



State of Arizona
Office
of the
Auditor General

PERFORMANCE AUDIT

DEPARTMENT
OF
PUBLIC SAFETY

**Drug Abuse Resistance
Education (D.A.R.E.) Program**

Report to the Arizona Legislature

By Debra K. Davenport
Auditor General

February 2001
Report No. 01-03

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AUDITOR GENERAL

STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

WILLIAM THOMSON
DEPUTY AUDITOR GENERAL

February 28, 2001

Members of the Arizona Legislature

The Honorable Jane Dee Hull, Governor

Colonel Dennis A. Garrett, Director
Department of Public Safety

Transmitted herewith is a report of the Auditor General, A Performance Audit of the Drug Abuse Resistance Education (D.A.R.E.) Program within the Department of Public Safety. This report is in response to a June 16, 1999, resolution of the Joint Legislative Audit Committee. The performance audit was conducted as part of the Sunset review set forth in A.R.S. §41-2951 et seq. I am also transmitting with this report a copy of the Report Highlights for this audit to provide a quick summary for your convenience.

This is the third in a series of reports to be issued on the Department of Public Safety.

As outlined in its response, the Department disagrees with our finding that D.A.R.E. has not been proven effective. However, even officials of the national program have recently acknowledged concerns about D.A.R.E.'s effectiveness. On February 15, 2001, D.A.R.E. America officials announced the development of a new D.A.R.E. program incorporating "science-based strategies for substance abuse prevention programming." This new program will be tested in six cities. These very recent developments make it all the more important that the Department implements, as it has agreed to, our recommendation to work closely with the Drug and Gang Policy Council in determining its future involvement with D.A.R.E.

My staff and I will be pleased to discuss or clarify items in the report.

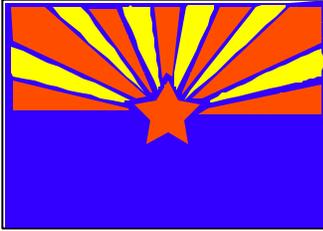
This report will be released to the public on March 1, 2001.

Sincerely,

A handwritten signature in cursive script that reads "Debbie Davenport".

Debbie Davenport
Auditor General

Enclosure

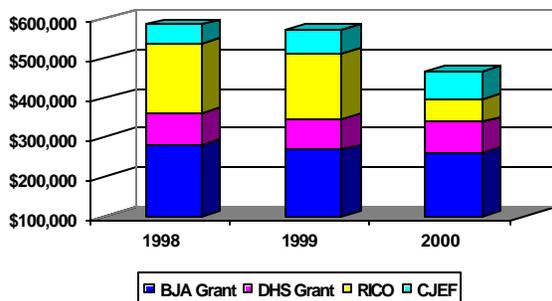


Program Fact Sheet

**Department of Public Safety
Drug Abuse Resistance Education
(D.A.R.E.)**

Services: D.A.R.E. is a national school-based drug abuse prevention program that uses trained, uniformed police officers to deliver its curriculum. The Department coordinates and monitors D.A.R.E. officer training and provides technical assistance to the states in the Southwest Regional Training Center jurisdiction.

Program Revenue: \$465,000
(fiscal year 2000)



Program Personnel: 7 full-time staff
(fiscal year 2000)

- Program director
- Chief of staff
- State coordinator
- Educational advisor (vacant since 1996)
- Finance officer
- Two administrative staff.

States included in the Southwest Regional Training Center's jurisdiction:



The American Samoa and South Pacific Islands are also included in this region's jurisdiction.

Facilities: The program leases office space and training rooms in Phoenix, Arizona, at an annual cost of \$6,000.

Equipment: The Department has a van seized under the Racketeering Influenced Corrupt Organization (RICO) laws, and it also has purchased a trailer to transport its equipment and supplies to local seminars. The trailer cost about \$3,000.



Program Goals: (Fiscal Years 2000 through 2002)

1. To provide D.A.R.E. certification training to law enforcement officers enabling them to teach the elementary, junior high, senior high, and parent training components.
2. To monitor D.A.R.E. training conducted within the southwest region.

Adequacy of Performance Measures:

The Department has established six objectives and six performance measures that include output, quality, and efficiency measures.

Although the established measures are good, the Department should establish additional measures.

- It could improve its ability to assess the quality of its services by adding an additional measure to assess its customers' satisfaction with the officers' delivery of the D.A.R.E. curriculum.
- In addition, it should also add an efficiency measure to assess the cost-effectiveness of the services it provides, such as the cost per officer trained.

SUMMARY

The Office of the Auditor General has conducted a performance audit of the Drug Abuse Resistance Education (D.A.R.E.) Program within the Department of Public Safety (Department), pursuant to a June 16, 1999, resolution of the Joint Legislative Audit Committee. The audit was conducted under the authority vested in the Auditor General by Arizona Revised Statutes (A.R.S.) §41-2951 et seq. This audit is the third in a series of audits examining programs within the Department. The Department coordinates state and regional training and provides technical assistance for the D.A.R.E. program.

D.A.R.E. is a school-based drug prevention program that uses trained, uniformed police officers to deliver its curriculum. The D.A.R.E. curriculum is primarily directed toward 5th- or 6th-grade students, the age at which prevention experts believe youth are most receptive to school-based drug prevention programs. Created in 1983, D.A.R.E. is currently taught in all 50 states and 52 countries, making it the largest school-based drug education program in the world. Arizona first offered the D.A.R.E. program in 1986, and during the 1999 school year, police officers taught D.A.R.E. in 576 of 1,481 schools, or almost 40 percent of the State's public K-12 schools.

Department Should Work With the Drug and Gang Policy Council to Determine Its Future Involvement with D.A.R.E. **(See pages 9 through 19)**

The Department should work with the Drug and Gang Policy Council to determine if its continued participation in the D.A.R.E. program is in the State's best interest. Despite D.A.R.E.'s popularity and widespread use, over a decade of peer-reviewed, scientific research has failed to show that the program's most widely used component, the core curriculum, has any lasting impact on preventing or reducing adolescent substance abuse behavior. In addition, auditors' exhaustive lit-

erature search confirmed that D.A.R.E.'s impact is mixed, at best, over the short-term and virtually nonexistent over the long-term.

D.A.R.E. proponents are critical of the research for various reasons. As an example, they suggest that the research is no longer valid because it evaluated a curriculum that has since been changed. While there have been revisions to the program, such as adding a lesson on managing conflict and reducing violence, the goals, focus, and method of delivery have remained the same. Therefore, some researchers indicate that the curriculum changes have not been significant enough to warrant invalidation of these studies. D.A.R.E. proponents are also critical of the research because they believe that the program offers other benefits aside from whatever impact it may or may not have on preventing or reducing substance abuse, such as enhanced police and community relations. In addition, the program has strong public support.

However, despite the program's popularity, some communities are choosing to replace D.A.R.E. with other drug prevention programs. While no other prevention program has been studied as extensively as D.A.R.E., there is an emerging body of research that suggests other programs may be more effective in reducing adolescent substance abuse. In addition, various federal and state agencies are also developing program guides to assist communities in selecting effective programs. For example, the U.S. Department of Health and Human Service's Center for Substance Abuse and Arizona's Drug and Gang Policy Council have each developed guidelines for selecting effective programs. To date, D.A.R.E. is not among the programs listed.

The Department has an opportunity to help ensure that Arizona's drug prevention efforts are effective. The Department is a member of the Arizona Drug and Gang Policy Council, which has a statutory mandate to evaluate the results achieved by publicly supported education, treatment, and prevention programs and make recommendations for revising programs or redirecting expenditures to achieve better use of public resources. Given the questions concerning the effectiveness of the D.A.R.E. program and emerging research on other programs, the Department should work with the Council to determine whether it is in the State's best interest for the Department to continue to participate in the D.A.R.E. program.

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INTRODUCTION AND BACKGROUND

The Office of the Auditor General has conducted a performance audit of the Drug Abuse Resistance Education (D.A.R.E.) Program within the Department of Public Safety (Department), pursuant to a June 16, 1999, resolution of the Joint Legislative Audit Committee. The audit was conducted under the authority vested in the Auditor General by Arizona Revised Statutes (A.R.S.) §41-2951 et seq. This audit is the third in a series of audits examining programs within the Department. The Department coordinates state and regional training and provides technical assistance for the D.A.R.E. program.

Program Overview

D.A.R.E. is a national school-based drug prevention program that uses trained, uniformed police officers to deliver its curriculum. The D.A.R.E. core curriculum, the most widely used component, is primarily directed toward 5th or 6th-grade students, the age at which prevention experts believe youth are most receptive to school-based drug prevention programs. The D.A.R.E. program's intent is to provide children with the information and skills they need to live drug- and violence-free lives.

D.A.R.E. has become the largest school-based drug education program.

In a joint effort, the Los Angeles Police Department and the Los Angeles Unified School District created the D.A.R.E. program in 1983. Currently, D.A.R.E. is taught in all 50 states and 52 countries, making it the largest school-based drug education program in the world. Arizona first offered the D.A.R.E. program in 1986, and during the 1999 school year police officers taught D.A.R.E. in almost 40 percent of the State's public K-12 schools (576 out of 1,481 schools).

Program Curricula

D.A.R.E.'s structured curricula consists of a series of lessons that provide information about the effects of drugs, building resistance skills and self-esteem, altering beliefs about drug use, man-

aging stress, and reducing violent tendencies. Although D.A.R.E. is designed to be a continuing education program, its core curriculum is the most widely known and used component. The core curriculum is taught on a weekly basis to 5th or 6th-grade students and consists of 17 hour-long sessions.¹ Between 1986 and 1988, D.A.R.E. expanded its curriculum to include kindergarten to 4th-grade, junior and senior high school, and parent components. In Arizona, about half of the schools administering the core curriculum have implemented at least one of these additional components.

The D.A.R.E. curricula is uniformly structured and administered. Trained law enforcement officers deliver the curricula in a specific order. Prior to teaching the core D.A.R.E. curriculum, an officer must become a certified D.A.R.E. instructor by taking 80 hours of D.A.R.E. training. This training covers classroom management skills, teaching strategies, and content and presentation of the D.A.R.E. curriculum. An officer must receive additional training to teach any of the other D.A.R.E. components. Additionally, to retain certification, a D.A.R.E. officer must maintain a level of proficiency as dictated by the national D.A.R.E. organization.

Program Organization

Although local police departments administer the D.A.R.E. curriculum, the program is governed at the national, regional, and state levels. At the national level, *D.A.R.E. America* promotes the program through the sale of D.A.R.E. merchandise and raises funding by obtaining corporate sponsorship as well as by securing endorsements from celebrities and politicians. In addition, *D.A.R.E. America* enacts policies and procedures to ensure the consistency of officer training across the nation via regional and state training centers. Together with the Los Angeles Unified School District, *D.A.R.E. America* owns the copyright to the D.A.R.E. curricula.

¹ In 1993, the core curriculum was revised to include more participatory learning activities and a lesson on managing stress and reducing violence.

At the regional level, D.A.R.E. has five training centers (Arizona, California, Missouri, North Carolina, and Virginia) which provide technical support and oversight, and ensure the consistency of curricula training at the various state-level training centers in their jurisdiction. The regional training centers also train Mentor Officers who train D.A.R.E. classroom officers at the state level. Most states have training centers where D.A.R.E. officers are certified to teach the core curriculum.¹ States that do not have a training center usually appoint a D.A.R.E. coordinator who manages the officer selection process, coordinates training, and provides assistance to communities who desire to implement the D.A.R.E. program.

Arizona's D.A.R.E. Program, Staff, and Funding

Arizona's D.A.R.E. program operates under the Department of Public Safety's Office of the Director and performs both regional- and state-level functions. The Arizona D.A.R.E. program consists of seven full-time employees—a program director, chief of staff, state coordinator, educational advisor (currently vacant), finance officer, and two administrative staff. In addition, the program uses 11 part-time volunteers.

The Arizona D.A.R.E. program currently receives funding from both federal and state monies. As noted in Table 1 (see page 4), the following federal and state sources provide financial support to the program:

- **U.S. Department of Justice, Bureau of Justice Assistance**—The Bureau provides a federal grant that supports training functions and provides the salary for the program's finance officer. For fiscal year 2000, Arizona received \$262,825.
- **Arizona Department of Health Services**—The Department provides funding in the form of a grant for the program's

¹ A state can also become accredited to provide officer training on the other D.A.R.E. curricula. If a state does not have a training center, officers may receive training from another regional or state center.

Table 1

**Department of Public Safety
Drug Abuse Resistance Education Program
Statement of Revenues, Expenditures, and Changes in Fund Balance ¹
Years Ended June 30, 1998, 1999, and 2000
(Unaudited)**

	1998	1999	2000
Revenues:			
Criminal Justice Enhancement Fund			
appropriations ²	\$ 48,720	\$ 60,250	\$ 66,400
Intergovernmental ³	360,208	346,221	337,801
Other ⁴	<u>174,937</u>	<u>165,609</u>	<u>61,056</u>
Total revenues	<u>583,865</u>	<u>572,080</u>	<u>465,257</u>
Expenditures:			
Personal services	255,680	265,366	257,433
Employee related	53,595	54,350	51,857
Professional and outside services	20,114	21,006	21,002
Travel, in-state	11,079	19,673	18,422
Travel, out-of-state	76,774	51,297	39,095
Aid to organizations	43,262	33,346	26,990
Other operating	95,804	89,658	91,791
Equipment	<u>10,328</u>	<u>4,387</u>	<u>25,391</u>
Total expenditures	<u>566,636</u>	<u>539,083</u>	<u>531,981</u>
Excess of revenues over (under) expenditures	17,229	32,997	(66,724)
Fund balance, beginning of year	<u>51,510</u>	<u>68,739</u>	<u>101,736</u>
Fund balance, end of year	<u>\$ 68,739</u>	<u>\$101,736</u>	<u>\$ 35,012</u>

¹ The Department allocated the revenues and expenditures recorded in the Department's Joint Account. The Joint Account is a commingled account primarily funded from State General Fund appropriations and other appropriated monies, such as Criminal Justice Enhancement monies.

² Consists of fines and forfeits deposited in the Criminal Justice Enhancement Fund and appropriated to the Department. Amounts presented do not include monies appropriated but unspent at year-end that are retained by the Department and are subject to legislative appropriations in future years.

³ Includes a federal grant from the U.S. Department of Justice, Bureau of Justice and a grant from the Arizona Department of Health Services.

⁴ Consists primarily of monies from the Department's Racketeering Influenced Corrupt Organization Fund.

Source: Auditor General staff analysis of financial information provided by the Department of Public Safety.

administrative assistant and secretary positions. In fiscal year 2000, the program received \$74,976.

- **Arizona Department of Public Safety**—The Department uses both Arizona Criminal Justice Enhancement Fund (CJEF) monies and Racketeering Influenced Corrupt Organization (RICO) monies to support the program. These monies provide the funding for the chief of staff, state coordinator, and operating costs. In fiscal year 2000, the program received \$66,400 in CJEF monies and \$61,056 in RICO monies. Additionally, effective April 2000, the program director’s position is funded with appropriated DPS monies. Prior to this time, the position was funded with RICO monies.

Although the financial table details the Department’s D.A.R.E. program revenues and expenditures, the total amount spent on the program statewide is unclear because it is administered at the local level. Specifically, participating law enforcement agencies and schools also support the program by providing staff, D.A.R.E. materials, and class time. The expenditures are likely significant because two-thirds of the D.A.R.E.-certified officers spend the majority of their duty time with the D.A.R.E. program. According to Arizona D.A.R.E. statistics, 239 officers participated in delivering the program in 1999. Auditors estimate that local communities are collectively spending about \$4 million per year on salaries for the officers participating in the D.A.R.E. program.

Local law enforcement spent an estimated \$4 million in 1999 on D.A.R.E.

Audit Scope and Methodology

The audit focused on whether Arizona, and the Arizona Department of Public Safety in particular, should continue to support and participate in the D.A.R.E. program. To this end, auditors examined the Department’s current role within the D.A.R.E. program and the program’s effectiveness in meeting its goals of reducing adolescent drug use and violence.

Various methods were used to obtain information on the Arizona D.A.R.E. program, the Department’s role in D.A.R.E., and the program’s efficacy. Specifically, to determine the Depart-

ment's role, auditors interviewed Arizona D.A.R.E. program personnel and reviewed program organizational and funding information. Auditors also examined Arizona D.A.R.E. statistics, which encompassed pre/post student opinion surveys, surveys of both teachers and administrators, and school participation statistics. Additionally, auditors gathered information regarding the law enforcement communities' involvement in D.A.R.E., such as the number of communities with programs and the number of police officers involved. Auditors also interviewed state and national drug prevention experts and explored the research-based principles of substance abuse prevention programs. Additionally, auditors explored why various communities nationwide have chosen to no longer participate in D.A.R.E.

A plethora of information and research is available on the D.A.R.E. program.

To determine the effectiveness of the D.A.R.E. program, auditors first conducted an extensive literature search on all research and information on the program's effectiveness. Due to the widespread use of the D.A.R.E. program, a plethora of research and information was gathered and reviewed. Although several studies have already used the available research to draw conclusions about D.A.R.E.'s impact and effectiveness, auditors conducted an independent review of the research. Included in the review were studies that adhered to rigorous methodological standards, such as the use of control and comparison groups, pre- and posttests, and representative samples. Studies investigating the generic effect of drug programs other than D.A.R.E. or studies examining D.A.R.E. in conjunction with other programs were excluded. While these types of studies can provide information on the overall impact of substance abuse prevention, D.A.R.E.'s impact, as distinct from that of other programs, could not be determined.

Auditors further analyzed the 14 most current studies that adhere to sound methodological techniques.

In all, 14 methodologically sound peer-reviewed articles were evaluated encompassing studies of the D.A.R.E. core curriculum conducted in California, Colorado, Illinois, Indiana, Kentucky, North Carolina, and South Carolina. Included are the two most recent evaluations conducted by Lynam et al. (1999), and Rosenbaum and Hanson (1998). See Appendix (pages a-i through a-vi), for a complete listing of the studies selected. These evaluations review both the short-term effectiveness of the D.A.R.E. core curriculum as well as its impact over a longer period of time. In addition, the studies also include one meta-analysis evaluation. Meta-analyses measure and analyze the

Introduction and Background

outcomes of multiple studies to draw conclusions about the program.

This report presents a finding and recommendation in one area:

- The Department should work with the Arizona Drug and Gang Policy Council to determine whether it is in the State's best interest for the Department to continue to promote and participate in the D.A.R.E. program.

The audit was conducted in accordance with government auditing standards.

The Auditor General and staff express appreciation to the Director and staff of the Arizona Department of Public Safety and the Program Director and staff of the Arizona D.A.R.E. Unit for their cooperation and assistance during the audit.

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FINDING I**DEPARTMENT SHOULD WORK WITH THE DRUG AND GANG POLICY COUNCIL TO DETERMINE ITS FUTURE INVOLVEMENT WITH D.A.R.E.**

The Department of Public Safety (Department) should work with the Drug and Gang Policy Council to determine if its participation in the D.A.R.E. program is in the State's best interest. Despite D.A.R.E.'s popularity and widespread use, over a decade of research has failed to show the program's most widely used component, the core curriculum, has any lasting impact on preventing or reducing substance abuse behavior among youth. Although D.A.R.E. proponents discount the research and cite several other potential program benefits, some communities are replacing D.A.R.E. with other prevention programs. Therefore, given questions concerning D.A.R.E.'s effectiveness and emerging research on other programs, the Department should work with the Drug and Gang Policy Council to determine if it should continue its involvement with the D.A.R.E. program.

Research Fails to Find Lasting Impact on Preventing or Reducing Adolescent Drug Abuse Behavior

Because the D.A.R.E. program is the most widely used school-based substance abuse prevention education program, many scientific evaluations regarding the program's ability to meet its goal of preventing adolescent drug use have been conducted. A review of the most methodologically sound evaluations conducted in various communities across the nation finds that the D.A.R.E. core curriculum has little or no impact on preventing or reducing drug abuse behavior either short-term or long-term. Researchers conducting these evaluations and other substance abuse prevention experts have hypothesized various reasons

why the program has not proven effective. However, program proponents are critical of the research.

Evaluations lend little support to D.A.R.E.'s effectiveness—The effectiveness of the D.A.R.E. core curriculum in preventing or reducing drug use has been the focus of numerous evaluations. Therefore, an extensive literature search on all research and information available on the program's effectiveness was conducted. While a plethora of research and information was gathered and reviewed, this audit focused on studies that adhered to sound methodological techniques and evaluated whether the program was effective in reducing or preventing adolescent drug abuse. The majority of the studies have been conducted on the D.A.R.E. program's core curriculum offered to 5th or 6th graders because this is the most widely used D.A.R.E. component.

In all, 14 articles spanning over a decade of empirical research in 7 separate states were selected, reviewed, and summarized (see Appendix, pages ai through a-vi).¹ The 14 articles found that D.A.R.E. has had virtually no impact on students' drug use behaviors. Because much of the D.A.R.E. program focuses on elementary school students, it is important to understand the program's impact both over the short term (months immediately after training to 3 years later) and the long term (4 or more years after the training). While some of the articles found that D.A.R.E. had a small short-term effect, none of the articles reported that D.A.R.E. had any appreciable effect over the longer period. Table 2 (see page 11) provides a listing of the articles and their findings on the program's impact on substance abuse behavior.

■ **Short-term impact**—The program's impact on reducing substance abuse behavior in the short-term (up to three years after the training) is mixed at best. Ten of the 14 articles discussed the core curriculum's short-term effectiveness. Five of the ten articles found that the program had some positive short-term behavioral effects. However, these effects were small, inconsistent, and short-lived. In most cases, D.A.R.E. had an impact on the use of only one substance and only one

¹ The articles cover eight separate evaluations conducted in California, Colorado, Illinois, Indiana, Kentucky, North Carolina, and South Carolina.

Table 2

**Department of Public Safety
Drug Abuse Resistance Education Program
Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies**

	<u>Impact on substance abuse behavior</u>	
	<u>Short-term</u>	<u>Long-term</u>
Becker, Harold, Agopian, Michael, and Sany Yeh. "Impact Evaluation of Drug Abuse Resistance Education (D.A.R.E)." <i>Journal of Drug Education</i> , 22:4 (1992): 283-91.	Alcohol (immediately)	Not studied
Clayton, Richard, Cattarello, Anne, and Bryan Johnstone. "The Effectiveness of Drug Abuse Resistance Education (Project D.A.R.E.): Five-Year Follow-Up Results." <i>Preventive Medicine</i> , 25 (1996): 307-18.	None	None
DeJong, William. "A Short-Term Evaluation of Project D.A.R.E. (Drug Abuse Resistance Education): Preliminary Indications of Effectiveness." <i>Journal of Drug Education</i> , 17:4 (1987): 279-294.	Alcohol & tobacco (1 year)	Not studied
Dukes, Richard, Stein, Judith, and Jodie Ullman. "Long-Term Impact of Drug Abuse Resistance Education (D.A.R.E.): Results of a Six-Year Follow-Up." <i>Evaluation Review</i> , 21:4 (August 1997): 483-500.	Not studied	Hard drugs (6 years, males only)
Dukes, Richard, Ullman, Jodie, and Judith Stein. "Three-Year Follow-Up of Drug Abuse Resistance Education (D.A.R.E)." <i>Evaluation Review</i> , 20:1 (February 1996): 49-66.	None	Not studied
Ennett, Susan, Rosenbaum, Dennis, Flewelling, Robert, Bieler, Gayle, Ringwalt, Christopher, and Susan Bailey. "Long-Term Evaluation of Drug Abuse Resistance Education." <i>Addictive Behaviors</i> , 19:2 (1994): 113-125.	Tobacco (immediately)	Not studied
Ennett, Susan, Tobler, Nancy, Ringwalt, Christopher, and Robert Flewelling. "How Effective is Drug Abuse Resistance Education? A Meta-Analysis of Project D.A.R.E. Outcome Evaluations." <i>The American Journal of Public Health</i> , 84:9 (September 1994): 1394-1401.	None	Not studied
Hansen, William, and Ralph McNeal. "How D.A.R.E. Works: An Examination of Program Effects on Mediating Variables." <i>Health Education and Behavior</i> , 24:2 (April 1997): 165-76.	Tobacco (2 years)	Not studied
Harmon, Michele, A. <i>Reducing the Risk of Drug Involvement Among Early Adolescents: An Evaluation of Drug Abuse Resistance Education (D.A.R.E.)</i> . Institute of Criminal Justice and Criminology, University of Maryland, College Park (April 1993).	Alcohol (1 year)	Not studied
Lynam, Donald, Milich, Richard, Zimmerman, Rick, Novak, Scott, Logan, T.K., Martin, Catherine, Luekefeld, Carl, and Richard Clayton. "Project D.A.R.E.: No Effects at Ten-Year Follow-Up." <i>Journal of Consulting and Clinical Psychology</i> , 67:4 (August 1999): 590-93.	Not studied	None
Ringwalt, Christopher, Ennett, Susan, and Kathleen Holt. "An Outcome Evaluation of Project D.A.R.E. (Drug Abuse Resistance Education)." <i>Health Education Research</i> , 6:3 (1991): 327-337.	None	Not studied
Rosenbaum, Dennis, P., and Gordon S. Hanson. "Assessing the Effects of School-Based Drug Education: A Six-Year Multilevel Analysis of Project D.A.R.E." <i>Journal of Research in Crime and Delinquency</i> , 35:4 (November 1998): 381-412.	Not studied	None
Rosenbaum, Dennis, Flewelling, Robert, Bailey, Susan, Ringwalt, Chris, and Deanna Wilkinson. "Cops in the Classroom: A Longitudinal Evaluation of Drug Abuse Resistance Education (D.A.R.E)." <i>Journal of Research in Crime and Delinquency</i> , 31:1 (February 1994): 3-31.	None	Not studied
Wysong, Earl, Aniskiewicz, Richard, and David Wright. "Truth and D.A.R.E.: Tracking Drug Education to Graduation and as Symbolic Politics." <i>Social Problems</i> , 41:3 (August 1994): 448-72.	Not studied	None

Source: Auditor General staff analysis of cited articles.

measure of abuse for that substance. For example, Hansen and McNeal (1996) reported a reduction in tobacco use but “nonsignificant effects on alcohol use, illegal drug use, steroid use, inhalant use, and drug selling and dealing behavior.” Another article (Harmon, 1993) found that while students receiving D.A.R.E. initiated alcohol use less during the following year, there were no differences found in tobacco or marijuana use.

Five articles found no significant positive short-term effects on drug use behaviors for those having participated in the program. For example, one article (Rosenbaum et al., 1994) concluded that D.A.R.E. had “no statistically significant main effects on the initiation of alcohol or cigarettes, increased use of the substances, or quitting behavior.” Another article (Dukes, Ullman, and Stein, 1996) reported no statistical differences between D.A.R.E. and non-D.A.R.E. students on the onset of drug use and actual drug use three years later.

- **Long-term impact**—Five of the 14 articles reviewed the core program’s long-term impact and only one of these (Dukes, Stein, and Ullman, 1997) found any effect on students’ behavior. However, the positive effect was found only for males using hard drugs six years after undergoing the D.A.R.E. core curriculum and was counter to findings at three years. Furthermore, this study found no differences at six years for students’ use of alcohol, tobacco, or marijuana. The other long-term evaluations found D.A.R.E. had no effect on students’ drug use behaviors. The longest period studied was ten years (Lynam et al., 1999). However, even articles that focused on fewer years reached similar conclusions. For example, Rosenbaum and Hanson (1998) found that after six years the level of drug and alcohol use (recent and lifetime) did not differ as a function of whether or not students participated in the D.A.R.E. core curriculum.

Various reasons have been hypothesized for program’s lack of effectiveness—Researchers and substance abuse prevention advocates have offered several hypotheses to explain the D.A.R.E. program’s ineffectiveness. For example:

- **Not targeting the causes of drug use**—Some researchers hypothesize that the D.A.R.E. curriculum may not be ad-

addressing the causes of adolescent substance abuse. There is some scientific research to suggest that D.A.R.E. does not target the right causes. For example, D.A.R.E. targets self-esteem, but scientific fact does not support the notion that low self-esteem causes a teen to use or abuse alcohol or drugs.

- **Standardized curriculum and delivery system**—Other researchers have suggested that the program’s standardized curriculum and delivery system have become barriers to change. Although some researchers believe that the standardized content and implementation ensures that students receive the curriculum as it was designed, others regard it as an impediment because it does not allow for communities to adjust the program to meet specific needs. In addition, some researchers hypothesize that law enforcement personnel may not be the most appropriate individuals to present the program.

- **Lack of booster sessions**—Others speculate that the one-time intervention cannot be sustained without booster sessions or continued intervention through junior high and senior high school. Unfortunately, there is little research specifically examining the effects of sustained or prolonged exposure to school-based drug prevention programs. One study (Donnermeyer and Davis, 1998) concludes booster sessions do have an effect on drug use while another study (Rosenbaum and Hanson, 1998) concludes just the opposite.

- **Lack of concurrent action in the family and community**—Some suggest that a school-based drug prevention program is insufficient to achieve the desired outcome without concurrent action from the community and family unit. For example, reduction in tobacco use may result from the combined effects of shifting social norms regarding tobacco use, extensive anti-smoking media campaigns, school-based prevention programs, and parent reinforcement and local community support (such as local non-smoking ordinances).

D.A.R.E. proponents critical of the research—Program proponents frequently discount the research on D.A.R.E. because it evaluated a core curriculum that has since been revised. However, while there have been some minor revisions over the years,

they consisted primarily of adding a component on managing conflict and reducing violence and more interactive teaching methods. For example, Lynam et al. (1999) reported “To the best of our knowledge, the goals (i.e., “to keep kids off drugs”) and foci of D.A.R.E. (e.g., resisting peer pressure) have remained the same across time as has the method of delivery (i.e., police officers). We believe that any changes in D.A.R.E. have been more cosmetic than substantive...” Rosenbaum and Hanson (1998) also indicated that the changes to the core curriculum introduced in 1994 were “arguably small.” The program still presents essentially the same curriculum in a specified order and delivered by a uniformed law enforcement officer. Consequently, there is no evidence to suggest that the program is so significantly different now that the research results would not continue to be valid.

Additionally, it has also been argued that D.A.R.E. is being held to standards that no other program has been held to. To a certain extent, this is true. No other program has been studied as extensively and in as many settings as the D.A.R.E. program. The research on these programs is not as extensive because D.A.R.E. was the first program of its kind to gain widespread acceptance and has operated for nearly two decades. However, with the increased emphasis on demonstrable program effectiveness, an emerging body of research is developing on other drug abuse prevention programs. As the research accumulates, these other programs will also be subject to critical review.

Other Benefits Attributed to D.A.R.E.

Program proponents suggest that the D.A.R.E. program offers several other benefits aside from whatever impact it may or may not have on preventing or reducing substance abuse. Some of the positive benefits attributed to D.A.R.E. include:

- **Strong public support**—There is strong public support for the program. Testimonials and opinion surveys consistently portray high satisfaction with the program and the desire to continue it. Moreover, according to *D.A.R.E. America* the D.A.R.E. program is taught in more than 80 percent of all school districts in the United States and this number continues to grow annually. For example, in calendar year 1999, 202 law enforcement agencies began implementing new D.A.R.E.

components in their communities. Researchers speculate that the popular support for the program in light of negative findings regarding program effectiveness may be due in part to the fact that most people believe it is a good thing to teach children to refrain from drugs (Lynam et al., 1999).

- **Enhanced police and community relations**—In addition to the strong public support, law enforcement officials and other community members perceive the program as enhancing police and community relations. The program provides an opportunity for police officers to interact with children and develop positive perceptions about police officers. Although the evidence is mixed, some research has shown that children receiving the D.A.R.E. program have fewer negative attitudes toward police.

- **Inexpensive for the schools**—The program is also perceived to be low-cost. Information reported in *Making the Grade: A Guide to School Drug Prevention Programs* indicates that the D.A.R.E. program cost per pupil is \$1.¹ Additionally, much of the funding for the program is generated through private donations and local monies rather than state and federal tax dollars.

Some Communities Are Replacing D.A.R.E. with Other Prevention Programs

Despite the popularity of the D.A.R.E. program, some communities are choosing to replace D.A.R.E. with other prevention programs. Various reasons are cited for replacing the D.A.R.E. program, including its lack of proven effectiveness. To assist communities in identifying which programs meet their drug prevention needs, various federal and state agencies have developed guides of programs shown through research to be effective. Two programs included in these guides are Life Skills Training and the Midwestern Prevention Project.

¹ Drug Strategies. *Making the Grade: A Guide to School Drug Prevention Programs*, Washington, D.C.: Drug Strategies. 1999.

Communities cite various reasons for replacing D.A.R.E.—

Communities give various reasons for dropping D.A.R.E. and looking for alternate prevention programs, including the D.A.R.E. program's lack of effectiveness in keeping children off drugs and the inability to modify its curriculum or delivery system to meet the unique demands of the school or community. Additionally, some communities feel that using law enforcement officers to administer the program is not an effective use of limited law enforcement resources. While there is no inclusive listing of all the communities that have dropped or replaced D.A.R.E., more than a dozen, including the cities of Austin, Texas; Oakland, California; and Seattle, Washington have done so. One of the communities that most recently dropped D.A.R.E. and looked for a replacement drug prevention program is Salt Lake City, Utah.

Guides exist for selecting drug prevention programs—In an effort to assist communities to effectively address their drug prevention needs, various federal and state agencies have begun to issue guides to help them select prevention programs shown through research to be effective.

- **U.S. Department of Health and Human Service's Center for Substance Abuse Prevention (CSAP)**—CSAP's mission is to provide national leadership in the federal effort to prevent alcohol, tobacco, and illicit-drug problems. This agency provides grants for substance abuse prevention programs and promotes the use of research-based programs that have shown effectiveness through scientific study. It has developed a list of model programs proven to be successful in reducing substance abuse.

- **National Institute on Drug Abuse (NIDA)**—NIDA's mission is "to lead the nation in bringing power to bear on drug abuse and addiction." NIDA has developed a guide entitled *Preventing Drug Abuse Among Children and Adolescents*. This guide is designed to provide research-based concepts and information to further efforts to develop and carry out effective drug abuse prevention programs. Included in this publication is a section titled "Some Research-Based Drug Abuse Prevention Programs," which lists examples of programs that have been scientifically studied and have shown positive results.

- **Arizona Drug and Gang Policy Council (Council)**—The Council is mandated by statute with evaluating the results achieved by publicly supported education, treatment, and prevention programs and making recommendations for revising programs or redirecting expenditures to achieve better use of public resources. The Council is currently developing an evaluation system to help make such recommendations, and has developed a non-inclusive guide describing effective and promising research-based prevention practices and programs for the state and local communities to implement.

Examples of programs in the prevention guides—The guides published by CSAP, NIDA, and the Council include both proven and promising programs. To date, D.A.R.E. is not among the programs listed in these three agencies' guides. However, two examples of programs that are listed in these guides include:

- **Life Skills Training**—A classroom program designed to address a wide range of risk and protective factors by teaching general personal and social skills in combination with drug resistance skills. The program consists of a three-year prevention curriculum intended for middle school or junior high school students. The Life Skills program covers three major areas: drug-resistance skills and information, self-management skills, and general social skills. Several communities have chosen to use this program in place of D.A.R.E., including Jefferson County, Kentucky; Lunenburg, Massachusetts; and Milwaukee, Wisconsin. Additionally, 220 Arizona schools reported using the Life Skills program in 1999.
- **Midwestern Prevention Project, Project STAR: Students Taught Awareness and Resistance**—A comprehensive drug abuse prevention program that reaches the entire community with a comprehensive school program, mass media efforts, a parent program, community organization, and health policy programming. The school-based component is a social influence curriculum that is incorporated into classroom instruction by trained teachers over a two-year period. Complete implementation of the program takes place over a five-year period. This program has been used in many Indianapolis schools for the past decade.

While it is true that neither of these programs has been studied as extensively or in as many settings as D.A.R.E., studies have been conducted on both programs with additional studies anticipated. For example, Life Skills Training has been studied over the past 16 years and been found effective in reducing alcohol, tobacco, and drug use in 12 major studies. In addition, on June 14, 1999, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) announced it was sponsoring multiple replications of the Life Skills Training program in school settings. As many as 50 school sites will receive initial training, materials, and follow-up technical assistance over a three-year period. Additionally, the Midwestern Prevention Project has been studied in both Kansas City and Indianapolis. Results from the Kansas City study found the project decreased alcohol, tobacco, and marijuana use among students one year after participation and the effect was sustained for more than three years after participation. Similar results were found in the Indianapolis study. D.A.R.E. program proponents argue that these programs' evaluations were not conducted in real-world settings and question whether the programs will prove effective once tested among the general school population.

Department Should Determine Whether Continued Participation in D.A.R.E. Is Beneficial

The Department has an opportunity to help ensure Arizona's drug prevention efforts are effective. The Department's director is a member of the Arizona Drug and Gang Policy Council, which has a statutory mandate to evaluate results achieved by publicly supported education, treatment, and prevention programs and make recommendations for revising programs or redirecting expenditures to achieve better use of public resources. Given the questions concerning the effectiveness of the D.A.R.E. program and emerging research on other adolescent drug prevention programs, the Department should work with the Council to determine whether it is in the State's best interest for the Department to continue to promote and participate in the D.A.R.E. program.

Finding I

If the Department and Council determine that some change in the Department's role in the D.A.R.E. program is appropriate, the Department should develop an implementation plan with timelines and designated individuals responsible for carrying out the necessary changes.

Recommendation

The Department should work with the Arizona Drug and Gang Policy Council to determine whether it is in the State's best interest for the Department to continue to promote and participate in the D.A.R.E. program. If it is found that some change in the Department's role is appropriate, the Department should develop an implementation plan with timelines and designated responsible parties.

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Appendix

Appendix
Department of Public Safety
Drug Abuse Resistance Education Program
Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies

Study Article	Description of the Study	Short-term	Impact on Substance Abuse Behavior	Long-term
Becker, Harold, Agopian, Michael, and Sany Yeh. "Impact Evaluation of Drug Abuse Resistance Education (D.A.R.E.)." <i>Journal of Drug Education</i> , 22:4 (1992): 283-91.	The study used a self-report pre-test and posttest survey of approximately 3,000 5 th -grade Long Beach, California students during the fall semester in which D.A.R.E. was offered. Approximately half the students received D.A.R.E. while the other half did not.	D.A.R.E. students maintained pretest beer consumption levels while non-D.A.R.E. group showed an increase during the semester. Wine use increased for both groups, but more so for the non-D.A.R.E. group. No difference between the two groups on marijuana use. D.A.R.E. group showed high rate of abstinence from use of hard liquor at pretest and posttest while non-D.A.R.E. group reported an increase in use of hard liquor during the semester.	D.A.R.E. students maintained pretest beer consumption levels while non-D.A.R.E. group showed an increase during the semester. Wine use increased for both groups, but more so for the non-D.A.R.E. group. No difference between the two groups on marijuana use. D.A.R.E. group showed high rate of abstinence from use of hard liquor at pretest and posttest while non-D.A.R.E. group reported an increase in use of hard liquor during the semester.	Not studied.
Clayton, Richard, Cattarello, Anne, and Bryan Johnstone. "The Effectiveness of Drug Abuse Resistance Education (Project D.A.R.E.): Five-Year Follow-Up Results." <i>Preventive Medicine</i> , 25 (1996): 307-18.	This study pretested all 6 th -grade students in 31 elementary schools in Kentucky (23 schools randomly assigned to receive D.A.R.E. and 8 schools designated as controls) prior to offering D.A.R.E., and posttested shortly after administration of the program and annually every subsequent year through the 10 th grade. The sample consisted of 2,071 students.	No significant differences between D.A.R.E. and non-D.A.R.E. schools with respect to cigarette, alcohol, or marijuana use at 1, 2, and 3 years.	No significant differences between D.A.R.E. and non-D.A.R.E. schools with respect to cigarette, alcohol, or marijuana use at 4 and 5 years.	No significant differences between D.A.R.E. and non-D.A.R.E. schools with respect to cigarette, alcohol, or marijuana use at 4 and 5 years.
DeLong, William. "A Short-Term Evaluation of Project D.A.R.E. (Drug Abuse Resistance Education): Preliminary Indications of Effectiveness." <i>Journal of Drug Education</i> , 17:4 (1987): 279-294.	This study surveyed of 598 7 th -grade students (288 receiving D.A.R.E. core curriculum in 6 th grade and 310 not receiving the D.A.R.E. core curriculum) from four junior high schools in Los Angeles, California.	D.A.R.E. students reported significantly lower use of hard liquor and cigarettes than non-D.A.R.E. students one year after their D.A.R.E. training.	D.A.R.E. students reported significantly lower use of hard liquor and cigarettes than non-D.A.R.E. students one year after their D.A.R.E. training.	Not studied.

Appendix

Department of Public Safety
 Drug Abuse Resistance Education Program
 Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies (cont'd)

Study Article	Description of the Study	Short-term	Impact on Substance Abuse Behavior	Long-term
Dukes, Richard, Stein, Judith, and Jodie Ullman. "Long-Term Impact of Drug Abuse Resistance Education (D.A.R.E.): Results of a Six-Year Follow-Up." Evaluation Review, 21:4 (August 1997): 483-500.	This study surveyed 12 th -grade students (356 who received D.A.R.E. in the 6 th grade and 264 who did not receive D.A.R.E. in the 6 th grade). This study took place in Colorado Springs, Colorado.	Not studied	No statistically significant differences were found between the D.A.R.E. and non-D.A.R.E. students 6 years after receiving the program except that male D.A.R.E. students used hard or outsider drugs (amphetamines, barbiturates, cocaine, LSD, inhalants, etc.) less frequently than non-D.A.R.E. males.	However, analysis also showed a higher percentage of male regular hard drug users in the control group than in the D.A.R.E. group.
Dukes, Richard, Ullman, Jodie and Judith Stein. "Three-Year Follow-Up of Drug Abuse Resistance Education (D.A.R.E)." Evaluation Review, 20:1 (February 1996): 49-66.	This study surveyed 9 th -grade students (497 who received D.A.R.E. in the 6 th grade and 352 who did not receive D.A.R.E. in the 6 th grade). This study took place in Colorado Springs, Colorado.	No significant differences were found between D.A.R.E. and non-D.A.R.E. students in the onset of drug use and actual drug use 3 years after receiving the program.	Not studied.	
Ennett, Susan, Rosenbaum, Dennis, Flewelling, Robert, Bieler, Gayle, Ringwalt, Christopher, and Susan Bailey. "Long-Term Evaluation of Drug Abuse Resistance Education." Addictive Behaviors, 19:2 (1994): 113-125.	Survey of 1,334 D.A.R.E. and non-D.A.R.E. students in 36 Illinois schools using pre- and posttests immediately prior to and after implementation of the D.A.R.E. core curriculum and then 1 and 2 years after receiving D.A.R.E.	No statistically significant effect on students' initiation of alcohol use, cigarette smoking, or heavy drinking immediately after receiving D.A.R.E. or 1 or 2 years later. Additionally, D.A.R.E. had no positive effect on quitting behavior (only tested for alcohol). However, immediately after receiving D.A.R.E., students were less likely to report increased cigarette smoking, but the effect disappeared a year later.	Not studied.	

Appendix
Department of Public Safety
Drug Abuse Resistance Education Program
Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies (cont'd)

Study Article	Description of the Study	Short-term	Impact on Substance Abuse Behavior	Long-term
<p>Ennett, Susan, Tobler, Nancy, Ringwalt, Christopher, and Robert Flewelling. "How Effective is Drug Abuse Resistance Education? A Meta-Analysis of Project D.A.R.E. Outcome Evaluations." <i>The American Journal of Public Health</i>, 84:9 (September 1994): 1394-1401.</p>	<p>This study was a meta-analysis on 8 studies that used comparison groups to evaluate the effect of the D.A.R.E. program. (Three of the studies are included in this appendix.)</p>	<p>This analysis found no statistically significant effect on drug use behavior.</p>	<p>Not studied.</p>	<p>Not studied.</p>
<p>Hansen, William, and Ralph McNeal. "How D.A.R.E. Works: An Examination of Program Effects on Mediating Variables." <i>Health Education and Behavior</i>, 24:2 (April 1997): 165-76.</p>	<p>The study used three 8th-grade cohorts from middle schools in North Carolina. The D.A.R.E. students received the program during the 5th grade.</p>	<p>This study found nonsignificant effects on alcohol use, illegal drug use, steroid use, inhalant use, and drug selling and dealing. D.A.R.E. did have a significant effect on smoking cigarettes and smokeless tobacco use.</p>	<p>Not studied.</p>	<p>Not studied.</p>
<p>Harmon, Michele, A. Reducing the Risk of Drug Involvement Among Early Adolescents: An Evaluation of Drug Abuse Resistance Education (D.A.R.E.). Institute of Criminal Justice and Criminology, University of Maryland, College Park (April 1993).</p>	<p>This study surveyed 708 5th-grade students (341 who received D.A.R.E. and 367 who did not receive D.A.R.E.) from 11 elementary schools in Charleston County, South Carolina, using a pretest and posttest administered approximately 20 weeks apart.</p>	<p>The study found the D.A.R.E. group initiated alcohol use less in the last year. No differences were found in cigarette, tobacco, or marijuana use in the last year and frequency of drug use in last month.</p>	<p>Not studied.</p>	<p>Not studied.</p>

Appendix

Department of Public Safety
 Drug Abuse Resistance Education Program
 Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies (cont'd)

Study Article	Description of the Study	Short-term	Impact on Substance Abuse Behavior	Long-term
Lynam, Donald, Milich, Richard, Zimmerman, Rick, Novak, Scott, Logan, T.K., Martin, Catherine, Luekefeld, Carl, and Richard Clayton. "Project D.A.R.E.: No Effects at Ten-Year Follow-Up." <i>Journal of Consulting and Clinical Psychology</i> , 67:4 (August 1999): 590-93.	This study surveyed 1,002 individuals 10 years after receiving D.A.R.E. or a standard drug-education curriculum in 6 th grade. The students were initially surveyed in 6 th grade and then again three times over the next 5 years and finally when they were between 19 and 20 years old. The study involved 31 schools in Kentucky (23 of the schools provided the D.A.R.E. core curriculum and the other 8 schools did not provide the curriculum).	Not studied.	No statistically significant effect was found between D.A.R.E. and non-D.A.R.E. groups on cigarettes, alcohol, marijuana, or illicit-drug use.	
Ringwalt, Christopher, Ennett, Susan, and Kathleen Holt. "An Outcome Evaluation of Project D.A.R.E. (Drug Abuse Resistance Education)." <i>Health Education Research</i> , 6:3 (1991): 327-337.	This study surveyed 1,270 5 th - and 6 th -grade students in 20 North Carolina schools randomly assigned to administer or not administer the D.A.R.E. core curriculum. Students were pretested one week before receiving D.A.R.E. and then posttested immediately following it.	The study found D.A.R.E. had no effect on students' use of alcohol, cigarettes, or inhalants, or on their future intentions to use these substances.	Not studied.	

Appendix

Department of Public Safety
 Drug Abuse Resistance Education Program
 Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies (cont'd)

Study Article	Description of the Study	Short-term	Impact on Substance Abuse Behavior	Long-term
Rosenbaum, Dennis, P., and Gordon S. Hanson. "Assessing the Effects of School-Based Drug Education: A Six-Year Multilevel Analysis of Project D.A.R.E." <i>Journal of Research in Crime and Delinquency</i> , 35:4 (November 1998): 381-412.	This study was conducted as a randomized field experiment with one pretest and multiple planned posttests examining students from 36 Illinois elementary schools from both rural and urban areas. It included 1,798 students who were surveyed annually from 6 th through 12 th grades. Data from the seven posttests was merged and an analysis strategy was used comparing the two groups across years. The results reported here are based on the combined sample of students surveyed across all years.	Not studied	The level of drug use (recent and lifetime use of drugs and alcohol) did not differ as a function of whether or not students participated in D.A.R.E. The exception to this is suburban students who received D.A.R.E. were more likely to try drugs than suburban students who did not receive D.A.R.E. ¹	
Rosenbaum, Dennis, Flewelling, Robert, Bailey, Susan, Ringwalt, Chris, and Deanna Wilkinson. "Cops in the Classroom: A Longitudinal Evaluation of Drug Abuse Resistance Education (D.A.R.E.)." <i>Journal of Research in Crime and Delinquency</i> , 31:1 (February 1994): 3-31.	This study surveyed 1,584 students in their last year of elementary school (5 th and 6 th grade) in 36 schools in Illinois using a pretest and a posttest in the year following exposure to the program.	The study found D.A.R.E. had no statistically significant effect on the initiation of alcohol, cigarettes, or increased use of substances, or quitting behavior.	Not studied.	

¹ In another technical report based on this Illinois study, it was reported that after four years, D.A.R.E. students were significantly older when they "first got drunk" and when they started drinking "at least once a month." These delayed-onset effects, however, were not sustained at the five-year measurement point. In fact, after five years, the program was associated with unexpected adverse effects on the primary drug outcomes: that is, D.A.R.E. students, relative to controls, reported significantly higher scores on the Total Drug Use and Total Alcohol Use indexes, as well as the severity of drinking.

Appendix

**Department of Public Safety
Drug Abuse Resistance Education Program
Program Impact on Substance Abuse Behaviors Reported in Evaluation Studies (concl'd)**

Study Article	Description of the Study	Short-term	Impact on Substance Abuse Behavior Long-term
<p>Wysong, Earl, Aniskiewicz, Richard, and David Wright. "Truth and D.A.R.E.: Tracking Drug Education to Graduation and as Symbolic Politics." <i>Social Problems</i>, 41:3 (August 1994): 448-72.</p>	<p>This study surveyed 619 12th-grade D.A.R.E. and non-D.A.R.E. students in Kokomo, Indiana. D.A.R.E. students underwent the program in the 7th grade.</p>	<p>Not studied</p>	<p>The study found little difference between D.A.R.E. and non-D.A.R.E. students on lifetime prevalence, recency of use, grade level at first drug use, and frequency of use. Two exceptions were a higher use of hallucinogens for D.A.R.E. students over the last 30 days and overall levels of use.</p>

AGENCY RESPONSE

**AGENCY RESPONSE TO THE REVISED PRELIMINARY REPORT OF THE
OFFICE OF THE AUDITOR GENERAL’S PERFORMANCE
AUDIT OF THE D.A.R.E. PROGRAM WITHIN THE
DEPARTMENT OF PUBLIC SAFETY**

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trained.

Response:

The recommendation of the Auditor General is agreed to and a different method of dealing with the recommendation will be implemented. D.A.R.E. will research and consider the development of an efficiency measure to assist in determining the cost of services provided.

Agency Response and Comments Regarding the Report of the Office of the Auditor General

General Comments

“Saying D.A.R.E. has limited impact compared to other prevention programs might be a great way to make headlines, but that claim is completely unwarranted.”

Dr. William DeJong of the Harvard School of Public Health

“The strength of D.A.R.E.’s organization is a major reason for our declining juvenile drug use rates. D.A.R.E. knows what needs to be done to reduce drug use among children and is doing it - successfully. Prevention in America cannot and will not ever be successful without D.A.R.E. as a key national leader.”

General Barry R. McCaffrey, past Director, Office of National Drug Control Policy

The audit process which has extended beyond one year, has been a very long and arduous journey for both the Auditor General’s Office and the Arizona Department of Public Safety. However, given this time frame, and despite numerous meetings and lengthy discussion with the Auditor General’s staff, there are still significant differences of opinion regarding their characterization of the D.A.R.E. program and its effectiveness. Additionally, these significant differences extend to their analysis of existing research.

Our opinion is that the report of the Auditor General does not represent an objective assessment of the D.A.R.E. program either at the national level, or more importantly, at the local level. **The report excludes all but one study of the D.A.R.E. curriculum following changes made to improve its performance in 1993. No other evaluation of the revised curriculum has been included, although studies of the revised curriculum are available and document the effectiveness of the program. The Auditor General’s staff received a detailed analysis of the effects cited in each study, including quantitative differences, which does not appear in the report.**

D.A.R.E.’s effectiveness has been repeatedly documented by evaluation studies conducted by independent researchers. D.A.R.E. may be unique among universal prevention curricula, in documenting positive behavioral outcomes in published evaluations conducted and authored by researchers, independent of the development team.

It should be noted that neither D.A.R.E. nor any other school-based prevention curriculum consistently reports long-term effects on drug use, unless it is combined with other activities in a comprehensive anti-drug program. Only an evaluation by the Pennsylvania Commission on Crime and Delinquency reviewed effects of the D.A.R.E. program following major modifications to the curriculum in 1994. This study of the revised D.A.R.E. curriculum found that D.A.R.E. students were less likely to use inhalants, smokeless tobacco, and crack cocaine in the 11th

grade. All other evaluations of D.A.R.E. were of the old curriculum and only one-third of the D.A.R.E. program (elementary evaluations only) not the entire D.A.R.E. program K-12.

For the auditors to advise, “over a decade of research has proven that D.A.R.E. is relatively ineffective,” is simply not true. D.A.R.E. has been holding the line with a clear, concise and consistent message for years. The problem is not D.A.R.E. The problem is the void the children are walking into when they leave that D.A.R.E. classroom. To quote the former First Lady, Mrs. Hillary Clinton, it truly “takes a village to raise a child.”

D.A.R.E. alone cannot ensure a drug-free future for our nation’s children. In fact, no single curriculum provides a drug or violence-free community. School-based drug prevention and the D.A.R.E. program must be a part of an overall national prevention strategy. This strategy must include continuous drug education, strong community commitment and most importantly, parental involvement.

Specific Issues

As stated in the above General Comments Section, there are still significant differences of opinion between the Auditor General’s Office and the Arizona Department of Public Safety regarding the audit reports’ characterization of the D.A.R.E. program, its effectiveness, and analysis of existing research. To assist in further clarification of our concerns we have included in this section, a third party review of the Auditor’s General’s report. The review and specific comments were provided by Dr. Michael J. Stoil, of Conwal Incorporated.

Dr. Michael J. Stoil is a senior analyst for Conwal Incorporated and has recently served as Technical Director for a 3-year, congressionally-mandated comparative analysis of 1,642 drug abuse prevention efforts. He authored both the Second and Third Report to Congress on AOD Prevention for the Secretary of Health and Human Services. Dr. Stoil has extensive experience as a senior planner/researcher and writer in the health policy field, with experience in health education, alcohol and other drug abuse, and behavioral health. *His resume is available upon request and his comments follow below (Pages 3 through 8):*

Comments regarding the revised draft of the Auditor General’s report of the D.A.R.E. Program

Michael J. Stoil, Ph.D

Throughout the report, the discussion switches back and forth without warning from the “core” 5th/6th grade course (note D.A.R.E. does not use the term “core”) to the multi year program. It becomes very difficult to determine whether a statement refers to the 5th/6th grade curriculum or to the entire program. My own reading is that this report is not based on an evaluation of D.A.R.E. but rather on an evaluation of the most-widely used one-year curriculum of the program.

Another confusion in the report is between “methodologically-sound evaluations” and academic articles submitted for peer review. These are distinct categories of sources. The Arizona Auditor General used the latter and claims to use the former, misrepresenting its sources and justifying a very artificial series of limitations (e.g., “studies examining (fifth/6th grade) D.A.R.E. in conjunction with other programs were excluded”).

This process of excluding unpublished state-sponsored evaluations and studies that assume 5th/6th grade D.A.R.E. is part of a continuum prevention resulted in finding that limited the “core” programs’ effectiveness to no more than two years.

On page 11, even the limited finding of the Auditor’s own staff that half of the cited studies in Table 2 report short-term is summarized as, “The 14 articles found that D.A.R.E. has had virtually no impact on students’ drug use behaviors.”

The following basic issues are not addressed at any point in the report:

- What is the criteria for continuation of a prevention program proposed by the Auditor General? This is important because the report repeatedly claims that D.A.R.E. has no “lasting” impact, with the implication that a two-year impact does not meet this criterion.
- Is the criterion for success the effectiveness of one year of a program or the entire program? The Auditor General insists on comparing the results from exposure to a single component of the D.A.R.E. program --the 5th/6th grade course--to the results obtained from the completion of multi year efforts.
- Assume we are talking about the 5th/6th grade intervention only. Is it the Auditor General’s recommendation that no program be offered to a general population of elementary school children unless it shows behavioral impact on more than two years? If that is true, then the Auditor General effectively is recommending that all substance abuse prevention programs for a general population of elementary school children should be withdrawn, at least until such time a program is documented.

The Auditor General’s representatives repeatedly claimed disinterest in evaluating the effectiveness of substance abuse prevention in general or of alternatives to D.A.R.E.; they were concerned “only” with the lack of impact of D.A.R.E. Nevertheless, effectiveness of an intervention is always compared to *something*, even if that “something” is to do nothing.

Given that D.A.R.E. shows better results than doing nothing, the Auditor General should suggest an appropriate standard for comparison among other elementary school interventions. The two alternatives cited--Project Star and Life Skills--have no elementary components.

Finally, I want to make it clear that I am not a D.A.R.E. proponent. I have no stake in whether communities reject the program; there are alternatives that may be equally viable. However, I believe firmly in unbiased, rational decision-making to select the most appropriate interventions based on evidence...not academic gossip. That belief lead to criticize even this “improved” version of the report.

Additional comments are addressed in the following table:

Reference in the January 31 Report	Comments
<p>“The D.A.R.E. curriculum is primarily directed toward the 5th or 6th grade students, the age at which prevention experts believe youth are most receptive to school-based drug prevention programs” p.1</p>	<p>Not true. The D.A.R.E. curriculum includes elements for elementary school and secondary school and the parents of the children. No reference is provided for the statement that there is consensus among prevention experts that youth are “most receptive” to school-based drug prevention programs in 5th or 6th grade; if anything, the guiding consensus is for repeated interventions throughout grade school and college. In fact, the programs cited later in the report as “promising” are directed toward older youth.</p>
<p>“Center for Substance Abuse: p. ii</p>	<p>Center for Substance Abuse <i>Prevention</i></p>
<p>“over a decade of peer-reviewed scientific research has failed to show that the program’s most widely used component..has any lasting impact on preventing or reducing adolescent substance abuse behavior.” p.i</p>	<ol style="list-style-type: none"> 1. The studies are not peer reviewed. The articles are peer-reviewed. That’s a big difference. 2. The Office of the Auditor General consistently refused to examine unpublished evaluations by state authorities on the ground that these were not “peer-reviewed.” By that logic, this report has no scientific weight (i.e., it’s not peer-reviewed). 3. Peer-reviewed articles, including those cited in the report, document D.A.R.E.’s impact on reducing adolescent smoking--the precursor to other substance abuse--for two years after exposure to the 5th-6th grade curriculum. Other drug related behaviors are too rare to measure with statistical significance during the two-year period. If the Auditor General defines that a two-year impact is not lasting,” it should do so and insist that the same criterion will be applied to any other curriculum element.

Reference in the January 31 Report	Comments
<p>“The D.A.R.E. program’s intent is to provide children with the information and skills they need to live drug-and violence-free lives.” p. 1</p>	<p>Inaccurate if they refer to the 5th/6th grade curriculum only; it could be imputed to the multi-year program. No mention made of the intent of fostering positive interaction between children and law enforcement officers.</p>
<p>Audit Scope and Methodology</p>	<p>See introductory comments</p>
<p>Section entitled “Research Fails to Find Lasting Impact...”</p>	<p>See introductory comments</p>
<p>Table 2</p>	<p>Table 2 shows problems with the Audit Report. Most of the “methodologically-sound” articles included did not study long-term effects; Dukes et al. (1996) and Dukes et al. (1997) describe the same study and find no short-term effects but significant long-term effects. Rosenbaum and Hansen is characterized as showing no long-term effects for D.A.R.E., but actually found that D.A.R.E. in combination with other programs has significant effects. Ennet, Ringwalt, et al. are cited three times (1991, and two virtually identical articles in 1994) with the false implication that three separate studies found similar results. All in all, this is a misleading and not terribly complete analysis.</p>
<p>“However, these effects were small, inconsistent, and short-lived.” p. 10</p>	<ol style="list-style-type: none"> 1. The findings are inconsistent, with the implication that differences in the research methodologies affect the result. By analogy, when some scientists look at the Giant Panda and say it’s a bear while others say it’s a raccoon, we don’t say it’s not consistently the same animal...rather, we assume some scientists are in error. 2. We can’t know that “these affects were...short-lived” because, according to Table 2, none of the articles that found the effects even studied long-term impact. And what does “small” mean if the findings are statistically significant?”

Reference in the January 31 Report	Comments
<p>“The majority of the studies have been conducted on the D.A.R.E. program’s core curriculum offered to 5th or 6th graders because this is the most widely used D.A.R.E. component.” p. 10</p>	<p>Academic studies focus on the 5th/6th grade curriculum because it’s easier to design such a study and cheaper to implement. State-funded non-academic studies often evaluate the entire program.</p>
<p>“The 14 articles found that D.A.R.E. has had virtually no impact on students’ drug use behaviors ...While some of the articles found that D.A.R.E. had a small short-term effect, none of the articles reported that D.A.R.E. had any appreciable effect over the longer period...Five of the 14 articles reviewed the core program’s long-term impact and only one of these found an effect on students’ behavior.” Pages 11-12</p>	<p>In two pages, we go from “virtually no impact” to “small short-term effect” with none of the articles reporting “any appreciable effect over the longer period” to one in five showing a long-term effect for the “core” program. An accurate, unbiased statement of facts would be “only half of the studies (5 out of 10 cited in Table 2 that address short-term effects) show short-term effects of the 5th/6th grade curriculum on student substance abuse behaviors and only 1 in 5 document effects that last six years.”</p>
<p>Lack of booster sessions p. 13</p>	<p>This section is illogical. First, the report excludes studies of multi year D.A.R.E. and then criticizes the program. Then the report chooses to ignore the NIDA, CSAP, and Department of Education guidelines on the need for booster sessions and claims there is little supporting research. Finally, the report cites Project STAR and Life Skills--both of which require multi year booster sessions--as potential alternatives that have been proven successful, but does not cite them as evidence for the efficacy of booster sessions.</p>

Reference in the January 31 Report	Comments
National Institute on Drug Abuse p. 16	The report continues to omit the crucial point that the examples of programs that have been scientifically studied and have shown positive results” are limited to NIDA grantees.
D.A.R.E. program proponents argue that these programs’ evaluations were not conducted in real-world settings and question whether the programs will prove effective once tested among the general school population. P. 18	<p>These are “straw men” arguments against these programs. The programs were conducted in the real world and will probably prove effective. However:</p> <ol style="list-style-type: none"> 1. Only their creators have evaluated Life Skills and STAR. The sole published independent evaluation of two years of the Life Skills curriculum found it ineffective. 2. Their “proven effectiveness” fail the “lasting effects” standard implied by the Auditor General because effects of longer than two years’ duration have not been published for either program.

D.A.R.E. Program Information For Third Party Readers

D.A.R.E. Program Overview

D.A.R.E. is the acronym for Drug Abuse Resistance Education, the single most widely-used substance abuse prevention and safety-promotion curriculum in the world. D.A.R.E. is a collaborative program in which local law enforcement and local schools join together to educate students about the personal and social consequences of substance abuse and violence.

The D.A.R.E. curricula is designed to be a police officer-led series of classroom lessons delivered sequentially from grades K-12. First developed in 1983, D.A.R.E. has undergone multiple revisions as research findings increased knowledge of effective substance abuse prevention among school-aged youth. Prevention of drug abuse and underage use of alcohol and tobacco is a focus of D.A.R.E. because substance abuse is the single most costly risk-taking behavior among adolescents.

However, drug abuse is not the only behavior addressed by the D.A.R.E. curriculum. D.A.R.E. promotes positive choices about risk-taking and health-related behaviors, social skills, communication skills, self-esteem, and healthy self-assertion. The program provides factual information on drugs, gangs, and violence, while teaching practical resistance skills to avoid destructive peer pressure to use drugs or become involved in gangs or dangerous and violent situations. It does this in a school environment that fosters a positive relationship with a community-based police officer. These vital life-skills are the foundation for healthy, safe and wiser citizens.

Today, the D.A.R.E. program is taught in more than 80 percent of all school districts throughout the United States, benefitting over 26 million students annually. Clearly, D.A.R.E. has played a pivotal role in helping reverse the direction of teen drug use in America.

Unlike other prevention programs, D.A.R.E. is a non-profit program implemented at the local level at the request of parents, school districts, and law enforcement. Over 10,000 communities have D.A.R.E. in place and each month, scores of communities initiate or expand the D.A.R.E. program.

We realize D.A.R.E. is not a panacea for this multifaceted epidemic of drug abuse. There is no silver bullet. Nor do we claim that D.A.R.E. is solely responsible for this recent significant and encouraging decline in drug usage among our youth. D.A.R.E. is, however, a vital component of a comprehensive solution that includes caring parents and strong community partnerships.

Scientific Theory

D.A.R.E. is consciously based on “social influence theory.” This theory was first employed in Project SMART, an experimental curriculum developed by the RAND Corporation that served as a prototype for D.A.R.E. As described in an independent analysis of D.A.R.E. by Baker, Petty, and Gleicher (1991):

...First it can be seen that the D.A.R.E. program incorporates the notion that there are many more attitudes relevant to the prevention of drug use than merely one’s knowledge and attitude about the illicit drug itself. Attention is given to the bolstering of self-esteem and assertiveness, the role of peers in the influence of drug use, and so on...

Another variable that influences the stability of newly formed anti-drug attitudes is the amount of practice the person has thinking about and defending this new position from attack. It is often the case that one's attitudes, especially concerning the rejection of drug use, will likely be subject to counter persuasion by peers or others...Again, Project D.A.R.E. includes a variety of inoculation type sessions in which students practice rejecting persuasive attempts by peers (pp. 198-199).

The Uniqueness of D.A.R.E.

Virtually all substance abuse and violence prevention experts agree that a key to success is enlisting the involvement of as many of the authoritative figures in a community in reinforcing a consistent message. D.A.R.E. provides unique involvement for a wide range of these figures, including law enforcement officers, classroom teachers, peer leaders, and parents.

The "booster" sessions of D.A.R.E. in secondary school add involvement by other health professionals. Very few, if any, national prevention programs mobilize all these authoritative sources to transmit and reinforce skills and safety promotion messages. Law enforcement professionals especially favor D.A.R.E. because it provides a rare opportunity for positive interaction with children in a familiar, comfortable classroom setting.

Additionally, as concerns about crime rise, the way Americans think about policing is being transformed. Integration of the creative thinking of law enforcement administrators and academics with a wide body of policy research findings has yielded the concept of community policing. Unlike programs intended to address specific problems faced by law enforcement, community policing calls for an all-encompassing change in the way police perform their duties.

D.A.R.E.'s drug and violence prevention program is consistent with an integrated community policing approach by offering students the opportunity to gain a trustworthy adult friend, develop a positive attitude toward law enforcement personnel and acquire greater respect for the law. According to a recent report by the U.S. Department of Justice, "In philosophy and practice, D.A.R.E. compliments the tenets of a community-based approach to policing. Together, building on ideas of partnership, open communication, reciprocal education, and mutual respect, community policing and D.A.R.E. can improve the quality of life in the nation's communities."

Evaluation Issues: Evidence of Efficacy

D.A.R.E. is generally conceded to be the most frequently-evaluated substance abuse prevention curriculum. Independent studies show that its effects on positive behavior are retained for at least one year after the most recent exposure to D.A.R.E. material. Even the most critical evaluations indicate that D.A.R.E. has measurable impact on early alcohol and tobacco use.

Evaluations conducted among youth with strong anti-drug attitudes prior to administration of D.A.R.E. suggest that exposure to D.A.R.E. does not change their behavior. However, evaluations conducted among urban youth who are at risk for early involvement in drug use or gang membership show significant differences between students who experienced D.A.R.E. and students who did not receive the curriculum.

A widespread academic legend that D.A.R.E. is “ineffective” results from two issues. First, D.A.R.E.’s effects like those of any other prevention program, dissipate over time. In other words, no differences are observed at age 18 between fifth grade D.A.R.E. graduates and other students. Just as there is no difference between the risk status for influenza of someone who received a flu shot in 1992 and someone who didn’t.

Second, it’s difficult to prove D.A.R.E.’s role in preventing rare behavior. For example, if D.A.R.E. makes a 15% reduction in the number of 14 year olds who try cocaine, this success effects only 0.4% of all eight graders. Statisticians argue that such small changes may be due to random chance. **In fact, no prevention curriculum tested to date has shown significant effects on drug use six years after its completion.**

Dr. Michael J. Stoil, Senior Analyst for Conwal Incorporated and Technical Director for a 3-year, congressionally-mandated comparative analysis of 1,642 drug abuse prevention efforts and nationally recognized researcher in the health, alcohol and drug abuse field, states: “Most universal prevention curricula have been favorably evaluated only in outcome studies directed and authored by their developers; in contrast, D.A.R.E.’s efficacy has been repeatedly documented by evaluation studies conducted by independent researchers (note Dr. Michael J. Stoil’s summary tables listed on page 12). Nevertheless, there are two caveats concerning completed rigorous D.A.R.E. outcome evaluations:

- Only three studies (Donnermeyer and Phillips 1995, Rosenbaum and Hanson 1998, and Pennsylvania Commission on Crime and Delinquency 1999) have been conducted on the effects of D.A.R.E. that include booster sessions beyond the core D.A.R.E. curriculum.
- Only the 1999 evaluation by the Pennsylvania Commission on Crime and Delinquency reviewed effects of the D.A.R.E. program following major modifications to the curriculum in 1994.

Within the limits of these caveats, the following positive effects of D.A.R.E. have been repeatedly reported:

- Reduced rates of substance involvement, sometimes measured in reduced rates of tobacco use, retained through seventh grade.
- More widespread positive perceptions of police [or of D.A.R.E. officers], retained for one - five years, depending on the evaluation.
- Heightened awareness of media influence on alcohol and tobacco use and greater acceptance of efficacy of refusal strategies, retained for two to five years, depending on the evaluation.

The 1999 Pennsylvania study of the revised curriculum found statistically-significant D.A.R.E. effects among eleventh grade students on intent to use all substances and on actual use rates of inhalants, smokeless tobacco, and crack cocaine. Greatest differences were observed when the core D.A.R.E. curriculum was combined with an age-appropriate curriculum for secondary school students. This coincides with the findings of Donnermeyer and Phillips (1995) that more robust positive long-term outcomes for D.A.R.E. result from combining the core curriculum with other prevention activities in secondary school.”

EVIDENCE OF D.A.R.E. CURRICULUM EFFECTS ON BEHAVIOR

Independent evaluations of D.A.R.E. with designs that permit analysis of statistical significance of positive findings.

Evaluation Elements	DeJong 1987*	Donnermeyer & Phillips 1995 *	PA Commission on Crime and Delinquency 1999	Rosenbaum & Hanson 1998
Evaluation period	Less than 1 year after completion	Five years	Three-to four years	Six years
Location of study	Grade 7 students in four LA schools	Grade 11 students in 34 Ohio schools	Grade 9 students in 14 PA schools	Grade 12 students in Illinois
Sample size	598	3,510	2,538	1,798
D.A.R.E. effects at p<.05 (a measure of statistical certainty)	D.A.R.E. reduced mean drug use scores among boys only	D.A.R.E. increased the likelihood of total abstinence or nonrecurring use (i.e., "low-risk" for drug problems)	D.A.R.E. reduced use of smokeless tobacco, inhalants, and crack, and intent to use other drugs	Significantly reduced tobacco use; delayed onset of alcohol intoxication and frequent drinking
Retention of effects	Not applicable	At least 5 years	At least 4 years	1 year for tobacco; 4 years for alcohol
Other findings	Both D.A.R.E. and non-D.A.R.E. 7 th grade girls reported lower mean drug use scores than male D.A.R.E. participants	Participation in at least one D.A.R.E. booster session in grades 7 through 9 increased rates of "low risk" for future drug problems	D.A.R.E. graduates who participated in an additional program reported use rates lower than youth with no program or youth with D.A.R.E. alone	Assessment difficult because most suburban youth in both non-D.A.R.E. and D.A.R.E. schools report strong opposition to drug use
Citation	Journal of Drug Education 17(4)	Ohio Office of Criminal Justice Services	Justice Analyst 13(3) (State government journal)	Center for Research in Law and Justice University of Illinois - Chicago

* Studies with an asterisk were based on the curriculum prior to the 1994 modifications.

EVIDENCE OF D.A.R.E. CURRICULUM EFFECTS ON KNOWLEDGE AND ATTITUDES

Independent evaluations of D.A.R.E. with designs that permit analysis of statistical significance of the findings.

Evaluation Elements	Donnermeyer & Phillips 1995 *	Dukes 1989 *	PA Commission on Crime and Delinquency 1999	Rosenbaum & Hanson 1998	Ringwalt, Ennett, and Holt 1991 *
Evaluation period	Five years	Immediately after program	Three-to-four years	Six years	Immediately after program
Location of study	Grade 11 students in 34 Ohio schools	Suburban and urban Colorado school districts	Grade 9 students in 14 Pennsylvania schools	Grade 12 students in Illinois	Two North Carolina school districts
Sample size	3,510	1,250	2,538	1,798	1,270
D.A.R.E. effects at p<.05 (a measure of statistical certainty)	Increased likelihood of positive attitude toward police and of critical view of televised information about drugs	More widespread belief in acceptability of refusal skills; greater knowledge of stress reduction techniques	Increased likelihood of positive attitudes toward some police (i.e., D.A.R.E. officers)	More awareness of media influence on alcohol and tobacco use; greater likelihood of positive view of police	Greater awareness of media influence on tobacco and alcohol use; less widespread belief that peers favor drug use
Retention of effects	At least five years	Not applicable	At least four years	Two years for awareness of mass media influence; shorter duration for other effects	
Other findings	D.A.R.E. graduates more likely to score higher on family communication	Both D.A.R.E. and non-D.A.R.E. participants overwhelmingly rejected drug use	D.A.R.E. had strong effects on intent to use	Most suburban students indicated high levels of self esteem regardless of participation. Many D.A.R.E. - related changes in beliefs and knowledge were not examined.	
Citation	Ohio Office of Criminal Justice Services	Internal report for the State of Colorado	Justice Analyst 13(3)	Center for Research in Law and Justice, University of Illinois-Chicago	Center for Social Research and Policy Analysis, Research Triangle Institute

* Indicates study of pre-1994 curriculum

When examining D.A.R.E.'s effectiveness, the program should be viewed from a number of different perspectives. This should include its measured effects on individual student's attitudes and behavior; the effect it has on attendance, discipline, and classroom management.

Other areas for review should include the effects it has on community awareness and involvement in schools and other institutions that combat drug abuse. Perhaps most importantly, is the effect that D.A.R.E. is having on the concept of community policing and on the perception of officers and their departments regarding the importance of supply and demand reduction efforts in the fight against drug abuse and violence in our society.

D.A.R.E. alone cannot ensure a drug-free future for our nation's children. In fact, no single curriculum provides a drug or violence-free community. School-based drug prevention and the D.A.R.E. program must be a part of an overall national prevention strategy. This strategy must include continuous drug education, strong community commitment and most importantly, parental involvement.

For the auditors to advise, "over a decade of research has proven that D.A.R.E. is relatively ineffective," is simply not true. D.A.R.E. has been holding the line with a clear, concise and consistent message for years. The problem is not D.A.R.E. The problem is the void the children are walking into when they leave that D.A.R.E. classroom. To quote the First Lady, Mrs. Hillary Clinton, it truly "takes a village to raise a child."

Anecdotal Information

While some academicians and others outside the D.A.R.E. program may be skeptical of D.A.R.E.'s results, the children, parents, police officers, elected officials and others that have had a first-hand experience with D.A.R.E. are overwhelmingly supportive. There are many stories from all over the nation of kids who used what they learned in the D.A.R.E. program to get them out of dangerous situations and turn down drug offers. How does one capture and quantify the unknown number of times a student turns down a drug offer or a ride in a stranger's vehicle?

In classes for younger children, the officers emphasize personal safety and the message is being received and understood. For example, a ten year old girl from Newport Beach, California, named Amber, escaped a would-be abductor near her home. She credited the D.A.R.E. officer at her school for teaching her what to do.

One little girl in Massachusetts used what she learned in her D.A.R.E. class to first refuse and then report a man who attempted to abduct her. As it turned out, the man was a wanted serial killer from another state. These are only two examples of hundreds of positive outcome incidents as a result of the D.A.R.E. Program that are received every year by D.A.R.E. America.

Future Directions

The D.A.R.E. program is systematically reviewed by the D.A.R.E. Scientific Advisory Board, the D.A.R.E. America Law Enforcement Advisory Board, the D.A.R.E. America Youth Advisory Board, D.A.R.E. officers, school and municipal administrators. Research findings and increased knowledge of effective anti-drug, anti-violence, and anti-substance abuse prevention is continually evaluated for incorporation into the curricula.

D.A.R.E. America maintains a constant commitment to refining and improving the D.A.R.E. program and its demonstrated effectiveness. As previously stated, its independent Scientific Advisory Board reviews and recommends research continuously and systematically.

The Scientific Advisory Board Chair, Dr. Herbert Kleber, now of Columbia University, was formerly Deputy Director of Demand Reduction for the White House, Office of National Drug Control Policy. His and other individual efforts have generated a series of rigorous scientific trials now under way involving the D.A.R.E. curriculum. For example:

- The potential synergism between D.A.R.E.'s middle school program and the D.A.R.E. + Plus after school program is currently being examined by the University of Minnesota Department of Public Health under a peer-reviewed grant from the National Institute on Drug Abuse.
- A multi million dollar award from Robert Wood Johnson Foundation is allowing the former Director of Prevention Research at the National Institute on Drug Abuse to supervise a refinement of the D.A.R.E. middle school curriculum, based upon the most recent findings in substance abuse and violence prevention and intervention research.
- The D.A.R.E. elementary and Sr. High curricula will soon begin still another review and revision process at the University of Akron Institute for Health and Social Policy, incorporating the most recent findings in substance abuse and violence prevention and intervention research.

The D.A.R.E. sequential curriculum is in its ninth generation of improvement and, more importantly, it is the only prevention program that includes elementary, middle, and high schools. Thus students receive vital reinforcement of the principles behind the knowledge and skills to avoid not only drugs, but also alcohol, tobacco, and violence.

“Overall, drug use is down substantially among youth.” These were the words voiced by National Drug Czar, General Barry McCaffrey as he and Health and Human Services (HHS) Secretary Donna Shalala released the results of the annual HHS National Household Survey on Drug Abuse. The survey, which is one of the very few credible national measures of drug abuse, reports a statistically significant decline in teen drug abuse during 1999.

The year 2000 marked the third consecutive year that teen drug usage dropped, although it is still at an unacceptable level. D.A.R.E., the prevention education program that teaches children to avoid drugs, alcohol, tobacco, and violence, has played a key role in the overall national strategy which has helped enable America to reach this important milestone. The future will be challenging, but bright, and D.A.R.E. will continue to play an active role in community partnerships to combat the scourge of drug abuse and violence in society today.

Conclusion: The Bottom Line On D.A.R.E.

Joseph F. Donnermeyer, Ph.D., Ohio State University

“The Bottom Line is this: All the research on D.A.R.E. indicates that it has a positive impact on the behaviors and attitudes of students. However, like all prevention education programs, the elementary school D.A.R.E. program is subject to its effects wearing off if it is not reinforced with additional educational efforts. Practice is essential to long-term learning.

In 1987-88, D.A.R.E. stood, practically alone, on the front lines of America’s efforts to reduce adolescent substance abuse. Back then, a prevention education program was viewed as a “magic bullet” that was expected to take care of the problem, all by itself.

This is not true today. The D.A.R.E. elementary program provides a valuable first step toward continuous quality education for young people about the dangers of drug use. The middle and senior school D.A.R.E. programs are attempts to strengthen that investment, and the same can be said of Red Ribbon Week, Just Say No Clubs and the other prevention education programs that are now available to schools throughout the country. Parent drug education programs have started in many communities. Media campaigns help as well.

We are beginning to see results. Data from the National Household Survey on Drug Abuse and the nationally representative Monitoring the Future Study indicated that illicit substance abuse has leveled off and is beginning to decline. What a shame it would be if the most successful prevention education program in the country loses support now because of political infighting among prevention educators and the desire by some critics to cash in at D.A.R.E.’s expense.

More so than in 1987-88, children growing up today are continuously exposed to peer pressure and messages from movies, radio and television which say that consuming alcohol, marijuana, inhalants, cocaine, and other drugs is “cool” and will not cause harm.

School officials, parents, and community leaders need to be part of a comprehensive strategy of educational efforts within each school system that begins in the early grades and continues through high school. Keeping in mind the analogy of piano lessons, we need to recognize the positive benefits when prevention programs, including D.A.R.E., work together to form a powerful partnership in the fight against drugs.”

Other Performance Audit Reports Issued Within the Last 12 Months

00-5	Arizona Department of Agriculture— Licensing Functions	00-15	Arizona Department of Agriculture— Commodity Development Program
00-6	Board of Medical Student Loans	00-16	Arizona Department of Agriculture— Pesticide Compliance and Worker Safety Program
00-7	Department of Public Safety— Aviation Section	00-17	Arizona Department of Agriculture— Sunset Factors
00-8	Arizona Department of Agriculture— Animal Disease, Ownership and Welfare Protection Program	00-18	Arizona State Boxing Commission
00-9	Arizona Naturopathic Physicians Board of Medical Examiners	00-19	Department of Economic Security— Division of Developmental Disabilities
00-10	Arizona Department of Agriculture— Food Safety and Quality Assurance Program and Non-Food Product Quality Assurance Program	00-20	Department of Corrections— Security Operations
00-11	Arizona Office of Tourism	00-21	Universities—Funding Study
00-12	Department of Public Safety— Scientific Analysis Bureau	00-22	Annual Evaluation—Arizona’s Family Literacy Program
00-13	Arizona Department of Agriculture Pest Exclusion and Management Program	01-01	Department of Economic Security— Child Support Enforcement
00-14	Arizona Department of Agriculture State Agricultural Laboratory	01-02	Department of Economic Security— Healthy Families Program

Future Performance Audit Reports

Department of Public Safety—Telecommunications

Board of Osteopathic Examiners in Medicine and Surgery