PERFORMANCE AUDIT

ARIZONA DEPARTMENT OF EDUCATION
DROPOUT PREVENTION EFFORTS

Report to the Arizona Legislature
By the Auditor General
June 1996
Report #96-6

STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

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June 27, 1996

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Members of the Arizona Legislature

The Honorable Fife Symington, Governor

The Honorable Lisa Graham Keegan
State Superintendent of Public Instruction

Transmitted herewith is a report of the Auditor General, A Performance Audit of the Arizona Department of Education's (ADE) dropout prevention efforts. This report is in response to a May 30, 1995, resolution of the Joint Legislative Audit Committee. The performance audit was conducted pursuant to the provisions of A.R.S. §41-2958. This is the first in a series of four audit reports regarding public education.

According to ADE's most recent reports, over 12 percent of Arizona's high school students and 3 percent of Arizona's middle school students dropped out during the 1993-94 school year. We found that ADE needs to take a more active role in helping school districts prevent dropouts. While Arizona school districts operate over 400 dropout prevention programs, including alternative schools, counseling programs, truancy control efforts, and peer mentoring opportunities, neither the districts nor ADE have assessed most of these programs' effectiveness. Further, ADE provides limited technical assistance to districts regarding dropout prevention programs. Finally, we found ADE needs to work with districts to improve the accuracy of dropout data reported by the districts.

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

This report will be released to the public on June 28, 1996.

Sincerely,

Douglas R. Norton
Auditor General

Enclosure

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SUMMARY

The Office of the Auditor General has conducted a performance audit of the Arizona Department of Education's (ADE) dropout prevention efforts. This audit was conducted pursuant to the provisions of A.R.S. §41-2958 and in response to a May 30, 1995, resolution of the Joint Legislative Audit Committee. This is the first in a series of four audit reports we will issue regarding public education.

Arizona's school districts operate a variety of dropout prevention programs designed to keep public school students in school and provide them with alternatives to dropping out. Dropout prevention efforts range from highly structured alternative schools to informal, school-sponsored counseling and tutoring programs. However, schools, districts, and ADE need more information to ensure that efforts are effective and directed at the appropriate schools and students. Most programs have not been evaluated by districts or the Department of Education. As a result, the real effect of dropout prevention programs is unknown. Further, proving programs reduce dropout rates is difficult because schools' dropout counts are inaccurate.

Expanded ADE Role Would Benefit Dropout Prevention Efforts Statewide (See pages 5 through 10)

By taking a more active role, ADE could enhance the quality and effectiveness of dropout prevention programs statewide. Arizona school districts operate over 400 of these programs, including alternative schools, counseling programs, truancy control efforts, peer mentoring opportunities, and after-school and summer school classes. However, neither the districts nor the State have assessed most of these programs' effectiveness. As a result, at least $25 million in district, state, and federal funds may be supporting programs of questionable impact. Education experts agree that evaluation is necessary to assess program impact; however, few districts evaluate their dropout prevention programs. Further, ADE provides limited technical assistance to districts attempting to evaluate programs.

In contrast, other states' education agencies have focused more efforts on dropout prevention programs. These states, recognizing the benefits of addressing the dropout problem, provide technical assistance to schools operating dropout prevention programs, and in some cases, evaluate the programs. Additionally, some states have created innovative methods to encourage schools to implement dropout prevention programs.

Arizona's Dropout Data Do Not Accurately Reflect the Number of Dropouts (See pages 11 through 17)

Arizona's reported school and statewide dropout rates do not accurately reflect the actual rates of dropouts. More than half of Arizona's dropouts are classified as such because schools have not been able to locate the students after they leave the district. Many of these students may have transferred to schools in other districts or states. However, schools experience difficulty tracking these students and verifying whether students have transferred to a new school. Other states improved their dropout data by successfully tracking students using a statewide automated information system. The Department plans to implement a statewide automated system that would allow easier tracking of students by electronically connecting all Arizona schools and districts with ADE, but this plan is in its early stages.

Moreover, schools' inconsistent recordkeeping also distorts dropout data. Schools fail to consistently follow ADE guidelines for classifying student dropouts. ADE can improve the accuracy of Arizona's dropout data by providing more training to district personnel responsible for this recordkeeping.

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INTRODUCTION AND BACKGROUND

The Office of the Auditor General has conducted a performance audit of the Arizona Department of Education's (ADE) dropout prevention efforts. This audit was conducted pursuant to the provisions of A.R.S. §41-2958 and in response to a May 30, 1995, resolution of the Joint Legislative Audit Committee. This is the first in a series of four audits regarding public education.

Arizona's Dropout Problem

According to ADE's most recent reports, over 12 percent of Arizona's high school students and 3 percent of middle school students dropped out during the 1993-94 school year. Additionally, 32 percent of the class of 1993 failed to graduate within 4 years. Further, national statistics show Arizona ranks poorly at keeping students in school when compared to other states. The United States Bureau of the Census records information about people not enrolled in schools and without a high school diploma or an alternative credential, such as a General Educational Development (GED) certificate. In 1990, the Census reported a 14 percent dropout rate in Arizona for persons aged 16 through 19. This appears high when compared to other states' rates, which had ranges of 5 to 15 percent. More recently, in 1993, Arizona ranked 39th in the nation, with 16 percent of its 18-to-24-year-olds not possessing a high school diploma or an alternative credential.

The Effects of Dropping Out Are Substantial

Dropping out of school adversely impacts not only dropouts but society as well. Today's dropout faces a bleak future, with few economic opportunities. Census figures show that in 1960, dropouts were 50 percent more likely to be unemployed than non-dropouts; however, by 1987, dropouts were 200 percent more likely to be unemployed. According to a recent report:

> *"Education, more and more, has become key to a productive and satisfying life. Gone are the days when a lack of education didn't hurt one's chances for finding good, steady work. Opportunities are expanding for those with higher level skills and withering for those without such skills."*[1]

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1. Education Testing Service Policy Information Center. *Dreams Deferred: High School Dropouts in the United States, 1995.*

Moreover, dropouts impose a considerable burden on society. High school dropouts represent over 80 percent of the U.S. jail and prison population. They also comprise nearly half of the heads of households on welfare. Other consequences include foregone income and tax revenues. One estimate suggests each year's class of dropouts will, in their lifetime, cost the nation approximately $260 billion in lost earnings and foregone taxes.[1]

Students At Risk of Dropping Out

Students with certain characteristics are more likely to drop out than others. Common indicators of a student's at-risk status include:

- Low or failing grades,
- Attendance problems,
- Age above average for grade level,
- Low socioeconomic status, and/or
- Non-English speaking background.

However, experts suggest that using these indicators to identify potential dropouts is problematic since more than 50 percent of dropouts may not fit the "at-risk" criteria. Many dropouts are students who lack the social, economic, ethnic, and racial characteristics typically associated with dropouts.

Dropout Prevention Programs in Arizona

State efforts to deal with the dropout problem include two statutorily established dropout prevention programs. Laws 1987, Chapter 333 authorized certain districts to raise and expend funds beyond their revenue control limit (a district's total spending limit based on its student count and transportation costs) for dropout prevention programs. Currently, 20 districts participate in the 1987 program. (See Other Pertinent Information, pages 19 through 23, for more information on this program.) In addition, Laws 1988, Chapter 308 established a program supporting at-risk students within grades kindergarten through third (K-3) and seventh through twelfth (7-12). ADE selected 12 districts to participate in

1. LeCompte, M.D. and Dworkin, A.G. *Giving Up On School*, 1991.

the 7-12 At-Risk Program based on the severity of their at-risk problem, their proposed program, and their size and geographic location. In fiscal year 1995-96, ADE reduced the funding provided to the original 12 sites in order to provide funding for 15 additional districts. In addition to these programs, school districts support many other dropout prevention programs.

However, of the two statutorily established programs, only the 1987 Program will remain after the 1995-96 fiscal year. In 1996, the Legislature eliminated the At-Risk Program based on recommendations in a Program Authorization Review conducted by the Joint Legislative Budget Committee staff and the Office of Strategic Planning and Budgeting staff in 1995. The review recommendations noted that the dropout prevention programs' impact on dropout rates is unclear, and effective strategies for dropout prevention have not been clearly documented.

Staff and Funding

Although at least $25 million is spent on dropout prevention activities statewide, the statutorily established 1987 and At-Risk programs account for only $8 million of this funding. The Legislature appropriated $2.2 million for the At-Risk Program and districts raised more than $5.8 million in local revenues for the 1987 Program during the 1995-96 school year.[1] The remaining $17 million was funded by district budgets, and federal and private grants.

Due to the At-Risk Program's elimination, no ADE employees will oversee dropout prevention programs in 1996-97. The employee who spent half her time collecting information and monitoring programs will be reassigned. However, other ADE staff continue to collect and analyze district enrollment and withdrawal information and prepare dropout and graduation reports.

Scope and Methodology

This audit focuses on Arizona's public school dropout problem. The audit includes information on state and local efforts to prevent students from dropping out, and the problems with accurately identifying and capturing Arizona's total number of dropouts.

We examined Arizona's dropout problem from three perspectives. First, all Arizona districts were surveyed to document the extent of dropout prevention activities throughout the State. Site visits to several dropout prevention programs were then conducted to verify survey responses. Additionally, we conducted an extensive literature

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1. Although the state dropout prevention program was placed in a block grant of $22.9 million for fiscal year 1995-96, ADE expected $2.2 million to be spent on dropout prevention programs.

review to identify effective dropout prevention strategies and programs, and also contacted other states to identify how they reduce dropout rates.[1]

Second, we examined the accuracy of the school districts' reported dropout numbers. Site visits were conducted at 15 high schools within 10 districts to determine recordkeeping practices regarding enrolling, withdrawing, and tracking students and to identify inconsistencies between schools. The Department's efforts to develop a statewide information and tracking system were also reviewed.

Finally, we reviewed Arizona's dropout rate calculation methodology and compared it to the U.S. Department of Education's National Center for Education Statistics methodology, and that used in several other states. National and state reports comparing various calculation methodologies were also reviewed. In addition, ADE staff responsible for dropout rate calculations were interviewed.

Findings are presented in two areas:

- The effectiveness of the numerous dropout prevention programs districts operate is unknown.
- Arizona's reported dropout rates do not accurately represent the State's actual dropout rate.

Additionally, the Other Pertinent Information section (see pages 19 through 23), presents Arizona's inability to compare its dropout rate with other states, the status of the RCL dropout prevention program, and new strategies for dealing with the dropout problem.

The Auditor General and staff express appreciation to the Superintendent of Public Instruction, the Arizona State Board of Education, Arizona school districts, and their staff for their cooperation and assistance throughout the audit.

1. The following states were contacted during this audit: Arkansas, California, Colorado, Florida, Illinois, Minnesota, Nevada, South Carolina, Tennessee, Texas, Washington, Wisconsin, and Virginia.

FINDING I

EXPANDED ADE ROLE WOULD BENEFIT DROPOUT PREVENTION EFFORTS STATEWIDE

"Little will be gained by throwing large sums of funds at "dropout prevention" that is not directed toward positive results. The real pay-offs will occur when states use their money to determine, through rigorous external evaluation practices, what works and to help school districts adopt valid practices."[1]

The Arizona Department of Education (ADE) could do more to help districts address the State's dropout problem. Districts annually spend millions of dollars on over 400 programs designed to keep students in school; yet their effectiveness is questionable, since few of these programs have ever been evaluated. Moreover, ADE provides limited technical assistance to districts operating dropout prevention programs. ADE should consider experts' recommendations and follow other states' leads by providing districts with increased technical assistance in dropout prevention programming and evaluation.

Numerous Dropout Prevention Programs Exist Statewide But May Be Ineffective

Although districts operate many types of dropout prevention programs, the effectiveness of these programs is largely unknown. Neither the districts nor ADE adequately determine program impacts through evaluation. Consequently, the State's and districts' well-intended efforts may be misguided.

Districts report numerous efforts statewide—To determine the extent of dropout prevention efforts statewide, we conducted a survey of every school district in Arizona. Overall, 77 percent, or 185 districts, responded. In the survey, district administrators were asked to include as a dropout prevention program any strategy at any grade level designed to prevent students from dropping out, or to retrieve students who have already dropped out of school. Ninety-five district administrators described at least one dropout prevention effort operating within their district. Additionally, these districts reported the

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1. The Southern Regional Education Board. *reaching the Goal to Reduce the Dropout Rate.* 1991.

number and grade level of students served, provided budget information, and desc [1] ribed program evaluation efforts.

Table 1 (see page 7) lists the types of dropout prevention programs operating in Arizona during the 1994-95 school year.

The survey revealed that districts expend significant funding and efforts on programs. In fiscal year 1994-95, districts spent more than $25 million on these programs. However, this figure may understate total dropout prevention program funding as only half of the districts provided budget information for their programs. Program costs ranged from zero for volunteer tutors in elementary schools to over $160,000 for an alternative school. Districts utilized state, federal, and private grants, and local district funds to finance dropout prevention efforts. However, districts funded the majority of efforts with local tax dollars.

Moreover, approximately 50,000 students, about 1 in every 13 students enrolled in Arizona's public schools, participate in a dropout prevention effort. This figure is conservative, since it excludes students served by 31 programs operating school-wide, such as counseling or attendance incentive programs.

Dropout prevention efforts can serve students at every grade level from kindergarten through the 12th grade. Fifteen districts reported operating almost 100 dropout prevention programs aimed solely for students in grades K through 6, and 75 districts operate over 200 programs targeted to students in grades 7 through 12. Additionally, several school-wide efforts serve students at all grade levels.

Programs may be ineffective—Because districts spend millions of dollars on dropout prevention programs, it is important to ensure that dollars and efforts are appropriately targeted. However, without evaluation, the effectiveness of dropout prevention programs remains uncertain. Experts in dropout prevention strongly recommend well-designed evaluation as a component of dropout prevention efforts to determine what strategies work. One expert states, "It is senseless to implement and run educational programs without systematically assessing their effects on intended beneficiaries."[1] Researchers recommend measuring program performance using test scores before and after participation in the program, and long-term tracking of graduation and dropout rates, enrollment in academic courses, attendance rates, and participation in extracurricular activities. Additionally, proper evaluation should include a comparison group that provides a baseline for determining program effectiveness.

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1. Natriello, G., McDill, E.L., & Pallas, A.M. *Schooling Disadvantaged Children: Racing Against Catastrophe*. 1990.

Table 1

Types of Dropout Prevention Programs
Academic Year 1994-95

Alternative School
An exclusive alternative learning environment for students failing in the conventional school.

Alternative Classroom
An alternative class period held on the conventional school campus. Alternative classes are designed to help potential dropouts increase their academic skill level.

Behavior Modification
Any program designed to modify violent, destructive, or disruptive behavior patterns. Examples include: substance abuse, gang prevention, in-school suspension, and intensive discipline programs.

Comprehensive Program
Students participating receive academic, health, and social services. These programs combine the services of several state and local agencies

Counseling
Advice and guidance provided to students by adults in group or individual sessions.

Extended School Day or Year
Allows students to make up missed or failed classes or simply increase their number of credit hours.

Incentives
Students receive positive reinforcement for good behavior, high academic achievement, or regular attendance.

Peer Assistance
Students provide counseling and tutoring to fellow students.

Teen Pregnancy and Parenting Program
Program for teen parents focusing on prenatal health and parenting skills in addition to the conventional academic curriculum.

Truancy Control
Programs designed to decrease absenteeism.

Tutoring
Academic assistance provided to students by adults in groups or one-on-one.

Other
Programs that did not fit into any of the categories above.

Source: Auditor General survey of dropout prevention efforts.

While experts agree that programs must be evaluated to determine program effectiveness, Arizona's districts evaluate few programs. Although districts reported evaluating 43 percent, or 178, of all dropout prevention efforts, further analysis of the evaluations revealed that only 20 programs were thoroughly evaluated. Districts evaluated these programs using outcomes determined through tracking of participants to measure program effectiveness. The remaining 158 programs used less rigorous evaluation

techniques including student satisfaction surveys, feedback from parents, and teacher evaluations to measure the effectiveness of dropout prevention programs.

Increased ADE Role Could Improve District Efforts to Address the Dropout Problem

By expanding its dropout prevention role and providing technical assistance, ADE could help districts improve dropout prevention programs. Currently, the Department provides few services that support dropout prevention efforts in school districts. Experts and district administrators agree that an expanded ADE role could enhance statewide efforts to prevent students from dropping out. In contrast to Arizona's limited technical assistance role, several states assist school districts by providing a clearinghouse of dropout prevention information and by evaluating programs.

ADE provides few services—Despite districts' extensive efforts in dropout prevention programming, ADE provides limited technical assistance in this area. Technical assistance can range from compiling and disseminating information on promising dropout prevention strategies to assisting with evaluation designs. While larger districts employ evaluation staff to provide these services, smaller districts may lack such resources. ADE also lacks these resources, as it currently commits only half of one employee's time to the two dropout prevention programs it administers. Additionally, this employee's position requires expertise in program management, not in research evaluation techniques. Further, the Department does not maintain information on most dropout prevention programs funded by districts. One principal reported that he had to research dropout prevention programs himself because ADE could not provide information or technical assistance.

The state-funded At-Risk Program was recently eliminated, in part, because ADE's evaluation efforts failed to identify effective dropout prevention strategies. The At-Risk Program was designed to provide districts with technical and funding assistance so they could implement dropout prevention and retrieval strategies. The 1988 enabling legislation created the program to specifically identify effective strategies that could be replicated statewide. However, ADE's performance measures did not adequately gauge program effectiveness. Moreover, the lack of cost and success ratios for each strategy prevented the identification and replication of successful programs.

State role is needed—Education professionals recommend an expanded technical assistance role for departments of education that includes providing evaluation support and identifying best practices. Several of these professionals agree that technical assistance could substantially improve the evaluation of programs at the district level. For example, the Southern Regional Education Board (SREB) suggests that states provide local systems

with technical assistance for reducing dropout rates.[1] This can include publishing and distributing descriptions of successful dropout prevention strategies, conducting workshops and conferences, and furnishing on-site technical assistance to all school systems. Furthermore, SREB strongly encourages states to support research and evaluation efforts of dropout prevention programs.

In contrast to ADE's limited role, other states actively support dropout prevention by providing technical assistance and disseminating information. For example:

- Nevada, in response to an increasing dropout rate, recently made dropout prevention a top priority. The Department formed an eight-person task force to develop strategies to combat the State's dropout problem. The group hosted a conference on dropout prevention to identify common characteristics of dropouts and is surveying districts to identify programs operating statewide. Further, the Nevada Department of Education established a Dropout Prevention Advisory Team comprised of district staff, business leaders, and Nevada citizens. The Team will identify model dropout prevention programs and disseminate, train, and assist school staff in selecting and implementing programs that best meet local needs. Districts will then be responsible for evaluating the effectiveness of programs in conjunction with the Department.

- The Tennessee Department of Education provides incentives to districts operating model programs. An interagency task force evaluates model programs using outcome data submitted by program directors. The task force recognizes ten model programs each year. If chosen as a best practice, the district receives $6,000 and the program's personnel provide information to other schools on how their programs work. Additionally, the Tennessee Department of Education maintains a clearinghouse of information on dropout prevention. Schools can contact the Department for information on dropout prevention research conducted nationally, or in other states, as well as plans for programs operating within Tennessee.

- In Florida, the Department of Education performs compliance audits to ensure that dropout prevention efforts meet state standards. The Florida Dropout Prevention Act of 1986 established comprehensive dropout prevention programs that serve students in five program categories: Educational Alternatives, Teenage Parent, Substance Abuse, Disciplinary, and Youth Services. The Department audits these programs. Programs must demonstrate service to the proper population of students, and demonstrate effectiveness by submitting achievement data. This data includes reading and math test scores, and graduation, dropout, and promotion rates.

While ADE should do more, recent staffing cuts may hinder the Department's ability to provide technical assistance to districts. ADE recently significantly reduced its staff and

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1. The Southern Regional Education Board is an education research organization representing 15 states.

also moved many employees into new positions. In fact, due to the elimination of the At-Risk Program, at the end of fiscal year 1995-96, ADE will cut all staffing for dropout prevention.

Therefore, ADE should consider increasing its technical assistance capacity for dropout prevention. The current ADE dropout prevention program specialist told auditors that the Department would require at least two full-time staff to provide adequate technical assistance to district dropout prevention programs. For example, ADE commits 1.8 FTEs to administer the At-Risk Preschool Education Program, which includes monitoring and technical assistance to programs in 103 school districts. A comparable staffing commitment to dropout prevention programs, which serve students at every grade level, might allow ADE to provide technical assistance to all districts.

To help collect and disseminate information, ADE should also consider establishing a clearinghouse for dropout prevention. A clearinghouse would provide an easily accessible centralized collection of dropout prevention program descriptions, as well as information about whom to contact to obtain more in-depth information about those programs. A 1993 Morrison Institute Report indicated that establishing a clearinghouse on dropout prevention would cost approximately $55,000 annually for a library specialist and other costs, including clerical assistance and administrative overhead. Further, $16,000 in start-up costs is required for computer equipment, software development, and general equipment.

RECOMMENDATIONS

ADE should develop its technical assistance capacity to assist districts in dropout prevention programming by establishing:

1. A clearinghouse of information on dropout prevention

2. Expertise in dropout prevention programs

3. Expertise in dropout prevention program evaluation.

FINDING II

ARIZONA'S DROPOUT DATA DO NOT ACCURATELY REFLECT THE NUMBER OF DROPOUTS

Determining dropout prevention programs' effectiveness is hindered by inaccurate data. In Arizona, more than half the students counted as dropouts represent students who have "disappeared" from schools that are unable to verify the students' location. Some of these students may have transferred to other schools. As demonstrated in other states, ADE can improve dropout data accuracy by implementing a statewide automated student tracking system to identify students who transfer from one school to another. Further, schools' inconsistent recordkeeping practices also distort dropout data. ADE can improve the State's dropout data accuracy by expanded training for recordkeeping staff.

Background

Schools cannot prescribe appropriate dropout programs to targeted student populations without reliable data. As noted in Finding I (see pages 5 through 10), districts operate numerous dropout prevention programs. However, if students who leave school are not adequately identified or categorized, districts may inappropriately target funding and programs. For example, a school may be targeting programs to students in the 11th and 12th grade, when their dropout rates are actually higher for 8th- and 9th-grade students. Programs based upon incorrect dropout data may fail to impact the intended student population.

Dropout Figures Possibly Inflated

Arizona's dropout figures may be inflated by transfer students who are inappropriately classified as dropouts. Over half of all dropouts are students who have disappeared from the school system but who may be enrolled elsewhere. Arizona schools have experienced difficulty tracking these students and confirming transfers. Therefore, to improve data accuracy, ADE should develop a statewide system to track students who move from one school to another within the State.

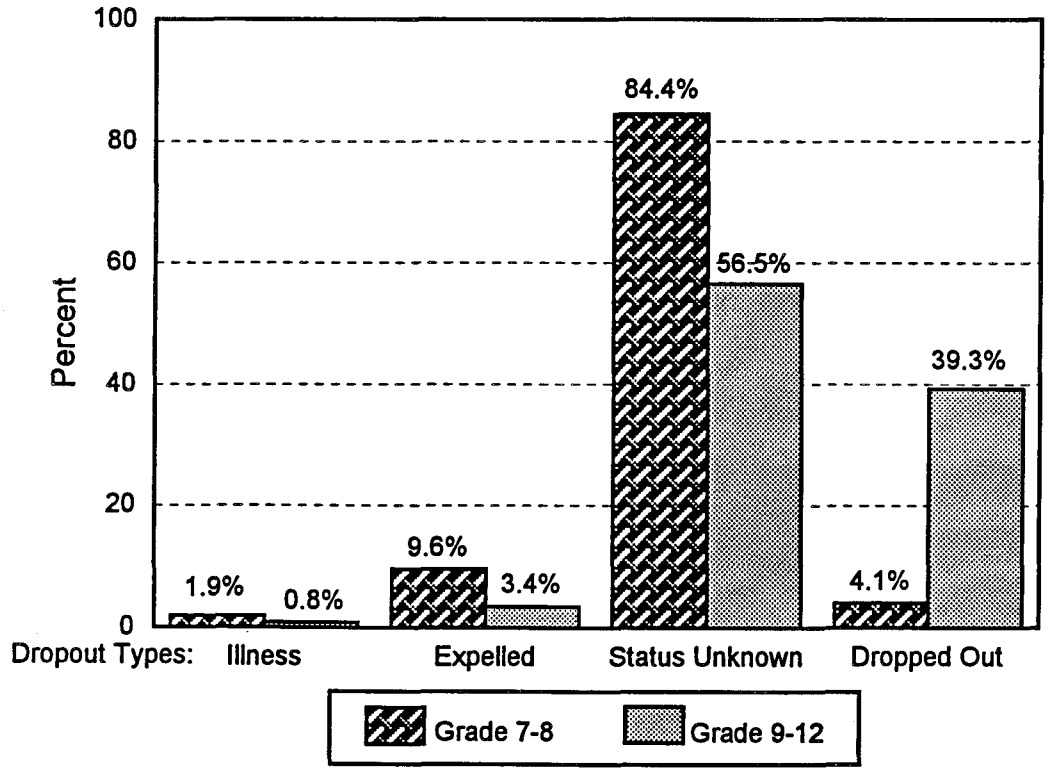
ADE requires school districts to document and report the total number of students who withdraw from their schools and do not return by the year's end, which the Department uses to compile a statewide dropout report. Dropouts fall into one of four categories: 1)

chronically ill, 2) expelled or on long-term suspension, 3) confirmed by the student or parent/guardian as a dropout, or 4) absent 10 consecutive unexcused days and whose status is unknown. Status unknown students stopped attending school without stating their intentions. They may actually have dropped out, or they may have enrolled in other schools. However, state law requires schools to count these students as dropouts.

Many students classified as dropouts may not be dropouts—More than half the students counted as dropouts are students whose status is unknown. In academic year 1993-1994, 56 percent of grade 9-12 dropouts, or 14,328, were students whose status was unknown. Further, in grades 7 and 8, 84 percent were in this category. As shown in Figure 1, only 39 percent of high school and 4 percent of 7th- and 8th-grade students were confirmed dropouts.

Figure 1

Types of Dropouts
Academic Year 1993-94



Source: ADE's Dropout Rate Study 1993-94: Annual Dropout Rates in Arizona Public Schools—Grades 7 through 12.

According to ADE's dropout report, most of the status unknown students may have moved or enrolled in other schools without notifying the schools they left. Schools can reclassify students as transfers and remove them from their dropout count only if they receive a transcript request from another school or notification from a responsible adult, such as a parent or school official. Unfortunately, despite a statutory requirement to do so, elementary schools often fail to request new students' prior records. In contrast, high schools are more diligent in requesting records because they must verify credits earned toward graduation.

Statewide tracking system needed—Currently, schools experience difficulty tracking students who transfer to other schools without notification. However, other states track many of these students using statewide automated information systems. While ADE is now developing a similar system, much work remains before students can be electronically tracked.

Schools' ability to track students is limited—In the absence of a transcript request or notification, schools try to locate status unknown students to confirm they have either dropped out or are still in school. Some students can be "recovered" and reclassified as transfers or confirmed as dropouts through tracking. For instance, one attendance clerk reduced her school's total number of unconfirmed dropouts by 40 percent. During academic year 1994-95, she mailed 178 form letters to parents of unconfirmed dropouts. Fifty-four returned letters confirming that their children had transferred to another school. In a second effort, she phoned all parents who had not responded to the letter and verified that an additional 18 students transferred to other schools.

However, limited resources and the sheer number of students whose status is unknown at some schools make tracking difficult. To determine the extent of schools' tracking efforts, we conducted site visits at 15 high schools across the State.[1] Although 80 percent of the schools visited routinely attempt to track students whose status is unknown, some commit more time than others. For example, the number of classified staff (attendance clerks and registrars) responsible for tracking students ranged from one to three, with teachers and administrators also helping to track students at some schools. Home visits are made by staff at only five schools. Additionally, one school waits until the school year is over before trying to find unconfirmed dropouts, which may be months after students disappear.

Other states implementing automated systems—Although tracking efforts exist at the school level, they are time-consuming and still result in large numbers of status unknowns statewide. A more systematic method of tracking students who transfer from one school

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1. A stratified sample of school districts was used to evaluate tracking efforts around the State. The sample was first stratified by average daily membership (ADM), total expenditures, and number of dropouts. We then selected districts that fell in the 25th, 50th, and 75th percentiles for ADM, dropouts, and expenditures. Overall, 10 districts were selected including unified and union districts, urban and rural districts, large and small districts, and districts with ethnic and geographic diversity. Fifteen high schools within the 10 districts were then randomly chosen for site visits to illustrate recordkeeping practices around the State.

to another, such as a statewide electronic tracking system, could more efficiently reduce the status unknown category and increase the accuracy of dropout figures. Several other states either have a statewide automated student information system in place, or are planning to implement one. Currently, Texas and Florida use statewide automated information systems. For example;

- Texas uses the Public Education Information Management System (PEIMS) to track student enrollment, financial information, and staffing. Using social security numbers or unique state identification numbers, Texas' state education department conducts automated statewide searches to track unconfirmed dropouts and to identify transfer students. In the 1992-93 school year, the process was expanded to locate students who received a GED, graduated, were expelled, or were previously counted as dropouts. In academic year 1992-93, Texas identified 8,317 students, or 16 percent, of reported dropouts. The following year, using PEIMS, Texas found 18 percent of its reported dropouts.

- Florida also operates an automated information system. To reduce status unknowns, Florida's Department of Education (FDE) conducts an annual search in August. Students are tracked or matched by social security number or assigned a unique identification number, date of birth, and another field as a student identifier. Additionally, each October, districts can request FDE to locate students who failed to return after summer break. As a result of electronic tracking, FDE found the majority of unconfirmed dropouts attended another school in the same district. They found other students enrolled in community colleges.

ADE developing an automated system—While ADE is currently developing a statewide automation system, much work remains before it can be used to improve dropout data accuracy. ADE's State Automation Plan calls for a technological system to connect all Arizona schools and districts with the Department through the Internet. The system will incorporate student, financial, and human resource data. However, ADE still needs to address several details related to student tracking, including:

- **Student Identification Numbers**—ADE is currently writing a policy that would grant it the authority to collect and use student social security numbers, which must be approved by the Attorney General's Office. Further, legislation requiring districts to provide student level information and social security numbers may be necessary. Other states have had some difficulty obtaining parental consent for the use of social security numbers for all students. If the same holds true in Arizona, ADE will need to develop an alternate identification system for the remaining students.

- **Mechanisms for Tracking Students**—Exactly how students will be tracked has not been determined. In other states, education departments attempt to match the

identification numbers of status unknown students with those of students currently enrolled in other schools. This would require that ADE staff conduct matches and inform schools of students found to be enrolled elsewhere.

- **Cost**—While ADE estimates over $11 million will be needed to fully implement the system, the Legislature has appropriated only $250,000 for a pilot study. However, according to ADE management, student tracking will not be part of the pilot.

ADE Should Increase Staff Training to Improve Data Accuracy

Before ADE can rely on an automated system to track students, it needs to ensure schools have adequate recordkeeping processes. Schools' inconsistent recordkeeping contributes to inaccurate dropout counts. To improve data accuracy, ADE should expand and improve its training for school recordkeeping staff.

Recordkeeping problems prevent accurate counts—Schools' recordkeeping problems also distort dropout counts. Our site visits to 15 schools during the audit also included an examination of recordkeeping practices. The visits uncovered recordkeeping problems at many schools. The significance of these problems is illustrated when ADE aggregates inaccurate data from each school. Recordkeeping problems include:

- **Misuse of categories**—Although ADE developed guidelines for classifying students as dropouts, schools do not always follow them. For example, one school places all status unknown dropouts into the confirmed dropout category, thus overestimating the number of confirmed dropouts. Another school automatically counts all entering 9th-grade students who register but fail to attend as "transfers," possibly underestimating the number of dropouts.

- **Disregard for preregistration and enrollment processes**—Certain schools disregard preregistration and enrollment procedures, resulting in artificially elevated dropout counts. During the spring semester, high school counselors visit 8th-grade classes and preregister students. However, according to ADE policy, high schools should not use preregistration rosters for their final 9th-grade enrollment counts because some of these students may not have completed the 8th grade, or may have transferred prior to the end of the school year. When these students fail to attend in the fall, they will be counted as dropouts. Two high schools reported that middle schools failed to supply them with a list of graduates as mandated by the policy. Therefore, the high schools used their preregistration lists for fall enrollment.

Increased staff training could improve accuracy—Although ADE plans to implement a statewide automated student data system, a lack of sufficiently trained school-level staff

may hamper these efforts. Since accuracy is determined by individuals collecting, maintaining, and reporting student data, errors will persist with the implementation of the automation plan if the current recordkeeping problems continue. Increased training could improve the recordkeeping process and thus improve dropout data accuracy.

In academic year 1995-96, ADE offered 10 workshops to districts and school recordkeeping staff to provide instructions for required reports. Topics covered include the use of enrollment and withdrawal codes, absence policies, and guidelines for classifying students as dropouts. Although the recordkeeping staff we surveyed rated this training highly, ADE reports that only one fourth of school-level recordkeeping staff attended this training. While approximately 600 staff attended the most recent training, there are over 2,000 school-level recordkeeping staff statewide. Further, some of the attendees may have been district-level staff.

The majority of recordkeeping training occurs at the school and district levels. However, one-third of the staff members trained by district personnel perceived their training as insufficient, and approximately one-third who received on-the-job training at the school level felt it could be improved. Further, 10 percent of staff surveyed received no training at all.

Because ADE training is limited, ADE should consider periodically monitoring schools' recordkeeping practices to further improve its dropout data. Performance reviews of two other states' dropout prevention efforts included recommendations for monitoring school recordkeeping practices. Both the Florida and California Departments of Education were urged to monitor student records to ensure that proper withdrawal codes are being assigned or to confirm the accuracy of dropout data submitted by schools. Not only could problems be addressed immediately, training to prevent common mistakes could be incorporated into future sessions. As discussed in Finding I (see pages 5 through 10), limited staff resources may also hinder ADE's efforts to monitor districts' recordkeeping practices.

RECOMMENDATIONS

1. ADE should continue its efforts to develop a statewide electronic student information management system that includes a tracking component.

2. To improve consistency in recording student dropout rates, ADE should increase participation and expand the formal training designed to help staff understand and implement dropout and withdrawal procedures.

3. ADE should periodically review and verify the accuracy of dropout data submitted by schools and districts.

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OTHER PERTINENT INFORMATION

During the audit, we collected other pertinent information on 1) Arizona's dropout rate, which is not comparable with many other states' rates; 2) a program authorizing certain districts to raise additional funds for dropout prevention programs; 3) and an alternate approach to preventing students from dropping out.

Arizona's Dropout Rates Not Comparable

Arizona's dropout rates cannot be compared to many other states' dropout rates because states use different calculation methods. Although the National Center for Education Statistics (NCES) recommends a specific calculation methodology to facilitate interstate comparisons, many state education agencies, including Arizona's, prefer to use different methods.[1] (See Appendix for a complete discussion of Arizona's dropout calculation methods.) For example:

- States use different time frames to classify students as dropouts. NCES recommends states count dropouts over a 12-month period, which includes data from more than 1 year. However, other states' time frames (including Arizona's), span only one school year.

- Additionally, states differ in how enrolled students are counted. While some states and NCES count all students enrolled as of a particular school day, Arizona's and other states' counts capture all students who enroll during an entire school year.

- States also vary in the types of students counted as dropouts. NCES does not count as dropouts students who leave school during one school year but return by October 1 of the next school year. In contrast, Arizona counts as a dropout any student who left school, regardless of whether the student returned the next fall.

Despite not conforming to NCES' method for calculating dropout rates, Arizona's method appears appropriate. Arizona employs a cumulative approach to count enrolled students during a school year. Advocates of cumulative enrollment counts cite increased accuracy, especially in states with high student mobility, such as Arizona. In contrast, NCES' point-

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1. The National Center for Education Statistics, within the United States Department of Education, collects, analyzes, and publishes statistics related to education in the United States. Currently, 18 states conform with NCES' dropout rate calculation methodology.

in-time count ignores the impact of student mobility, possibly leading to distorted dropout rates. For example, migrant students transferring into a school after the enrollment count will not be counted as enrolled, but can be counted as dropouts.

Others agree a cumulative enrollment count is more accurate. First, an NCES consultant stated that "the most representative and valid" dropout rate would use a cumulative enrollment count. Moreover, a task force established to study NCES' dropout rate formula noted that a cumulative approach may provide the best method to account for student mobility. However, because the task force believed this method would impose an increased data burden on states, it is not the method NCES selected.

Arizona may eventually be able to use both its current formula and submit data according to the NCES definition. To use the NCES definition, Arizona would have to calculate dropout rates based on two school years, possibly creating an additional data collection burden. However, with a statewide automated tracking system, this would be a much easier task.

1987 Dropout Prevention Program Continued Indefinitely

In 1987, the Arizona Legislature enacted a dropout prevention program spanning three years to assist students in grades 4 through 12. Laws 1987, Chapter 333 authorized eligible districts to raise additional funds for dropout prevention programs. Districts that experienced at least a 1 percent loss of students between their 40th-and 100th-day enrollment counts were eligible to participate. In addition, these districts were required to develop and submit to the Board a comprehensive dropout plan for grades 4 through 12, including specific goals to reduce the dropout rate, absenteeism rate, and student failure rate, and to increase student achievement.

During the program's initial three years, the participating districts changed. Although 31 districts operated programs during at least 1 year, only 14 districts participated throughout all 3 years. Since district eligibility depended on a net loss of students, districts could become ineligible even though they still had a dropout problem. For example, a rapidly growing district with a serious dropout problem may not have recorded a net loss of students. However, another district could have recorded a loss of students that was not due to a dropout problem.

Several statutes continued the program after the initial three-year period.

- 1990 legislation extended the program for fiscal year 1990-91, but limited participation to the districts that participated during the program's third year. Moreover, these districts were allowed to raise funds only to the level raised during the previous year.

- 1991 legislation authorized the same districts to continue their programs during the next two years, and continued to limit the amount of funding districts could raise for their programs. For these two years, participating districts were also required to submit documentation describing how their dropout prevention programs improved student performance and retention, which ADE submitted to the Legislature.

- Finally, 1992 legislation extended participation of these same districts until the Legislature fully funds dropout prevention programs statewide.

For the 1995-96 school year, the State Board of Education approved 20 districts for continued program participation. Table 2 contains a complete listing of these districts, which raised combined revenues of $5.8 million designated for dropout prevention programs.

Table 2

Districts Currently Participating in the 1987 Dropout Prevention Program

Amphitheater Unified School District	Mohave Union High School District
Casa Grande Union High School District	Phoenix Union High School District
Chandler Unified School District	Scottsdale Unified School District
Flagstaff Unified School District	Sierra Vista Unified School District
Glendale Union High School District	St. John's Unified School District
Holbrook Unified High School District.	Sunnyside Unified High School District
Indian Oasis/Baboquivari Unified School District	Tempe Union High School District
Mesa Unified School District	Tolleson Union High School District
Miami Unified School District	Tucson Unified School District
Mingus Union High School District	Yuma Union High School District

Source: Information provided to State Board of Education Members for the November 1995 board meeting.

ADE has had little involvement in this program since its inception. ADE is not funded for program administration, such as monitoring and evaluation, or for providing technical assistance to eligible districts. It merely collects eligible districts' comprehensive dropout prevention plans each year and presents their status to the State Board for annual approval. In 1989, 1991, and 1992, ADE was also required to submit reports to the Legislature illustrating the participating districts' dropout and absentee rates, and other performance indicators.

Alternate Approach to Dropout Prevention

Several experts suggest a more comprehensive approach to address the dropout problem rather than creating specific programs targeting only certain students. According to these experts, instead of focusing only on the students traditionally deemed at-risk, schools should consider all students potential dropouts, and address their needs as such. A Phoenix Union High School District's Task Force on Alternative Education concluded that the dropout problem may be a reflection of schools' inability to adjust to changing student populations. For example, current attempts to address the dropout problem involve establishing more alternative programs while at the same time keeping traditional schools intact, resulting in an expensive dual school system. The Task Force recommends phasing out the dual system by enhancing and internally diversifying the traditional school to meet the needs of a more diverse student population. Further, one expert believes special programs or services targeted at certain groups of students may expend resources without developing the organizational capacity of schools. In looking for cost-effective alternative methods for preventing student from dropping out, the 1995 Program Authorization Review also suggests implementing systemic school reforms "aimed at improving education for all students rather than 'enrichment' programs aimed at only 'at-risk' students."

To meet the needs of all students, the dropout prevention literature suggests implementing school-wide improvements, which apply characteristics of dropout prevention programs to the entire student population. One way to accommodate students' various learning styles and goals is to incorporate best practices learned in alternative schools. According to the Morrison Institute's review of Arizona's at-risk programs, the alternative school model is the most effective and positively perceived delivery system for at-risk students. Alternative schools meet the needs of a diverse student population by integrating a variety of instructional, vocational, and support strategies into a comprehensive system. These schools offer an independent program of study for students to earn credits toward graduation and flexible schedules with classes from the early morning to late evening.

Additionally, the Phoenix Think Tank, a community-wide coalition comprised of education, business, government, and community organization representatives, recently studied best practices in education in the urban Phoenix area. The study asked what is working "to ensure that ... students enter, re-enter, and remain in school until their maximum potential and goals are realized." Several school-wide improvements suggested as best practices include:

- Looking for new ways to impart knowledge to the learner by using technology in the classroom; student-to-student tutoring; and accelerated and individualized learning,

- Integrating the curriculum by tying several courses to one project; linking classroom activities to real-world problems; or addressing self-esteem, critical thinking, independent learning, and communication skills in courses, and

- Employing a holistic approach to the student by involving parents in student learning both in the classroom and at home; providing social/support services for families at the school, and providing personal counseling and follow-up to students.

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Agency Response

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State of Arizona
Department of Education

Lisa Graham Keegan
Superintendent of
Public Instruction

June 21, 1996

The Honorable Douglas R. Norton
Auditor General
2910 N. 44th Street, Suite 410
Phoenix, AZ 85018

Dear Mr. Norton:

The Arizona Department of Education has reviewed your performance audit report pertaining to dropout prevention efforts. We do not believe that any comments and information are necessary for clarification. We are basically in agreement with your findings and conclusions.

The department is in the process of implementing some of your recommendations at the current time and others will follow at a later date.

I wish to compliment your team members on their thoroughness and professionalism.

Sincerely,

Paul N. Street

Paul N. Street
Associate Superintendent

APPENDIX

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Appendix

This appendix presents the basic dropout rate formula, as well as the methods Arizona and NCES use to calculate their dropout rates.

Dropout Rate Formulas for Arizona and NCES

A dropout rate measures the number of students who drop out of school as a proportion of the pool from which the dropouts originated. Thus, each dropout rate includes a numerator (the number of dropouts) divided by a denominator (number of students enrolled).

$$\text{Basic dropout rate} = \frac{\text{number of dropouts}}{\text{number of students enrolled}}$$

Calculating a dropout rate first requires identifying the number of students who drop out during one school year. Arizona's dropout definition attempts to count all students who drop out over an entire 12-month period. A dropout is a student who was in school at the end of the prior school year, or at any time during the current school year, but who was not enrolled at the end of the current school year. Additionally, Arizona's dropout definition includes certain types of students and excludes others. For example:

- Students who transfer to a GED preparatory class are considered dropouts, regardless of whether or not they earn a GED certificate.
- Students who leave school but return before the end of the school year are not considered dropouts.

NCES' dropout definition differs from Arizona's. While Arizona counts dropouts over a 12-month period, which usually extends from July 1 of one school year to June 30 of the next, NCES' reporting calendar for counting dropouts goes from October 1 of the prior school year to September 30 of the current school year. Therefore, dropouts who return to school by October 1 of the following year are not counted as dropouts by NCES. Arizona does count these students as dropouts; however, at one time, ADE calculated that 14 percent of their dropouts return for the next school year. Moreover, NCES' definition does not count students who transfer to a state-or district-approved program

leading to a General Education Development (GED) certificate as dropouts, while Arizona's definition considers GED recipients dropouts.

Also necessary to calculate a dropout rate is the total number of students enrolled during the year. While Arizona's enrollment count is based on a cumulative count of all students enrolled during a 12-month period, NCES includes all students enrolled on October 1. Students who enroll after this date are not included in a state's total enrollment.