed cessation services on the survey were available and another 26% said none of the services were available. Almost three quarters of the students were not aware of any school-based help for stopping tobacco use.

Student Exposure to School-Based ATOD Prevention Curricula and Activities

Grades 4-6

1. Ninety-one percent of the elementary school students were exposed to at least one AOD lesson and activity event. The three most frequently reported events were: class speakers, a lesson or film, and a special day or week (e.g., Red Ribbon Week). Anti-AOD clubs were the least experienced event.

Grades 7-12

1. Fifty-one percent of all secondary school students reported exposure to at least one AOD lesson and activity event. The most frequent AOD prevention event was Red Ribbon Week followed by three categories with similarly reported exposure: school assemblies, a lesson in health class, and a class speaker. Sober dances were experienced by the fewest number of students. Lessons in a regular class were the next lowest category reported. The exposure trend in secondary schools is that students in higher grades reported less AOD curricula and activity events. Roughly half of the students reported that they did not take part in any of these events.

Student Exposure to School-Based AOD Services

Grades 7-12

1. The two most frequently cited types of individual help available were one-on-one peer counseling for personal problems and academic help from a peer. Twice as many students were aware of peer counseling for help with personal problems than any other type of group help. Peer counseling also was the most frequently reported group help in which students participated.

What Are the Costs Associated With Providing ATOD Prevention Education in the Schools?

1. California schools spent at least $83.78 per student to provide students with curricula, positive alternative activities, and identification and referral services, and to provide school personnel with staff development and ATOD curriculum training. This amount is more than seven times as much as the $10.29 per student allocation received by schools from DFSC and TUPE funding initiatives.

2. The stakeholder with the largest contribution of resources to the five components was the district's general funds at 63%. TUPE contributed approximately 9% and DFSC 7% of the resources for the five components.

3. Schools spent the most resources on the identification and referral process (at least $28.69 per student) and on delivering ATOD prevention curricula to students (at least $27.55 per student). A smaller, yet significant, amount was spent on positive alternative activities (at least $15.38 per student), staff development (at least $7.12 per student), and curriculum training (at least $5.05 per student).

4. Within each of the five components, the majority of resources supported staff time, especially teachers, aides, and released time. This accounts for the large contributions of district general funds.

5. The effects of a potential loss of TUPE and DFSC funds were negative and widespread, as expressed by DATE coordinators in a cost survey. More than half of the DATE coordinators interviewed stated there would be a negative impact on the general prevention and intervention processes within their overall DATE Program if funding were to be cut.

6. If DATE funding were to be cut, DATE coordinators believed there is a strong chance that DATE programs would be reduced or eliminated and therefore services to students would be reduced. Contact among schools, districts, and their surrounding communities also would be reduced.

What Are the Current Outcomes Related to ATOD Prevention Education?

Student Attitudes/Knowledge Toward Tobacco

Grades 4-6

1. Elementary school students have an overwhelmingly negative attitude toward tobacco use. Over 90% think that smoking cigarettes is bad for one's health, smells bad, and does not make a person look cool. A little more than 75% did not think that kids who smoke had more friends (though 16% were unsure) or that smokers were more grown up.

Grades 7-12

1. Secondary school students are very knowledgeable about the harmfulness of cigarette smoking. They know that greater harm to one's health is caused by more cigarettes smoked for a longer period.

Student Attitudes/Knowledge Toward AODs

Grades 4-6

1. Elementary school students hold very negative attitudes toward AOD use. However, the majority (61%) were not aware that alcohol affects kids more than adults.

Grades 7-12

1. Frequent use of alcohol and marijuana were thought to be of moderate or great harm by 75% and 82% of the students, respectively. More than 85% of the students across the grade levels were aware that alcohol is the most widely abused drug and is the most common cause of fatal car accidents, that drinking alcohol can affect an unborn baby, and that anabolic steroids are addictive. Only a little more than half (52%) were aware of the similarity in alcohol content of different types of alcoholic beverages.

Use of Tobacco

Cigarette Smoking, Grades 4-6

1. In grades 4-6, 87% of the students had never smoked a cigarette in their lifetime, not even a puff. Nine percent of the students had smoked cigarettes one or two times and 4% smoked three or more times. Four percent also reported smoking more than 100 cigarettes. Only 3% of all students had smoked a cigarette in the past month.

Cigarette Smoking, Grades 7-12

1. In grades 7-12, 56% of the students reported smoking cigarettes in their lifetime, some as little as one or two puffs. Of the lifetime smokers, 30% (about 17% of all students) smoked more than the 100 cigarette limit for experimentation. Only 34% of the lifetime smokers (about 18% of all students) smoked cigarettes in the past 30 days.

Thus, two thirds of the lifetime smokers were not current smokers. Only 21% of the current smokers reported daily smoking.

Smokeless Tobacco, Grades 7-12

1. Sixteen percent of 7th-12th graders reported using smokeless tobacco in their lifetime. Of the lifetime smokeless-tobacco users, 22% were current users (about 4% of all students), half having chewed or snuffed during one or two days in the past month and the other half using smokeless tobacco from three to nine days.

Use of AODs

Grades 4-6

1. Nineteen percent of the elementary school students have drunk alcohol without their parents' knowledge and 9% have been drunk. In their lifetime, 6% have sniffed substances such as glue to get high and 4% have smoked marijuana. Students in higher grades were more likely to use AODs.

Grades 7-12

1. Seventy-one percent of the secondary school students have drunk alcohol in their lifetime and 58% have drunk alcohol in the past six months. Twenty-four percent of the students have drunk five or more drinks during one occasion in the two weeks prior to the survey. Thirty-seven percent of the students have used illicit substances and 29% have done so in the past six months.

Effects of the Current DATE Program on Student Attitudes And Knowledge

Grades 4-6

1. At least four of every five elementary school students learned in school to say "no" to cigarette offers from friends and that smoking is bad for one's health. Sixty percent of the students also learned to talk with their parents about smoking. Thirty-two percent reported that they were less interested in smoking as a result of their prevention education.

2. As a result of their education in the current school year, over 75% felt they did not want to use AODs, felt that it was okay to say "no" to offers from friends for AODs, and learned that AOD use is bad for one's health. Similar to the tobacco findings, 60% of the students learned to talk with their parents about AODs, and 36% were less interested in trying AODs.

Grades 7-12

1. Students identified many positive effects of their tobacco-related prevention education: Twelve percent said they were better able to resist peer pressure to use tobacco; 16% became less interested in using tobacco; 23% learned to avoid or reduce tobacco use; and 32% learned about its harmfulness. Most current and daily cigarette smokers were not learning to seek treatment.

2. Students also identified many positive effects of their AOD-related prevention education: Thirteen percent said they were better able to resist peer pressure to use AODs; 17% became less interested in using marijuana and 22% were less interested in using alcohol; 24% learned about AOD's harmfulness; and 26% learned to avoid or reduce tobacco use. There was no impact on talking with parents and seeking treatment. There is a great disparity between the number of students using AODs and the few who learned to seek treatment.

What Outcomes Have Resulted From 1991-92 to 1992-93 Related to ATOD Prevention Education?

Changes in Program Delivery From 1991-92 to 1992-93

1. The percentage of students aware of or participating in tobacco- or AOD-related services remained constant from 1991-92 to 1992-93.

Changes in Students' Attitudes Toward and Knowledge of Tobacco From 1991-92 to 1992-93

1. Generally, attitudes toward and knowledge about tobacco remained constant from 1991-92 to 1992-93. Most students continued to have very negative attitudes toward tobacco use.

Changes in Students' Attitudes Toward and Knowledge of AODs From 1991-92 to 1992-93

1. Generally, the attitudes toward and knowledge of AODs from 1991-92 to 1992-93 remained constant. During both school years, most students believed that frequent drinking of alcohol and use of marijuana were harmful.

Changes in Tobacco Use From 1991-92 to 1992-93

1. Tobacco use between the two years remained constant for both elementary and secondary school students. For example, in 1991-92, 12% of the elementary school students reported smoking during their lifetime; in 1992-93, 13% reported similar behavior. This consistent rate also was true for current smoking (in the past 30 days) rates: 14% in 1991-92 and 13% in 1992-93.

Changes in AOD Use From 1991-92 to 1992-93

1. With one exception, AOD use remained constant between the two years. For example, lifetime use rates across the elementary grades in 1991-92 were 20%, 4%, and 6% for alcohol consumption (without parental knowledge), smoking marijuana, and sniffing glue, respectively; these rates remained stable in 1992-93. The one exception was an increase in the number of secondary school students consuming five or more alcoholic beverages during one occasion in the past two weeks. The rate for this behavior increased from 19% to 24% between the two years.

What Were the Effects of the Loss Of CADPE Funds And the Threat of The Loss of TUPE Funds on ATOD Prevention Education?

Overall Effect of the Loss of Comprehensive Alcohol and Drug Prevention Education (CADPE) Funds on DATE

1. With less money available to fund the DATE Program, 70% of the CADPE-recipient districts reported setbacks in carrying through the DATE Program as planned. Most districts reduced portions of their DATE Program and a few delayed or canceled implementing new portions.

Effect of the Loss of CADPE Funds on DATE Services

1. Sixty-four percent of CADPE-recipient districts had to reduce portions of their DATE programs. The most common

reductions were in alternative activities, followed by staff in-services and counseling services for students.

Effect of the Loss of CADPE Funds on DATE Staff

1. Thirty-seven percent of the CADPE-recipient districts reported that the loss of CADPE funds negatively impacted their staff. Specifically, 29% of the districts reported reducing their DATE staff; most of those laid off were counselors, followed by law enforcement personnel.

Effect of the Loss of CADPE Funds on Instructional/ Noninstructional DATE Materials

1. Instructional and noninstructional materials (e.g., books for curriculum, audiovisual equipment), which are essential to the DATE Program, also were impacted by the loss of CADPE funds. Sixteen percent of the districts receiving CADPE funds reduced the amount of instructional/ noninstructional materials used, while others were unable to purchase such materials or had to use materials previously owned.

District Response to the Loss Of CADPE Funds

1. In spite of the loss of CADPE funds, districts tried to continue implementing the DATE Program to the best of their capabilities. Six percent of the CADPE-recipient districts coped with this loss by replanning and redesigning the DATE Program to focus on a more limited scope. Ten percent explored other funding sources through submitting grant proposals to the state as well as seeking financial support from the community. Twenty-four percent reported using other available funds, such as general fu ds and city funds, while 16% reported the use of other DATE funds (i.e., TUPE and DFSC).

Overall Effect of the Threat of Losing TUPE Funds on DATE

1. The threat of losing TUPE funds hindered districts and schools from making long-term plans and decisions regarding the DATE Program. Many districts and schools did not integrate programs for fear they would not be consistently funded. As a result of the delay in receiving TUPE money, the DATE Program as a whole was negatively impacted.

Effect of the Threat of Losing TUPE Funds on DATE Services

1. Twenty-one percent of the districts and schools reported reducing some portions of the DATE Program, especially those related to curricula, direct counseling services, and staff development services.

Effect of the Threat of Losing TUPE on DATE Instructional and Noninstructional Materials

1. Instructional and noninstructional materials used for the DATE Program also were impacted by the threat of losing TUPE funds. Eleven percent of districts and 15% of schools changed their purchasing habits. Most commonly they were unable to purchase the necessary instructional and noninstructional DATE materials. Others had to delay purchasing such materials or they had to reduce the amount of materials used for the DATE Program.

Response to the Threat of Losing TUPE Funds

1. Six percent of the districts and 4% of the schools reported reductions in the amount of TUPE money spent on the DATE Program. Nineteen percent of the districts and 10% of the schools responded to the threat of losing TUPE funds by retaining money that could be carried over for the 1993-94 school year. Districts (13%) and schools (16%) also sought other funding sources (e.g. community, foundations, cities) to support the DATE Program. Fifteen percent of districts and 4% of schools reported the use of available funds, other than DATE, to keep the program intact.

INTRODUCTION AND DESCRIPTION OF THE DRUG, ALCOHOL, AND TOBACCO EDUCATION EVALUATION

In 1990 the Southwest Regional Laboratory (SWRL) was contracted by the Office of Healthy Kids, Healthy California, California Department of Education (CDE) to evaluate the Drug, Alcohol, and Tobacco Education (DATE) Program. SWRL and its subcontractors, Duerr Evaluation Resources and Health Education and Communication Consultants, have completed the third year of the three-year evaluation. Third-year evaluation efforts focused on deriving statewide estimates of the impact of the DATE Program on student use rates for alcohol, tobacco, and other drugs (ATODs) and correlates of ATOD use.

Legislative Context of the DATE Evaluation

Assembly Bill 75 (AB 75) (Chapter 1331/89) allocated the majority of Proposition 99 funds and mandated that the CDE: "In consultation with the State Department of Health Services, develop a mechanism for the evaluation of programs which receive funds under this chapter." Further, AB 75, Section 24164 (c) mandates that the Department of Health Services develop a mechanism for a systematic, independent evaluation of various efforts established under this bill. One of the components of this evaluation is based on tobacco control programs funded under AB 75. Recent amendments (AB 99, Section 24168.7) to the original requirements specified the conduct of an evaluation employing an unbiased sample of programs and students from which findings could be generalized to the statewide population.

A third legislative effort also framed the evaluation. California budget control language of Chapter 467 of 1990 (SB 899) (Item 6110-001-890) called for "a longitudinal evaluation to assess the effectiveness of local drug and alcohol abuse education and prevention programs."

Key Policy And Evaluation Questions

Several major policy issues set the framework for the evaluation. Foremost, what are schools doing in ATOD prevention education? Additionally, what ATOD prevention education services are youth exposed to in schools? What are the costs associated with providing ATOD prevention education services in schools? What are the outcomes related to providing ATOD prevention education in schools?

To address these policy issues, SWRL examined:

- program implementation—the extent to which ATOD use prevention and

intervention programs have been established in the schools;

- program exposure—the extent to which students have been exposed to ATOD use prevention programs;
- program costs—the extent to which resources have translated into relevant ATOD use prevention programs and activities for students; and
- program outcomes—the impact of ATOD use prevention programs on the knowledge, attitudes, and behaviors of students.

In addition, the third-year evaluation effort examined the districts' organizational structures and their influence on DATE programs and services to help address the policy questions. Organizational issues centered on the extent to which:

- the organizational structure in the school districts influences the DATE Program;
- the organizational values held by DATE providers influence the DATE Program;
- the organizational stability or organizational change influences the DATE Program; and
- the organizational climate (i.e., the quality of the social and psychological relationships, in combination with the physical environment) influences the DATE Program.

Pacific Institute for Research and Evaluation is completing the organizational study. Therefore, these data will not be included in this report and will be published separately.

Sampling Plan

The basic evaluation design in the third year called for gathering information across a random sample of 119 school districts, 290 schools, and 18,850 students. Additional data collection

occurred in a subset of school districts to study the districts' organizational dynamics and their influence on the DATE Program. Figure 1 details the evaluation design. The sample was designed to be representative of the school districts, schools, and students in the state as a whole. Table 1 lists the 32 counties included in the sample.

Figure 1
DATE Evaluation Design

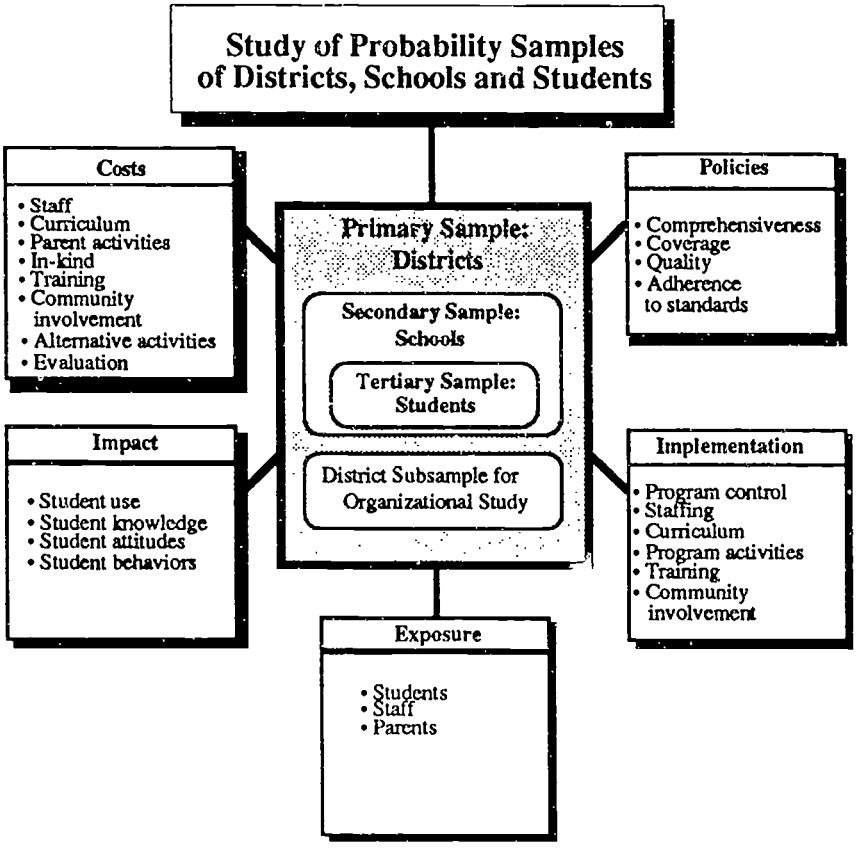


Table 1
List of 32 Counties Participating in the 1992-93 DATE Evaluation

County			
Alameda	Kings	Placer	Santa Barbara
Butte	Lassen	Riverside	Santa Clara
Contra Costa	Los Angeles	Sacramento	Solano
El Dorado	Madera	San Bernardino	Stanislaus
Fresno	Marin	San Diego	Tehama
Humboldt	Merced	San Francisco	Tulare
Imperial	Napa	San Joaquin	Ventura
Kern	Orange	San Mateo	Yuba

Sample Selection of Districts

The goal of the sampling plan was to develop a procedure by which student data could be collected that would provide generalizable estimates of program implementation and student exposure. The sampling plan also had to enhance the evaluation's ability to investigate DATE Evaluation questions at multiple organizational levels. These two requirements set the general parameters for the sample design, how large the sample should be, and how the sample should be drawn.

The DATE Evaluation used a multistage probability sample of California's student population. The probability of selection of any specific district was proportional to the district's student enrollment as of fall 1990. This sampling plan ensured that the 11 largest districts in California were included in the sample. It also ensured that every California public school student had an equal chance of selection and, as a consequence, that all minority populations and geographic regions of the state were proportionally included in the statewide sample. These features of the plan maximized the generalizability of the results and enhanced the viability of the evaluation.

Sample Selection of Schools

Schools were sampled at the second stage of selection. For selected districts with at least two or more schools, two schools were selected from that district each time the district was selected in the first stage of the selection process. For selected districts with only one school, only that school was included in the sample. The total number of schools included in the sample was 284. A requirement for the second stage of the sampling process was that if a sampled district had any elementary or middle school with less than 50 students, similar schools were linked before the second-stage selection so that each linkage was large enough to include at least 50 students. For the high schools, if a sampled district had any high schools (9-12) with less than 100 students, similar schools were linked before the second-stage selection so that each linkage was large enough to include at least 100 students. The final sample included 267 schools for the student survey and 225 schools for the program information.

Sample Selection of Students

Students were sampled at the third stage from each school selected at the second stage. This was a random selection of 50 students from elementary and middle schools and 100 students from high schools in the sample. The samples were generated from the school rosters supplied by the schools. Each sample was drawn randomly by a SWRL researcher. Surveys were completed by 12,403 students.

Data Collection

Data collection for the five components was accomplished through three instruments: a program form for each component, structured interviews for each component, and a cost survey. The program forms for each component contained cost, implementation, and exposure data. The structured interviews were conducted to supplement the data collected on the forms. Finally, the cost survey asked questions regarding the DATE funds for the 1992-93 school year, such as how the loss of Comprehensive Alcohol and Drug Prevention Education (CADPE) and the potential loss of other prevention funds affected the schools' DATE programs. In addition, a student survey was administered to over 12,000 students in California.

The student data were collected using a standardized administered survey. This instrument served as a second means of assessing program implementation and exposure to the four components mentioned above, as well as to the other components of DATE. The student survey was designed as a comprehensive, standardized, multiple-choice instrument.

WHAT ARE SCHOOLS DOING IN ATOD PREVENTION?

The DATE Evaluation included an examination of selected components of the DATE comprehensive prevention education model. These components included: curriculum delivery, curriculum training, positive alternative activities, student identification and referral, and staff development. The curriculum component was divided into two components (i.e., curriculum delivery and curriculum-specific training) to examine the extent of implementation and cost of delivering ATOD prevention curricula to students as well as training staff on the various curricula.

Delivery of ATOD Prevention Curricula

The amount of ATOD prevention curricula delivered to students varied across grade levels as illustrated in Figure 2. Students in grades 5 through 8 received the greatest amount of instruction, with an average of between 26 and 29 hours per student. Students in grades 11 and 12 received much less instruction than any other grade—a finding that also was observed in the 1991-92 DATE Evaluation.

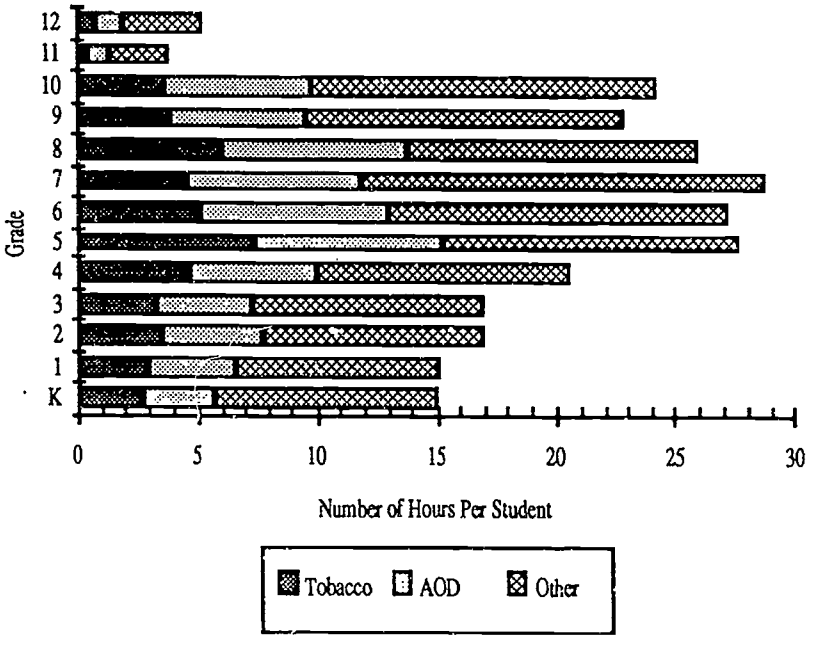
Students in all grades received some instruction specifically to prevent tobacco use. The number of hours spent on tobacco issues was greatest for grade 5 with 7.4 hours, followed by 6.1 hours for students in grade 8. In contrast, the amount of tobacco use prevention curricula provided to students in grades 11 and 12 was negligible (see Figure 2). Across the grade levels, 19% of the curriculum time was devoted to tobacco issues.

AOD use prevention also was addressed at all grade levels, with the greatest concentration in grades 5 through 8, ranging from 7.2 to 7.9 hours per student. A little more than one quarter of the curriculum time for all grades was devoted to AOD issues.

The largest proportion of instructional time in all grades was spent on broader prevention strategies such as fostering self-esteem and developing social skills, including refusal and communication skills.

Figure 2

Number of Instructional Hours Per Student on Tobacco, AODs, And Other Issues by Grade



The content of the curricula delivered to students tended to address information about ATODs, health consequences of ATOD use, and skills building. These topical areas were addressed 70% to 100% of the time in the curricula. However, science curricula typically did not address personal and social skills development, and family life curricula did not address ATOD information and health consequences of ATOD use.

The most common ATOD prevention curricula reported for the 1991-92 evaluation (i.e., Here's Looking at You 2000 [HLAY 2000]; Drug and Alcohol Resistance Education [DARE]; health; and QUEST Skills for Adolescence [QUEST SFA]) also were among the most prevalent curricula for the 1992-93 school year. Overall, health curricula were the most prevalent, followed by HLAY 2000. Health classes were the prevailing mode of ATOD prevention curriculum delivery for students in grades 9-10, which is not surprising given the requirement for students in these grades to complete a health course. HLAY 2000 was emphasized in grades 2-8 as illustrated in Appendix A. Other curricula tended to be emphasized in the specific grades for which they were developed. For example, fifth graders received

the greatest number of hours of DARE, and instructional time for QUEST SFA was relatively high for students in grades 6 and 7.

There was a notable difference in the percentage of students receiving prevention curricula across grade levels. Students in K-8 received instruction in one or more prevention curricula as reflected by the totals in Appendix B. However, a much smaller percentage of students in grades 9-12 received similar instruction. Juniors and seniors in high school were the least likely to receive ATOD use prevention curricula. This finding is consistent with the curriculum implementation results of the 1991-92 evaluation.

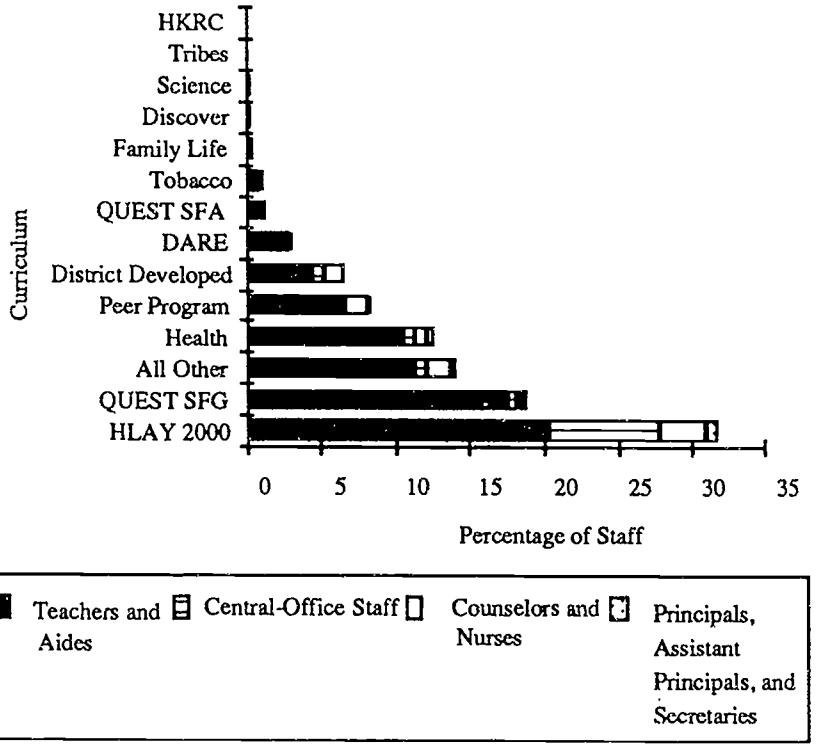
Training of ATOD Prevention Curricula

Schools delivered 20,683 staff hours of training specifically related to ATOD prevention curricula during the 1992-93 school year. Of these staff hours, 32% were devoted to training staff on HLAY 2000. As illustrated in Figure 3, QUEST Skills For Growing (QUEST SFG), health, and other ATOD prevention instruction also accounted for a significant amount of the total amount of curriculum staff training hours. This coincides with HLAY 2000 and health being the two most widely implemented curricula and accounting for over half of the total resources used for curriculum delivery during the 1992-93 school year. Few staff were trained in curricula such as Discover, Science, Tribes, and similar instruction offered through the Healthy Kids Regional Center (HKRC).

Although staff other than teachers and aides did receive some curriculum training during the school year, teachers and aides undoubtedly received the most training across curricula. Given that it is usually teachers and aides who provide classroom instruction in ATOD prevention, it is understandable that they received the most training and were trained in several different curricula. Teachers and aides, counselors and nurses, and principals and assistant principals tended to receive training in various curricula, while central-office staff were mainly trained in HLAY 2000 (69%).

Figure 3

Percentage of Staff Involved in Curriculum Training



Staff Development Training (Noncurriculum Specific)

Type of Staff Development Training

There were several types of staff development training during the school year. For example, workshops and in-services were the most prevalent types of training, and there were a few conferences and staff development days. Regardless of the type of training, teachers received the most (77%), followed by: counselors and nurses; principals, assistant principals, and secretaries; central-office staff; consultants; and community professionals and agencies (all less than 10%).

Training was sponsored by districts, schools, counties, community-based organizations, or other entities (see Table 2). Respondents could indicate multiple sponsors for a given training; therefore, the percentages sum to more than 100%. District-sponsored training was the most common, followed equally by school-sponsored training and others.

Table 2
Percentage of Staff Development Training Sponsored by Each Organization

Sponsor of training	Percentage
District	51
Their own school	28
Another school	3
County	17
City	1
Community-based organization	7
Other sponsor	28

In addition to staff at their own school, the following professionals also were involved in the training either as trainers or participants: district personnel (43%), personnel from other schools (36%), county personnel (21%), representatives from community-based organizations (11%), city personnel (2%), and other staff (18%).

Focus and Extent of Staff Development Training

It is important to keep in mind that staff development training usually addressed a range of topics. Generally, other prevention strategies such as refusal skills and fostering self-esteem were included as well as ATOD-specific material in keeping with the more comprehensive approach. Although these topics often overlap, we requested that respondents separate tobacco issues and AOD issues from all other issues.

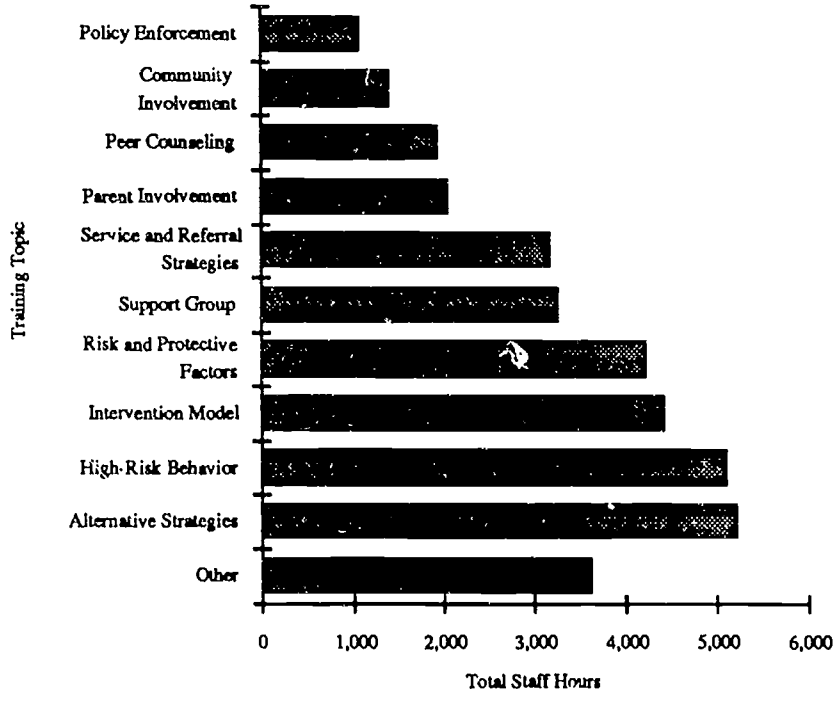
The largest number of training hours was spent on other prevention issues (61%), followed by AOD issues (27%). The smallest number of hours was spent on tobacco-specific issues (12%). Tobacco and AOD training included broader prevention issues such as self-esteem, skills building, conflict resolution, gang information, refusal skills, and AIDS/HIV information. Because the other issues included such a wide range of topics, more time was devoted to this entire group of topics than the tobacco-specific or AOD-specific topics. While last year's respondents were asked only to differentiate between tobacco- and AOD-specific training topics, the proportion of this year's

training time focusing on tobacco- and AOD-specific issues is consistent with the findings of the 1991-92 evaluation.

The largest number of noncurriculum-specific staff training hours (over 4,000) was spent on alternative classroom strategies, dynamics of high-risk behavior, implementation of the early intervention model, and risk and protective factors as illustrated in Figure 4. The topics where the most time was spent (e.g., risk and protective factors) involved staff who work most directly with students. Therefore, it is not surprising that the fewest number of hours was devoted to policy enforcement and community involvement. Also, policy enforcement tended to be covered for a briefer period of time within the training, partly because most teachers and other personnel already were familiar with the policies. Moreover, training covering topics such as peer counseling and parent involvement would include only a few staff members (i.e., the school-based intervention team, commonly referred to as the core team). Over 3,000 staff hours were spent on other topics such as AIDS/HIV awareness, gang information, and fetal alcohol syndrome.

Figure 4

Total Number of Hours for All Personnel by Training Topic



Identification And Referral

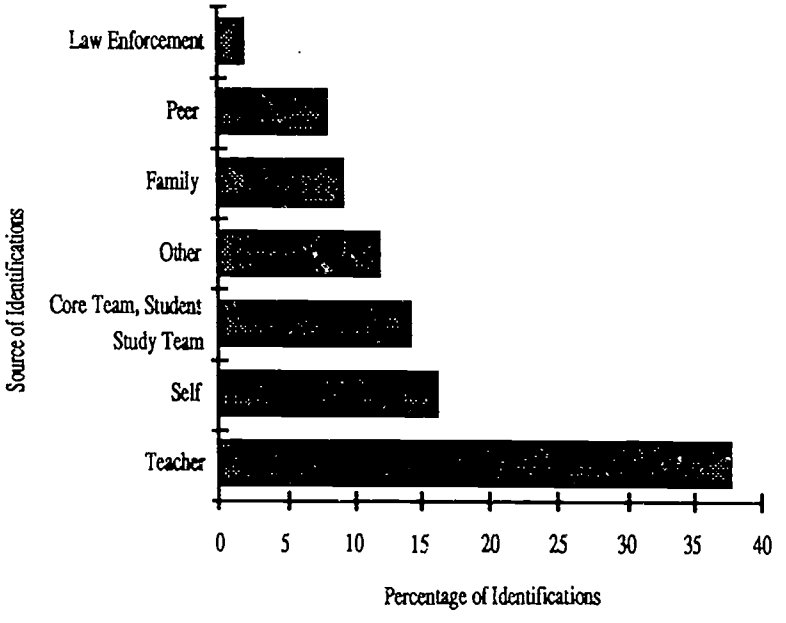
An identification was defined as any situation in which a student was recognized as having an ATOD-related problem, whether or not he/she was referred for services. A referral was defined as any situation in which a student received services, either on campus or off campus. The exact number of identifications by source and by reason is difficult to determine because a student could be identified on more than one occasion and each identification could come from more than one source and for more than one reason. For example, while we can report the number of identifications made as a result of alcohol use, we cannot determine if alcohol was the only reason, or even the primary reason for such identifications. Nevertheless, breaking down the identifications by source and reason helps explain who is identifying students in need of ATOD-related services and why.

Identification of Students

Of the students enrolled at the 225 schools, a total of 6.5% was identified as having ATOD-related problems during the 1992-93 school year. Twenty-four percent of those students, or 1.5% of the total, were identified more than once. Teachers were primarily responsible for identifying the students, accounting for twice as many identifications as any other source (see Figure 5). The next highest source of identifications was the students themselves, with 16% of the identifications coming from students who came forward as a result of an ATOD-related problem. Core teams, families, and peers each were involved in identifying students in 10% to 15% of the cases.

The reasons why students were identified varied. Poor academic performance, changes in academic performance, or a change in overall behavior were reasons for student identifications in almost half of the cases. Emotional changes was the reason for identification 18% of the time. Interestingly, students who were identified specifically for AOD use and tobacco use comprised only 16% and 8% of the cases, respectively.

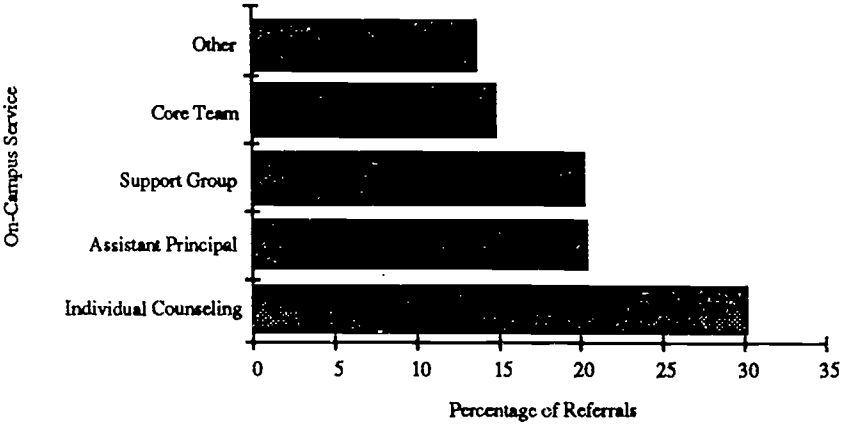
Figure 5
Sources of Student Identification



On-Campus Referral of Students

Once identified as having an ATOD-related problem, students were most often referred for on-campus services. Five percent of the students enrolled in the 225 schools were referred for on-campus services during the 1992-93 school year. Most of those students participated in some type of counseling, either on an individual basis (30%) or as part of a group (20%). An additional one fifth of the students were referred to the assistant principal at their school, while core teams and other on-campus services were involved in about 15% of the referrals each, as seen in Figure 6. Furthermore, 58% of the students receiving on-campus services were follow-ups.

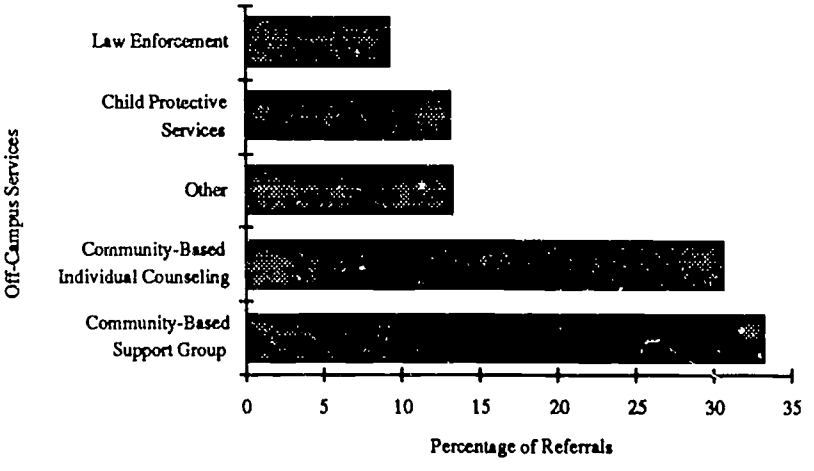
Figure 6
Types of On-Campus Referrals



Off-Campus Referral of Students

A smaller percentage of students was referred to off-campus services during the 1992-93 school year. Of the total student population at the schools providing identification and referral data, 2.8% were identified for services outside of school, and just under two thirds of those referrals were for individual or support group counseling services. Child Protective Services and law enforcement services were required for just over one fifth of the students identified (see Figure 7).

Figure 7
Types of Off-Campus Referrals



Identification and Referral Procedures

Most of the schools indicated that they had a formal procedure for identifying and referring students with ATOD-related problems. Not surprisingly, teachers played the most integral part of that process, being involved in identifying and referring students at most of the schools (see Table 3). After teachers, proximity to students seemed to indicate the extent to which persons were involved in identifying or referring students for ATOD-related problems. More specifically, the students themselves, their peers, and their families were involved in identifying students at almost one third to one half of the schools in the sample. Principals, counselors, and core teams, however, were more likely to be involved in referring students for services after they had been identified.

Table 3

Percentage of Schools Where Specified Individuals Are Involved in Identifying and Referring Students With ATOD-Related Problems

Staff position	Percentage of schools where staff identify students	Percentage of schools where staff refer students
Teachers	85	73
Students	44	29
Parents or family members	33	25
Peers	26	19
Principal or assistant principal	24	40
Counselor or psychologist	20	39
Core team	18	47
Law enforcement or Child Protective Services	6	2
Nurse	2	6

Generally, the identification and referral procedures operated at the schools in the following manner. If school officials believed a student at their school possessed tobacco, or

was intoxicated or "high" while at school, half of the schools indicated that students would be suspended. Sending the student to the principal or the assistant principal, and contacting the student's parents were the reported procedures at nearly half of the schools, as seen in Table 4. As might be expected, referrals to counseling, to a nurse or a medical team, or to law enforcement agencies were more common for those students who were high or intoxicated while at school, rather than for those who possessed tobacco.

Table 4

Percentage of Respondents Listing a Particular Intervention as Part of Their School's Procedures for Handling ATOD Use

Staff responses to observing ATOD use	Percentage of tobacco use observed	Percentage of AOD use observed
Suspension	57	50
Send to principal or assistant principal	51	48
Call/notify parent	41	49
Talk to student	34	20
Send to school counselor	24	27
Emphasized education/ counseling	18	9
Confiscate	16	N/A
Stated "not a problem"	14	11
Send to a specified program or class	13	11
Meet with child and parent	11	14
Refer to community-based counseling	8	23
Expel	6	14
Refer to core team	6	11
Send to nurse or medical evaluation	4	20
Refer to law enforcement	3	31
Isolate or separate student	N/A	15
Other responses	<10	<10

These varying procedures illustrate the complexity of the student identification and referral process within DATE programs. While some schools indicated that they had a regimented process for dealing with ATOD-related issues, others seemed to treat each student individually. Therefore, what might constitute a formal identification or referral at one school could, in another school, simply be resolved by an informal meeting between the student and teacher, or could even be dismissed as "not a problem" by school officials.

Use of Positive Alternative Activities in Prevention

In the 1991-92 DATE Evaluation, districts were required to report positive alternative activities in terms of six categories:

- recreational sports leagues;
- visual and performing arts;
- special interest clubs;
- service clubs;
- drug-free social events; and
- ATOD action groups.

It was discovered that as broad as these categories were, they still did not capture the entire range of activities. For the 1992-93 DATE Evaluation, respondents were given the following guidelines that had been developed in conjunction with the CDE Healthy Kids, Healthy California Office, as to what constituted positive alternative activities:

- have as the central focus the reduction of targeted risk factors and/or enhancing targeted protective and resiliency factors;
- include a consistently reinforced "no-use message";
- are *not* held during regular class time (e.g., assemblies). Time before school, after school, during lunch breaks, and during special field trips however, is allowable;
- do *not* use DATE funds to supplant other resources; and

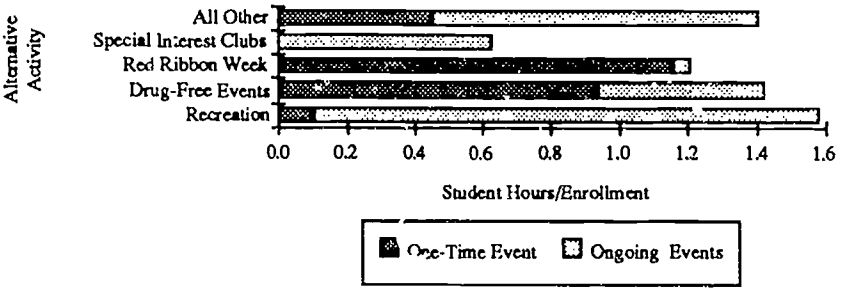
- do *not* include intramural sports (unless they meet all of the above criteria).

The activities were grouped into the following categories:

- recreation;
- drug-free social events;
- Red Ribbon Week;
- special interest clubs; and
- all others.

Figure 8 depicts student participation in various positive alternative activities. All positive alternative activities together provided about 6.3 hours of student time. Recreation accounted for the most hours. The largest single contributors to the "all-other" category (peer programs, visual and performing arts, tutoring, and cultural activities) furnished less than 2 hours each.

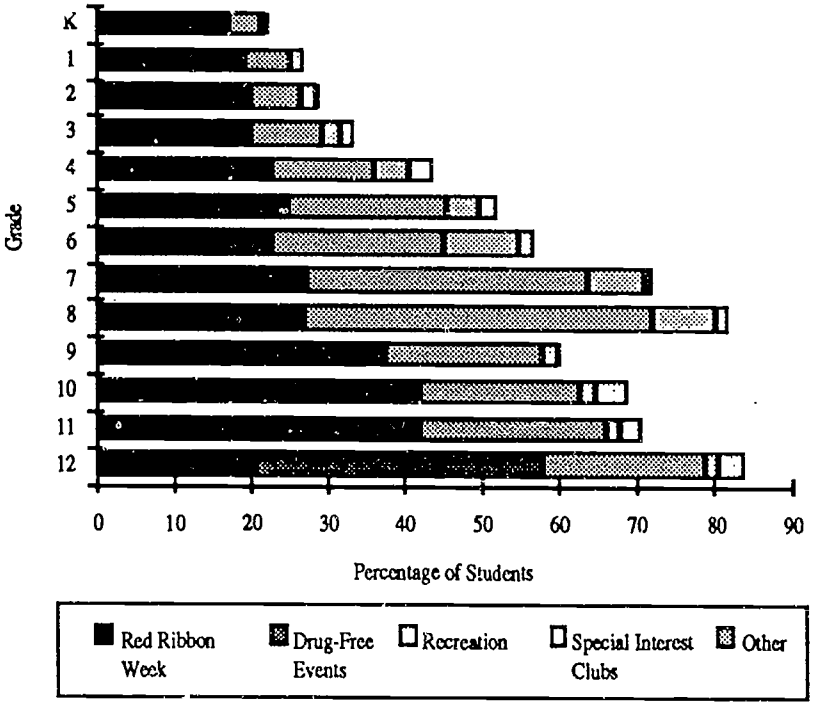
Figure 8
Alternative Activity Hours Per Student by Activity Category



Alternative activities were not uniformly provided across grade levels (see Figure 9). The percentage of students participating was lowest in kindergarten and rose steadily up to grade 8. It dropped down for grade 9 and rose back steadily to grade 12. Interestingly, the percentage of students participating in Red Ribbon Week was very steady at about 18% for all grades. The percentage of students participating in drug-free social events increased across grades. While recreation accounted for much of the students' time, the student participation percentage was relatively low, reaching a maximum of 9% at sixth grade. That recreation did not reach all that many students also was a finding in the 1991-92 DATE Evaluation.

Figure 9

Percentage of Students Participating in Alternative Activities by Grade and Category of Activity



WHAT ATOD PREVENTION EDUCATION DO STUDENTS RECEIVE?

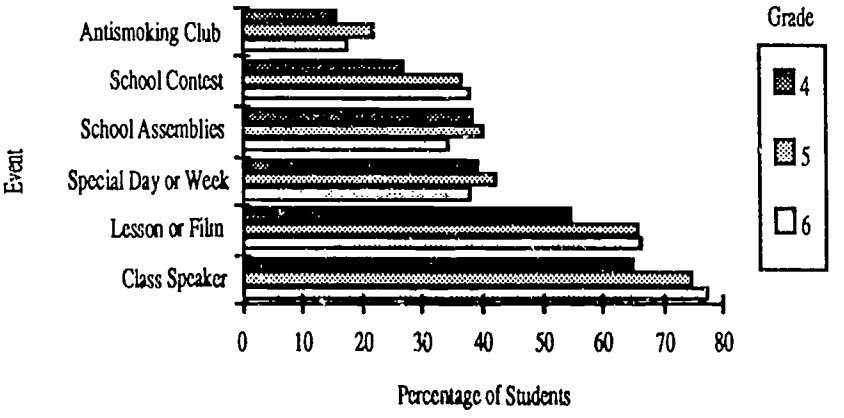
Student Exposure To School-Based Tobacco Prevention Curricula and Activities

Students were exposed to or aware of several categories of ATOD-related events during the current school year. The categories of events encompass prevention curricula, activities, and other service events found in California schools today. Tobacco- and AOD-related events were referenced separately. Percentage of exposure to categories of curricula, activities, and service events reported below represents one or more instances of the student experiencing that event. In other words, single and multiple exposures to an event counted as one exposure to a category of events.

Grades 4-6

In elementary schools, 88% of the students were exposed to at least one tobacco-related lesson or activity event during the 1992-93 school year. As shown in Figure 10, the most frequent activities students experienced were class speakers and a lesson or film; antismoking clubs were the least frequent; and in the middle were school contests, school assemblies, and a special day or week (e.g., Great American Smokeout). As a general trend, students in higher grade levels received more exposure to prevention activities. However, for three of the six categories—antismoking clubs, school assemblies, and a special day or week—sixth graders reported less exposure than fifth graders and exposure less than or equal to fourth graders. In general. the great majority (82%) of the students learned about the dangers of smoking cigarettes in school during the 1992-93 school year.

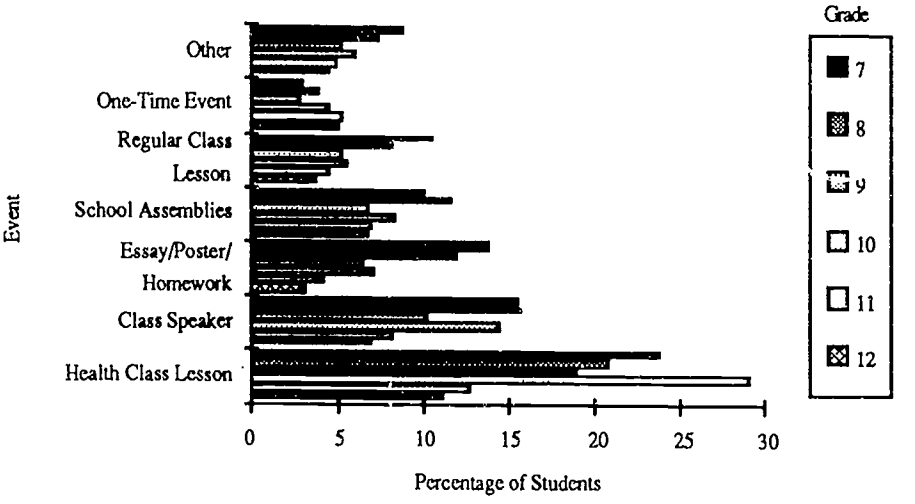
Figure 10
Percentage of Students Experiencing Tobacco-Related Events, Grades 4-6



Grades 7-12

Forty-one percent of all secondary school students were exposed to at least one tobacco-related lesson or activity event. As shown in Figure 11, the most frequent tobacco prevention event was a lesson in a health class followed by a class speaker. One-time events, such as health fairs, were experienced by the fewest students. In contrast to elementary school students, the general trend for secondary school students was that those in higher grades reported less exposure. The only category in which this trend was reversed was one-time events. There seems to be more willingness on the part of the older students to participate in the one-time events.

Figure 11
Percentage of Students Experiencing Tobacco-Related Events, Grades 7-12



Student Exposure To School-Based Tobacco-Related Services

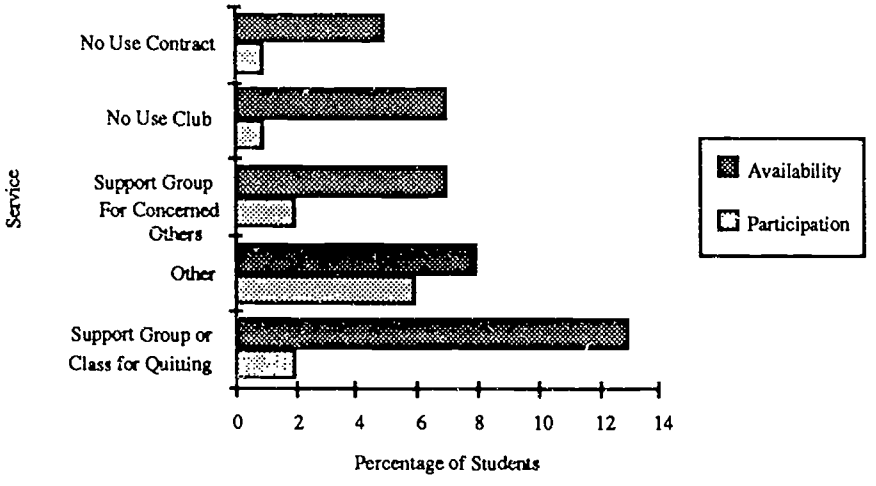
Grades 7-12

When asked about the availability of smoking cessation services, secondary school students were most aware of a support group or class for help in quitting tobacco (see Figure 12). Almost half of the students (47%) indicated they did not know if any of the listed cessation services were available and another 26% were not aware of any services. Taken at face value, almost three quarters of the students were not aware of any school-based help

for stopping tobacco use. Of all students, at least 2% participated in one of the tobacco cessation services listed in the survey and 6% reported using some other type of help for stopping tobacco use.

When asked about ease of access to smoking cessation services, such as the ease of joining a support group at school for help with stopping tobacco use, 35% of the students felt that support groups for stopping tobacco use would be easily accessible and 25% thought that access was not easy. However, 40% of the students did not address access because they reported that their schools did not have tobacco cessation support groups.

Figure 12
Percentage of Students Reporting Availability of and Participation in Tobacco-Related Services, Grades 7-12



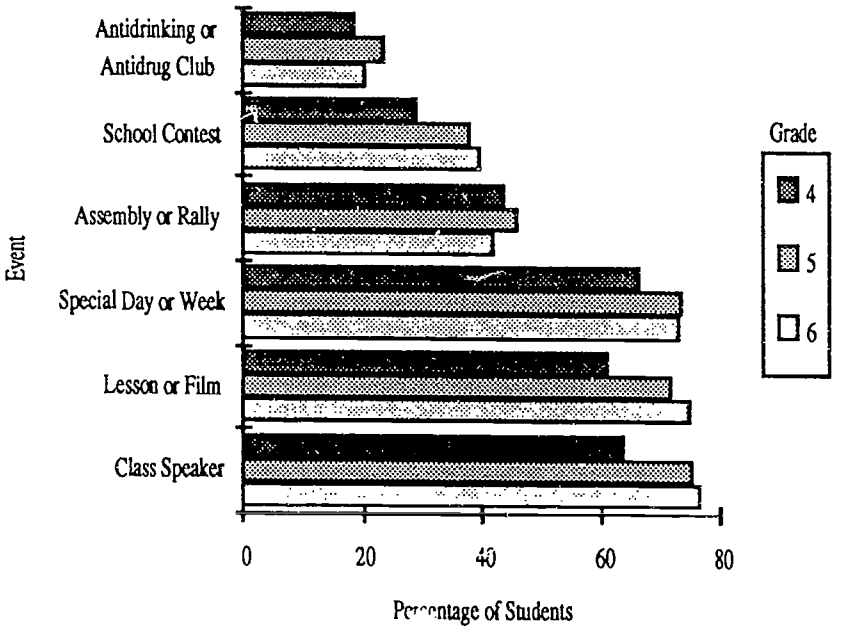
Student Exposure To School-Based AOD Prevention Curricula and Activities

Grades 4-6

Ninety-one percent of all elementary school students were exposed to at least one AOD-related curriculum and activity event (see Figure 13). The three most frequently reported events by elementary school students were class speakers, a lesson or film, and a special day or week (e.g., Red Ribbon Week). These were experienced by more than 60% of the students. Anti-AOD clubs were the least experienced prevention event. As with tobacco prevention curricula and activities, the trend was that students in higher grade levels reported more exposure to

prevention activities. Eighty-one percent of the students also indicated that they had learned about the dangers of AOD use in school this year.

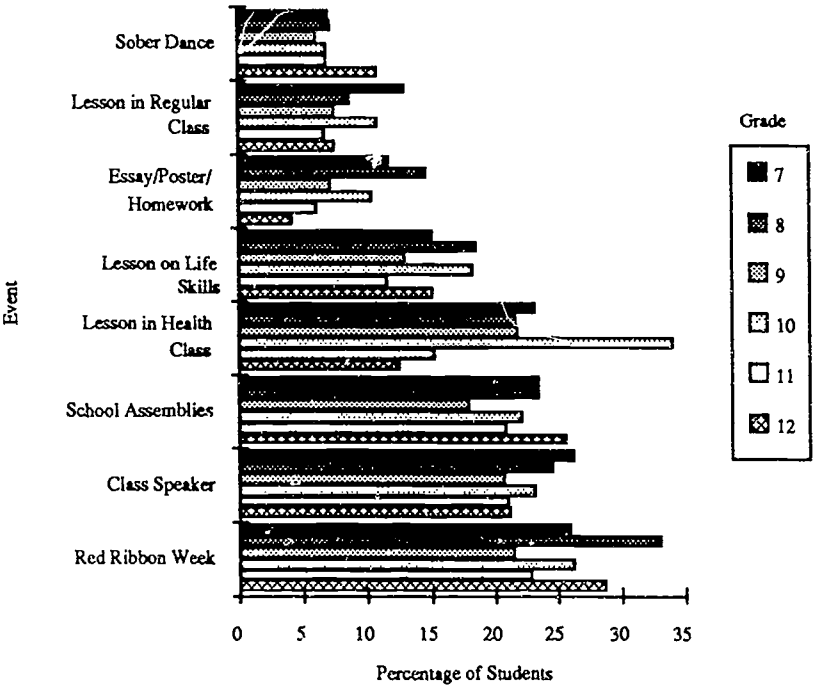
Figure 13
Percentage of Students Experiencing AOD-Related Events, Grades 4-6



Grades 7-12

Fifty-one percent of the secondary school students were exposed to at least one AOD-related lesson or activity event (see Figure 14). The most frequent AOD prevention event was Red Ribbon Week followed by three categories with similarly reported exposure: school assemblies, a lesson in health class, and a class speaker. Sober dances were experienced by the fewest students, and lessons in a regular class were the next lowest category of prevention activity reported. The exposure trend in secondary schools is that students in higher grades reported less AOD curriculum and activity events. The one-time event category in which this trend was clearly reversed was sober dances, which is understandable given the increased emphasis on sobriety at school proms. Roughly half of the students reported they did not take part in any of these events.

Figure 14
Percentage of Students Experiencing AOD-Related Events, Grades 7-12



Student Exposure To School-Based AOD Services

Grades 7-12

Generally, secondary school students felt that there was some availability of AOD-related services in schools. However, their reported participation level was quite low. Students reported rates of less than 30% for the two most frequently cited types of individual help available: one-on-one peer counseling for personal problems and academic help from a peer (see Figure 15). These two types of services also were the most frequent types of individual help in which students participated. While the fewest number of students was aware of the availability of contracts to not use AODs, a teacher or counselor meeting with students and their parent(s) was the least reported service in which students participated. Twice as many students were aware of peer counseling for help with personal problems than any other type of group help (see Figure 16). Peer counseling also

was the most frequently reported group help in which students participated.

Figure 15

Percentage of Students Reporting Availability of and Participation in AOD-Related Individual Services, Grades 7-12

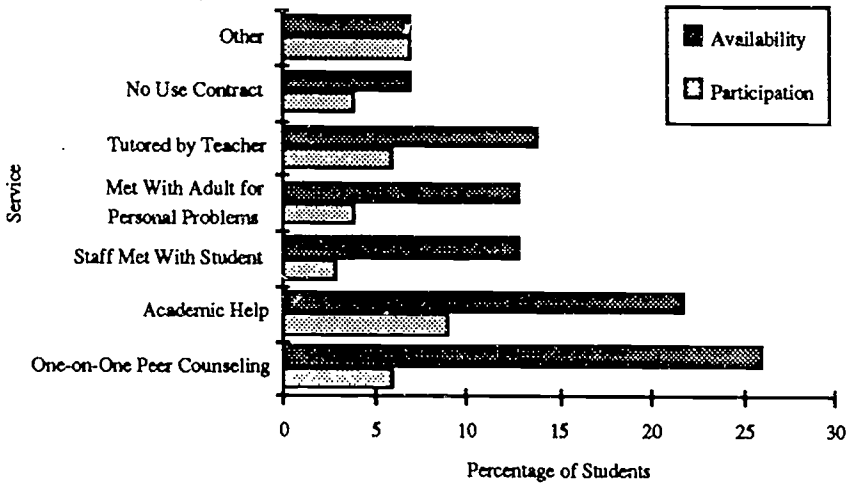
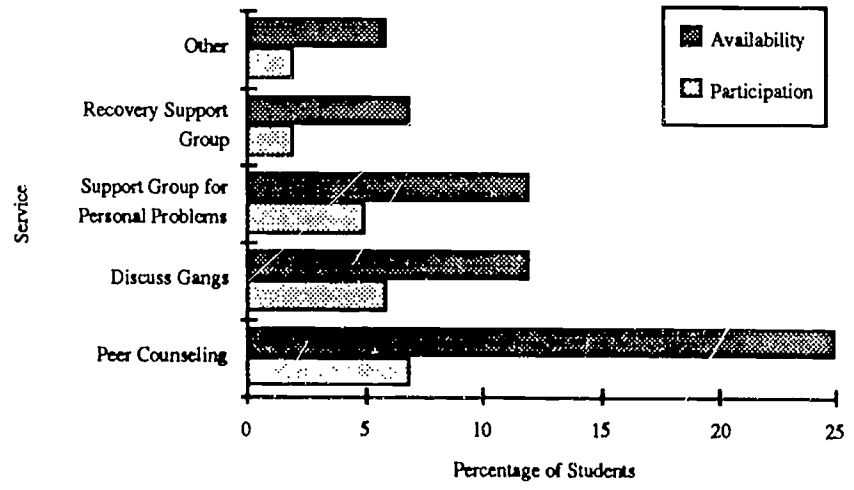


Figure 16

Percentage of Students Reporting Availability of and Participation in AOD-Related Group Services, Grades 7-12



WHAT ARE THE ATOD PREVENTION EDUCATION COSTS IN THE SCHOOLS?

The 1992-93 DATE Evaluation included a cost analysis of individual school-based components in the California DATE Program, rather than a cost analysis of the comprehensive model. As previously stated, these components included: curriculum delivery, curriculum training, positive alternative activities, identification and referral services, and staff development. Data for curriculum delivery and curriculum training were collected and analyzed separately to distinguish between the cost of delivering ATOD prevention curricula to students and training staff on the use of ATOD prevention curricula.

The Per-Student Cost of Providing DATE Program Components

At a minimum, California schools spent $83.78 per student to provide students with prevention education curricula, positive alternative activities, identification and referral services, and to provide personnel with staff development and ATOD training in curricula (see Table 5). Seventy-seven percent of this amount ($64.52 per student) were spent on school personnel, including central-office staff, principals, assistant principals, secretaries, teachers, aides, released time, counselors, and nurses. Released time is the substitute costs incurred by staff attending DATE-related activities. Specifically, 52% of the amount spent on these five components were for personnel paid at the teacher level (e.g., teachers, aides, some DATE coordinators, released time). Schools spent a significantly smaller per-student amount on other school personnel such as those paid at the counselor or nurse level (13%), principals, assistant principals, secretaries (11%), and central-office staff (2%). Moreover, the remaining 23% were distributed among community professionals and agencies (12%); consultants (4%); materials, stipends, and travel (5%); and miscellaneous expenses (2%).

Table 5
Minimum Per-Student Cost of Each Component

Component	Per student cost ($)
Curriculum delivery	27.55
Curriculum training	5.05
Identification and referral process	28.69
Staff development	7.12
Positive alternative activities	15.38
Total	83.78

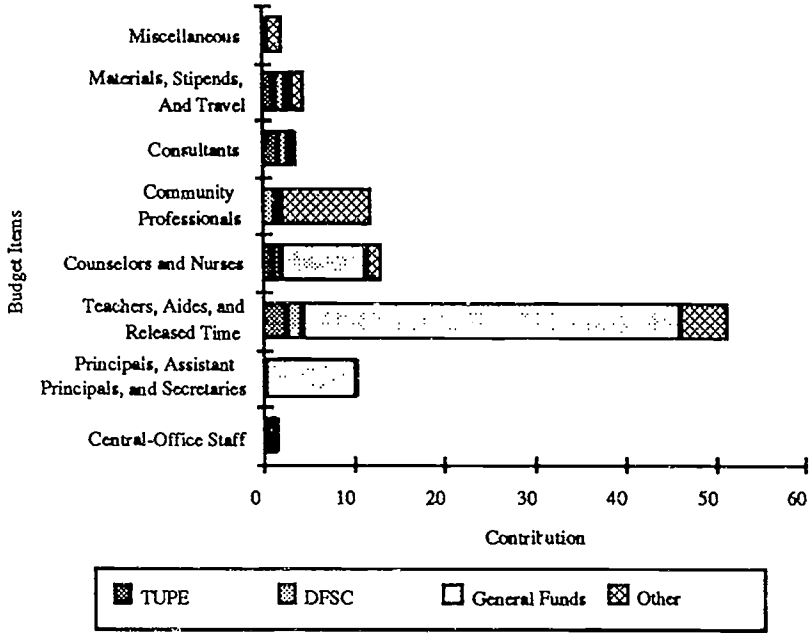
Stakeholder Contribution to the DATE Program Components

As mentioned previously, the 1992-93 DATE Program was funded by two California initiatives, Drug-Free Schools and Communities (DFSC) and Tobacco Use Prevention Education (TUPE). These two funding initiatives and the agencies that administer these funds are funding sources or stakeholders because they have a "stake" or an investment in DATE. DFSC allocated $3.254 per student enrollee, plus an additional percentage based on their Chapter 1 funding to public and private California schools. School districts could carry over 25% of the current year's entitlement amount to a subsequent year. Only public schools received approximately $3.914 per average daily attendance (ADA) of TUPE funds, plus a small amount of money for county administration. School districts could carry over any amount of the TUPE funds during the three years of project funding. Given that DATE is in its third year, during 1992-93 districts could have spent up to approximately $11.742 per student of TUPE funds for the entire DATE Program.

Many other stakeholders funded parts of or invested in DATE programs by contributing time, money, and other resources. For example, some stakeholders (other than TUPE and DFSC) (see Figure 17) included agencies that funded other state and federal grants (e.g., School Improvement grant, Chapter 1), cities, counties and communities surrounding the schools, private organizations, and people who donated their time or resources. The city invested in DATE largely through the involvement of local law enforcement agencies. Similarly, the county contributed to DATE through sheriff organizations, county offices of education, and health services, to name just a few. The private organizations that invested in DATE varied from local hospitals to United Way and the American Heart, Lung, and Cancer Associations.

Figure 17

Percentage of Stakeholder Contributions to Budget Items of the Five Components

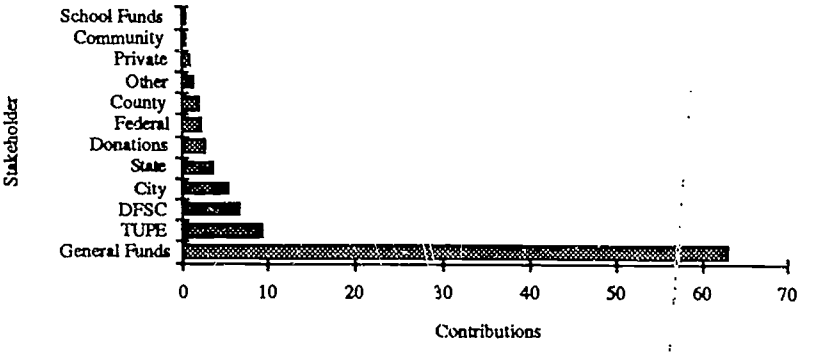


In addition, school districts and schools themselves also invested in California's DATE programs and therefore were considered stakeholders. For example, school districts became stakeholders when school staff (e.g., teachers, principals, assistant principals) spent time implementing a component of DATE and the staff time was paid for by the district's general funds. Similarly, schools became stakeholders when they relied on school club resources to sponsor various DATE-related events.

There was a considerable range in the amount of resources contributed by each of the stakeholders, as illustrated in Figure 18. TUPE contributed approximately 9% and DFSC 7% of the resources for these five components. Other stakeholders contributed the remaining 84%. These other stakeholders provided a wide range of support, from community- and school-sponsored contributions at 1%, to district general funds at 63%. In the middle of the range were: cities (6%), the state (4%), donated resources (3%), the federal government and counties (2% each), and private and other contributions (1% each).

Figure 18

Percentage of Stakeholder Contributions to the Five Components



The extremely large contribution from district general funds is not surprising considering the five components included in this year's evaluation. All of the components analyzed this year are school-based. That is, for the most part, the components are delivered at the school by school staff. For example, ATOD prevention curricula are delivered to students during class time by teachers. Similarly, staff often receive released time or stipends to participate in curriculum and staff development training. School counselors, teachers, principals, and nurses are the staff most involved in the identification and referral process. Finally, positive alternative activities typically are delivered to students either during lunch, or before and after school. All of these staff activities are paid for with general funds, either partly or entirely. Given the need for considerable involvement by school staff in these activities, it is not surprising that the data revealed such a high level of support on the part of the district.

Nevertheless, we should not assume that school districts do not need the DFSC and TUPE contributions to continue implementing DATE programs. Districts pay for teacher and other staff time, regardless of the content of the curriculum training and staff development they receive, or the curricula they deliver to students. However, the TUPE and DFSC funding initiatives were generated as a means of facilitating a comprehensive approach to implementing ATOD use prevention programs. These programs were to include, for example, delivering ATOD curricula to students and training of staff. Therefore, although teachers and other staff are paid with district general funds to deliver curricula and receive training, it is

because of the DFSC and TUPE contributions that districts, and, in turn, schools, were able to incorporate an ATOD focus into these components. As illustrated in interviews with the DATE coordinators that will be discussed later in this report, TUPE and DFSC funds provided the foundation for many DATE programs upon which were built services augmented by community and other outside resources.

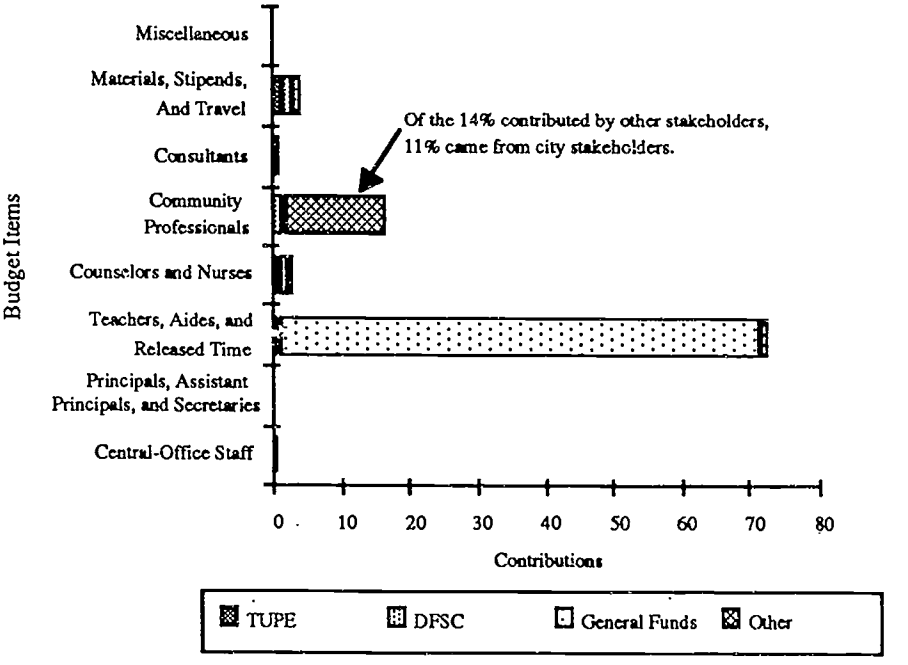
Per-Student Cost of Exposure to ATOD Prevention Curricula

The cost of exposing students to ATOD prevention curricula was derived from the cost of delivering ATOD prevention curricula to students. The data revealed that, on average, at least $27.55 per student was spent to expose students to ATOD prevention curricula. About 77% of this amount ($21.19 per student) went toward paying for staff time, most of which was for teachers, aides, and released time. The remaining 23% largely paid for resources from community professionals and agencies (see Figure 19).

As expected, given the large amount of staff time required to deliver curricula to students, school district general funds were the largest contributor at 74% (see Figure 19). Cities also were significant contributors at 11%. The city contribution was typically due to the involvement of local law enforcement in such activities as delivering the DARE curriculum to students. In addition, TUPE and DFSC contributed 6% and 4%, respectively. The remaining contributions ranged from 2% from counties to less than 1% from the other stakeholders.

Figure 19

Percentage of Stakeholder Contributions to ATOD Prevention Curricula

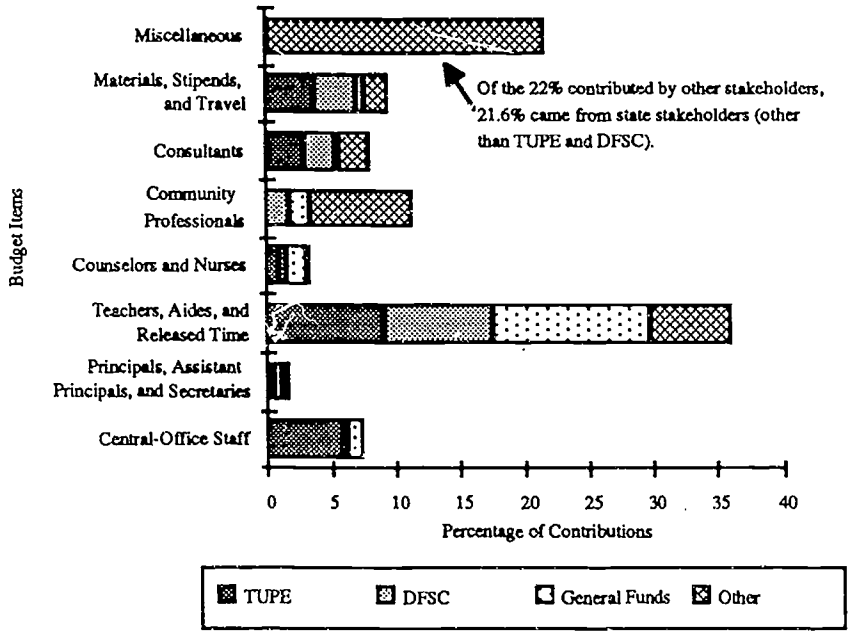


Per-Student Cost of Training Staff in the Use of ATOD Prevention Curricula

At least $5.05 per student was spent training staff in the use of ATOD curricula, which included personnel time, in conjunction with released time, stipends, and materials related to the curriculum training. Figure 20 lists the distribution of resources and the stakeholder contributions to each budget item. Not surprisingly, almost half of the resources expended (49%) was for school staff time, with the largest proportion paid to teachers, aides, and released time (36%). Community professionals and consultants accounted for 20%; training materials, stipends, and travel (largely stipends and instructional materials) accounted for 10%; and finally, miscellaneous expenses accounted for a large proportion (22%) of the resources expended on this component.

Figure 20

Percentage of Stakeholder Contributions to ATOD Prevention Curricula Training



The state contributed the majority of resources needed to train staff in the use of ATOD curricula, either through DATE funds (43%) or through other state funding (30%), such as school improvement or state mentor funds. Nearly all of the miscellaneous expenses (21.6%) were paid for with these state contributions. TUPE funds (25%) went largely toward teacher, aide, and released time (9%); central-office staff (6%); consultants (3%); and materials, stipends, and travel (4%). Similarly, DFSC funds (18%) typically supported teacher, aide, and released time (8%); consultants (3%); and materials, stipends, and travel (3%). Within the curriculum training component, school district general funds (16%) did not dominate the contributions made by the stakeholders, although they did make a large contribution to teachers, aides, and released time (12%).

Per-Student Cost of Identifying and Referring Students For ATOD-Related Issues

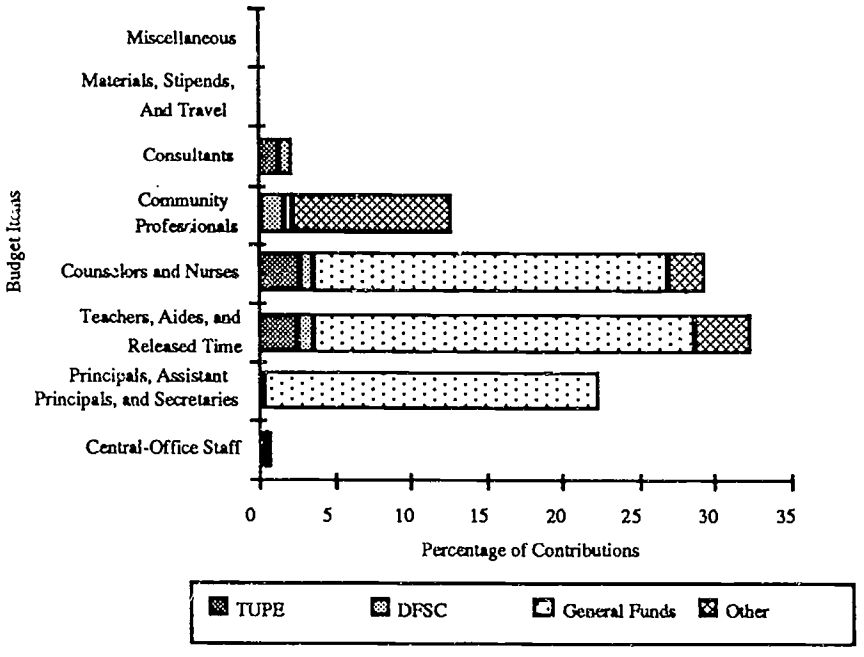
Capturing the cost of the identification and referral processes in schools was difficult because, by nature, it is a daily process with unclear boundaries. That is, most staff are trained to constantly look for signs and symptoms of ATOD-related issues and follow through with the appropriate action within their school's identification and referral process. However, the actual identification and referral processes vary greatly across schools because there is a variety of participants in the ATOD-related identifications (e.g., core teams, student attendance review boards [SARBs], law enforcement, teachers). Nevertheless, SWRL is confident that the methodology used in this evaluation allowed us to account for the minimum cost of identifying and referring students with ATOD-related issues. An effort was made to capture the time spent by all staff involved in the process, including those employed by the district and those outside of the district.

The minimum amount of resources spent on the identification and referral process was $28.69 per student. As illustrated in Figure 21, 85% of this expenditure was for school staff time, including teacher, aide, and released time (32%); counselors and nurses (29%); and other school staff such as principals, assistant principals, and secretaries (23%). Community professionals and agencies also contributed their resources (13%). The remaining resources were for consultants (2%), central-office staff (1%) and miscellaneous expenses (less than 1%).

Given the high amount of school staff involved in the identification and referral process, it was not surprising that 72% of the contributions for this component were from district general funds. TUPE contributed 9% and DFSC 4% of the resources, which also tended to pay for teachers, aides, released time, and counselors and nurses. Other contributions from federal funds, such as Chapter 1, accounted for 4% while cities contributed 3%. All of the other stakeholders contributed 2% or less.

Figure 21

Percentage of Stakeholder Contributions to the Identification and Referral Process



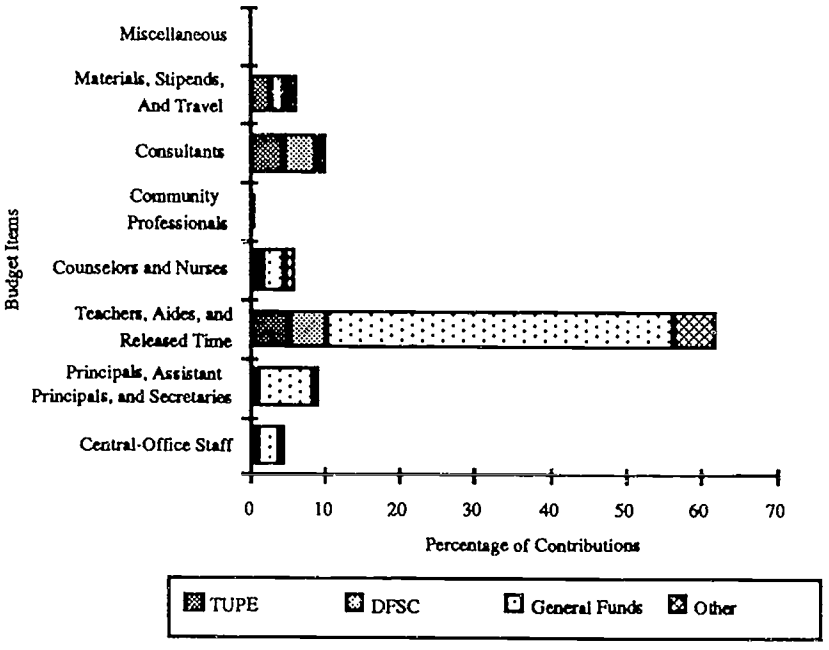
Per-Student Cost of Providing ATOD Prevention Staff Development

Overall, at least $7.12 per student was spent to provide ATOD staff development for school staff and other personnel. Because staff development typically is aimed at those in the teacher category, it is not surprising that 62% of the expenditures for this component was for teachers, aides, and released time (see Figure 22). The remaining 38% was spread rather evenly across outside consultants (10%); school staff such as principals, assistant principals, and secretaries (9%); counselors and nurses (6%); central-office staff (5%); and materials, stipends, and travel (7%). Very little resources were expended for community professionals and agencies (1%).

Given the large amount of staff time necessary for staff development, it is not surprising that district general funds represented the largest contribution (61%), followed by TUPE (17%) and DFSC (12%) (see Figure 22). TUPE contributed largely to teachers, aides, and released time (6%) and outside consultants (5%). Likewise, DFSC contributed to the same budget items at 5% and 4%, respectively. Other state funding, such as school improvement and mentor funds, represented 4% of the stakeholder contributions. All other contributions were 2% or less.

Figure 22

Percentage of Stakeholder Contributions to ATOD Prevention Staff Development



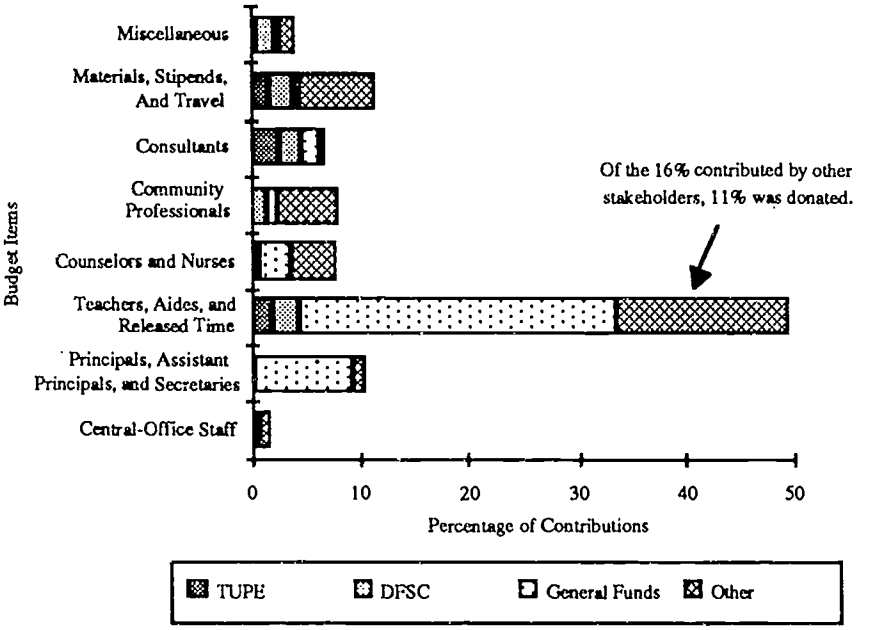
Per-Student Cost of Providing Positive Alternative Activities to Students

To be included as part of the DATE Program, positive alternative activities must meet the following requirements: (a) focus on the reduction of targeted risk factors and/or enhancing targeted protective and resiliency factors; (b) consistently reinforced no-use message; (c) are not held during regular class time (e.g., assemblies) but rather are held before or after school,

during lunch, and during special field trips; (d) do not use DATE funds to supplant other resources; and (e) do not include intramural sports (unless they meet all of the above criteria). Keeping these requirements in mind, California, on average, spent at least $15.38 per student to provide positive alternative activities to students. Once again, a large proportion of this amount was due to staff time (69% or $10.65 per student), including a large percentage of teacher, aide, and released time (49%) for supervising the activities. Community professionals, agencies, and consultants combined accounted for 15%. Materials, stipends, and travel (12%) and miscellaneous expenses (4%) also were included in the expenditures. All of these results are displayed in Figure 23.

Figure 23

Percentage of Contributions to Positive Alternative Activities



Although general funds (44%), TUPE (9%), and DFSC (10%) continued to make significant contributions, 13% of the resources for positive alternative activities were donated. Most of the donated time was contributed by the staff themselves (e.g.,

teachers supervising an after-school activity). Schools also used federal funds (4.3%) to provide positive alternative activities for their students, such as Chapter 1, special education, and other categorical funds.

Targeting Resources to Students With High ATOD Use Levels

Are resources provided by the CDE and local schools and communities targeting students with high ATOD use levels? Using program implementation intensity indices that were computed from the cost data for the curriculum delivery, identification and referral process, and positive alternative activity components of the DATE Program, a comparison was made of schools that had high program implementation with those that did not. Generally, it was found that schools with high levels of program implementation were using their resources for student populations that report high levels of substance use. The resources provided by the CDE and local schools and communities for prevention education are, in fact, targeting students with high ATOD-use levels.

CURRENT ATOD PREVENTION EDUCATION OUTCOMES

In determining the impact that resulted from the implementation of prevention programs in the schools, SWRL examined students' current (a) attitudes toward ATOD use, (b) knowledge about the harms of ATOD use, and (c) behavior of using ATODs.

Student Attitudes/ Knowledge Toward Tobacco

Grades 4-6

Elementary school students have an overwhelmingly negative attitude toward tobacco use. Over 90% think that smoking cigarettes is bad for one's health, smells bad, and does not make a person look cool. More than 75% did not think that kids who smoke had more friends or that smokers were more grown up.

Grades 7-12

Secondary school students were very knowledgeable about the dose-response relationship between the harmfulness of cigarette smoking and both frequency and duration of the smoking behavior. Students knew that greater harm to one's health was caused by more cigarettes smoked for a longer period of time (see Table 6). For example, only 32% thought that smoking one cigarette per day for one year would produce moderate to great harm while 94% thought that smoking 20 cigarettes per day for 10 years would produce similar amounts of harm. One problem

with students being so aware of the dose-response relationship is that they develop a comparative mind set and begin to think that experimentation is relatively harmless.

Table 6
Student Percentage of Perceived Harmfulness of Varying Levels Of Cigarette Consumption, Grades 7-12

	Perceived harmfulness			
	No harm	Slight harm	Moderate harm	Great harm
1 cigarette per day for 1 year	21	48	19	13
10 cigarettes per day for 1 year	4	20	40	36
20 cigarettes per day for 1 year	3	7	22	69
1 cigarette per day for 10 years	11	19	33	37
10 cigarettes per day for 10 years	3	6	18	72
20 cigarettes per day for 10 years	3	3	6	88

Only 4% of the nonsmoking students think they will try smoking during the next year. This is an important statistic for projecting the onset of smoking in the future and a credit to the school programs that have been able to defer some interest in smoking by providing useful information about the harms of tobacco. However, these students held an incorrect impression. Fifty-seven percent believe that most of their peers smoke, which is almost three times higher than the actual rate of current smoking.

Secondary school students were more aware of some specific effects of cigarette smoking than others. For example, when questioned about carbon monoxide, 81% knew it was in cigarette smoke and 72% knew that levels of carbon monoxide increased in the blood within a few moments of smoking. However, when questioned about other physiologic responses, a

little less than half (49%) were aware that smoking does not steady your hands and 64% incorrectly thought that smoking causes your heart to beat slower. The latter findings reveal that, although secondary school students know a great deal about tobacco use and its harms, there is room for improvement. This is particularly the case regarding student knowledge about social norms and the effects of tobacco.

Student Attitudes/ Knowledge Toward AODs

Grades 4-6

As with tobacco, elementary school students hold very negative attitudes toward AOD use. More than 80% of the students responded positively to five of the seven AOD knowledge and attitude items included in the survey (see Table 7). However, 41% believe that adults drink alcohol daily and the majority (61%) were not aware that alcohol affects kids more than adults.

Table 7
Percentage of Students Responding Positively to AOD Knowledge and Attitude Items, Grades 4-6

Attitude and knowledge items	Percentage		
	Grade 4	Grade 5	Grade 6
Bad for health to drink alcohol	86	89	89
Bad for health to use marijuana	92	94	91
Bad for health to use inhalants	81	83	84
Use of alcohol during pregnancy can hurt the unborn baby	93	94	95
Drinking is the most common cause of auto accidents	85	87	85
Almost all adults drink every day	41	41	41
Alcohol does the same thing to a kid's body as to an adult's body	66	61	53

Grades 7-12

Secondary school students also were well informed about AOD use. Frequent use of alcohol and marijuana were thought to be of

moderate or great harm by 75% and 82% of the secondary school students, respectively. More than 85% of the students across the grade levels were aware that alcohol is the most widely abused drug and is the most common cause of fatal car accidents, that drinking alcohol can affect an unborn baby, and that anabolic steroids are addictive (see Table 8). And, a little more than half (52%) were aware of the similarity in alcohol content of different types of alcoholic beverages.

Table 8

Percentage of Students Providing Appropriate Responses Testing Knowledge of AOD Effects, Grades 7-12

	Grade					
Knowledge items	7	8	9	10	11	12
A bottle of beer and a glass of wine have equivalent amounts of alcohol.	49	42	47	57	55	56
Alcohol is the most widely abused drug.	78	79	85	88	89	93
Drinking while pregnant can harm the unborn baby.	94	96	96	97	97	98
Alcohol is the most common cause of fatal car accidents.	93	97	96	97	96	98
Anabolic steroids are addictive.	78	84	86	90	89	92

Use of Tobacco

Cigarette Smoking—Grades 4-6

Eighty-seven percent of grade 4-6 students reported that they had never smoked a cigarette in their lifetime, not even a puff. Only 9% of the students had smoked cigarettes one or two times and 4% had smoked three or more times. Four percent also reported smoking more than 100 cigarettes. Twenty-three percent of the lifetime smokers (about 3% of all students) had smoked a cigarette in the past month, two thirds having smoked one cigarette and one third having smoked from 2 to 5 cigarettes in the past month. This 3% of all students are the students who are the current smokers in elementary schools.

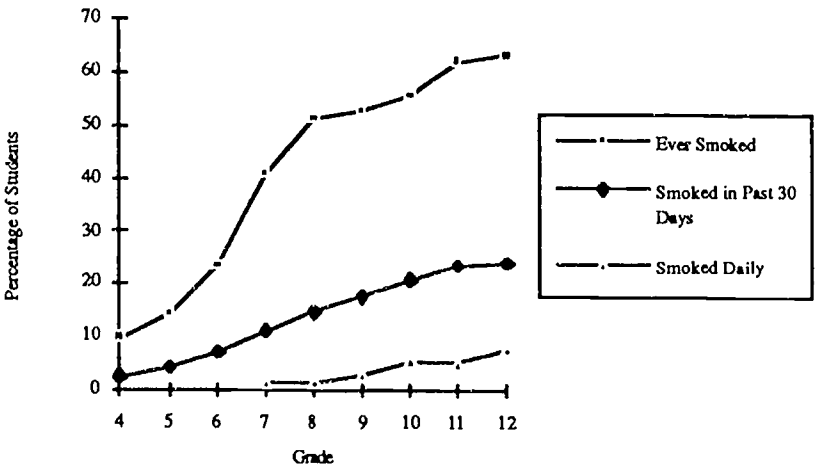
Cigarette Smoking—Grades 7-12

Fifty-six percent of grade 7-12 students reported smoking cigarettes in their lifetime, some as little as one or two puffs (see Figure 24). The criterion for determining if adult smokers have moved from the tobacco experimentation stage to a dependence stage (an addiction to nicotine) with cigarettes is whether the person has smoked more than 100 cigarettes in his/her lifetime. While this is not as accurate an indicator with adolescents, because of the difference in their smoking behavior (lesser amounts on more sporadic occasions), they were asked this question for the purpose of categorizing students on a continuum of use. Seventy percent of the lifetime smokers (about 40% of all students) are experimenters. Conversely, 30% of the lifetime smokers (about 17% of all students) smoked more than the 100 cigarette limit for experimentation.

Across grades 7-12, 34% of the lifetime smokers (about 18% of all students) smoked cigarettes in the 30 days prior to survey administration, the time frame used to determine current smoking status. Thus, two thirds of the lifetime smokers are not current smokers. About half of the current smokers smoked 5 or less days in the 30-day period. Only 21% of the current smokers (and 4% of all students) reported daily smoking. The highest rate of current smokers is at grade 12 with 24% of the students indicating that they had smoked in the past 30 days and the lowest was at grade 7 with a 10% rate.

Figure 24

Percentage of Students Who Ever Smoked, Smoked in Past 30 Days, or Smoked Daily, by Grade



Smokeless Tobacco—Grades 7-12

Sixteen percent of 7th-12th graders reported using smokeless tobacco in their lifetime. Of the lifetime smokeless tobacco users, 22% (about 4% of all students) are current users, half having chewed or snuffed during one or two days in the past month and the other half using from three to nine days. Also, half of the current users reported chewing or snuffing once per day when using in the past month and the other half two to five times per day.

Use of AODs

Grades 4-6

About one fifth (19%) of the elementary school students have drunk alcohol without their parents' knowledge and about one tenth (9%) have been drunk in their lifetime. Six percent have sniffed substances like glue to get high and 4% have smoked marijuana. Students in higher grades were more likely to use AODs that those in lower grades. Because of the sensitive nature of the AOD items, elementary school students were not asked about current use, only lifetime use.

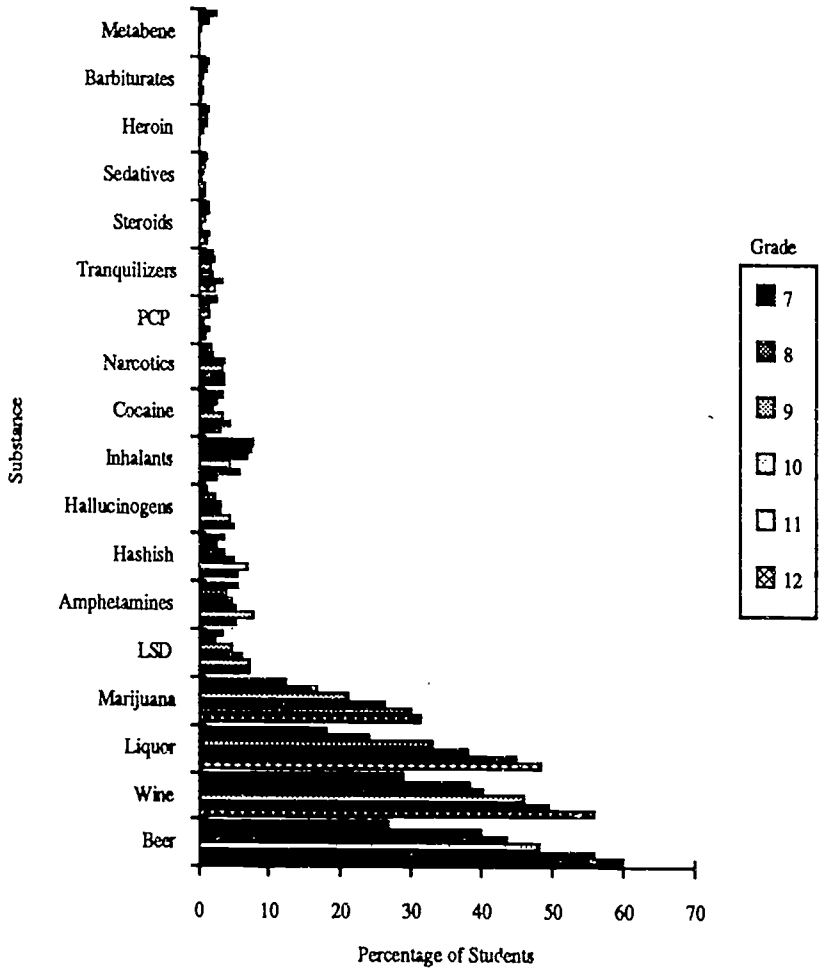
Grades 7-12

Across the secondary grade levels, more than 7 of every 10 students (71%) reported drinking alcohol in their lifetime and 58% drank alcohol in the past six months. About one quarter of the students have had five or more drinks during one occasion in the two weeks prior to the survey. Thirty-seven percent of the students have used illicit substances and 29% have done so in the past six months. When marijuana and hashish were excluded, other illicit drug lifetime use across the grade levels was 23% with 17% of the students using in the past six months.

Beer, wine, liquor, and marijuana were the only AODs used by more than 10% of secondary school students at any grade level during the past six months (see Figure 25). As with elementary students, the trend is for more use by students in higher grades. For example, 27% of the students in grade 7 drank beer in the last six months and 60% of the students in grade 12 did the same. However, there was one exception. The exception is the use of inhalants, which is more prevalent in lower grades. This is not surprising because inhalants are readily available and accessible to younger students. Metabene is a

nonexistent drug used in the survey both to help identify students who are inappropriately responding to the ATOD items and to determine the reliability of the responses.

Figure 25
Percentage of Students Using AODs in the Past Six Months, Grades 7-12

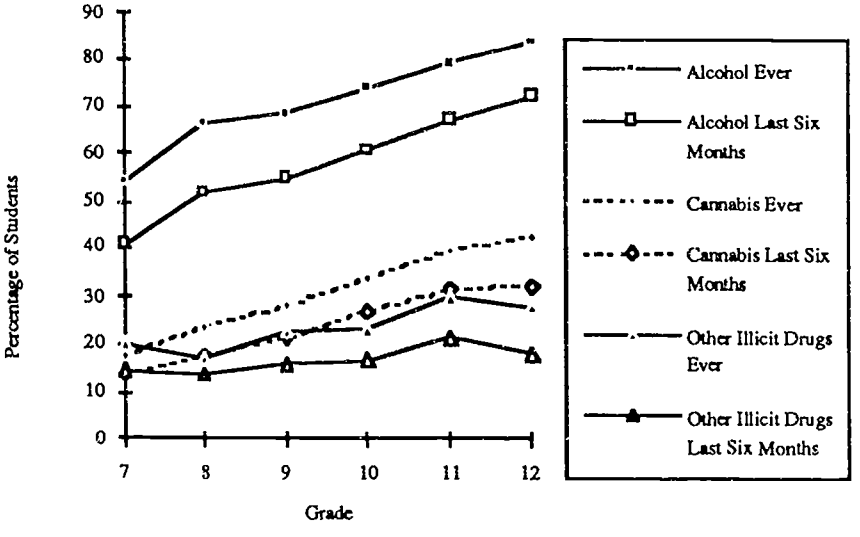


To compare current AOD use levels with the national estimates provided in the Monitoring the Future (MTF) Survey, AOD use levels were aggregated into three composite indices of AOD use: all alcohol, all cannabis (marijuana and hashish), and all other illicit drugs. The lifetime and past six-month use rates all increase by grade level (see Figure 26). In comparison to the national AOD use rates, California secondary school students

generally drink less alcoholic beverages, use more cannabis (marijuana and hashish), and are about equivalent in use of other illicit drugs. For example, 87% of the students in grade 12 nationwide have drunk alcohol in their lifetime compared to 84% of California students in grade 12. The national annual use rate for high school seniors was 76% and the California six-month use rate was 72%. Although these rates are not directly comparable, we have found from other surveys that the two estimates are generally consistent.

Figure 26

Percentage of Students Using Alcohol, Cannabis (Marijuana and Hashish), and All Other Illicit Drugs in Their Lifetime and in the Past Six Months, Grades 7-12



Comparisons With Other Surveys

This section provides comparisons of the 1992-93 DATE results with the 1993-1994 California Student Substance Use Survey (CSS) and the 1993 National High School Senior Survey (NSS), as well as to the findings of these surveys in 1991-92. DATE-CSS comparisons can be made for grades 7, 9, and 11, while DATE-NSS comparisons can be made for grades 8, 10, and 12. Comparison with the CSS is facilitated by the use of many identical items in the two surveys, but additional challenges due to differences in question wording, behaviors assessed, and time periods do arise when comparing DATE and the NSS. For

example, the NSS asks about drug use over the previous year (12 months) while DATE and the CSS measure use in the prior 6 months. However, it is doubtful that there is a significant difference in adolescent recall of drug use between the past 6 and past 12 months. Furthermore, despite concerns of this nature, comparisons are still informative, and overall trends in prevalence rates can be identified.

Comparisons: Cigarette Use

Table 9 and Figures 27 and 28 present comparative data on cigarette smoking. Across all three surveys, there is general agreement that, by the 12th grade, nearly two thirds of students have tried cigarette smoking. Some use in their lifetime was reported by 53% of CSS 11th graders, 64% of DATE 11th graders, 67% of DATE 12th graders, and 62% of NSS 12th graders. Lifetime smoking rates consistently rise across the grade levels in all three surveys (see Figure 27). The CSS rates are the lowest for all grades, being between 10 points and 15 points below the DATE/NSS levels at all grade levels. The DATE and NSS results are nearly identical, except at the 8th-grade level, where DATE is 5% higher.

Table 9

Comparison of Results for Cigarette Use Among 11th and 12th Graders, DATE, CSS, and NSS, 1991-93 (Percentage of Students Who Have Smoked)

	CSS 11th		DATE 11th	
	Percentage		Percentage	
Cigarette use	1991-92	1993-94	1991-92	1992-93
Lifetime	49.1	52.8	46.8	62.2
Past month	28.5	29.1	22.1	23.4
Daily	9.7	12.3	5.2	5.1

	DATE 12th		NSS 12th		
	Percentage		Percentage		
Cigarette use	1991-92	1992-93	1991	1992	1993
Lifetime	51.8	63.2	63.1	61.8	61.9
Past month	24.4	24.0	28.3	27.8	29.9
Daily	5.8	7.2	18.5	17.2	19.0

Figure 27

Lifetime Use of Cigarettes by Grade Level (i.e., "Have you ever smoked a cigarette?")

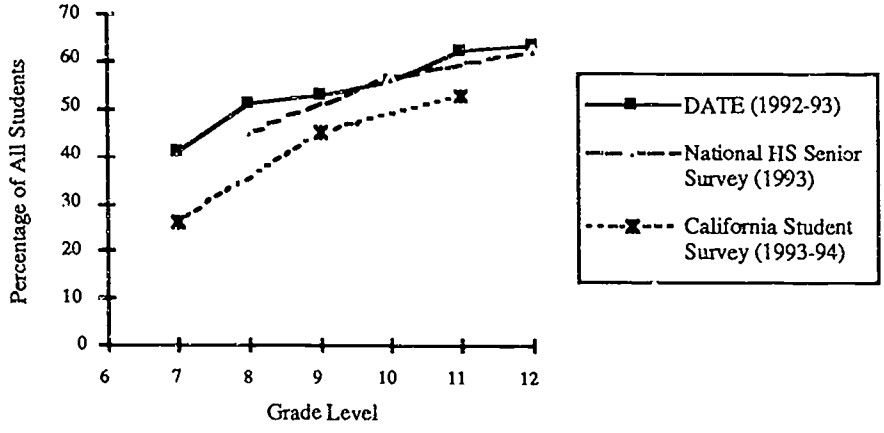
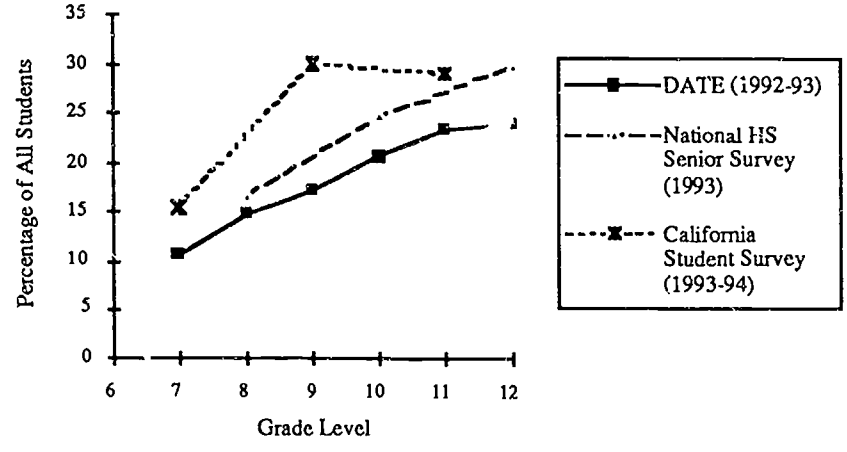


Figure 28

Current Cigarette Smoking by Grade Level (Any Smoking Within the Last 30 Days)



Measures of current smoking (past month) offer a somewhat contradictory view, with DATE students reporting the lowest rates at all grade levels (see Figure 28). NSS rates are similar to the DATE findings, averaging less than 5 points higher, while the CSS results are markedly higher, ranging from 5 points higher at both the 7th and 11th grade levels to 13 points higher at the 9th grade level. Indicators of daily smoking provide a similar picture, with only 7% of DATE 12th graders reporting smoking every day, compared to 12% of CSS students and 19% of NSS students.

The trends between 1991 and 1993 are somewhat muddled, as the CSS data indicate a slight rise in lifetime prevalence (49% to 53%), while the DATE results indicate a much more dramatic increase in only a single-year period (47% to 64% for 11th graders, and 52% to 67% for 12th graders). In contrast, the NSS rates remained steady at 62% in 1992 and 1993, which is 1% lower than the 1991 rate. Thus, it appears that California students are reporting more lifetime use, countering a national trend. However, current smoking rates appear to have remained stable in California, whereas they increased from 28% to 30% nationally. The difference between lifetime and current use can be taken as a gauge of the noncontinuation rate, that is, the proportion of youth who have tried a drug but do not continue its use. Both CSS and DATE surveys show noncontinuation rates have been increasing between 1991 and 1993, from 41% to 44% among CSS 11th graders, 51% to 63% among DATE 11th graders, and from 53% to 63% among DATE 12th graders. In contrast, the NSS noncontinuation rate declined from 55% to 51%. This suggests that, although experimentation rates may have increased in California, we are making relative progress in preventing youth who ever experiment with trying cigarettes from continuing that practice.

In Table 10, AOD prevalence rates for the past two DATE surveys (1991-92 and 1992-93) of students in grades 11 and 12 are compared with results from the two most recent (1991-92 and 1993-94) CSS surveys of students in grades 11 and the past three (1991-1993, inclusive) NSS surveys of students in grade 12.

Table 10
Comparison of Results, 11th and 12th Graders, 1991-93 DATE, CSS, and NSS (by percentage)

	CSS 11th		DATE 11th		DATE 12th		NSS 12th		
Substance use	1991	1993	1991-2	1992-3	1991-2	1992-3	1991	1992	1993
Lifetime									
Alcohol	84.9[a]	79.8[a]	86.3	84.3	88.3	87.4	88.0	87.5	87.0
Been drunk	57.3	61.8	63.8	65.5	70.1	69.8	65.4	63.4	62.5
Marijuana	—	44.2	—	30.4	—	42.6	36.7	32.6	35.3
Inhalants	—	18.9	—	12.6	—	8.8	17.6	16.6	17.4
Cocaine/crack	—	8.4	—	9.5	—	9.6	7.8	6.1	6.1
Amphetamine/stimulants	—	13.3	—	13.2	—	11.1	15.4	13.9	15.1
Psychedelics	—	13.6		14.6		13.1	9.6	9.2	10.9
Any illicit drug	35.3	46.6	37.8	37.8	47.7	42.6	44.1	40.7	42.9
Been intoxicated	31.1	39.6	36.2	37.8	44.6	39.2	—	—	—
Crack	4.5	8.6	—	—	—	—	3.1	2.6	2.6
Past 6 (CSS)/12 (NSS) months									
Alcohol	76.5	74.3	69.6	67.3	71.8	72.3	77.7	76.8	76.0
Any illicit drug	37.7	46.5	33.3	36.2	38.3	37.5	29.4	27.1	31.0
Marijuana	29.4	40.1	29.6	31.7	34.2	31.9	23.9	21.9	26.0
Other illicit drugs[b]	23.2	26.6	18.1	21.4	22.8	18.0	16.2	14.9	17.1
Cocaine	6.6	4.9	3.9	4.8	4.4	3.4	3.5	3.1	3.3
Amphetamine/stimulant	6.8	10.1	6.1	8.0	7.8	5.5	8.2	7.1	8.4
Barbiturates	2.1	1.7	0.4	0.8	0.5	0.8	3.4	2.8	3.4
Inhalants	10.3	13.1	3.7	6.2	5.5	2.7	6.6	6.2	7.0
LSD	8.1	12.2	7.9	7.4	9.4	7.4	5.2	5.6	6.8
Past month									
Alcohol	—	50.1	—	—	—	—	54.0	51.3	51.0
Past two weeks									
Heavy (5+drinks in a row)	26.0	21.6	28.2	32.4	30.6	31.3	29.8	27.9	27.5

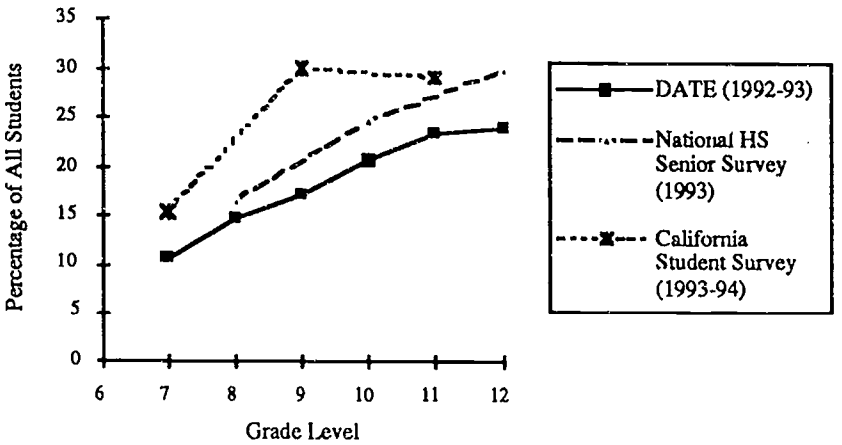
[a]based on data provided for age of initiation through age 16. [b]excluding marijuana/hashish.

Comparisons: Alcohol Use

Alcohol use rates show a great deal of similarity among the three surveys in the 11th and 12th grades, but significant differences are seen in the results from the earlier grades (see Table 10 and Figure 29). Fewer (>10 percentage points lower) DATE students report using alcohol in the past six months than CSS students at both the 7th and 9th grades, yet the use rates are nearly identical by the 11th grade. The results from the NSS closely parallel the DATE results, with a slight gap (of 8%) between the two surveys at the 10th-grade level. All three surveys demonstrate a consistent trend toward increased use with age, which appears to average slightly below 50% upon entry into junior high, rising to three quarters of the students reporting using alcohol by the end of their time in high school.

Figure 29

Use of Alcohol in Last 6 (DATE, CSS) or 12 (NSS) Months



Lifetime use rates for all three surveys are even more similar, with no large differences (more than 5 percentage points) between the surveys at any measurement point. As would be expected, these are slightly higher than the more recent 6- and 12-month rates, starting at about 55% in the 7th grade and rising steadily to around 85% in the 12th grade. Binge or heavy drinking (defined as five or more drinks in a row within the past two weeks or month) was reported at a higher rate by DATE students in 11th and 12th grades (32% and 31%) than either CSS

students in 11th grade (22%) or NSS seniors (28%). Similar differences were found for lifetime drunkenness.

All three surveys show that 6- and 12-month use rates and lifetime prevalence rates remained stable or slightly declined over the period 1991-93. In contrast, there was little consistency in measures of level of use. The DATE survey found a slight increase in heavy drinking and lifetime drunkenness among students in 11th grade but stable rates among those in 12th grade. The CSS reported a decline in heavy drinking but a slight rise in lifetime drunkenness. NSS rates for both declined.

Comparisons: Other Drug Use

Survey differences were greater for use of marijuana and other illicit drugs than for alcohol. DATE students fall in between the other two surveys in 6- and 12-month rates of marijuana use, with CSS students reporting the most use and NSS students reporting the least (see Figure 30). The CSS results indicate a dramatic rise in use rates as students get older, starting from a low of around 10% in the 7th grade and increasing to 40% by the 11th grade. In contrast to this pattern, both the DATE and NSS results indicate a more gradual rise, topping out at around 30% in the 12th grade. Lifetime use of marijuana also shows the same pattern of results, with the CSS finding that 44% of students in 11th grade report having used marijuana, while the DATE survey found that 30% of students in 11th grade and 43% of students in 12th grade report using it, and the NSS found that 35% of students in 12th grade report using it.

Figure 30

Use of Marijuana/Hashish in Last 6 (DATE, CSS) or 12 (NSS) Months

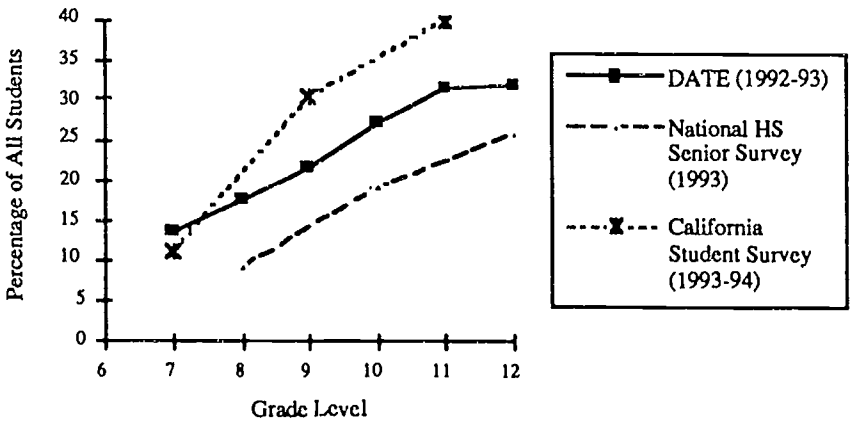


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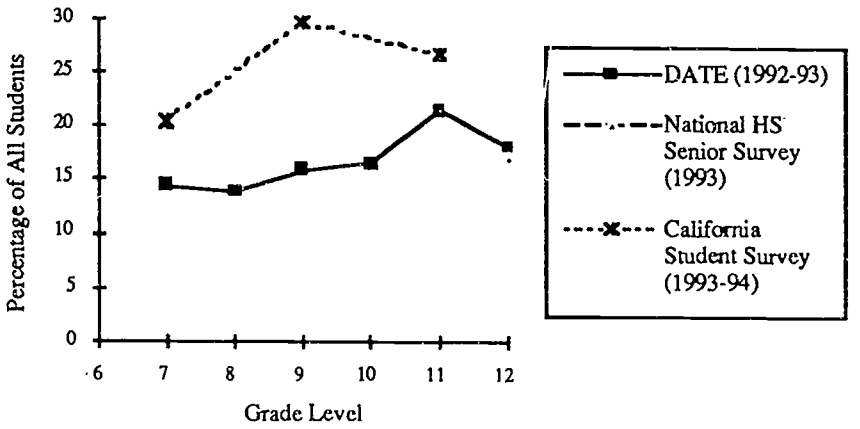
Figure 31 shows a comparison of the rates of recent use of other illicit drugs across the three surveys. Data for the NSS are available only for students in grade 12, and this rate is nearly identical to the DATE students in grade 12 (17.11% vs. 18%, respectively). The comparison between DATE and CSS shows a very similar pattern to the marijuana rates, with the CSS findings ranging from 5% to 10% higher than the DATE findings. The greatest difference is in the reports of 9th graders (CSS, 30%; DATE, 16%), and the smallest discrepancy was for the 11th graders (CSS, 27%; DATE, 21%). Lifetime rates, however, show a slightly different pattern, with all three surveys indicating that around 45% of all high school seniors have tried an illicit substance (see Table 10).

Figure 31

Use of Illicit Drugs (Except Marijuana and Hashish) in Last 6 (DATE, CSS) or 12 (NSS) Months



Between 1991-1993, CSS results indicate a pronounced increase in marijuana use among 11th-grade students. The DATE survey indicates only a slight increase in that grade and a decline among 12th-grade students. Among NSS 12th graders, use declined between 1991 and 1992 but then increased markedly to a rate higher than 1991. Thus both CSS and NSS indicate use, whereas DATE results are more mixed.

Discussion of Findings From the DATE, CSS, and NSS Surveys

The results of the comparative analysis of the DATE Program Survey with the California Student Survey (CSS) and the National High School Senior Survey (NSS) raise a number of points for consideration. First, it appears that experimentation with alcohol is nearly universal, with greater than 85% of students in each survey reporting some use during their lifetime and three quarters reporting use within the past six months. Use rates appear to be relatively stable, with only minor deviations in either direction in any of the most recent surveys. Overall it appears that California has not been participating in the declines in drinking that have been evident nationally. The DATE sample reported lower rates of illicit drug use than the CSS and its estimate may be more in line with the national results from the NSS. It does appear that use of marijuana or hashish in California is a more significant problem than in the rest of the country, with use rates roughly 5 points higher than national rates at each grade level surveyed.

Lifetime reports of cigarette use by DATE students are higher than either the CSS or the NSS. However, current and daily smoking rates are lower than those reported in either of the other surveys. It would appear that this major difference is due to the significant increase in smoking from last year to this year in the DATE responses. This change did not occur in either of the other surveys and appears to be something of an anomaly in the overall context.

Effects of the Current Program on Student Attitudes And Knowledge

Grades 4-6

The school programs seemed to have had some effect on elementary school students' attitudes toward and knowledge of tobacco use. At least four of every five elementary school students learned in school to say no to offers of cigarettes from friends (80%) and that smoking is bad for one's health (see Table 11). Sixty percent of the students also learned to talk with their parents about smoking. An important statistic is that almost one third of the students (32%) reported that they were less interested in smoking as a result of their prevention education.

Table 11

Percentage of Students Identifying Changes in Tobacco-Related Attitudes and Knowledge Due to the DATE Program, Grades 4-6

Attitude and knowledge items	Percentage		
	Grade 4	Grade 5	Grade 6
Learned how to say no to cigarettes	78	82	83
Learned smoking is bad for my health	83	87	83
Learned how to talk to my parents about smoking	62	58	46
What I learned changed my feelings about smoking:			
less interested	30	32	36
more interested	5	5	5

Similarly, school programs seem to have had some effect on elementary school students' attitudes toward and knowledge of AOD use. As a result of their experience in DATE prevention programs in the current school year, at least three fourths of the students felt that: they did not want to use AODs; it was okay to say no to offers from friends of AODs; and AOD use is bad for one's health (see Table 12). Similar to their attitudes toward and knowledge of tobacco, 60% of the students learned to talk with their parents about AODs and 36% were less interested in trying AODs in the future.

Table 12

Percentage of Students Identifying Changes in AOD-Related Attitudes and Knowledge Due to the DATE Program, Grades 4-6

Attitude and knowledge items	Percentage		
	Grade 4	Grade 5	Grade 6
Made me not want to use AODs	72	78	75
Helped me learn to say no to AOD use	77	82	79
Learned that AOD use is bad for health	84	88	85
Learned to talk to parents about AODs	63	63	50
What I learned changed my feelings about AOD use:			
less interested	34	35	41
more interested	5	5	6

Grades 7-12

Secondary school students identified four positive effects regarding tobacco use as a result of their tobacco prevention education. On the average it helped 12% resist peer pressure to use tobacco, 16% became less interested in using tobacco, 23% learned to avoid or reduce tobacco use, and 32% learned about its harmfulness (see Table 13). Very few learned to talk to their parents about tobacco or seek treatment for tobacco use. Considering the rates of current and daily use (see Figure 24), the majority of current and daily cigarette smokers are not learning how to seek out treatment for stopping tobacco use.

Table 13

Percentage of Students Identifying Changes in Tobacco-Related Attitudes, Knowledge, and Intentions Due to the DATE Program, Grades 7-12

Attitude, knowledge, and intention items	Percentage		
	Grade 7	Grade 8	Grade 9
Learned how to avoid/reduce tobacco use	31	27	20
Learned how to resist pressure to use tobacco	12	15	12
Learned how to talk to parents about tobacco	2	2	2
Learned about the health risks of tobacco	31	33	31
Learned how to seek treatment for tobacco use	1	1	0
Changed my interest in using tobacco:			
less interested	23	20	16
more interested	2	1	2

Attitude, knowledge, and intention items	Percentage		
	Grade 10	Grade 11	Grade 12
Learned how to avoid/reduce tobacco use	22	19	20
Learned how to resist pressure to use tobacco	11	9	11
Learned how to talk to parents about tobacco	1	1	1
Learned about the health risks of tobacco	32	32	36
Learned how to seek treatment for tobacco use	1	1	0
Changed my interest in using tobacco:			
less interested	18	11	11
more interested	2	2	1

Positive effects similar to those reported for tobacco were identified by students as AOD-related outcomes resulting from their AOD prevention education. On the average, 13% were helped in resisting peer pressure to use AODs, 17% became less interested in using marijuana and 22% were less interested in using alcohol, 24% learned about AODs' harmfulness, and 26% learned to avoid AODs or reduce AOD use (see Table 14). Also, strategies for talking with parents about AOD use and seeking treatment were generally not learned in their prevention program experience. Again, as with tobacco, there is a great disparity between the number of students using AODs and the few who learned to seek treatment.

Table 14

Percentage of Students Identifying Changes in AOD-Related Knowledge, Attitudes, and Intentions Due to the DATE Program, Grades 7-12

Attitude, knowledge, and intention items	Percentage		
	Grade 7	Grade 8	Grade 9
Learned to avoid or reduce using AODs	32	30	25
Helped me resist peer pressure to use AODs	15	17	13
Learned harmfulness of AODs	25	24	22
Helped me seek treatment/counseling for AOD use	3	2	1
Helped me talk with my parents about AODs	6	4	3
Made me want to try AODs	2	3	4
Changed my interest in trying alcohol:			
less interested	26	26	24
more interested	5	4	3
Changed my interest in trying marijuana:			
less interested	22	23	18
more interested	4	3	3
Learned to avoid or reduce using AODs	28	17	24
Helped me resist peer pressure to use AODs	13	11	14
Learned harmfulness of AODs	29	24	22
Helped me seek treatment/counseling for AOD use	2	1	1
Helped me talk with my parents about AODs	3	3	4
Made me want to try AODs	3	2	2
Changed my interest in trying alcohol:			
less interested	21	18	20
more interested	4	3	3
Changed my interest in trying marijuana:			
less interested	17	12	13
more interested	4	4	3

There appears to be a need to emphasize strategies on how to seek treatment in prevention programs targeting secondary school students. This is particularly important given that 24% of all secondary school students have had five drinks or more in a row on at least one occasion in the two weeks preceding the survey. Part of the strategy will involve dealing with denial because it needs to be addressed in encouraging student substance abusers to seek treatment. Denial is apparent because only 3% reported having or feeling the need to have treatment or counseling for their AOD use.

1991-93 ATOD PREVENTION EDUCATION OUTCOMES

Changes in Program Delivery From 1991-92 to 1992-93

In determining the impact that resulted from the implementation of prevention programs in the schools, SWRL examined changes in: (a) program activities and services for students; (b) students' attitudes toward ATOD use; (c) students' knowledge about the harms of ATODs; and (d) students' behavior of ATOD use.

There were opposing trends of student exposure to ATOD curricula and activities for elementary and secondary schools. Whether staff focused on tobacco-related curricula and activities or on those related to AOD use, there was a trend for elementary school students to report more exposure in 1992-93 than in 1991-92 (see Figures 32 and 33) and secondary school students to report less exposure in 1993 (see Figures 34 and 35). For example, at the elementary school level, 14% more students in 1993 in grades 4 and 5 were exposed to assemblies related to tobacco prevention than in 1991-92. Also, 7% more elementary school students participated in antidrinking clubs in 1992-93 than in 1991-92. With the increases in activities at the elementary schools, reflecting a redirection of services, there were few increases in exposure to any of the prevention activities from 1991-92 to 1992-93 at the secondary school level. This was the result of the loss of CADPE funds that lead to a reduction in overall program services.

Figure 32

Differences Between 1991-92 and 1992-93 in Percentage of Students Experiencing Tobacco-Related Events, Grades 4-6 (positive percentages indicate increases for 1992-93)

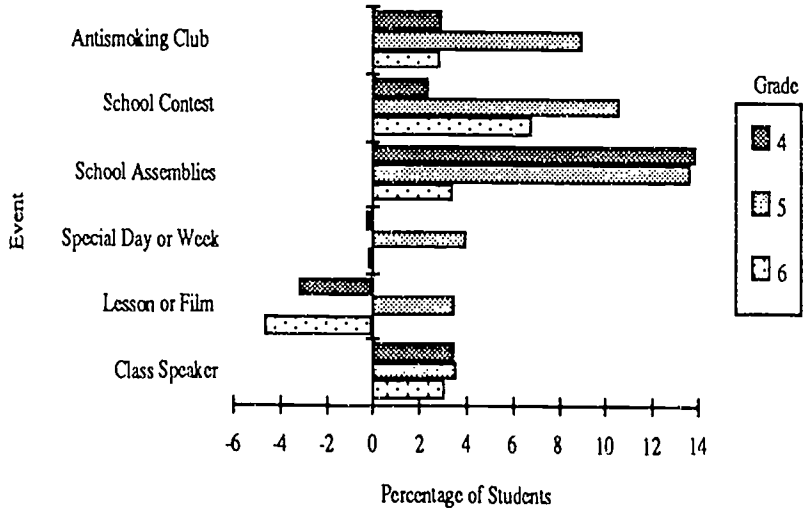


Figure 33

Differences Between 1991-92 and 1992-93 in Percentage of Students Experiencing AOD-Related Events, Grades 4-6 (positive percentages indicate increases for 1992-93)

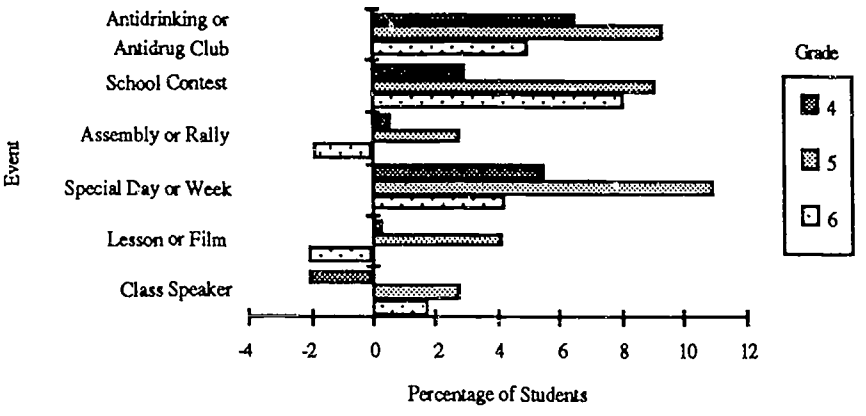


Figure 34

Difference Between 1991-92 and 1992-93 in Percentage of Students Experiencing Tobacco-Related Events, Grades 7-12 (positive percentages indicate increases for 1992-93)

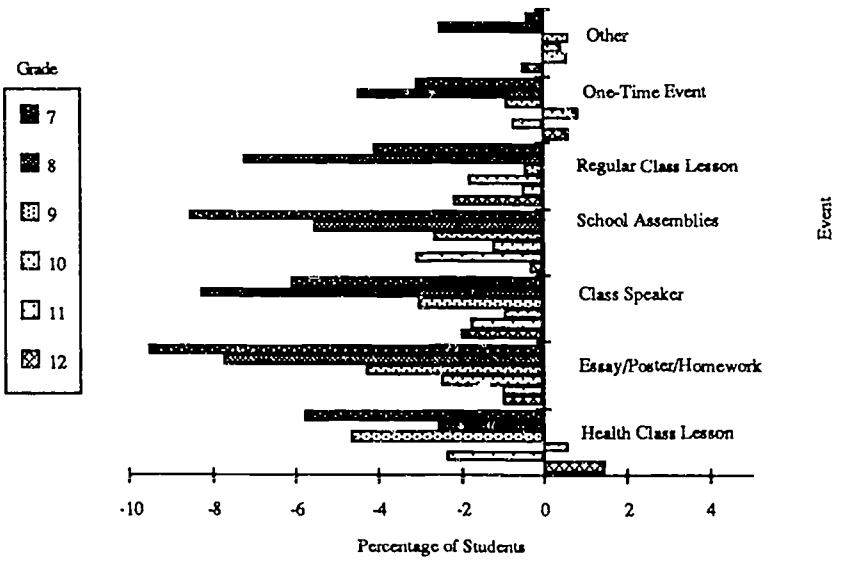
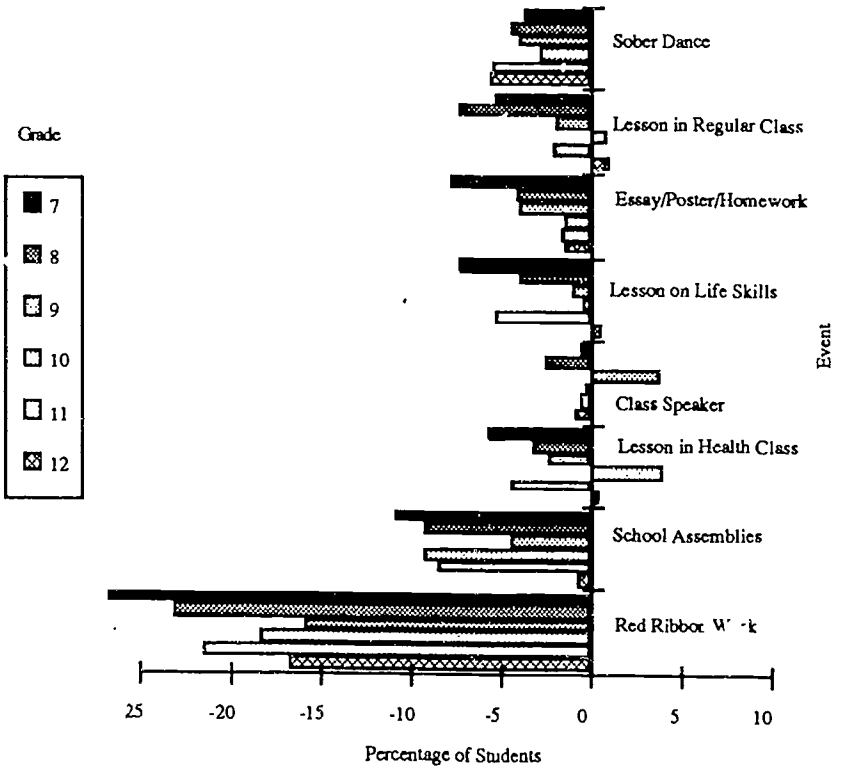


Figure 35

Difference Between 1991-92 and 1992-93 in Percentage of Students Experiencing AOD-Related Events, Grades 7-12 (Positive percentages indicate increases for 1992-93)



Changes in Students' Attitudes Toward and Knowledge of Tobacco From 1991-92 to 1992-93

Generally, the attitudes toward tobacco and the knowledge about tobacco remained constant from 1991-92 to 1992-93. Although the data from 1991-92 to 1992-93 are not directly comparable because of a slight change in the survey, students generally believed that daily use of cigarettes is harmful, regardless of the number of cigarettes smoked daily and how many years people smoked. Less than 4% of the students believed that daily smoking causes no harm. Most of the students understood that cigarette smoke contains carbon monoxide and affects a person's heart. However, the majority of the students (a little over half) still have the incorrect impression that most students their age smoke cigarettes, despite research findings that state this is not true.

Changes in Students' Attitudes Toward and Knowledge of AODs From 1991-92 to 1992-93

Generally, the attitudes toward AODs and the knowledge about AODs remained constant from 1991-92 to 1992-93. During both 1991-92 and 1992-93, most students believed that frequent drinking of alcohol and use of marijuana were harmful. Only a very small percentage (all less than 7%) believed that frequent use of these substances caused no harm. The majority of students knew about the effects of drinking alcohol. At least 80% of the students knew that: (a) alcohol is the most widely abused drug; (b) the effects that drinking has on a pregnant woman's unborn baby; and (c) alcohol is the most common cause of fatal car accidents. In addition, about half of the students understood that a bottle of beer and a glass of wine contain about the same amount of alcohol. In addition, 87% of the students knew that a person could become addicted to anabolic steroids.

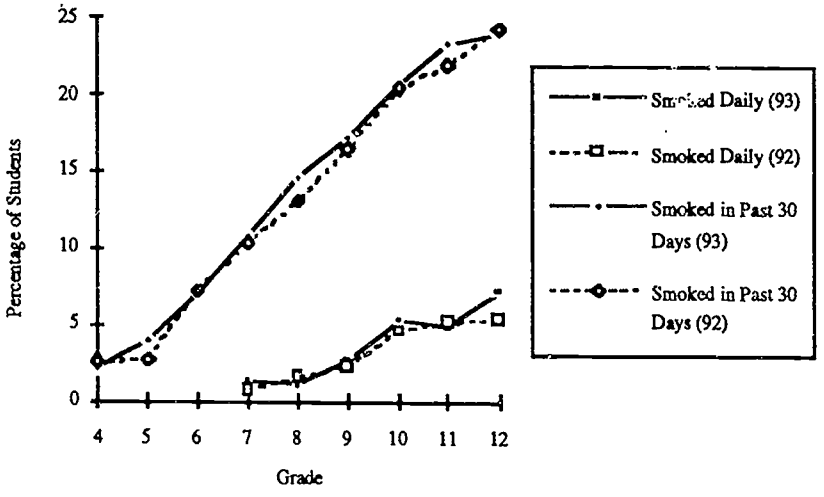
Changes in Students' Substance Use From 1991-92 to 1992-93

Changes in Tobacco Use

Generally, tobacco use for elementary and secondary school students remained constant from 1991-92 to 1992-93. In 1991-92, 12% of the elementary school students reported smoking during their lifetime; in 1993, 13% reported similar behavior. This lack of difference also was true for current smoking (in the past 30 days) rates: 14% in 1991-92 and 13% in 1992-93. Rates of current and daily smoking for secondary school students for the two years nearly match (see Figure 36). For example, at grades 8, 10, and 12, the rates of smoking in the past 30 days in 1991-92 were 13%, 21%, and 24%. In 1992-93, the rates for these same grade levels were 15%, 21%, and 24%. There were no significant differences for either rate at any of the grade levels.

Figure 36

Percentage of Students Who Smoked Daily or Smoked in Past 30 Days, by Grade, 1991-92 to 1992-93

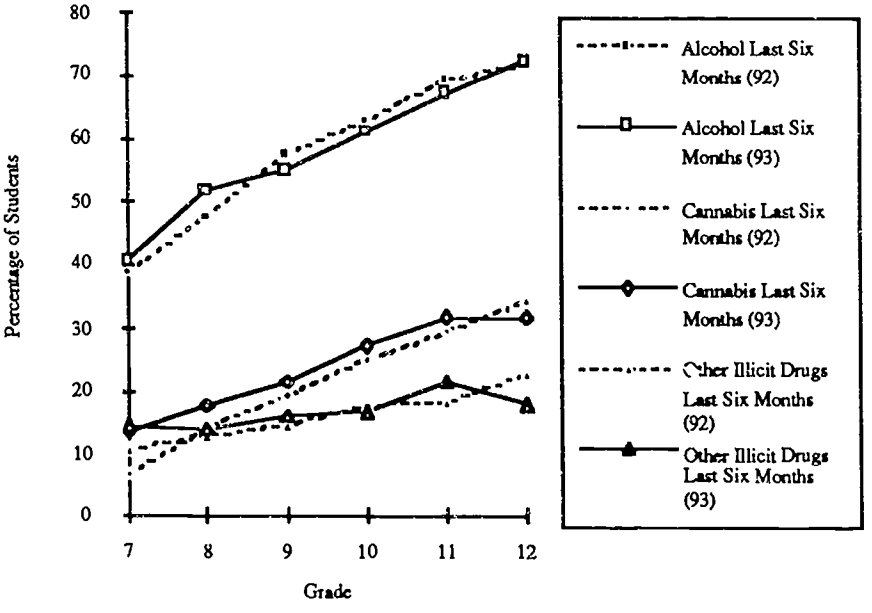


Changes in AOD Use

AOD use between 1991-92 and 1992-93 remained constant for the most part. Lifetime use rates across the elementary grades in 1991-92 were 20%, 4%, and 6% for alcohol consumption (without parental knowledge), smoking marijuana, and sniffing glue, respectively. In 1992-93, the rates for the elementary grades were 19%, 4%, and 6%. Rates of AOD use for secondary school students in the past six months, as summarized by the alcohol (beer, wine, and liquor), cannabis (marijuana and hashish), and other illicit drug indices, were virtually identical (see Figure 37). The one exception is in the percentage of students using alcohol heavily, that is, consuming five or more drinks in a row on at least one occasion in the two weeks preceding the survey. This rate increased from 19% to 24%.

Figure 37

Percentage of Students Using Alcohol, Cannabis (Marijuana and Hashish), and All Other Illicit Drugs in the Past Six Months in 1991-92 and 1992-93, Grades 7-12



WHAT WERE THE EFFECTS OF THE LOSS OF CADPE FUNDS AND THE THREAT OF THE LOSS OF TUPE FUNDS ON ATOD PREVENTION EDUCATION?

In 1992, the Office of Criminal Justice Planning (OCJP) withdrew its funding support (CADPE) for school-based prevention education. These funds were aimed at ATOD prevention for California's elementary and middle school students. During this same time, the funds available from TUPE were threatened. During the budget process in July 1992, the California governor's budget reflected that no monies would be allocated to any educational programs. Monies for educational programs were not approved until the end of September, when the governor's budget was passed. At that time, funds were requested for TUPE, reflecting an 8% decrease from the previous year's allocation. Thus, there was a three-month delay in TUPE funds, a delay that occurred during a critical time of planning and hiring staff for the 1992-93 DATE programs. Because it was anticipated that this withdrawal of CADPE funds and the threat of losing TUPE funds would have a significant impact on some DATE programs, DATE staff (primarily coordinators) were asked to complete a survey about the possible effects that these funding changes for ATOD prevention and intervention services would have on the DATE programs. The effects on California's

DATE programs are presented below, both at the district and school level.

The Effect of the Loss of CADPE Funds on Prevention Education

In general, 88% of the districts reported they received CADPE funds for 1991-92, the previous school year, while 9% reported not receiving CADPE funds for that year. Of the schools in CADPE-recipient districts, 58% reported receiving CADPE funds in the 1991-92 school year, while 30% reported not receiving CADPE funds that year. The remaining districts (3%) and schools (12%) did not indicate whether they were CADPE recipients. Seventy-six percent of the districts and 84% of the schools that received CADPE funds in the 1991-92 school year rated the effect of the loss of CADPE on the DATE Program as very negative or somewhat negative.

Overall Effect of the Loss of CADPE Funds on DATE

With less money available to fund the DATE Program, 70% of the CADPE-recipient districts reported setbacks in carrying through the DATE Program as planned. Sixty-four percent of these districts reduced portions of their DATE Program and a few districts delayed (6%) or canceled (4%) implementation of new ones.

Sixty-one percent of CADPE-recipient schools reported an impact on their DATE Program compared to 31% of non-CADPE-recipient schools. The reduction of some portions of the DATE Program was the most common action taken by both CADPE-recipient schools (58%) and non-CADPE-recipient schools (27%), followed by canceling or delaying the implementation of some new portions of the DATE Program.

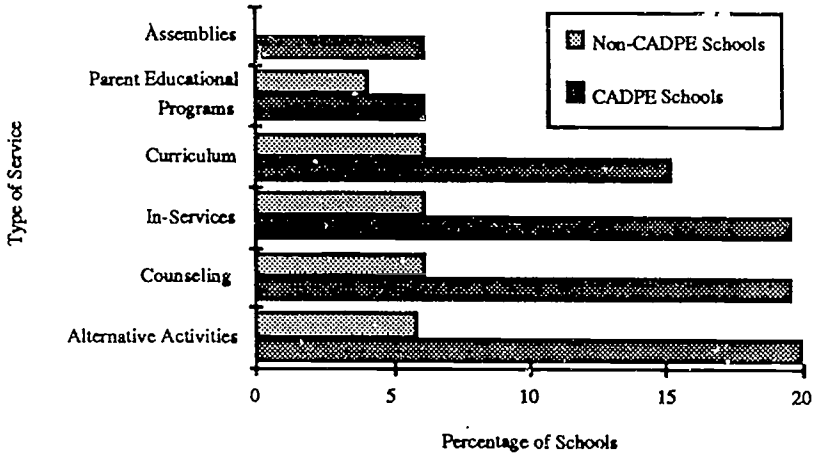
Effect of the Loss of CADPE Funds on DATE Services

Most commonly, CADPE-recipient districts reduced programs concerned with alternative activities (26%), followed by staff in-services (12%) and counseling services for students (19%).

Similarly, most of the reduced or canceled programs in CADPE-recipient schools and non-CADPE-recipient schools were related to alternative activities, counseling services to students, and staff in-services. CADPE, in general, funded the area of direct services for students in elementary and middle schools. Its loss lead to the reduction of these services as depicted in Figure 38.

Figure 38

Cancellation or Reduction of Services Due to CADPE Loss in CADPE-Recipient and Non-CADPE-Recipient Schools



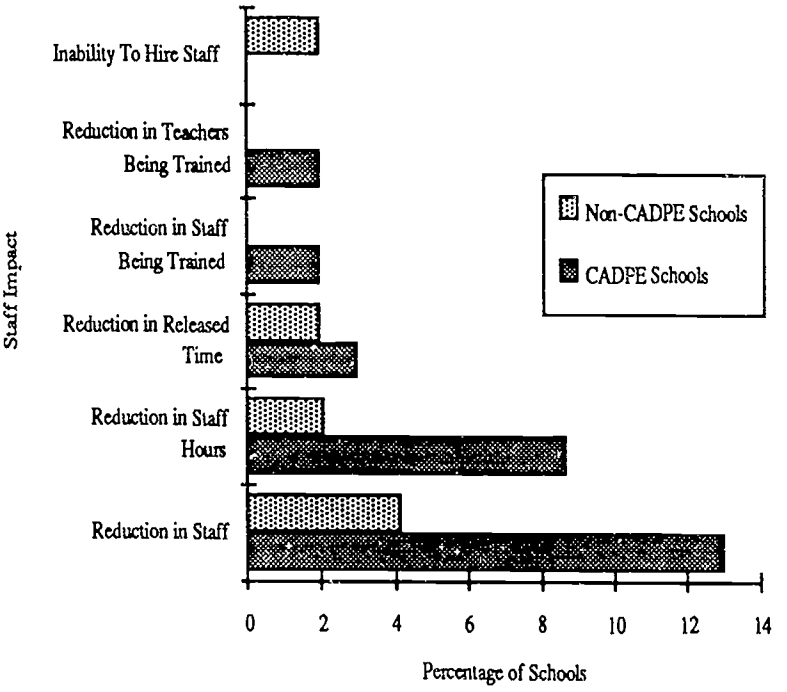
Effect of the Loss of CADPE Funds on DATE Staff

Thirty-seven percent of the CADPE-recipient districts reported that the loss of CADPE funds negatively impacted their staff. Specifically, 29% of the districts reported a reduction in their DATE staff; most of those laid off were counselors followed by law enforcement personnel. The relatively high reduction of counselors was because their salaries were largely paid for by CADPE. Nine percent of the districts reduced the time spent by their staff on DATE-related activities, while others (6%) reduced staff-released time.

Similarly, in both CADPE-recipient schools and non-CADPE-recipient schools, the loss of CADPE affected funding for school personnel working on the DATE Program. Twenty-three percent of CADPE-recipient schools and 8% of non-CADPE-recipient schools reported a negative impact on school staff, especially regarding a reduction in the number and the time spent by them on the DATE Program (see Figure 39).

Figure 39

Effect of Loss of CADPE Funds on DATE Staff in CADPE-Recipient and Non-CADPE-Recipient Schools



Effect of the Loss of CADPE Funds on Instructional/ Noninstructional DATE Materials

Instructional and noninstructional materials (e.g., books for curriculum and audiovisual equipment), which are essential to the DATE Program, also were impacted by the loss of CADPE funds. Sixteen percent of the districts receiving CADPE funds reduced the amount of instructional/noninstructional materials used, while others (10%) were unable to purchase such materials.

Twenty-five percent of CADPE-recipient schools and 10% of non-CADPE-recipient schools reported a similar impact on instructional/noninstructional DATE materials. Most commonly, schools had to reduce the amount of materials used for the DATE Program. Some CADPE-recipient schools were unable to purchase DATE materials, and others used previously owned materials.

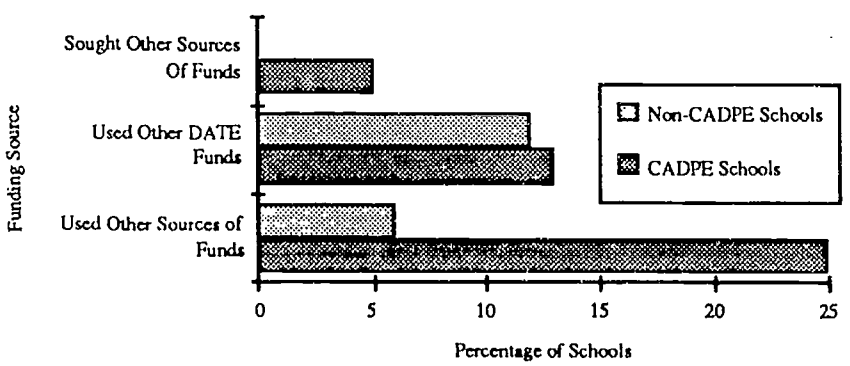
Response to the Loss Of CADPE Funds

In spite of the loss of CADPE funds, districts tried to continue implementing the DATE Program to the best of their capabilities. Six percent of the CADPE-recipient districts coped with this loss by replanning and redesigning the DATE Program to focus on a more limited scope. Some CADPE-recipient districts (10%) explored other funding sources through submitting grant proposals to the state as well as seeking financial support from the community. Almost one quarter of the districts reported the use of other available funds, such as general funds and city funds, and 16% reported the use of other DATE funds (i.e., TUPE and DFSC).

School and district responses to the loss of CADPE funds were similar. Twenty-five percent of CADPE-recipient schools and 6% of non-CADPE-recipient schools depended on additional funds from school-site funds, general funds, and city funds, while 13% of CADPE-recipient schools and 12% of nonrecipient schools used other DATE funds (TUPE and/or DFSC). Five percent of CADPE-recipient schools reported seeking other supplemental funds from various sources such as foundations, corporate sponsors, and local service clubs (see Figure 40).

Figure 40

Obtaining Other Funds in Response to the Loss of CADPE Funds in CADPE-Recipient and Nonrecipient Schools

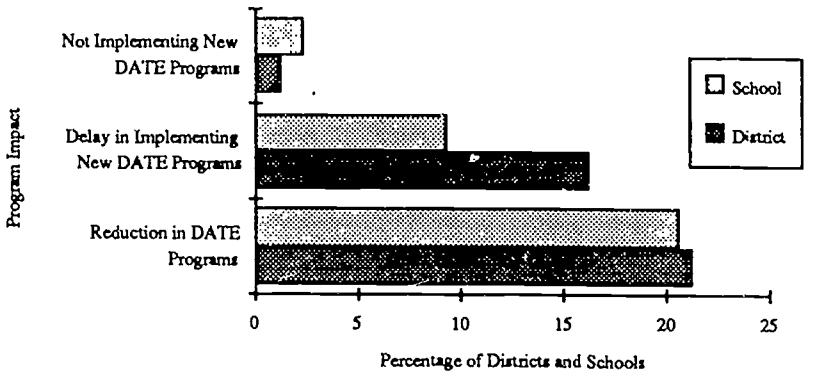


The Effect of the Threat of Losing TUPE Funds on Prevention Education

Overall Effect of the Threat of Losing TUPE Funds on DATE

The threat of losing TUPE funds hindered districts and schools from making long-term plans and decisions regarding the DATE Program. Many districts and schools did not integrate programs for fear they would not be funded consistently. As a result of the delay in receiving TUPE money in 1992-93, the DATE Program as a whole was impacted negatively. Thirty-one percent of districts and 29% of schools responding to the survey reported such an impact. Districts and schools had to reduce some portions of their existing DATE Program, and delay, and/or cancel implementing new ones (see Figure 41).

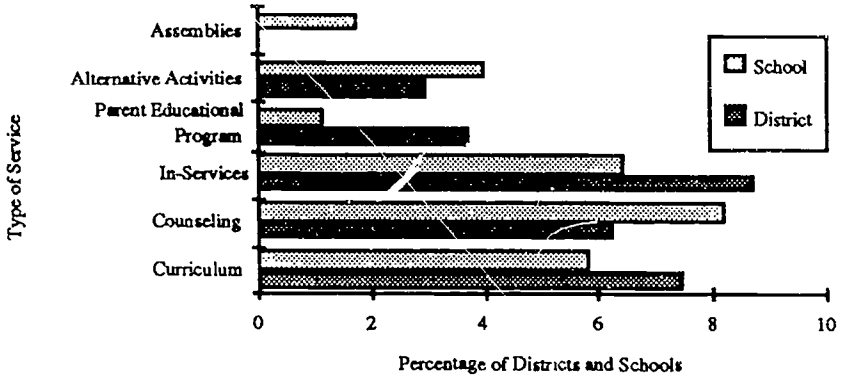
Figure 41
Effects of the Threat of Losing TUPE Funds on Total DATE Program



Effect of the Threat of Losing TUPE Funds on DATE Services

Twenty-one percent of the districts and schools reported a reduction in some portions of the DATE Program, especially those related to curricula, direct counseling services, and staff development services (see Figure 42).

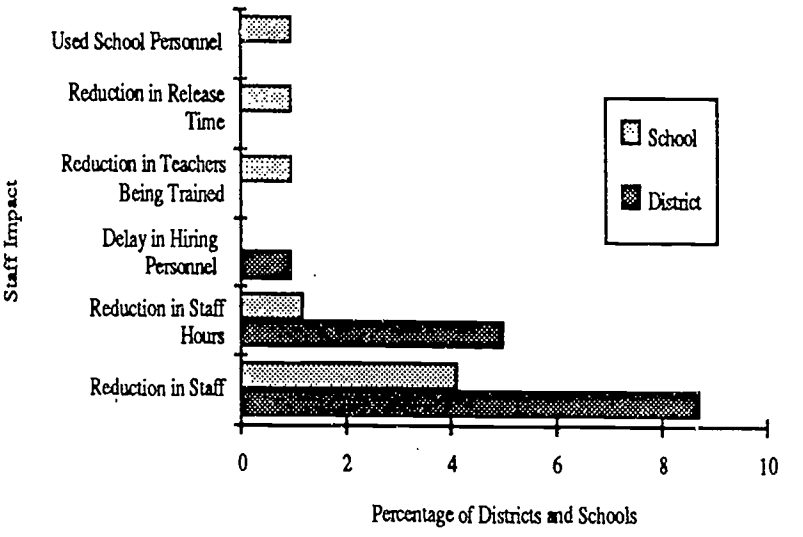
Figure 42
Cancellation or Reduction of Services Due to the Threat of Losing TUPE Funds



Effect of the Threat of Losing TUPE Funds on DATE Staff

Five percent of the districts and schools reported reductions in or cancellation of program funding. This impacted staff funding that, in turn, affected the DATE staff. Fifteen percent of districts and 7% of schools reported a negative impact on the DATE staff. These districts and schools reported reductions in the DATE personnel and/or the time spent on the DATE Program. Other districts had to delay hiring additional staff needed for the program, as shown in Figure 43.

Figure 43
Effect of the Threat of Losing TUPE Funds on DATE Staff

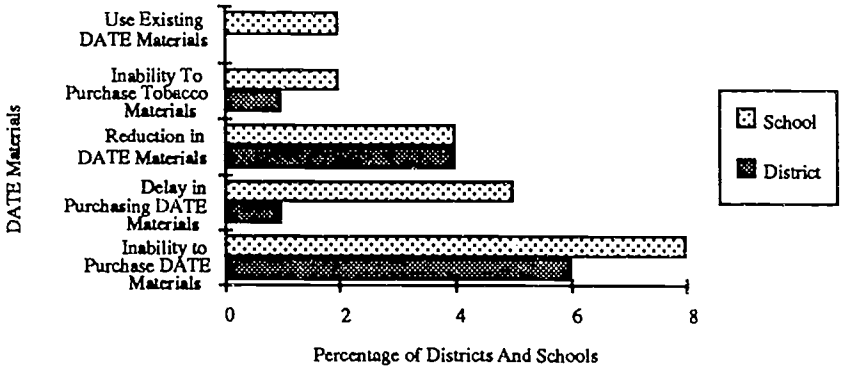


Effect of the Threat of Losing TUPE Funds on DATE Instructional and Noninstructional Materials

Instructional and noninstructional materials used for the DATE Program also were impacted by the threat of losing TUPE funds. Eleven percent of districts and 15% of schools changed their purchasing habits. Most commonly, they were unable to purchase the necessary instructional and noninstructional DATE materials. Others had to delay purchasing such materials or they had to reduce the amount of materials used for the DATE Program (see Figure 44).

Figure 44

Effects of the Threat of Losing TUPE Funds on Instructional and Noninstructional DATE Materials

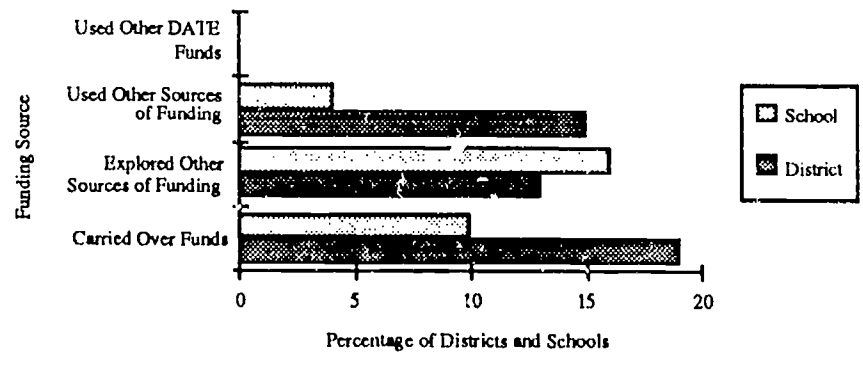


Response to the Threat of Losing TUPE Funds

Six percent of the districts and 4% of the schools reported reductions in the amount of money spent on the DATE Program. Nineteen percent of the districts and 10% of the schools responded to the threat of losing TUPE funds by retaining money that could be carried over for the 1993-94 school year. Districts (13%) and schools (16%) also sought other funding sources (e.g., community, foundations, cities) to support the DATE Program. Fifteen percent of districts and 4% of schools reported the use of available funds, other than DATE funds, to keep the DATE Program intact (see Figure 45).

Figure 45

Obtaining Other Funding in Response to the Threat of Losing TUPE Funds



The loss of 1992-93 CADPE funds had a negative impact on CADPE-recipient districts and their corresponding schools. It was noted that the DATE Program affected not only CADPE-recipient schools but also non-CADPE-recipient schools. The following are two possible explanations for this effect on non-CADPE-recipient schools:

1. As a few DATE coordinators mentioned, money was redirected from high schools to elementary and middle schools (that in general received CADPE funds) to maintain portions of the program. It is quite feasible that this occurred more often than mentioned as a method for coping with the loss of CADPE funds.

2. With the loss of CADPE funds, many of the districts had reductions and/or cancellations of DATE Program funds. Schools' share of funds for DATE was therefore reduced regardless of whether they were CADPE-recipients.

From discussions with some DATE coordinators, it appears that the brunt of the funding changes were not felt during the 1992-93 school year. Because of carry-over money and the supplies already available, schools and districts were able to weather the current school year. Many DATE coordinators stated that the funding changes would affect programs more drastically during the 1993-94 school year when they had depleted the cushion provided by carry-over money, and new materials would be needed.

FINDINGS AND RECOMMENDATIONS

The DFSC and TUPE investment in DATE produces more than a seven-fold return in support, which consists mainly of school district general fund expenditures for teachers, aides, and counselors. It also includes funds, time, and other resources contributed by a wide range of stakeholders. The investment also has resulted in intensive training of school staff, and broad implementation of curricula, as well as increased knowledge of the harms of ATOD use. These resources are reaching the desired audience: Schools with higher rates of student ATOD use are spending more for prevention curricula, student identification and referral, and positive alternative activities.

Student ATOD use rates during the 1992-93 school year remained constant with those for the previous year. This is true with the exception of the measure for occasional excessive heavy drinking (drinking five or more drinks during one occasion in the past two weeks). There was a statistically significant difference observed between the two years. In this case, the percentage of students drinking as occasional excessive drinkers was higher in 1992-93. All other ATOD rates were stable.

At first glance, stable or constant ATOD use rates may appear to indicate that the DATE Program is not having a positive impact. However, the context in which this stability occurred makes the lack of change seem an impressive accomplishment. This context is composed of economic and environmental factors: decreased program funding, widespread advertisement and promotion campaigns by the tobacco and alcohol industries, and increasing national trends in ATOD use.

Context of the 1992-93 DATE Program

External Context: Economics

In 1993, the tobacco and alcohol industries spent roughly $655 million advertising and promoting their products. This estimate is based on the relatively safe assumption that advertising expenditures for tobacco and alcohol product campaigns are consistent from year to year (unless a major new product line is introduced, which has not occurred since the Joe Camel campaign and the introduction of wine coolers). According to the latest figures, the tobacco industry spent $1.2 million each day or $438 million in 1990 to advertise and promote their products in California (Slade, 1992). The standard national estimate of current alcohol industry expenditures for advertisements and promotions is about $2 billion (G. Hacker, Center for Science in the Public Interest; personal communications, December 1993; H. Chinn, California Council on Alcohol Problems, personal communication, December 1993). More precise estimates can be obtained from advertising industry reports. The top 10 alcoholic beverage media advertisers expended $1.074 billion in 1992 (Gallo, 1993) on advertisements (e.g., TV, radio, newspapers, billboards), and the alcohol industry spent another $732.6 million in unmeasured promotions (R. Hammond, Alcohol Research Information Service, personal communication, December 1993) for a minimum total of about $1.8 billion nationally (a very conservative estimate). With roughly 12% of the national population, California spent about

$217.2 million in 1992 for alcohol advertisements and promotions. While some may argue that using the full amount of the advertising campaigns is a misrepresentation, there are several reasons to contend that these expenditures are aimed at adolescents. First, almost all tobacco and alcohol initiation begins by the age of 18. Second, it has long been concluded that these ads and promotions, particularly those for tobacco, are aimed at initiation of use and not at brand switching. Third, with very few exceptions, these advertisements are accessible by adolescents. And fourth, promotions, which account for about 50% of all advertisement and promotion expenditures, by all appearances, are aimed at a very young audience.

In addition to advertisements and promotions, another method was employed by the tobacco industry to induce more cigarette consumption in 1993: price reductions. A price war began when the cost of Marlboro cigarettes was reduced by about 20%. The other major brands quickly followed suit in an effort to compete with each other and their real nemesis: less expensive generic brands that were rapidly gaining market share. It is interesting to note that the first price reduction was announced at the same time an increase in federal tax on cigarettes was proposed. The tobacco industry is very aware of the effect that increased prices has on consumption, particularly among adolescents.

Internal Context: Economics

While the funding for the DATE Program was minimal to begin with, it was drastically altered by the discontinuation of CADPE funds by OCJP in 1992-93, one of the DATE Program's three original funding initiatives. To make matters worse, the TUPE monies were threatened and schools were aware of that threat, causing disruption to program planning. The schools did eventually receive TUPE funds, reduced by about 25% from the previous year, but after a substantial delay of approximately three months. The loss of CADPE funds and the threat of losing TUPE funds affected DATE programs throughout California in several negative ways: (a) programs were redesigned (e.g., downsized); (b) there were reductions in or cancellations of direct services to students (e.g., curricula, counseling, positive alternative activities), the staff needed to deliver these services, as well as in-services and staff development; and (c) schools were unable to replenish or buy new program materials. There is

every indication that schools will be financially strapped even more in 1993-94 because the cushion provided by carry-over money in 1992-93 no longer exists. The negative impact of these funding changes were most noticeable in secondary schools, where students reported receiving less of each service category.

External Context: Social Norms

According to the most recent California Department of Health Services findings (Pierce, Evans, Farkas, Cavin, Berry, Kramer, Kealey, Rosbrook, Choi, & Kaplan, in press), the rate of adult current cigarette consumption has leveled off at approximately 20%. This reduction in use (from between 30% to 40% prior to 1980) is setting a better example for our youth. The reduction in adult usage has been accompanied by a marked increase in the dissemination of information regarding the prevalence of adolescent and adult smoking and the effects of both smoking on the smoker and second-hand smoke on innocent bystanders. It also has been supplemented by a gamut of controls over tobacco use and availability that, in combination, indicate that cigarette consumption is no longer as socially desirable. These controls include: bans on indoor smoking both in public buildings and at work sites; more stringent restrictions on tobacco promotions; increased state and (proposed) federal taxation on tobacco; laws making access to vending machines increasingly more difficult; and pressure on retail distributors to ascertain the age of potential customers.

Compared to tobacco control, there has not been as much of a concerted effort in California to control alcohol consumption. While reductions in total liquor consumption for the population have been observed, wine and beer use has been relatively unaffected. Adults and adolescents are more likely to consume alcohol than not, and this fact is not lost on students. Only one third of the elementary school students thought that adults do not drink every day. While three quarters of the secondary school students thought that frequent alcohol consumption produces moderate or great harm, substantially more than half have consumed alcoholic beverages in the past six months and almost one of every four has drunk five or more drinks in the past two weeks. Thus, if the perceived norm even closely approximates reality, alcohol consumption is thought to be common and somewhat acceptable.

External Context: Trends in National Adolescent ATOD Use And Related Attitudes

The 1993 findings of the MTF study revealed across-the-board statistically significant increases in ATOD use for students in grades 8, 10, and 12 (Johnston, Bachman, & O'Malley, 1994). This was accompanied by decreases in student perceptions of the dangers of ATOD use. In comparison, although the DATE Program Survey is not capable of detecting changes as small as the MTF—California student ATOD use rates were stable. Also, perceived harmfulness of use and knowledge about the dangers of use, two commonly accepted correlates of use, were as high in 1993 as they were in 1992.

Internal Context: Program Definition

The DATE Program is similar to the elephant in the traditional Sufi story: The definition differs according to who is touching it and who is describing it. This lack of programmatic clarity and definition is partly the result of school districts customizing their program to meet local needs and partly due to differences among school districts in conceptualizing how the program should be implemented and in their knowledge of what works effectively in prevention. In this time of ever decreasing resources, school districts need technical assistance regarding program efficacy and how to align the intent of the program with its implementation.

Summary

Considering that student ATOD use is increasing nationally and that the tobacco and alcohol industries are outspending prevention advocates by roughly 140% (even after adding to the prevention pie, the monies disbursed by the California Department of Health Services for its media campaign and community prevention efforts), one would expect use to increase. However, student ATOD use has remained stable from last year to this year. In the face of such well-financed opposition, the DATE Program is holding its own despite an approximate 25% reduction in state TUPE funds from the previous year.

Reaching for Effective Prevention And Intervention Strategies

We have learned from research findings that several strategies can maximize the effectiveness of prevention programs. These strategies include: booster sessions, student assistance programs (SAPs), tobacco cessation programs, and community-based efforts.

The effects of prevention curricula on ATOD use rates rapidly decay unless booster sessions are delivered (Bell, Ellickson, & Harrison, 1993; Botvin, Baker, Filazzola, & Botvin, 1990). Botvin et al. have incorporated booster sessions into the Life Skills Training series, and the DARE Program currently is assessing the effects of implementing booster sessions for students in grades 7 and 8 in a pilot program.

Comprehensive SAPs, which provide individual and group counseling through a variety of mechanisms such as core teams, have been shown to be effective in suppressing increases in rates of ATOD use and improving student self-concept (Pollard & Houle, 1993). High rates of self-referral in these SAPs demonstrated that student awareness led to increased participation in these services.

The most recent surgeon general's report, *Preventing Tobacco Use Among Young People* (U.S. Department of Health and Human Services, 1994), acknowledges that, while most young smokers want to quit, recruitment and retention in smoking cessation programs are difficult at best. In addition, success rates are negligible. However, smoking cessation is a long-term process. Just as becoming habituated to smoking takes time, learning to quit and developing replacement behaviors take several attempts. Those conducting smoking cessation research on adults know that relapse is part of the quitting process and that as smokers make more attempts to quit, they become better at being nonsmokers (Cohen, Lichtenstein, Prochaska, Rossi, Gritz, Carr, Orleans, Schoenbach, Biener, Abrams, DeClemente, Curry, Marlatt, Cummings, Emont, Giovino, & Ossip-Klein, 1989). Adolescent smokers need to be taught the same concepts to help them become more effective quitters.

The 1994 report of the surgeon general also mentions a strategy that acts synergistically with school-based prevention programs to augment and prolong their effects. Community-based programs incorporating the involvement of parents, youth-oriented mass media and counter advertising, community organizations, or other elements of adolescents' social environment can extend the benefits of school-based prevention programs through high school.

Recommendations

These research findings, in conjunction with the results of the current survey, lay the groundwork for the following recommendations for future DATE efforts.

- **The DATE Program needs a clear definition of the model and its components in order to standardize and focus prevention and reduction efforts targeting school youth.**

In general, most districts have used DATE Program money to establish significant, meaningful programs to help students. The programs generally are consistent with the DATE application guidelines. However an amazing variety of program activities was defined as part of the DATE Program. While most were legitimate interpretations of program directives, they vary in effectiveness. Programmatic characteristics and related effectiveness of the DATE model should be identified.

- **A minimum and more consistent level of exposure to prevention curricula would be beneficial in the secondary grades.**

As is evident in the findings, there is an inverse relationship between grade level and the amount of curriculum exposure. That is, the higher the grade level, the less the amount of curricula is provided to the student. Given that current ATOD use increases across grade levels, the CDE should examine this delivery issue. Booster sessions to enhance the elementary grade curricula and more developmentally appropriate curricula for secondary school students, many of whom already use ATODs, need to be implemented.

- **The DATE model needs to bridge the prevention program to integrate more intervention-like direct student services such as those provided through SAPs and smoking cessation programs.**

Significant numbers of school-age youth are current or heavy ATOD users; this is particularly true for high school

students. Most of the efforts currently employed are targeting prevention to stop initiation. The emphasis on prevention is well-placed for younger students. Unfortunately, older students are beyond the prevention stage and require more intervention types of services. Currently the schools are not prepared to provide intervention services. In addition, students would benefit from a more assertive effort by schools to make them aware of the existing intervention services.

- **The DATE model needs to integrate an effective identification and referral system for identifying youth that have ATOD-related problem behaviors and refer them to appropriate services either within the school or in the community.**

We have learned from other research that when effective and visible identification and referral systems are in place in schools, students begin to self-refer for services related to ATOD use. In a recent study conducted by SWRL, as many as 50% of the youth served were self-referred to the program. This type of system also includes a follow-up mechanism to ensure that youth were in fact served. This type of system requires a schoolwide orientation of all staff in order to successfully implement the system.

A Final Note

In a time of shrinking resources both at the state and school levels, it would be wise to rethink the concept and framework for the DATE model. With fewer resources, one needs to focus on where the greatest good can be achieved. Given what we have learned in the DATE Program Evaluation and from other research, it may be time to target the resources in a different way with different models. One such model might be to implement a high level of prevention curricula in the elementary grades, maintain a lower level of curricula at the middle school level but emphasize prevention through prevention booster sessions, and provide a reduced level of prevention curricula across all high school grades integrated with an emphasis on intervention services. This would maximize the efforts to reach both nonusers and current users at appropriate points in the use continuum.

REFERENCES

Bell, R. M., Ellickson, P. L., & Harrison, E. R. (1993). *Do drug prevention effects persist into high school? How project ALERT did with ninth graders*. Santa Monica, CA: RAND.

Botvin, G. J., Baker, E., Filazzola, A. D., & Botvin, E. M. (1990). A cognitive-behavioral approach to substance abuse prevention: One-year follow-up. *Addictive Behaviors, 15*(1), 47-63.

Cohen, S., Lichtenstein, E., Prochaska, J., Rossi, J., Gritz, E., Carr, C., Orleans, C., Schoenbach, F., Biener, L., Abrams, D., DeClemente, C., Curry, S., Marlatt, G., Cummings, K., Emont, S., Giovino, G., & Ossip-Klein, D. (1989). Debunking myths about self-quitting: Evidence from ten prospective studies of persons quitting smoking by themselves. *American Psychologist, 44*(11), 1,355-1,365.

Dawson, W. D. (1994, March 2). Funding priorities and education (letter to the editor). *Los Angeles Times*, p. B6.

Gallo, H. (1993). Ad spending a mixed bag in '92: Beer and wine outlays up; spirits and refreshers down. *Impact, 23*, 15.

Levin, H. M. (1983). *Cost effectiveness: A primer* (New perspectives in evaluation: Vol. 4). Newbury Park, CA: Sage.

Johnston, L., Bachman, J., & O'Malley, P. (1994). *Drug use rises among American teen-agers, as fewer see dangers and as peer norms begin to change. Cigarette smoking among teens also begins to increase*. Ann Arbor, MI: University of Michigan, News and Information Services.

Pierce, J. P., Evans, N., Farkas, A. J., Cavin, S. W., Berry, C., Kramer, M., Kealey, S., Rosbrook, B., Choi, W., & Kaplan, R. M. (in press). *Tobacco use in California: An evaluation of the tobacco control program, 1989-1993*. San Diego: University of California, Cancer Prevention and Control Program.

Pollard, J. A., & Houle, D. (1993). *Student assistance program demonstration project evaluation: Final report* (Contract A-0366-8). Sacramento: Department of Alcohol and Drug Programs.

Slade, J. (1992). A retreat in the tobacco war. *Journal of the American Medical Association, 268*, 4.

U.S. Department of Health and Human Services. (1994). *Preventing tobacco use among young people: A report of the surgeon general.* Atlanta: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Appendix

Table A-1
Number of Instructional Hours Per Student, by Curriculum and Grade Level

Curriculum	Grade													
	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
DARE	.2	.2	.1	.3	.8	6.2	4.6	1.1	.6	—	.1	.1	.1	.9
Discover	.9	.8	1.1	1.3	1.3	.5	.3	.1	—	.2	.6	—	—	.5
District-developed	.3	.2	.3	.4	.2	.3	2.6	4.2	2.9	3.6	2.4	.7	1.2	1.7
Family life	.2	.2	.2	.2	.3	.9	.3	.7	.3	—	.7	.1	.1	.3
Health	3.4	2.4	2.8	2.9	4.7	6.0	3.3	3.2	2.5	15.6	14.9	1.2	.5	5.7
Healthy Kids Regional Center	1.0	1.1	1.1	.9	.8	.8	.9	—	—	—	—	—	—	.4
HLAY 2000	2.8	3.5	5.6	4.1	7.5	7.2	7.6	7.7	13.2	1.5	3.7	.3	1.0	4.5
Peer program	—	—	—	—	—	—	.3	.7	.4	.1	.4	.8	1.4	.4
QUEST Skills For Adolescence	—	—	—	—	—	.1	5.0	6.3	.8	—	—	—	—	.8
QUEST Skills For Growing	3.6	3.9	3.0	4.4	2.6	2.2	.4	—	—	—	—	—	—	1.2
Science	—	—	—	—	—	—	—	.8	.7	.1	.4	.1	.1	.2
Tobacco	.1	.1	.1	.1	.2	1.3	.1	.1	.3	.1	.2	.1	.1	.2
Tribes	.9	1.0	1.0	1.1	.1	—	—	—	—	—	—	—	—	.2
All other curricula	1.8	2.0	1.9	1.5	2.3	2.4	1.9	3.8	4.3	1.6	.8	.6	.7	1.8
Total	15.0	15.2	17.1	17.0	20.8	28.0	27.5	28.7	26.0	22.9	24.2	3.9	5.3	18.7

Table A-2
Percentage of Students in Each Grade Level Receiving Instruction, by Curriculum

Curriculum	Grade													
	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
DARE	10	8	5	10	11	41	29	12	7	—	1	1	1	8
Discover	5	4	6	7	6	4	3	1	—	1	3	—	—	3
District-developed	3	3	5	4	3	4	9	10	12	12	4	12	12	8
Family life	1	1	1	1	2	2	2	3	1	—	2	—	1	1
Health	9	11	11	10	23	29	19	23	13	19	24	3	2	15
Healthy Kids Regional Center	1	1	1	1	2	2	2	—	—	—	—	—	—	1
HLAY 2000	25	29	33	31	42	40	38	33	29	8	15	2	6	22
Peer program	—	—	—	—	—	—	—	1	—	—	1	1	1	<1
QUEST Skills For Adolescence	—	—	—	—	—	1	12	13	5	—	—	—	—	2
QUEST Skills For Growing	8	8	7	99	8	7	2	—	—	—	—	—	—	3
Science	—	—	—	—	—	—	1	10	4	2	6	2	2	2
Tobacco	3	3	3	4	6	15	6	3	10	—	1	—	—	4
Tribes	2	2	2	2	—	—	—	—	—	—	—	—	—	<1
All other curricula	27	27	28	23	30	31	27	34	27	6	7	2	2	18
Total	94	97	102	102	133	176	150	143	109	50	62	23	26	87

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