

A REPORT
TO THE
ARIZONA LEGISLATURE

Division of School Audits

Performance Audit

Technology Assisted Project-Based Instruction Program

OCTOBER • 2007



Debra K. Davenport
Auditor General

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October 29, 2007

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The Honorable Janet Napolitano, Governor

The Honorable Tom Horne, State Superintendent of Public Instruction
Arizona Department of Education

Mr. Vince Yanez, Executive Director
Arizona State Board of Education

Ms. DeAnna Rowe, Executive Director
Arizona State Board for Charter Schools

Transmitted herewith is a report of the Auditor General, a Performance Audit of the Technology Assisted Project-Based Instruction Program. This performance audit is in response to Laws 2005, Chapter 323, §2 and was conducted under the authority vested in the Auditor General by A.R.S. §41-1279.03. I am also transmitting with this report a copy of the Report Highlights for this audit to provide a quick summary for your convenience.

As outlined in their responses, the Arizona Department of Education and the two state boards agree with all of the findings and plan to implement or implement in a different manner all of the recommendations.

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

This report will be released to the public on October 30, 2007.

Sincerely,

Debbie Davenport
Auditor General

SUMMARY

The Office of the Auditor General has conducted a performance audit of the Technology Assisted Project-Based Instruction (TAPBI) Program, pursuant to Laws 2005, Ch. 323, §2. TAPBI is Arizona's primary approach to providing an Internet-based alternative to learning in traditional brick-and-mortar schools. This audit provides an overview of the Program and examines three aspects of its operations: whether TAPBI schools are appropriately applying state enrollment and funding requirements, how their costs compare to traditional brick-and-mortar schools, and what efforts they are taking to ensure student achievement.

In 1998, the Arizona Legislature created the TAPBI Program to "improve pupil achievement and extend academic options beyond the four walls of the traditional classroom." Still in a pilot stage, the TAPBI Program has grown from 4 schools to 14 as of fiscal year 2007, including 7 charter schools and 7 school districts. Further, program enrollment grew from about 500 students to more than 15,000 in fiscal year 2006. Most TAPBI schools serve many different types of students including gifted, at-risk, and homebound students, but a few target specific student populations, such as adult-aged high school or at-risk students. Four TAPBI schools provide distance learning to elementary students in kindergarten through grade 8, while the remaining 10 schools serve only high school students. Distance-learning programs are operated in all 50 states, and Arizona is 1 of 26 states that provide the program through individual schools rather than a state-wide program through the Department of Education.

TAPBI schools typically use Internet-based applications, known as learning management systems, to create and deliver learning content, such as online reading materials, interactive exercises, discussion forums, video clips, and quizzes. Students may also spend time on activities such as reading textbooks, completing homework assignments, or working with hands-on projects. Several TAPBI programs allow students to enroll in and start TAPBI courses at any time of the year, and they are generally self-paced as students are allowed to spend more or less time on individual lessons than may occur in a traditional classroom.

The Superintendent of Public Instruction, the State Board of Education, and the State Board for Charter Schools provide oversight for the TAPBI Program. The schools are required to file annual reports including descriptions of educational services provided, the Program's operational and administrative efficiency and cost-effectiveness, measures of academic achievement, and results of student and parent satisfaction surveys. The Joint Legislative Budget Committee, along with the two state boards, issues a compilation of the TAPBI schools' individual annual reports each fiscal year. Further, the state boards are statutorily required to review the effectiveness of each TAPBI school once every 5 years and determine whether to renew the school's participation in the Program.

TAPBI schools are provided state and local funding using the same per-pupil method as for other public schools, which is based on Average Daily Membership (ADM). In fiscal year 2006, the 4,475 ADM for the TAPBI Program generated an estimated \$23.8 million in funding.

Fiscal year 2006 TAPBI ADM overfunded by about \$6.4 million (see pages 11 through 18)

TAPBI program errors and noncompliance increased the cost of public education by an estimated \$6.4 million. The Program is funded on the same ADM method used for brick-and-mortar schools, which may not be the best basis for funding online education. For online programs such as the TAPBI schools, the ADM method is more susceptible to error. Specifically, while ADM is determined by teacher attendance records in traditional schools, for the TAPBI schools it is determined by students' self-reported hours of time spent on coursework. Current literature does not identify an ideal funding method for online learning programs. Although Arizona is one of 21 states using a per-pupil funding method for distance-learning programs, some of these states have additional requirements, such as course completion, to obtain funding. Also, a full-time equivalent method may address some of the ADM issues as it would be based on the number of courses taken rather than instruction hours reported by the students.

Further, trying to apply the ADM method to online programs contributes to program overfunding. The Arizona Department of Education's (ADE) errors when applying statutory ADM limits were the primary reason for TAPBI overfunding. First, statute does not provide for TAPBI students to be funded at more than a total of 1.0 ADM. However, ADE does not limit students who are concurrently enrolled in brick-and-mortar and TAPBI schools to 1.0 ADM. The Student Accountability Information System (SAIS), ADE's computer-based program that calculates ADM, currently does not have the capability to adjust for concurrent TAPBI enrollment. Therefore, the allocation process is done outside the SAIS system using a variety of formulas in a

spreadsheet program. However, the spreadsheet process does not include adjusting the brick-and-mortar school's funding for concurrently enrolled TAPBI students. For example, a student who attends a brick-and-mortar school full-time and a TAPBI school half-time could be funded as 1.33 ADM rather than being split proportionately so that funding remains at 1.0 ADM.

Another source of overfunding occurs when students enroll in a TAPBI program after the cutoff date for traditional school funding or attend "summer school." Specifically, students enrolling in a brick-and-mortar school after the 100th day of the school year would not generate any ADM funding. However, because TAPBI schools operate year-round, students enrolling in TAPBI schools generate funding regardless of when they enroll. Also, brick-and-mortar schools do not receive state funding for instruction time provided outside the normal school year, so they typically charge students tuition for attending summer school. However, ADE does not consider TAPBI summer enrollments to be limited to 1.0 ADM as with concurrent enrollments, and therefore, includes this ADM for TAPBI funding purposes.

As a result of ADE not properly limiting TAPBI ADM, in fiscal year 2006, about 6,800 of the 10,600 TAPBI students enrolled in multiple schools were overfunded by approximately \$6.4 million.

The TAPBI schools' failure to adhere to statutory enrollment restrictions further contributed to overfunding. Specifically, TAPBI schools must ensure that at least 80 percent of their new enrollments are students who attended public schools during the previous school year, that enrolling kindergartners already have a sibling enrolled in a TAPBI school, and that their enrollment growth does not exceed 100 percent in a fiscal year. However, in fiscal year 2006, 6 TAPBI schools exceeded one of these statutory limits, increasing the TAPBI program cost by about \$88,000.

TAPBI schools' operations cost less, but further savings may exist (see pages 19 through 26)

In fiscal year 2006, TAPBI schools spent an average of approximately \$5,500 per pupil, which is about \$1,200 less than the \$6,750 per-pupil state average. TAPBI schools achieve lower per-pupil costs because most students take classes at home. As a result, the schools have little, if any, transportation or food service costs and significantly lower plant operation and maintenance costs. Further, TAPBI schools reported that fewer than 6 percent of their students had special needs, which significantly lowered their special education costs.

However, costs varied significantly among the 14 TAPBI schools because of differences in their operations. Specifically, TAPBI charter schools' per-pupil costs

averaged \$6,140, which is only about \$600 lower than the state per-pupil average and much higher than the \$2,900 per-pupil average for TAPBI school districts. These higher costs occurred primarily in administration costs, which were influenced by higher administrative staff salary and benefit costs and staff entertainment costs, such as restaurant purchases and gift cards.

Software licensing agreements also tended to increase TAPBI schools' per-pupil costs. For example, in fiscal year 2006, one TAPBI charter school paid nearly \$2.5 million, or \$3,535 per pupil, as an ongoing cost for its learning management system and related consulting services. Further, a TAPBI school district's \$8,138 per-pupil cost was also primarily influenced by its purchase of a learning management system, which was a one-time cost of about \$1,040 per pupil, and the ongoing cost of system support at about \$520 per pupil. In contrast, another TAPBI school district developed its own learning management system in 1998, and in fiscal year 2006, had the second lowest per-pupil cost of all the TAPBI schools. Two other TAPBI school districts use this same system through intergovernmental agreements, which lowered their learning management system-related costs. One of these two districts had the lowest overall per-pupil cost of all the TAPBI schools.

Although required by statute, the TAPBI schools have not accurately identified their costs or properly reported their cost-effectiveness. The TAPBI schools did not always properly allocate costs between their TAPBI and other operations, making it difficult to evaluate program cost-effectiveness. Further, the TAPBI schools did not consistently categorize their reported costs, making it difficult to compare costs among the different schools.

[Student achievement measures and practices can be improved \(pages 27 through 37\)](#)

The TAPBI Program's effect on student achievement is unclear. Currently, the state boards measure student achievement by comparing TAPBI students' standardized test scores to state-wide students' results. However, many TAPBI students attend multiple schools or have short tenure in the Program. Also, high school students do not take the AIMS test each year. As a result, this method of determining the TAPBI schools' effect on student achievement is not reliable. National studies are also inconclusive on how online learning is affecting student achievement.

TAPBI schools can take steps to improve instruction and student support practices and potentially improve student achievement. First, TAPBI schools should ensure that students are receiving the required minimum number of instruction hours for their TAPBI courses. Auditors found that a sample of TAPBI high school students received an average of 48 percent fewer instruction hours than required, while kindergarten

through 8th-grade students received an average of 9 percent fewer hours than required. Further, finding ways to ensure academic integrity is even more important in an online learning environment. All but 2 of the TAPBI schools had formal student-teacher communication policies or measured the timeliness or frequency of communication. However, only 6 of the 14 schools required students to take exams in a proctored environment and pass the exams to receive credit for their classes. Further, some TAPBI schools did not provide teacher training programs that were specific to working with students in an online environment.

Appendix (see pages a-1 through a-16)

The Appendix provides alphabetically organized one-page information sheets on the individual TAPBI schools. Each page summarizes the school's enrollment and costs and provides other descriptive information.

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INTRODUCTION & BACKGROUND

The Office of the Auditor General has conducted a performance audit of the Technology Assisted Project-Based Instruction (TAPBI) Program, pursuant to Laws 2005, Ch. 323, §2. TAPBI is Arizona's primary approach to providing an Internet-based alternative to learning in traditional brick-and-mortar elementary and secondary school programs. This audit provides an overview of the Program and examines three aspects of its operations: whether TAPBI schools are appropriately applying state enrollment and funding requirements, how their costs compare to traditional brick-and-mortar schools, and what efforts they are taking to ensure student achievement.

TAPBI Is State's Approach to Online Learning

In 1998, the Arizona Legislature created the Technology Assisted Project-Based Instruction Program (TAPBI) to "improve pupil achievement and extend academic options beyond the four walls of the traditional classroom." The law established TAPBI as a program in which a set of designated schools would provide such learning options for students throughout Arizona. The law called for creating an initial pilot program to be operated at two school districts and two charter schools and expanding it in 2003 to a total of seven school districts and seven charter schools. The State Board of Education and the State Board for Charter Schools selected the initial four schools based upon the law's specified criteria, such as the depth and breadth of curriculum choices, variety of educational technologies used, ability to safeguard students during Internet use, and availability of faculty experienced with technology. The time spent to develop curriculum and technology for the new education delivery method meant the initial four programs did not begin operating until 2001 or later. The additional five school districts and five charter schools were selected in 2003. In 2005, as part of legislation increasing the limit on program enrollment, the Legislature required the Auditor General to conduct a performance audit of the TAPBI Program by November 1, 2007.

Program Structure

Arizona uses decentralized approach—Distance-learning programs are operated in each of the 50 states. However, the states use a variety of approaches for developing and providing online programs at the K-12 level, including a state-led program, a decentralized program led by individual schools, or a combination of the two. Arizona is 1 of 26 states that provide K-12 online learning through individual schools, rather than through the state Department of Education. According to a 2006 study of other states' online learning programs, 4 states have only state-led online learning programs (programs that are administered by a state education agency directly funded by a state appropriation or grant); 20 states have both state-led and decentralized programs; and 26 states have only decentralized programs.¹ Currently, the 7 school districts and 7 charter schools in Arizona's program (see textbox) also generally operate their programs independently of one another.

TAPBI Schools Enrollment Fiscal Year 2006

<u>TAPBI Charter Schools</u>	<u>Number of Students</u>	<u>ADM</u>
Arizona Connections Academy	402	265
Arizona Distance Learning	1,314	464
Arizona Virtual Academy Humanities and Sciences Academy Arizona	2,042	1,439
Kids-At-Hope Online Academy	1,175	727
Pinnacle Virtual High School	168	27
Primavera Online High School	4,081	430
	3,932	697
<u>TAPBI School Districts</u>		
Deer Valley USD	n/a	n/a
Lake Havasu USD	203	17
Marana USD	94	23
Mesa USD	1,494	353
Peoria USD	160	16
Tempe UHSD	71	9
Tucson USD	46	7

n/a—not available. Due to computer difficulties, Deer Valley USD had not yet reported its TAPBI students for fiscal year 2006.

Most of the 7 TAPBI school districts have relatively small programs, serving between 50 and 200 students each, and typically only serving students residing within the district. Mesa Unified School District is the exception, serving nearly 1,500 students, 340 of whom are from other school districts. Mesa USD also serves students in 71 school districts, 17 states, and 3 different countries, some of whom are on a tuition basis. These 7 school districts typically operate TAPBI as a separate program within the districts, rather than as a stand-alone school.

TAPBI programs operated by charter schools also vary significantly in size, with 5 of the schools serving between 1,000 and 4,100 students each, and 2 serving from 100 to 700 students each. The TAPBI charter schools all offer their programs to students state-wide. Further, the charter schools' TAPBI operational structures are more varied. Three charter schools solely operate as TAPBI programs—that is, they have no students or programs other than TAPBI. Among the 4 other charter schools, 1 created a separate school entity for TAPBI, while 3 operate TAPBI in conjunction with other programs.

The Appendix provides further information on the individual TAPBI schools.

Education delivery takes many forms—TAPBI schools typically provide instruction through Internet-based applications that allow schools to create and deliver learning content, such as online reading materials, interactive exercises, discussion forums, video clips, and quizzes. Their comprehensive learning management systems also typically include tools for monitoring student

¹ Watson, J. and Jennifer Ryan. *Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice*, Learning Point Associates, October 2006.

participation and progress, such as instruction time logs and electronic grade books. To ensure that students can access and interact with learning management systems, the TAPBI schools generally require students to have access to a high-speed Internet connection and a computer that meets certain technical requirements. Most schools also provide small computer labs for student use, and three schools even lend students the needed equipment.

Learning Management System

A comprehensive software system that can be used to track student progress and course completions while a teacher controls and guides the learning process. Most systems are Web-based to allow for “any time, any place, any pace.”

Besides using the computer-based instruction, students may also spend time on activities such as reading textbooks, completing homework assignments, or working with hands-on projects. The amount of time spent on the computer can vary by class type or grade level. For example, classes for kindergartners involve more hands-on activities that require help from a parent or learning coach. Similarly, physical education classes may include both computer-based instruction, to learn about a topic, such as cardiovascular health or bowling, and participation in activities at a partner health facility or bowling alley. TAPBI schools primarily communicate with their students through phone and e-mail, although some schools provide on-site testing, open houses, or field trips.

Several TAPBI programs allow students to enroll in and start TAPBI courses at any time of the year, and they are generally self-paced as students are allowed to spend more or less time on individual lessons than may occur in a traditional classroom. The courses, however, must usually be completed within a certain number of weeks for the student to receive school credit. The allowed course time may differ considerably, depending on the school. For example, Mesa USD’s TAPBI Program provides an 18-week limit for course completion, while Primavera Online High School’s program has a 6-week limit.

TAPBI schools must also comply with the State’s other educational requirements, such as providing minimum amounts of instruction time, aligning curricula with state standards, and hiring qualified teachers.

State oversight provided by three main entities—The Superintendent of Public Instruction, the State Board of Education, and the State Board for Charter Schools all provide oversight for TAPBI. Since the Program’s inception, the TAPBI schools have been required to self-report certain information annually to the state boards and to the Joint Legislative Budget Committee, including:

- Descriptions of educational services provided and the effects of technology on the delivery of those services;
- The measurement of academic achievement of TAPBI students based on: a) standardized test scores, and b) data identified by the state boards that compares the academic performance of TAPBI students with non-TAPBI students;

- The results of student and parent satisfaction surveys;
- A description of the availability and equitable distribution of educational services; and
- Descriptions of the Program's operational and administrative efficiency and cost-effectiveness, including a schedule of costs for the fiscal year.

The 2005 session law also required that, every 5 years, the state boards review the effectiveness of each TAPBI school and the reports described above to determine whether to renew the school's participation in TAPBI.¹ As of August 2007, the state boards' directors were in the process of developing specific plans for their first 5-year review, which they plan to begin in fiscal year 2008.

Additionally, the 2005 session law provided that if the Superintendent of Public Instruction determines that a TAPBI school district is no longer meeting the original TAPBI application criteria, he may recommend that the State Board of Education replace that school district with another one. In May 2006, the Superintendent formed a TAPBI Task Force, which obtained updated application information from the seven school districts. Based on its evaluation, the Task Force found all districts to be operating their TAPBI programs in compliance with statute and made no recommendations for replacement.

Student Enrollment

Enrollment has grown to more than 15,000—TAPBI enrollment has increased substantially since the Program first started. TAPBI enrollment has increased from 500 students in 2001, when the first school began operating, to more than 15,000 students in 2006. The Program no longer has an enrollment cap but does currently have statutory restrictions on who can enroll and how quickly individual schools can grow. Eighty percent of new TAPBI enrollees must have been enrolled in and attending a public school the previous year, new kindergarten enrollees must have a sibling already enrolled in the Program, and any individual school's enrollment cannot increase by more than 100 percent in any fiscal year.²

Schools vary in types of students served—Most TAPBI schools cater to many different types of students such as gifted, at-risk, homebound, and students seeking credit acceleration, but a few target specific student populations, such as adult-aged high school students or at-risk students. Four TAPBI schools provide

¹ Laws 2005, Ch. 323, §1.

² Eligibility requirements have changed several times since the start of TAPBI. Laws 1998, Ch. 224, limited total TAPBI enrollment to 500 students per year. Laws 2003, Ch. 241, removed the 500-student cap, but required students to have attended a public school the prior year to be eligible and added a requirement that kindergartners had to have a sibling currently enrolled in TAPBI. Laws 2005, Ch. 323, reduced the requirement for prior attendance to 80 percent of new students.

distance learning to elementary students in kindergarten through grade 8, while the remaining 10 schools serve only high school students. Many students, about 70 percent in fiscal year 2006, were also enrolled at traditional brick-and-mortar schools during the school year. Additionally, 12 of the TAPBI schools serve special needs students with mild to moderate disabilities, such as learning or emotionally disabled students. Special needs students represent about 6 percent of the total students served.

The Appendix provides more information about the types of students each TAPBI school serves.

Funding and Costs

TAPBI funding follows traditional K-12 approach—TAPBI schools are provided state and local funding using the same per-pupil method as other kindergarten through 12th-grade public schools in the State. This method provides funding based on Average Daily Membership (ADM).¹ As shown in Table 1 (see page 6), the 4,475 ADM for the TAPBI Program in fiscal year 2006 generated an estimated \$23.8 million in funding.

Although TAPBI funding is calculated using the same basic method as other schools, the instruction hours are based on student-maintained time logs rather than the number of students enrolled and physically attending classes as confirmed by teacher attendance records. Six of the TAPBI schools require parents to sign (electronically or manually) the student time reports before they are sent to the school. Also, for students attending more than one school, each student's TAPBI and traditional school ADM must be allocated among the schools being attended so that the student equates to only 1.0 ADM for funding purposes. Chapter 1 provides further discussion of this issue.

Programs required to report on cost-effectiveness—Statute requires schools participating in the TAPBI Program to submit annual reports to the state boards addressing various program aspects, including the cost-effectiveness of their program.² In 2006, one school district failed to report on its cost-effectiveness and two districts provided incomplete data. In general, the self-reported cost data was neither complete nor consistent. Chapter 2 provides more specific information about TAPBI costs.

¹ School districts' formula-based funding consists of: a) property tax revenue, and b) county and state aid, if a district's property tax revenue is insufficient. Since charter schools do not receive property tax revenue, their formula-based funding consists only of state aid.

² Arizona Revised Statutes §15-808(C).

Table 1: TAPBI Schools' Estimated Formula-Based Funding For Fiscal Year 2006 ADM¹

TAPBI School	Average Daily Membership (ADM)	Formula-Based Funding ²
Charter Schools:		
Arizona Connections Academy	265	\$1,457,500
Arizona Distance Learning	464	2,691,200
Arizona Virtual Academy	1,439	7,051,100
Humanities and Sciences Academy	727	3,925,800
Kids-at-Hope Online Academy	27	167,400
Pinnacle Virtual High School	430	2,494,000
Primavera Online High School	697	3,763,800
School Districts:		
Deer Valley USD ³	n/a	n/a
Lake Havasu USD	17	85,000
Mesa USD	353	1,960,200
Marana USD	23	117,300
Peoria USD	16	84,800
Tempe USD	9	44,100
Tucson USD	7	36,400
Total	4,475	\$23,824,600

1 For charter schools, funding for fiscal year 2006 ADM was provided in fiscal year 2006. For school districts, funding for fiscal year 2006 ADM was provided in fiscal year 2007. Because dollar amounts are estimated, auditors rounded them to the nearest \$100.

2 Auditors' calculations for average per student funding for school districts was based on grade-level (Group A) ADM weights for base support level, soft capital allocation, and capital outlay revenue limits. Auditors' calculations for charter schools were based on charter school funding methods, including base support level and additional state assistance.

3 Due to computer difficulties, Deer Valley USD did not report any TAPBI ADM in fiscal year 2006 and did not receive funding for them in fiscal year 2007.

Source: Auditor General staff analysis of a) average daily membership (ADM) information obtained from the Arizona Department of Education (ADE); and b) FY07 APOR55-1 (for TAPBI school districts) and FY06 CHAR55-1 (for TAPBI charter schools) reports.

Scope and methodology

This audit focused on three specific areas of the TAPBI pilot program:

- Whether charter schools, school districts, and ADE are appropriately applying TAPBI enrollment and funding requirements;
- How much the TAPBI schools cost, and how these costs compare to traditional brick-and-mortar schools; and

- How student achievement in the technology-based environment compares to achievement in traditional brick-and-mortar schools.

In conducting this audit, auditors used a variety of methods, including examining various records, such as ADE's fiscal year 2005 through 2007 enrollment data for participating TAPBI schools; reviewing TAPBI schools' policies and procedures, student records, and cost information; reviewing applicable statutes; assessing applicable internal controls at ADE and TAPBI schools; and interviewing officials at ADE, the State Board of Education, the State Board for Charter Schools, and each of the 14 TAPBI schools. Auditors also observed the operations and learning management systems for each of the 14 TAPBI schools. Additionally:

- To assess whether charter schools, school districts, and ADE are appropriately applying TAPBI enrollment and funding requirements, auditors interviewed schools about their policies and procedures, and tested school enrollment records for compliance with statutory enrollment requirements. Additionally, auditors interviewed ADE school finance officials about enrollment data and funding procedures, and tested ADE's enrollment data and related calculations for accuracy and compliance with statutory ADM limits. Due to errors identified, auditors also recalculated ADM and estimated proper funding.
- To determine TAPBI schools' costs and to compare costs of TAPBI and traditional brick-and-mortar schools for cost-effectiveness, auditors analyzed fiscal year 2006 cost data, the most current completed fiscal year at the time of the audit, provided by each participating program. To validate the cost data, auditors compared it to the costs reported on the fiscal year 2006 TAPBI self-reported annual reports and to source documents such as invoices and employment agreements. Any identified misclassified expenses were reclassified to more accurately reflect TAPBI costs. Auditors also assessed the adequacy of the methods schools used to allocate TAPBI and non-TAPBI costs.

Since charter schools use accounting classifications that differ from the classifications used by school districts, after validating the data, auditors created uniformity among TAPBI schools' data. Specifically, auditors omitted charter schools' costs that were not current expenditures, such as depreciation expense, and reclassified costs into the uniform functional categories contained in the *Uniform System of Financial Records for Arizona Charter Schools* and the *Uniform System of Financial Records for Arizona School Districts*.

Finally, to assess the cost-effectiveness of the TAPBI programs, auditors compared the validated and reclassified TAPBI schools' per-pupil costs to: a) unaudited fiscal year 2006 state-wide cost data for school districts developed from summary accounting data provided by school districts as part of the Auditor General's annual *Arizona Public School Districts' Dollars Spent in the Classroom* report; and b) unaudited fiscal year 2006 state-wide cost data for

charter schools obtained from the *Annual Report of the Arizona Superintendent of Public Instruction, Fiscal Year 2005-2006*. Auditors also compared each TAPBI school's costs by functional category to the average for all TAPBI schools.

- To analyze student achievement in the technology-based environment, auditors interviewed the Director of the State Board of Education, the Director of the State Board for Charter Schools, various ADE officials, and TAPBI school representatives to learn about Arizona's student assessment process and the characteristics of TAPBI students. Auditors also obtained various studies on the effect of K-12 online learning on student achievement, including a study that statistically analyzed the results of numerous related studies known as a meta-analysis.¹ To identify common practices in K-12 online learning, auditors reviewed various literature and studies about other states' K-12 online learning practices and their effectiveness, and interviewed a distance-learning expert from Arizona State University. Auditors compared the identified common practices with information gathered through interviews and observations of Arizona's TAPBI schools. Finally, to determine whether TAPBI schools supported student achievement by providing minimum instruction hours, auditors compared the schools' reported instruction hours to the minimum hourly requirements in A.R.S. §15-901(A)(2).

Following are the main conclusions related to the audit objectives:

- **Enrollment and funding**—Based on fiscal year 2006 ADM, the TAPBI Program was overfunded by an estimated \$6.4 million, primarily because ADE's calculations allowed students to be counted more than once. TAPBI schools' noncompliance with statutory enrollment limits added to the State's cost.
- **Costs**—Per-pupil expenditures were lower under the TAPBI Program, on average, than for brick-and-mortar schools, primarily from not having to provide transportation, food services, and classrooms. However, the TAPBI schools have opportunities to reduce costs. Further, the schools' cost accounting did not facilitate compliance with statutory reporting requirements.
- **Student achievement**—Current measures are limited in their ability to differentiate between student achievement in TAPBI schools and achievement in traditional brick-and-mortar settings. TAPBI schools can better support the academic achievement of their students by ensuring they are meeting instructional hour requirements and mastering course content.

¹ Studies included: (1) Blomeyer, Robert, Cathy Cavanaugh, Kathy Jo Gillan, Jeff Kromrey, and Melinda Hess. *The Effects of Distance Education on K-12 Student Outcomes: A Meta-Analysis*. Naperville, Illinois: Learning Point Associates, 2004. (2) Blomeyer, Robert L., Tom Clark, and Rosina Smith. *A Synthesis of New Research on K-12 Online Learning*. Naperville, Illinois: Learning Point Associates, 2005. (3) Greene, Bernard, Laurie Lewis, and J. Carl Setzer. *Distance Education Courses for Public Elementary and Secondary School Students: 2002-03*. National Center for Education Statistics, March 2005. (4) Greenway, Randall, and Gregg Vanourek. "Virtual Revolution: Understanding Online Schools." *Education Next*, Spring 2006. 2006 No. 2. (5) Rice, Kerry Lynn. "A Comprehensive Look at Distance Education in the K-12 Context." *Journal of Research on Technology in Education*, Summer 2006. Volume 38, Number 4. (6) U.S. Department of Education. *National Education Technology Plan 2004*. Washington D.C., 2004.

This audit was conducted in accordance with government auditing standards.

The Auditor General and her staff express their appreciation to the officials and staff of the State Board of Education, the State Board for Charter Schools, the Arizona Department of Education, and the school districts and charter schools in the Technology Assisted Project-Based Instruction Program for their cooperation and assistance during this audit.

CHAPTER 1

Fiscal year 2006 TAPBI ADM overfunded by about \$6.4 million

TAPBI program errors and noncompliance increased the cost of public education by an estimated \$6.4 million.¹ The Program is funded using the same method as brick-and-mortar schools, but this may not be the best basis for funding online education, and it may contribute to the overfunding. However, the Arizona Department of Education's application of the funding method was the main reason for the overfunding. Specifically, many TAPBI students are concurrently enrolled in regular brick-and-mortar schools, and under ADE's current student accounting system, these students are funded more than once. Further, ADE funds TAPBI schools for summer courses, although traditional brick-and-mortar schools are not funded for summer school. Other states use per-pupil funding approaches similar to Arizona's, but some attach additional stipulations, such as assurance that students actually complete their online coursework. Six TAPBI schools also failed to comply with statutory enrollment limits.

Traditional funding method may not be the best for online education

Charter schools and school districts are funded for their TAPBI schools using the same Average Daily Membership (ADM) method used for traditional schools. However, this funding method may be better suited to brick-and-mortar schools with students attending class in person rather than for online schools where attendance is measured by students self-reporting time spent on coursework. A significant problem with the funding method is that the funding basis, students' self-reported hours, cannot be verified to determine accuracy or reasonableness.

¹ By statute, charter schools are funded for current year ADM while school districts are funded on prior year ADM. Charter schools' fiscal year 2006 ADM was funded in fiscal year 2006, but school districts' fiscal year 2006 ADM was funded in fiscal year 2007.

TAPBI schools funded based on same method as brick-and-mortar schools—TAPBI schools are funded using the same ADM method as brick-and-mortar schools, with an important exception. Although brick-and-mortar schools receive funding only for students who enroll during the first 100 days of the school year, ADE funds TAPBI schools' students regardless of when they enroll. Arizona's brick-and-mortar schools typically provide instruction during a 10-month school year and, by statute, funding is based on their ADM during the first 100 days of school. In contrast, since TAPBI schools allow students to start their courses at any time of the year, ADE bases their funding on the number of instructional hours provided throughout the calendar year. To illustrate the difference, if a student enrolled in a brick-and-mortar school after the 100th day of school, typically around February for traditional schools, ADE would not include ADM for these students in calculating the brick-and-mortar school's funding. However, because the TAPBI schools operate year-round, if that student enrolled in a TAPBI school after the 100th day, ADE would include the student in calculating the TAPBI school's funding. Current statutes do not authorize this difference in calculating ADM funding.

Student hours cannot be validated—For TAPBI schools, the ADE uses student-reported hours as the basis for school funding. Brick-and-mortar schools' funding is based on the number of days that students are enrolled in and physically attending school. But TAPBI funding is based on the number of hours that students report that they have spent completing coursework, which includes direct instruction time as well as time to complete homework and projects. Specifically, students report their coursework hours to their TAPBI schools, which then summarize and report the hours to ADE. ADE then uses these hours to calculate TAPBI ADM.

The challenge posed by this approach is validating the accuracy of students' time logs. For example, although a TAPBI school might track the time a student is logged on to its learning management system, this does not necessarily mean the student is at the computer performing related schoolwork. Most TAPBI schools' officials indicated that teachers can tell if a student's logged hours are reasonable compared to the coursework submitted, but none of the schools have specific reasonableness checks or guidelines in place. In addition, only 6 of the 14 schools have established an oversight process requiring that parents review and approve the accuracy of their students' time logs. Further, the Humanities and Sciences Academy Arizona did not require its students to log their instruction hours although it is required by A.R.S. §15-808(E). Instead, the school reported 123 hours of instruction time for each course that a student completed. Because the school failed to require students to log actual hours spent on coursework, ADE should evaluate whether the TAPBI funding paid to this school for fiscal years 2006 and 2007 should be recovered.

Costly errors in applying ADM to the TAPBI Program

ADE does not accurately adjust ADM funding to account for students who are concurrently enrolled in TAPBI and a brick-and-mortar school. Also, ADE funds TAPBI “summer” courses although summer courses in brick-and-mortar schools are not funded. Auditors estimate that these errors increased the cost of K-12 education by an estimated \$6.4 million in fiscal year 2006.

TAPBI funding is not authorized to exceed 1 ADM per student—The manner in which ADE applies the ADM funding method to the year-round TAPBI instruction environment results in overfunding TAPBI students. At the TAPBI Program’s inception, its costs were to be covered by existing funding. Students who could now attend TAPBI programs would have otherwise been in traditional brick-and-mortar classrooms; thus, the new program would not require new funding. Although the Legislature relaxed TAPBI enrollment limits in 2003 and 2005, it did not revise the statutes to allow a TAPBI student to result in more than 1.0 ADM funding.¹ Therefore, when a TAPBI student is enrolled in more than one school, the ADM must be split proportionately among all schools that the student attends. In two different types of situations, however, ADE allows a student to be counted as more than 1.0 ADM. Specifically:

- **A student concurrently enrolled in TAPBI and another school is funded as more than 1.0 ADM**—Based on ADE’s records, auditors estimated that 40 percent of TAPBI students in fiscal year 2006 were also concurrently enrolled in a brick-and-mortar school; thus, their ADM should have been split between the schools. However, the Student Accountability Information System (SAIS), the computer-based program ADE uses to calculate school funding, currently does not have the capability to allocate ADM for concurrent TAPBI students. Therefore, each TAPBI school’s enrollment information is extracted from SAIS into a Microsoft Excel spreadsheet, and then an ADE employee uses a variety of formulas to calculate TAPBI funding. However, a procedure is not in place to adjust the brick-and-mortar school’s funding for the concurrently enrolled TAPBI student.

The accompanying textbox shows an example of the statutory ADM allocation for a student enrolled full-time in a brick-and-mortar school and half-time at a TAPBI school and the result using ADE’s manual calculations. Specifically, to meet the statutory requirement of limiting funding to 1.0 ADM per student, ADE would need to ensure that the brick-and-mortar school

ADM Calculation Example

Scenario: Student ‘A’ is enrolled at a brick-and-mortar school full-time (1.0 ADM) and a TAPBI school half-time (0.5 ADM). Since the ADM is greater than 1.0, it needs to be adjusted to comply with statute.

ADM calculation to meet statute:

Brick and mortar ADM: $1.0 \div (1.0 + 0.5) = 0.667$
TAPBI ADM: $0.5 \div (1.0 + 0.5) = 0.333$
Total ADM: 1.0

Actual ADM calculation by ADE:

Brick and mortar ADM: Remains unadjusted at 1.0
TAPBI ADM: $0.5 \div (1.0 + 0.5) = 0.333$
Total ADM: 1.333

Based on the above calculations, ADE overfunded the brick-and-mortar school by 0.333 ADM for this student.

¹ In general, statute limits a student to being funded as 1.0 ADM. However, A.R.S. §15-808 (F) specifically allows 1.25 ADM if the student is also enrolled in a Joint Technological Education District course. But, there is no specific exception for TAPBI schools.

receives two-thirds of the ADM and the TAPBI school receives the other one-third. But ADE's spreadsheet calculation results in a total 1.333 ADM for this example. ADE officials indicated that SAIS is not programmed to identify and make these adjustments. ADE officials further indicated that adjusting brick-and-mortar schools' ADM correctly would require complicated analysis and adjustments. Therefore, additional state funding has resulted from the TAPBI program.

- **ADE provides funding for TAPBI summer school**—Total K-12 education costs also increase due to the funding of TAPBI summer courses. Brick-and-mortar schools do not generally receive state ADM-based funding for instruction time provided beyond the normal school year, such as summer school. As a result, traditional schools typically either charge tuition to students who attend their summer programs or pay for these programs using other monies such as state or federal grants. However, ADE allows additional funding for TAPBI enrollments taking place after the traditional school year. ADE does not consider these summer enrollments to be concurrent enrollments as defined by statute since they are not occurring simultaneously. Therefore, ADE does not allocate this student's 1.0 ADM between the brick-and-mortar and TAPBI schools. Because the student does not have to pay tuition for TAPBI summer classes, and the TAPBI school receives state funding, there is a financial incentive for both students and TAPBI schools to use summer classes.

The funding calculations that ADE uses means that students who enroll in both TAPBI and brick-and-mortar schools during the year are often funded for more than 1.0 ADM. Specifically, based on ADE's fiscal year 2006 TAPBI funding calculations, about 6,800 of the 10,600 TAPBI students with multiple enrollments were overfunded by an average of 0.17 ADM each. Auditors estimated that the total additional cost of this ADM was approximately \$6.4 million.

Other states use varied funding approaches

Because the traditional ADM method does not appear to be the best fit for funding online/distance learning, auditors reviewed available information about other states' distance-learning funding approaches to identify possible alternatives to the current system.¹ Current literature indicated that other states use a variety of funding methods, but the per-pupil approach, such as the one Arizona uses, is fairly common (see Table 2, page 15). In all, 21 states reported funding their programs using some type of per-pupil method. Further, the existing literature does not identify a particular funding method as being the most appropriate for online education programs. For

¹ The body of information on funding for K-12 distance learning is limited. The information about other states' funding presented here is from *Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice*, a research study conducted and written by John F. Watson and Jennifer Ryan, Evergreen Consulting Associates, and published by Learning Point Associates, a nonprofit organization working to improve education systems, in October 2006. The study was based on research conducted via surveys, interviews with distance-learning program personnel, reviews of state laws, data collection and analysis, and consultations with the North American Council for Online Learning and the Southern Regional Education Board, which are nonprofit organizations fostering the improvement of educational opportunities.

example, although the majority, 29 states' programs, were funded through legislative appropriations, according to a national research study, *Keeping Pace with K-12 Online Learning*, this method is viewed as not being sustainable because it is subject to fluctuations of the state's economic and budget cycles. Similarly, grant funding is subject to availability, and the amounts are typically not sufficient to fully support an online learning program. Tuition and fees fund the distance-learning programs in some states, with the per-course or per-semester amounts ranging from about \$100 to a few hundred dollars. However, the report noted that tuition and fees are also typically not sufficient to cover all of the program costs.

Table 2: Other States' Funding Methods for Distance-Learning Programs Fiscal Year 2006¹

Funding Method	Number of States Using Method
Per-pupil —Based on student counts or number of courses taken.	21
Tuition and fees —Per course or per program funding provided by students, parents, or schools.	22
Course completion —Funding is contingent on course completion. Usually used in combination with other methods.	3
Legislative appropriations —Specific funds designated by the Legislature for online education programs. Typically used in states with state-led programs.	29
Grants —State, federal, or private monies awarded to online education programs.	21

¹ Some states used more than one method or a combination of methods and, therefore, have been counted in more than one category.

Source: Auditor General staff summary of *Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice* and Department of Education, *Online Education Performance Audit-October 2006*.

Per-pupil methods, such as those used by Arizona and 20 other states, are classified as being more predictable than other methods, such as legislative appropriations, because they vary with enrollment rather than being limited to a specified total. However, per-pupil methods are also considered challenging for several reasons. In some states, a student's brick-and-mortar school's funding may be reduced when the student is also attending an online school, while in others, a student may generate more than 1.0 ADM or full-time equivalent (FTE) funding in a fiscal year. The 21 states using a per-pupil method do not have exactly the same funding rules. For example, Texas and Oklahoma have average daily membership calculations for their per-pupil funding. However, Florida uses an FTE method that requires that a student successfully complete six courses to generate 1.0 FTE. Through this method, the Florida Virtual School receives one-sixth of an FTE in funding for each class that a student completes. However, Florida's funding method also allows a student to generate more than 1.0 FTE of funding in a fiscal year if the student also completes courses at a brick-and-mortar school. Arkansas funds its online education program in a similar way except that course completion is not required for the school to receive funding.

An FTE funding method, such as the ones used by Florida and Arkansas, and in funding Arizona's community colleges and universities, may address some of the ADM funding issues since it can be based on the number of courses taken by a student rather than the number of instruction hours. Specifically, this method would address the current challenges in tracking instruction hours through student-reported time logs. To alleviate other issues related to TAPBI funding, the Legislature could

specifically address whether it intends for a TAPBI student to generate more than the 1.0 ADM in funding that is allowed for traditional students and whether summer classes are included in that 1.0 ADM limit. Current statute does not appear to provide additional funding beyond what traditional schools are eligible to receive.

Six TAPBI schools exceeded statutory enrollment limits

Six TAPBI schools received about \$88,000 in funding that they would not have received if they had adhered to statutory restrictions on new student enrollment. Specifically, one TAPBI school did not comply with limits on non-public school enrollments, three schools did not comply with kindergarten enrollment limits, and two TAPBI schools exceeded total enrollment growth limits.

- **One TAPBI school enrolled more non-public school students than allowed by statute**—Statute requires that 80 percent of TAPBI schools' new enrollments must be students who previously attended public schools. One school, Humanities and Sciences Academy, exceeded by 17 students the 20 percent limit for students not attending a public school in the previous year. The funding associated with these 17 students totaled approximately \$55,000.
- **Three TAPBI schools enrolled more kindergarten students than allowed by statute**—The Legislature further limited enrollments by requiring that, for a TAPBI school to enroll a kindergartner, a sibling must be currently enrolled and attending the program. As shown in Table 3, three TAPBI schools enrolled 18 kindergartners who did not meet this requirement. Auditors estimated that the related funding totaled approximately \$33,000.

Table 3: TAPBI Schools Enrolling Kindergarten Students without a Sibling Currently Enrolled in and Attending the Program Fiscal Year 2006¹

TAPBI School	Kindergarten Students Enrolled without a Sibling	Estimated Excess Funding
Arizona Distance Learning	2	\$ 9,000
Arizona Virtual Academy	12	22,000
Mesa USD Distance Learning Program	4	2,000
Total	18	\$33,000

¹ A.R.S. §15-808(B) requires that kindergarten students must have a sibling currently enrolled in and attending the TAPBI Program for the kindergarten students to enroll.

Source: Auditor General staff analysis of fiscal year 2006 student information provided by ADE; APOR55-1 Basic Calculations for Equalization Assistance for School Districts reports; and CHAR55-1 Basic Calculations for Equalization Assistance for Charter Schools reports, including base support level and additional state assistance.

Two school districts exceeded total TAPBI enrollment limits—TAPBI schools were limited by statute to 100 percent growth in enrollment in any one fiscal year. As shown in Table 4, Peoria USD and Tucson USD exceeded their total TAPBI enrollment limits in fiscal year 2006.

**Table 4: TAPBI Schools Exceeding 100 Percent Growth Limitation
Fiscal Year 2006¹**

TAPBI School	Fiscal Year 2005 Enrollment	Fiscal Year 2006 Enrollment	Enrollment Growth	Students Above Enrollment Limit
Peoria USD eCampus	40	160	300%	80
Tucson USD Distance Learning Program	6	46	667	34
Total				116

¹ A.R.S. §15-808(H) requires that each TAPBI school's enrollment cannot grow by more than 100 percent in any fiscal year.

Source: Auditor General staff analysis of TAPBI enrollment data provided by ADE for fiscal years 2005 and 2006.

ADE allowed Peoria USD and Tucson USD to enroll up to 450 students in fiscal year 2006. This number was based on a cap established for schools with no TAPBI enrollment in fiscal year 2005. However, both of these districts had TAPBI enrollment in fiscal year 2005, as shown in Table 4.

Most of the students attending these two TAPBI schools were also concurrently enrolled in brick-and-mortar schools within the same school district. Therefore, because ADE does not properly adjust funding for some concurrently enrolled students, it is uncertain whether these students resulted in additional overpayments to the school districts that are not already reflected in the \$6.4 million estimate on page 13. However, if the students were not concurrently enrolled, the TAPBI schools would have received excess funding that is not reflected in that estimate. Due to the complexities involved, ADE should conduct additional analysis to determine the precise amounts overpaid.

Recommendations

1. To ensure that the TAPBI Program is appropriately funded, the Legislature should:
 - a. Consider whether the current ADM method is the best basis for TAPBI funding given differences of the online learning environment. If the Legislature decides that the ADM funding method is appropriate, it could consider adding other funding criteria, such as requiring students to complete courses for schools to receive funding.
 - b. Consider specifically addressing whether it intends for a TAPBI student to generate more than the 1.0 ADM in funding that is allowed for traditional students and whether summer classes are included in that 1.0 ADM limit.
2. To ensure that TAPBI ADM is properly calculated and funded, ADE should:
 - a. Ensure that SAIS is programmed to identify and calculate necessary funding adjustments for TAPBI concurrent enrollments and summer school programs.
 - b. Make appropriate adjustments to TAPBI funding for the fiscal year 2006 ADM calculation errors and any similar errors made in fiscal year 2007.
 - c. Monitor whether TAPBI schools adhere to statutory enrollment limitations, including the requirements that 80 percent of new students must have been previously enrolled in a public school, that kindergarten students must have a sibling enrolled in the program, and that enrollment growth must not exceed 100 percent in a year for individual TAPBI schools.
3. ADE should seek legal advice to determine if the overfunding related to noncompliance with these enrollment limitations should be recovered from the TAPBI schools.
4. ADE should determine whether to recover TAPBI funding paid to the Humanities and Sciences Academy Arizona for fiscal years 2006 and 2007 that was not based on student logs of actual instruction time.

CHAPTER 2

TAPBI schools' operations cost less, but further savings may exist

As a whole, TAPBI schools spent about \$1,200 per pupil less than Arizona public schools averaged state-wide.¹ This cost saving largely occurs in transportation, food service, plant operation and maintenance, and special education costs. However, depending on the nature of their operations, TAPBI schools' costs were higher in certain areas. For example, TAPBI charter schools' administrative salaries caused higher-than-average administration costs, and several TAPBI schools incurred high costs for software and management agreements. Further, the schools could better evaluate their cost-effectiveness—and also comply with statutory reporting requirements—if they more accurately recorded and summarized their costs.

Certain costs are avoided in an online learning environment

In fiscal year 2006, TAPBI schools spent \$1,223 less per pupil than brick-and-mortar schools, on average. As shown in Table 5 (see page 20), TAPBI schools spent an average of \$5,526 per pupil compared to the state average of \$6,749 per pupil. The TAPBI schools can achieve lower overall costs because of lower costs in four areas: transportation, food service, plant operation and maintenance, and special education.

TAPBI schools have limited transportation, food service, and plant costs—TAPBI schools primarily achieve cost savings over brick-and-mortar schools because they do not provide certain support services, such as transportation and food service, and they have significantly lower plant operation

¹ The unaudited Arizona public school average cost for fiscal year 2006 represents the average per-pupil cost for school districts and charter schools. This average was based on Auditor General staff analysis of: a) for school districts, fiscal year 2006 accounting data from the districts and ADM information obtained from the Arizona Department of Education; and b) for charter schools, per pupil expenditure information from the *Annual Report of the Superintendent of Public Instruction, Fiscal Year 2005-2006*. TAPBI school expenditures were obtained from the TAPBI schools and classification adjustments were made by Auditor General staff for consistency.

Table 5: TAPBI School Expenditures Compared to State-wide Public School Expenditures
Fiscal Year 2006

Function	State Average			TAPBI Average		
	Percent	Total costs	Per pupil	Percent	Total costs	Per pupil
Instruction	57.6%	\$3,909,693,305	\$3,886	70.0%	\$19,358,640	\$3,870
Administration	10.4	705,529,150	701	22.0	6,093,075	1,218
Student Support	7.0	476,453,772	474	1.6	445,069	89
Other Support	25.0	1,697,573,750	1,687	6.3	1,743,248	348
Total Costs		\$6,789,249,978			\$27,640,032	
Average Daily Membership		1,005,992			5,002	
Total cost Per-Pupil			\$6,749			\$5,526

- **Instruction**—teacher salaries, instructional supplies and materials including on-line curriculum, and materials associated with schools' learning management systems.
- **Administration**—school administrative salaries, costs related to governing boards, business support services, and other support services.
- **Student Support**—attendance and social work services, guidance services, health services, psychological services, and speech pathology and audiology services.
- **Other Support**—plant operations, food service operations, transportation, and instructional support.

Source: Auditor General staff analysis of: a) for school districts, fiscal year 2006 accounting data from the districts and average daily membership (ADM) information obtained from the Arizona Department of Education (ADE); b) for charter schools, per-pupil expenditure information from the Annual Report of the Superintendent of Public Instruction, Fiscal Year 2005-2006; and c) for TAPBI schools, fiscal year 2006 accounting data from the schools and ADM information obtained from ADE.

and maintenance costs. Since most TAPBI students take classes from home, there generally is no need for the schools to provide transportation and meals, saving the TAPBI schools approximately \$600 per pupil each year.¹ Similarly, the TAPBI schools generally do not maintain physical facilities such as classrooms, cafeterias, bus yards, and athletic fields. TAPBI schools primarily only maintain offices with accommodations for administrative staff and teachers. Having fewer facilities provided savings of approximately \$500 per pupil in fiscal year 2006, as TAPBI schools averaged \$234 in plant costs per pupil while school districts averaged \$767.²

¹ Arizona Distance Learning, Arizona Virtual Academy, and Mesa USD incurred small amounts of transportation costs for field trips and student activities. These costs were less than \$.76 per pupil, or an average of \$651.43 per school for fiscal year 2006. For fiscal year 2006, the average transportation and food services expenditures for each school district pupil state-wide were \$290 and \$323, respectively. Comparative information for state-wide charter schools was not readily available.

² Comparative information for state-wide charter schools' plant operation and maintenance costs was not available.

TAPBI schools generally have lower special education costs—As a whole, the TAPBI Program had lower special education costs, which appeared to relate to the students' lower level of special needs. Specifically, the TAPBI schools' average special education cost of \$93 per pupil was significantly less than the state-wide average of \$1,069 per pupil. TAPBI schools reported that fewer than 6 percent of the students enrolling in their classes required special education services, and about 90 percent of those students were classified as having needs that require less-expensive additional support, such as learning or emotional disabilities. In comparison, about 12 percent of students state-wide are classified as special needs students, and about 19 percent of those students have more severe disabilities that require more costly accommodation, such as special programs located outside of their home district.

Differences in TAPBI schools' operations affect costs

Costs varied significantly among the 14 TAPBI schools, primarily due to differences in their operations. Factors included whether a charter school or school district operated the TAPBI school, and the types of learning management system agreements and other professional service agreements selected by the school.

TAPBI charter schools had higher per-pupil costs—As shown in Table 6 (see page 22), TAPBI charter schools' \$6,140 average per-pupil cost was about \$600 less than the \$6,749 state average per-pupil cost, but more than the \$2,910 per-pupil average cost for TAPBI school districts. Further, administrative costs for TAPBI charter schools averaged \$1,372 per pupil compared to the state average of \$701 per pupil and TAPBI school districts' average of \$562. The TAPBI charter school administration costs appear to be high largely because of higher-than-average employee compensation and staff entertainment costs.

- **Higher salaries and benefits**—Compared to other public schools, the TAPBI charter schools appear to be paying significantly higher salaries and benefits to their administrative staff. In fiscal year 2006, the TAPBI charter schools that did not outsource their administrative functions averaged \$800 per pupil for administrative salary and benefit costs compared to \$560 per pupil for school districts state-wide.¹ One factor causing the higher administration costs is higher salaries paid to upper-level TAPBI charter school administrative employees. For example, the three TAPBI charter schools that reported administrative staff compensation paid their directors and/or chief executive officers annual salaries ranging from approximately \$71,700 to \$187,000. By contrast, about 100 similarly sized brick-and-mortar school districts paid their principals and superintendents average annual salaries ranging from approximately \$65,000 to \$81,000.

¹ Comparative information for state-wide charter schools was not readily available.

Table 6: Individual TAPBI Charter and District School Expenditures Compared to State-wide Public School Expenditures Per-Pupil Fiscal Year 2006

Cost	Arizona Connections Academy	Arizona Distance Learning	Arizona Virtual Academy	Humanities and Sciences	Kids at Hope	Primavera High School	Pinnacle Virtual High School	TAPBI Charter Schools' Average ¹	State Public Schools' Average ¹
Instruction	\$3,962	\$3,541	\$4,698	\$3,072	\$4,504	\$6,277	\$4,113	\$4,434	\$3,886
Administration	1,594	3,134	885	1,542	2,333	788	1,563	1,372	701
Student Support	54	37	129	66	47	45	138	88	474
Other Support	373	446	80	516	481	235	56	246	1,687
Total per ADM equivalent	\$5,983	\$7,159	\$5,792	\$5,195	\$7,366	\$7,345	\$5,871	\$6,140	\$6,749
ADM Equivalent	265	464	1,439	727	27	697	430	4,050	1,005,992
	Deer Valley USD	Lake Havasu USD	Marana USD	Mesa USD	Peoria USD	Tempe UHSD	Tucson USD	TAPBI Schools Districts Average ¹	State Public Schools' Average ¹
Instruction	\$2,219	\$4,838	\$1,393	\$ 920	\$6,136	\$3,299	\$1,734	\$1,472	\$3,886
Administration	472	3,168	603	407	2,286	538	2,308	562	701
Student Support	0	0	403	81	0	0	2,204	92	474
Other Support	23	131	5	1,092	482	0	0	784	1,687
Total per ADM equivalent	\$2,714	\$8,138	\$2,404	\$2,499	\$8,905	\$3,838	\$6,246	\$2,910	\$6,749
ADM Equivalent	141	28	36	670	16	52	9	952	1,005,992

¹ The TAPBI Charter Schools' Average and State Public Schools' Average amounts are weighted averages.

Source: Auditor General staff analysis of: a) for school districts, fiscal year 2006 accounting data from the districts and average daily membership (ADM) information obtained from the Arizona Department of Education (ADE); b) for charter schools, per-pupil expenditure information from the Annual Report of the Superintendent of Public Instruction, Fiscal Year 2005-2006; and c) for TAPBI schools, fiscal year 2006 accounting data from the schools and ADM information obtained from ADE.

- **Staff entertainment costs**—A few of the TAPBI charter schools also paid for staff-related entertainment costs, a cost not found at the school district TAPBI schools. For example, in fiscal year 2006, Primavera Online High School spent more than \$17,000, or approximately \$21 per pupil, on restaurant food and beverage purchases for its staff. In addition, Arizona Virtual Academy spent more than \$1,200 on gift cards purchased from various stores for its staff. These costs increased TAPBI charter schools' administration costs compared to the district TAPBI programs.

Software and management agreements generally increased costs—All TAPBI schools use learning management systems, which are Internet-based applications that allow the school to create and deliver learning content and monitor student progress. However, eight of the TAPBI schools had

costly software agreements related to these systems, which included software license fees, system support and maintenance, and curriculum-related costs. Further, five schools entered into even more comprehensive agreements to contract out their program management functions.

- **Software licensing agreements are often costly**—Almost all of the TAPBI schools lease their learning management systems from vendors, which can result in higher per-pupil costs. During fiscal year 2006, annual learning management lease fees ranged from \$8,400 to \$2.5 million, depending on the system the schools used and the number of students using the system. For example, Primavera Online High School paid nearly \$2.5 million, or \$3,535 per pupil, as an ongoing cost for its learning management system and related consulting services. This fee drove its total instructional costs to \$6,277 per pupil, which is 62 percent higher than the state-wide average of \$3,886. Further, during fiscal year 2006, Lake Havasu USD purchased certain components of Mesa USD's learning management system so that it could modify the curriculum to meet its own students' needs. Even so, Lake Havasu USD continues to pay annual costs for a contractor to provide system support, which is reflected in its \$8,138 per-pupil total cost.

In contrast, the one school that developed its own learning management system, Mesa USD, had significant cost savings. As shown in Table 6 (see page 22), Mesa USD's \$2,499 per-pupil cost was the second lowest per-pupil cost of all the TAPBI schools. According to Mesa USD officials, they spent nearly \$581,000 to develop the system in 1998, when the TAPBI school began operations. However, Mesa is now able to avoid costly annual licensing fees that other TAPBI schools pay for their online learning management systems.

- **Program management agreements significantly increase or decrease costs**—Contract agreements for TAPBI program management have significantly increased or decreased the schools' program costs.
 - TAPBI charter schools paid for various management agreements that increased their overall costs. For example, in October 2005, Arizona Distance Learning contracted with a related management services company to operate its TAPBI program. The school contracted to pay the company 94 percent of its revenues, which totaled \$1.9 million for the last three quarters of fiscal year 2006. This amount was not based on actual costs, which, according to the management company's records, were less than \$1.8 million during the same period. Similarly, Kids-at-Hope Online Academy paid about \$40,000 for a vendor to oversee approximately 14 students who performed their schoolwork using computer labs at Boys and Girls Club facilities. The vendor assisted students with enrollment and orientation, monitored students' work, and collected the students' instruction time logs.

- Two school districts, Tucson USD and Marana USD, lowered their costs through TAPBI management-related intergovernmental agreements with Mesa USD. Rather than developing and operating their own programs, these two districts enroll their TAPBI students directly into Mesa USD's TAPBI program. In fiscal year 2006, Tucson USD's and Marana USD's TAPBI programs generated an average of \$5,170 per ADM in funding and the 2 TAPBI schools each paid Mesa USD an average of \$1,188 per ADM. However, both schools incurred some additional costs. Although the schools each employed staff who served as academic counselors and test proctors for their students, Tucson USD's salary and benefit costs for these positions totaled \$4,410 per ADM, while Marana USD's salary and benefit costs totaled only \$990 per ADM. As a result, Tucson USD's TAPBI costs exceeded the related funding by \$774 per ADM, while Marana USD's funding exceeded its costs by \$2,693 per ADM in the TAPBI program.

Statute requires that, every 5 years, the two state education boards review the effectiveness of each TAPBI school to determine whether to renew the school's participation in the TAPBI Program. When conducting these reviews, the two boards should assess the schools' cost-effectiveness, including the level of administration expenditures and the fiscal impact of software or management agreements on cost.

TAPBI schools were not accurately capturing and reporting costs

TAPBI schools did not accurately identify costs or fully comply with statutory reporting requirements. Statute requires TAPBI schools to prepare an annual report that includes a description of their program's cost-effectiveness.¹ However, the schools have not been complying with this requirement. Prior to fiscal year 2006, TAPBI schools reported inconsistent types of costs, with several of them not submitting any cost information. For fiscal year 2006, the State Board of Education and the State Board for Charter Schools developed a required cost schedule with specific categories; however, the schools continue to inconsistently report costs. The following problems contributed to the schools' inaccurately reporting costs:²

¹ A.R.S. §15-808(C)(9).

² Auditors tested schools' cost data and any identified miscoded expenses were reclassified to more accurately reflect TAPBI costs. Auditors also determined whether the methods schools used to allocate TAPBI and non-TAPBI costs were adequate. Although in some instances the schools could have used more appropriate allocation bases, it was not feasible for auditors to reallocate the costs.

- **Shared costs not properly allocated**—For 11 of the 14 entities operating TAPBI schools, the TAPBI school generally represented a small portion of their total operations and costs.¹ For example, Mesa USD’s TAPBI program consisted of 353 ADM, but its total population exceeds 70,000 ADM. To properly reflect a TAPBI school’s costs in this situation, some shared costs need to be allocated. Typically, these entities allocated shared costs based on the proportionate number of students enrolled in their TAPBI schools. Although this method is appropriate for some costs, such as administration and student support, it is not always appropriate for others, such as building-related plant operation costs. For example, some entities housed their TAPBI teachers in one of their traditional brick-and-mortar schools. In this case, the most accurate way to allocate building costs would be by square footage occupied.
- **Costs not consistently categorized**—TAPBI schools inconsistently categorized their reported costs. For example, some schools classified teacher training as professional development, while others classified it as teacher compensation—benefits and education-related expenses. Further, some schools that purchased a significant portion of their TAPBI program services did not record sufficient detail for the costs. For example, Arizona Distance Learning reported its entire management agreement cost in one cost category. However, since the management agreement included varied services, such as providing instruction, student support, and instruction support, this cost should have been apportioned to the appropriate categories.

Several steps could be taken to help TAPBI schools track and report their costs.

- **Establish specific accounting codes at the state level**—The Auditor General’s Office and ADE could add a TAPBI-specific accounting code to the Charts of Accounts provided in the Uniform Systems of Financial Records for Arizona School Districts and for Charter Schools. Statute requires the Auditor General’s Office and ADE to develop and maintain these Uniform Charts of Accounts to provide specific accounting guidance to public schools. The Uniform Charts of Accounts include accounting codes for other programs that are required by statute to be accounted for separately, such as drop-out prevention programs and joint vocational and technological centers. A specific program code would allow TAPBI school districts and charter schools to track and allocate TAPBI costs more consistently throughout the year.
- **Align board reporting requirements with the new accounting codes**—The TAPBI reporting format prescribed by the state education boards is not aligned to the Uniform Charts of Accounts. These charts are based on the federal chart of accounts used by the National Center for Education Statistics, and provide a consistent platform for analyzing education costs. Therefore, to improve the TAPBI schools’ cost reporting, the state education boards should consider aligning the required cost categories with the Uniform Charts of Accounts.

¹ Of the 14 TAPBI schools, only Arizona Virtual Academy, Arizona Connections Academy, and Arizona Distance Learning are separate organizations whose operations are exclusively TAPBI programs.

- **Ensure charter schools conform to the state accounting codes**—Although TAPBI school districts are required to follow the Uniform Chart of Accounts for School Districts, the State Board for Charter Schools granted the TAPBI charter schools an exemption from having to follow the Uniform Chart of Accounts for Charter Schools.¹ Although four of the TAPBI charter schools generally follow the Uniform Chart of Accounts, the three other charter schools do not. Action by the Board could help ensure consistent accounting and reporting by these schools.

Recommendations

1. To ensure compliance with statutory reporting requirements and to improve the accuracy of costs, the following actions should be considered:
 - a. In reviewing and compiling the annual TAPBI self-reports, the state education boards should ensure that TAPBI schools are properly allocating costs between TAPBI and non-TAPBI operations, using an allocation basis that best reflects how the costs are incurred.
 - b. To facilitate this cost accounting, the Auditor General's Office and ADE should add a specific TAPBI program code to the Charts of Accounts provided in the Uniform Systems of Financial Records for Arizona School Districts and for Charter Schools.
 - c. To help TAPBI schools accurately report their costs in the Annual TAPBI Report, the state education boards should consider aligning the Report's cost categories to the Uniform Charts of Accounts.
 - d. The State Board for Charter Schools should consider requiring the TAPBI Charter Schools to follow the Uniform Chart of Accounts for their TAPBI programs.
2. In reviewing whether to allow the TAPBI schools to continue in the TAPBI Program, the state education boards should assess the schools' cost-effectiveness, including the level of administration expenditures and the fiscal impact of software or management agreements on costs.

1 The State Board for Charter Schools is the charter sponsor for all 7 TAPBI charter schools, and granted the schools exemptions to the requirements of the Uniform System of Financial Records for Arizona Charter Schools, as authorized by A.R.S. §15-183(E)(6).

CHAPTER 3

Student achievement measures and practices can be improved

The TAPBI Program's effect on student achievement is unclear. The current practice of comparing TAPBI students' standardized test scores to scores of other students is not a reliable way to assess the Program since many TAPBI students attend both online and brick-and-mortar schools. Although reliable comparisons cannot be made, several key policies and procedures appear important for ensuring student achievement. Practices, such as ensuring students receive the required hours of instruction and ensuring students are mastering course content, were not uniformly in place for the 14 TAPBI schools. For example, ADE was not ensuring that TAPBI schools are providing the minimum required hours of instruction, and six TAPBI schools did not require students to take exams in person and pass exams to receive credit. Other practices used in other states' programs can also lead to better support for student achievement in an online environment, such as establishing requirements for teacher-student communications and providing teacher training specifically addressing teaching in an online environment.

TAPBI Program's effect on student achievement is unclear

The TAPBI Program's effect on the achievement of the nearly 15,000 students in the Program is unclear. The State's practice of comparing TAPBI students' standardized test scores with non-TAPBI students' scores indicates that the achievement results are mixed. However, as currently used this approach is flawed as a comparison method, because it appeared to include students who attend both online and brick-and-mortar schools as well as students who enroll in the TAPBI Program for only limited periods of time. National studies are also inconclusive regarding how online/distance learning may be affecting student achievement.

State education boards measure TAPBI student achievement through standardized test measures—Arizona relies heavily on standardized test scores to measure student achievement. The federal No Child Left Behind Act, among other things, requires states to create academic standards

and to annually test how well students are learning those standards. In Arizona, the tests used to measure student achievement include TerraNova and the Arizona Instrument to Measure Standards (AIMS).¹ Students who are enrolled in a TAPBI program are generally required to take the same standardized tests as non-TAPBI students. To measure TAPBI students' achievement, the State Board of Education and State Board for Charter Schools compare TAPBI students' test results with state-wide student results.

Based on information in the fiscal year 2006 TAPBI Annual Report, students in the TAPBI schools generally tested at or below the state averages (see Tables 7 and 8).

Table 7: TAPBI Students' TerraNova Test Scores Compared to State-wide Scores Average Percentile Rank Fiscal Year 2006

Grades	Math		Reading		Language	
	State	TAPBI	State	TAPBI	State	TAPBI
2	58	46	54	47	56	37
3	52	46	47	54	46	51
4	58	55	52	59	53	59
5	52	49	56	62	54	57
6	56	52	56	64	50	55
7	54	47	54	62	58	61
8	58	43	58	56	56	52
9	55	45	57	58	55	53
Average for the Grades	55	47	54	58	54	54

Source: Auditor General staff analysis of the TerraNova test scores from the Annual TAPBI Report prepared by the Joint Legislative Budget Committee, State Board of Education, and State Board for Charter Schools, fiscal year 2006.

Table 8: TAPBI Students' AIMS Test Results Compared to State-wide Results Percentage Meeting or Exceeding State Standards Fiscal Year 2006

Grades	Math		Reading		Writing	
	State	TAPBI	State	TAPBI	State	TAPBI
3-8 Assessment	72%	57%	72%	60%	76%	60%
10-12 Assessment	60	34	71	66	63	53
Average for the Grades	70%	46%	72%	63%	74%	57%

Source: Auditor General staff analysis of the AIMS test results from the Annual TAPBI Report prepared by the Joint Legislative Budget Committee, State Board of Education, and State Board for Charter Schools, fiscal year 2006.

¹ Students in grades 2 through 9 must take the TerraNova, a nationally norm-referenced test; students in grades 3 through 8 must take the AIMS dual-purpose assessment; and students in grades 10 through 12 must take the AIMS exam until they have met or exceeded state standards to graduate.

Student enrollment trends affect the reliability of using standardized test results to assess TAPBI schools' effect—Several factors limit the usefulness of measuring the TAPBI schools' results in the way it is currently being done. Specifically:

- **Many TAPBI students attend multiple schools**—When a student attends multiple schools, as more than 70 percent of TAPBI students do, it becomes difficult to determine which school may have affected the student's standardized test scores. Further, depending on the types of classes taken at each school, more detailed analysis of which scores may have been affected by each school would also be required to reach more reliable conclusions. Of the nearly 15,000 students enrolled in TAPBI schools during fiscal year 2006, more than 10,000 students also took classes at non-TAPBI schools during the year. In fact, more than 3,700 students took classes at 3 or more schools.
- **TAPBI students often have short tenure in the Program**—About 40 percent of the students enrolled in TAPBI during 2005 did not re-enroll in 2006, and the average enrollment length for students in 2006 was less than 3 months. According to representatives from several TAPBI schools, students often enroll in TAPBI temporarily to recover credits, take courses that are not available at their main school, or take summer school classes. As a result, it is more difficult to link a student's standardized test achievement with the TAPBI school.
- **High school students do not take AIMS every year**—As previously noted, starting in 2nd grade, students must generally take either the TerraNova or AIMS test every year, and beginning in the 10th grade, high school students take the AIMS test twice each year. However, once high school students have met or exceeded state standards on the test, they are no longer required to take it again. Therefore, many TAPBI students may not even have any standardized test scores during their term of enrollment in a TAPBI school. In fiscal year 2006, approximately 10,045, or 67 percent, of the TAPBI students were in grades 10 through 12.

The state education boards may be able to address some of these limitations by performing different analyses of test results, such as comparing test scores of full-time TAPBI students only to state-wide averages. Other potential indicators of a TAPBI school's performance would be to consider credits earned that contributed to on-time graduations or advanced classes made available that were not available in the student's traditional school. Another possible measure could be to require that TAPBI students take learning assessments at certain points during their enrollment, and measure the change in the students' scores. For example, Arizona Distance Learning uses various benchmark tests to measure change in a student's reading, writing, or math skills.

National studies are inconclusive—National studies are inconclusive on how online/distance learning is affecting student achievement. This is largely due to challenges in comparing online schools with brick-and-mortar schools. According to some researchers, there are too many variables in how online programs are run and not enough information about those variables. For example, one researcher stated that research would be easier if there were standards for reporting academic outcomes.

Efforts to address the data problems identified by researchers appear to be in process. In 2004, the National Forum on Education Statistics created a Virtual Education Task Force, partly to help education officials and policymakers align “traditional” education data elements with the needs and circumstances unique to online education. In its July 2006 published report, the Task Force made several recommendations to all schools that may serve as a starting point for resolving comparability issues.¹ For example, the task force recommended that all schools maintain data to help clarify differences between online schools’ academic assessments and data to help track differences in how enrollment is measured between brick-and-mortar and online schools.

TAPBI schools can improve instruction and student support practices

The TAPBI learning environment differs from the brick-and-mortar environment in that students have little or no face-to-face contact with teachers or other students. However, the success of that instruction is related to many of the same activities as brick-and-mortar schools—ensuring adequate instructional time, measuring whether the student has met the instructional objectives, and providing adequate communication with trained and competent staff. Using information from other states’ K-12 online learning programs, various K-12 online learning studies, and auditor observations of the various TAPBI schools’ operations, auditors identified four types of practices that appear to be key in ensuring student achievement in this environment.²

- Ensuring that the number of instructional hours meets required minimums.
- Ensuring academic integrity by testing students’ mastery of the subject and preventing them from altering grades electronically.

¹ National Forum on Education Statistics. (2006). *Forum Guide to Elementary/Secondary Virtual Education* (NFES 2006–803). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

² The source of information about other states’ K-12 online learning programs presented here is *Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice*, a research study conducted and written by John F. Watson and Jennifer Ryan, Evergreen Consulting Associates, and published by Learning Point Associates, a nonprofit organization working to improve education systems, in October 2006. The study was based on research conducted via surveys; interviews with distance learning program personnel; reviews of state laws; data collection and analysis; and consultations with the North American Council for Online Learning and the Southern Regional Education Board, which are nonprofit organizations fostering the improvement of educational opportunities.

- Ensuring adequate teacher-student communication.
- Providing teacher training specifically related to teaching in an online environment.

The 14 TAPBI schools did not have these practices uniformly in place. As shown in Table 9 below, none of the schools had a means to ensure that the number of instructional hours meets required minimums, and the number of schools applying the three other types of practices ranged from 6 to 12.

Table 9: TAPBI Schools' Practices Compared to Common Practices for Online Schools in Other States¹

TAPBI School	Providing Minimum-Required Instruction Hours	Ensuring Academic Integrity	Ensuring Teacher-to-Student Communication	Providing Teacher Training
Deer Valley USD		✓	✓	
Lake Havasu USD		✓		
Marana USD ²		✓	✓	✓
Mesa USD		✓	✓	✓
Peoria USD			✓	✓
Tempe UHSD			✓	✓
Tucson USD ²		✓	✓	✓
Arizona Connections Academy			✓	✓
Arizona Distance Learning				
Arizona Virtual Academy			✓	✓
Kids-at-Hope Online Academy		✓	✓	
Humanities and Sciences Academy			✓	
Pinnacle Virtual High School			✓	
Primavera Online High School			✓	

✓ Means the school used this practice.

¹ Information about TAPBI schools reflects their fiscal year 2007 operations. Information for other states' online programs is based on *Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice*, a research study conducted and written by John F. Watson and Jennifer Ryan in 2006.

² Marana USD and Tucson USD enrolled their TAPBI students in the Mesa Distance Learning Program; teachers and teacher training were provided by Mesa USD.

Source: Auditor General staff analysis of student fiscal year 2006 instruction hours reported to ADE, interviews and observations at each TAPBI school, and district-reported teacher training requirements.

Ensuring the minimum required instruction hours are provided—By statute, TAPBI schools are required to provide the same amount of instruction time as other public schools. As indicated in Table 10, these requirements range from 356 hours in a school year for half-day kindergarten students to 1,068 hours for 8th-grade students. However, none of the TAPBI schools were ensuring that each of their students is receiving the minimum required instruction hours.¹ Specifically, as indicated in Table 11 (see page 33), of the almost 1,400 students whose records auditors examined, 435 received an average of 18 percent fewer instruction hours than the state minimums. However, the variance was more significant for high school students. The 97 high school students in the sample averaged 48 percent fewer instruction hours, while the 338 sample kindergarten through 8th-grade students averaged 9 percent fewer. Further, Arizona Distance Learning and Pinnacle Education Virtual Academy were not able to provide information on the part-time status of their high school students so that compliance with minimum required instruction hours could be evaluated. In addition, the Humanities and Sciences Academy Arizona did not require its students to log their instruction hours, as required by A.R.S. §15-808(E). Instead, the school reported 123 hours of instruction time for each student who completed a course.

Table 10: Minimum K-12 Instruction Hours Required By Statute (by grade)

Grade	Minimum-Required Instruction Hours ¹
Kindergarten (half-day) ²	356
1 through 3	712
4 through 6	890
7 and 8	1,068
9 through 12	720

- 1 Hours are prorated for part-time students.
- 2 Instruction hours for full-day kindergarten have not yet been established in statute.

Source: Auditor General staff summary of A.R.S. §15-901.

Ensuring academic integrity—With limited face-to-face contact between students and teachers, ensuring academic integrity is a challenge for online schools. Two practices to help ensure academic integrity are requiring students to take exams in person in a proctored setting and requiring them to pass course exams to receive credit. As shown in Table 12 (see page 34), only 6 of the 14 TAPBI schools have both of these practices in place. However, the other 8 schools lack one or both of these practices. For example, Peoria USD requires students to take exams in person in a proctored setting, but the students do not necessarily have to pass course exams, depending on their grades in other online coursework. Some schools allow students to take their tests online, providing no assurance that the student, and not someone else, has taken the exam. One of these schools, Arizona Connections Academy, conducts testing online, but requires its teachers to follow up with some of their students by phone, asking some of the test questions to verify whether the student is able to answer them and seems to have actually taken the test. Students achieving an "A" or "B" grade are to be called; teachers are to contact kindergarten through 8th-grade students once every 2 weeks and high school students once during the semester.

Another challenge to ensuring academic integrity is limiting students' access to electronic grades. All of the TAPBI schools maintain their students' grades on the same learning management system that students use for their coursework. However, many of these systems have security weaknesses that could allow

¹ A.R.S. §15-808 (E) requires TAPBI schools to require students to maintain a daily log of their instruction time. ADE provides funding based on reported instruction hours up to the required amount. Therefore, a student who has logged 50 percent of the required hours is funded as 0.5 ADM.

Table 11: TAPBI Schools' High School Students' Instruction Hours
Compared to Minimum Instruction Hours Required by Statute

TAPBI Schools' High School Programs:	Number of Students in Sample	Number Receiving Fewer Hours Than Required	Average Difference Between Required and Actual Hours
Deer Valley USD ¹		n/a	n/a
Lake Havasu USD	20	10	39%
Marana USD	20	9	48
Mesa USD	20	17	55
Peoria USD	20	7	26
Tempe UHSD	20	20	63
Tucson USD ²	13	6	38
Arizona Distance Learning ³		n/a	n/a
Kids-at-Hope Online Academy	20	14	51
Humanities and Sciences Academy		School did not require students to log instruction hours.	
Pinnacle Education Virtual Academy ³		n/a	n/a
Primavera Online High School	20	14	36

TAPBI Schools' K-8 programs:⁴

Mesa USD	47	41	4
Arizona Connections Academy ⁵	148	68	14
Arizona Distance Learning	38	3	27
Arizona Virtual Academy ⁵	1,010	226	8
Totals	1,396	435	

- 1 Deer Valley USD did not submit its TAPBI students' hours for funding in fiscal year 2006.
- 2 Auditors selected the complete roster of 13 students who completed classes in fiscal year 2006.
- 3 Arizona Distance Learning and Pinnacle Education Virtual Academy were not able to provide information on the part-time status of their high school students so that compliance could be evaluated.
- 4 The average difference is derived from all K through 8th-grade students' instruction hours of students who were at least 75 percent full-time equivalents. Hours were compared to pro-rated minimum instruction hours.
- 5 Both Arizona Connections Academy and Arizona Virtual Academy serve primarily kindergarten through 8th-grade students and did not have a sufficient number of high school students to include in this analysis.

Source: Auditor General staff analysis of student instruction hours that schools reported to ADE for fiscal year 2006, and high school students' enrollment records, including courses completed in fiscal year 2006, from the TAPBI schools.

grades to be altered. Further, for the commercially developed learning management systems, such as WebCT, various information security researchers have posted known security concerns about these systems on the Internet.¹ Many of these concerns can be mitigated by installing available security patches or by developing compensating controls, such as requiring teachers to maintain grade-books separately from the learning management system. Auditors informed each

¹ Auditors' review identified concerns posted on: a) SecurityFocus' Common Vulnerabilities and Exposures List (<http://www.securityfocus.com/vulnerabilities>); b) the Open Source Vulnerability Database (<http://osvdb.org/search.php>); and c) the National Vulnerability Database (<http://nvd.nist.gov/>).

**Table 12: Summary of TAPBI Schools' Course Exam Procedures
Fiscal Year 2007**

TAPBI School	Course Exams Taken in Person	Students Required to Pass Course Exams
Deer Valley USD	✓	✓
Lake Havasu USD	✓	✓
Marana USD	✓	✓
Mesa USD	✓	✓
Peoria USD	✓	
Tempe UHSD		
Tucson USD	✓	✓
Arizona Connections Academy		
Arizona Distance Learning	✓	
Arizona Virtual Academy		✓
Humanities and Sciences Academy		✓
Kids-at-Hope Online Academy	✓	✓
Pinnacle Education Virtual High School		
Primavera Online High School		

✓ Means the school used this practice.

Source: Auditor General staff interviews and observations at each TAPBI school.

TAPBI school of its system's identified weaknesses; the schools should use this information to improve their systems and controls.¹

Ensuring teacher-student communication—Given the limited face-to-face contact between teachers and students, frequent online or phone communication appears to be important for supporting student achievement. To ensure this is happening, school officials should require and measure communication between teachers and students. Twenty-two other states' online learning programs have communication policies providing requirements such as how often teachers should e-mail or call students or how soon teachers should grade and return student coursework. For example, Nevada requires teachers to discuss academic progress with students weekly; Michigan Virtual High School requires teachers to respond to all student e-mails within 24 hours and periodically monitors this response time. All but two TAPBI schools—Arizona Distance Learning and Lake Havasu USD—either had a formal communication policy or measured the timeliness or frequency of communication.

¹ Auditors did not assess the security of 2 TAPBI schools' learning management systems. Arizona Connections Academy did not allow access because its system included confidential, non-TAPBI information, and the Humanities and Sciences Academy did not provide its system information in a timely manner.

Providing training for teaching in an online environment—Several states' online learning programs require their teachers to participate in professional development activities. For example, Illinois' Virtual High School requires online teachers to complete more than 4 weeks of online and face-to-face training on teaching in an online environment. In addition, several states indicated that they provide periodic continuing education for online teachers. Florida's Virtual School, for example, supports its online teachers by providing structured mentoring to new teachers during their first year and peer coaching after 1 year. Given the newness of the medium, teachers may need specialized training on how to effectively instruct students in an online-learning environment. And, since technology changes quickly, teacher development activities should include both initial training and continuing education.

In contrast, Arizona TAPBI schools offered significantly less training. Specifically, 3 schools provide no training, and 4 schools provide only a brief orientation or a few hours of training, that briefly address topics such as the school's policy manual and how to use the learning management system. The remaining 7 TAPBI schools, however, provide more training. The most extensive of these training programs, as shown in Table 13 (see page 36), are Arizona Virtual Academy's 3- to 5-day training course that covers topics such as adding interaction to distance learning and managing learning programs and Tempe UHSD's 4 weeks of initial training for new teachers.

To help ensure that TAPBI schools are adequately supporting student achievement, ADE should ensure that the schools are providing the minimum amount of instruction time required by statute. Further, when conducting the 5-year reviews to determine whether to renew each TAPBI school's participation in the Program, the state education boards should consider whether the school's policies and procedures, such as those discussed in this report, support student achievement.¹

¹ As discussed in the Introduction and Background of this report, Laws 2005, Ch. 323, §1, requires that, every 5 years, the state education boards review the effectiveness of each TAPBI school and the required annual reports to determine whether to renew the school's participation in TAPBI.

Table 13: Summary of TAPBI Schools' Self-reported
Online Teacher Training Requirements
Fiscal Year 2007

TAPBI School	Formal Training Required	Comments
Deer Valley USD		Currently developing an in-house training program.
Lake Havasu USD		
Marana USD	✓	Teachers and training provided by Mesa USD.
Mesa USD	✓	The majority of training occurs at the beginning of the school year. Other trainings are delivered via e-mail and other mailings throughout the year.
Peoria USD	✓	New teachers must attend 15 hours of in-house seminars. Continuing teachers must attend 4 hours of professional development activities throughout the year.
Tempe UHSD	✓	4 weeks of initial training is required; no formal refresher courses are required.
Tucson USD	✓	Teachers and training provided by Mesa USD.
Arizona Connections Academy	✓	An initial orientation and ongoing professional development sessions are required. A university graduate-level online course is available.
Arizona Distance Learning		
Arizona Virtual Academy	✓	A 3-5 day course is required. Teachers must also take various in-house courses during the year.
Kids-at-Hope Online Academy		An initial orientation course is required.
Humanities and Sciences Academy		An initial orientation course is required.
Pinnacle Education Virtual High School		An initial orientation course is required.
Primavera Online High School		An initial orientation course is required.

✓ Means the TAPBI school required formal training for teaching in an online environment.

Source: Auditor General staff analysis of TAPBI school-reported teacher training requirements.

Recommendations

1. To better measure TAPBI schools' effect on student achievement, the state education boards should consider the following:
 - a. Whether they can more accurately analyze standardized test results, such as only comparing test scores for full-time TAPBI students to state-wide averages.
 - b. Whether there are other indicators of a TAPBI school's performance, such as credits recovered contributing to on-time graduations; advanced classes made available that were not available in the student's traditional school; or changes to students' learning assessment scores.
2. In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education boards should consider whether the TAPBI schools' policies and procedures support student achievement, including the following:
 - a. Procedures for ensuring minimum required instruction hours are met.
 - b. Procedures for ensuring academic integrity, such as establishing controls for limiting student access to online grades, requiring students to take exams in person in a proctored environment, and requiring students to demonstrate proficiency through proctored course exams to pass a course.
 - c. Policies and performance measures regarding the frequency of teacher-to-student contact.
 - d. Policies and procedures for training teachers to instruct students in an online environment.
3. ADE should ensure that TAPBI courses provide students with at least the minimum instruction hours required by statute.
4. ADE should determine whether Arizona Distance Learning and Pinnacle Education Virtual Academy have sufficient student enrollment records to demonstrate compliance with statutory minimum instruction hour requirements.

APPENDIX

This appendix provides alphabetically organized, one-page information sheets on the individual TAPBI schools. Each page contains a summary of each TAPBI school's characteristics, student enrollment, curriculum highlights, compliance with statutory enrollment limits, use of common practices, and fiscal year 2006 per-pupil expenditures. Table 14 shows the data sources used on the individual TAPBI school pages.

Table 14: Individual TAPBI School Page Source Information

Data	Source
Initial TAPBI operations data	Fiscal year 2006 TAPBI Annual Reports for each individual TAPBI school.
Grades served	Fiscal year 2006 TAPBI Annual Reports for each individual TAPBI school.
ADM	Auditor General staff analysis of Arizona Department of Education's (ADE) TAPBI average daily membership counts for fiscal year 2006. ADM numbers are rounded to the nearest whole number.
Characteristics	Observations of TAPBI schools' operations, interviews with TAPBI schools' staff, and review of fiscal year 2006 TAPBI Annual Reports.
Fiscal year 2006 enrollment	Auditor General staff analysis of Arizona Department of Education's (ADE) TAPBI average daily membership counts for fiscal year 2006.
Common practices for supporting student achievement	Auditor General staff analysis of student fiscal year 2006 instruction hours reported to ADE, interviews and observations at TAPBI schools, TAPBI schools' policies and procedures, TAPBI school-reported teacher training requirements, and for other states' online programs, <i>Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice</i> , a research study conducted and written by John F. Watson and Jennifer Ryan in 2006.

Table 14 (Concl'd)

Data	Source
Enrollment limits	A.R.S. §15-808 (B) requires that 80 percent of new enrollments be from public schools in the prior fiscal year and that kindergarten students must have a sibling currently enrolled in and attending the TAPBI program. A.R.S. §15-808(H) limits TAPBI schools' growth to 100 percent.
Fiscal year 2006 per-pupil expenditures	Auditor General staff analysis of: a) for school districts, fiscal year 2006 accounting data from the districts and average daily membership (ADM) information obtained from the Arizona Department of Education (ADE); b) for charter schools, per-pupil expenditure information from the <i>Annual Report of the Superintendent of Public Instruction, Fiscal Year 2005-2006</i> ; and c) for TAPBI schools, fiscal year 2006 accounting data from the schools and ADM information obtained from ADE.
Curriculum	Fiscal year 2006 TAPBI Annual Reports for each individual TAPBI school.

♦

Arizona Connections Academy

Arizona Connections Academy Charter School, Inc.

Initial TAPBI Operations: 2005

Grades Served: K-9

Fiscal Year 2006 ADM: 265

Characteristics:

Targeted Population—Homebound, at-risk, and gifted students; students pursuing artistic or athletic careers; and families seeking direct involvement in their child's education.

Program/Courses—Students complete daily lessons, including both online and offline assignments. At least 1 to 2 times per week, students and teachers can communicate in many ways, including online through microphones.

Testing—Testing is done online. The student's parent or learning coach is responsible for supervising the student during testing.

Online Teacher Training—An initial orientation course and ongoing professional development sessions are required.

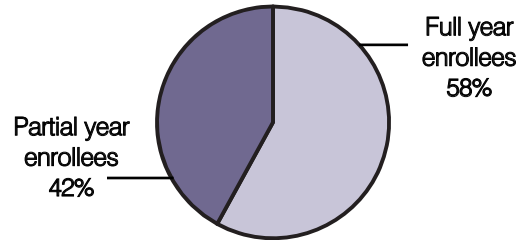
Instruction Hours—Based on a sample, 80 students recorded 100 percent of minimum instruction hours, while 68 students averaged 14 percent fewer than the minimum.

Curriculum:

Approximately 226 courses offered as of July 2007, including:

- Computer Technology
- Economics
- Foreign Language
- Government
- Physical Fitness
- Art
- Music
- Math
- Reading
- Writing
- Science
- Geography
- Social Studies
- Language Arts

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	81%
Kindergarten students had a sibling currently enrolled in TAPBI?	✓	
TAPBI growth was limited to 100 percent of prior year?	✓	100%

Common Practices:

Practices for supporting student achievement	Arizona Connections Academy	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Arizona Connections Academy	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$3,962	\$4,434	\$3,870	\$3,886
Administration	1,594	1,372	1,218	701
Student Support Services	54	88	89	474
Other Support Services	373	246	348	1,687
Total Per Pupil	\$5,983	\$6,140	\$5,526	\$6,749

Arizona Distance Learning

Sequoia Choice Schools, LLP

Initial TAPBI Operations: 2001

Grades Served: K-12

Fiscal Year 2006 ADM: 464

Characteristics:

Targeted Population—Homebound, gifted, and special-needs students.

Program/Courses—Students take online courses at the school's computer lab or other locations. Discussion boards, regular and virtual field trips, and hands-on learning kits are available depending on the courses taken. High school and junior high courses from several universities and community college distance-learning programs are offered.

Testing—Tests are administered in a proctored setting.

Online Teacher Training—No formal training for the online environment is required.

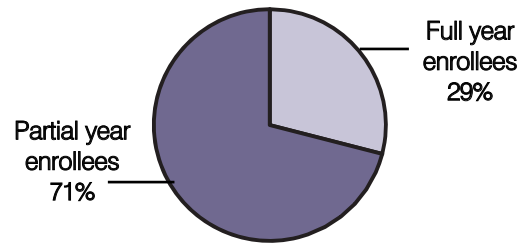
Instruction Hours—Enrollment information was not provided for high school students. Based on a sample of K-8 students, 35 students recorded 100 percent of minimum instruction hours, while 3 students averaged 27 percent fewer than the minimum.

Curriculum:

Approximately 315 courses offered as of July 2007, including:

- Computer Technology
- Economics
- Foreign Language
- Government
- Physical Fitness
- Writing
- Math
- English
- Science
- Reading
- History
- Journalism

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	86%
Kindergarten students had a sibling currently enrolled in TAPBI?	X	2
TAPBI growth was limited to 100 percent of prior year?	✓	14%

Common Practices:

Practices for supporting student achievement	Arizona Distance Learning	Online Schools in Other States
	Yes = ✓ No = X	Yes = ✓ No = X
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	X	✓
Providing teacher training for online environment	X	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Arizona Distance Learning	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$3,541	\$4,434	\$3,870	\$3,886
Administration	3,134	1,372	1,218	701
Student Support Services	37	88	89	474
Other Support Services	446	246	348	1,687
Total Per Pupil	\$7,159	\$6,140	\$5,526	\$6,749

Arizona Virtual Academy

PPEP & Affiliates, Inc.

Initial TAPBI Operations: 2003

Grades Served: K-9

Fiscal Year 2006 ADM: 1,439

Characteristics:

Targeted Population—Arizona Virtual Academy does not target specific student populations.

Program/Courses—Information available online is supplemented with books, workbooks, CDs, and videos. Students can participate in clubs and field trips.

Testing—Most exams are taken online, and students are not able to take final exams until they have completed certain course requirements.

Online Teacher Training—An initial 3-5 day course is required. Teachers must also take various courses during the school year.

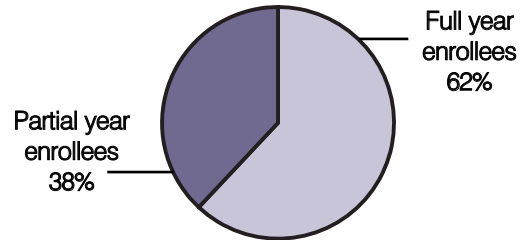
Instruction Hours—Based on a sample, 784 students recorded 100 percent of minimum instruction hours, while 226 students averaged 8 percent fewer than the minimum.

Curriculum:

Approximately 88 courses offered as of July 2007, including:

- Economics
- Foreign Language
- Government
- Physical Fitness
- History
- Language Arts
- Writing
- Fine Arts
- Music
- Math
- Science
- Art

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	81%
Kindergarten students had a sibling currently enrolled in TAPBI?	X	12
TAPBI growth was limited to 100 percent of prior year?	✓	100%

Common Practices:

Practices for supporting student achievement	Arizona Virtual Academy	Online Schools in Other States
	Yes = ✓ No = X	Yes = ✓ No = X
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Arizona Virtual Academy	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$4,698	\$4,434	\$3,870	\$3,886
Administration	885	1,372	1,218	701
Student Support Services	129	88	89	474
Other Support Services	80	246	348	1,687
Total Per Pupil	\$5,792	\$6,140	\$5,526	\$6,749

Deer Valley Unified School District

eSchool Virtual High School

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: n/a

Characteristics:

Targeted Population—Homebound, at-risk, and other students who may benefit from online instruction.

Program/Courses—Instructors use e-mail, discussion boards, online textbooks, and online chat rooms/virtual classrooms to provide instruction to students.

Testing—Students are required to take final exams in person for each course.

Online Teacher Training—Formal training for online teaching is not required. The district is currently developing an in-house training program.

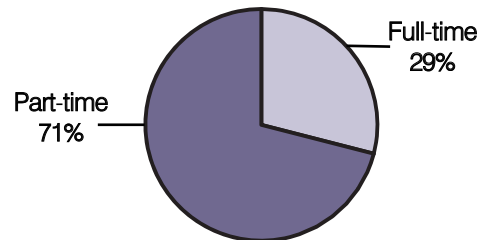
Instruction Hours—The District did not submit online student instruction hours for TAPBI funding in fiscal year 2006.

Curriculum:

Approximately 32 courses offered as of July 2007, including:

- Economics
- Psychology
- Government
- Physical Fitness
- Health
- Chemistry
- Language Arts
- Math
- History
- Anatomy
- Biology

Fiscal Year 2006 Enrollment:¹



¹ This represents enrollment in eSchool Virtual High School. Deer Valley USD experienced difficulties in submitting to ADE its fiscal year 2006 enrollment data and did not yet receive TAPBI funding for these students.

Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	n/a	
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	n/a	

n/a—not applicable as Deer Valley did not submit to ADE any TAPBI students for fiscal year 2006 funding, and did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Deer Valley eSchool	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	✓	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	X	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Deer Valley eSchool	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$2,219	\$1,472	\$3,870	\$3,886
Administration	472	562	1,218	701
Student Support Services		92	89	474
Other Support Services	23	784	348	1,687
Total Per Pupil	\$2,714	\$2,910	\$5,526	\$6,749

Humanities and Sciences Academy Arizona

Humanities and Sciences Academy of the United States, Inc.

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 727

Characteristics:

Targeted Populations—High school students between the ages of 16 and 21 years.

Program/Courses—Online instruction takes place in small groups and one to one. Students must complete high school graduation requirements prior to taking electives.

Testing—Students within the Phoenix area typically take their exams in person. However, exams can be mailed to students who live in other parts of the state.

Online Teacher Training—Formal training is not required. However, staff also must take and complete the courses they teach.

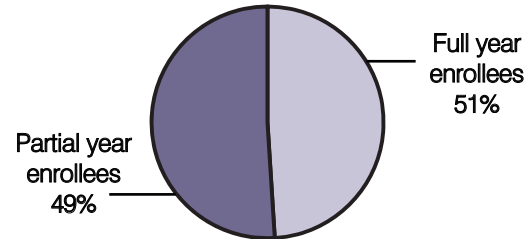
Instruction Hours—Although required by statute, the school did not require students to log and submit their instruction hours.

Curriculum:

Approximately 24 courses offered as of July 2007, including:

- Computer Technology
- Foreign Language
- Physical Fitness
- Writing
- Oral Communication
- Fine Arts Humanities
- English
- Reading
- Math
- Science
- History
- Workplace Skills

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = <input checked="" type="checkbox"/> No = <input type="checkbox"/>	Percent or Number
At least 80 percent of new enrollments were public school students?	X	78%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	<input checked="" type="checkbox"/>	99%

n/a—Humanities and Sciences Academy did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Humanities & Sciences Academy	Online Schools in Other States
	Yes = <input checked="" type="checkbox"/> No = <input type="checkbox"/>	Yes = <input checked="" type="checkbox"/> No = <input type="checkbox"/>
Requiring students to meet minimum instruction hours	X	<input checked="" type="checkbox"/>
Requiring proctored testing and passing course exams	X	<input checked="" type="checkbox"/>
Ensuring teacher-to-student communication	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Providing teacher training for online environment	X	<input checked="" type="checkbox"/>

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Humanities & Sciences Academy	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$3,072	\$4,434	\$3,870	\$3,886
Administration	1,542	1,372	1,218	701
Student Support Services	66	88	89	474
Other Support Services	516	246	348	1,687
Total Per Pupil	\$5,195	\$6,140	\$5,526	\$6,749

Kids at Hope Online Academy

Blueprint Education

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 27

Characteristics:

Targeted Population—Students pursuing interests outside the school campus, and students who desire a nontraditional approach to high school.

Program/Courses—Semester-length courses are delivered through online course instruction, e-mail, phone calls, threaded discussions, and textbook reading assignments.

Testing—Mid-term and final course exams are taken in a proctored environment.

Online Teacher Training—Formal training not required. Orientation course required.

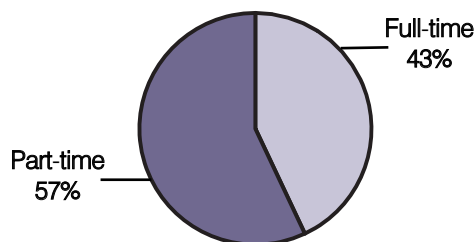
Instruction Hours—A sample of 20 students averaged 51 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 179 courses offered as of July 2007, including:

- Computer Technology
- Psychology
- Driver's Education
- Physical Fitness
- Geography
- Parenting
- English
- Math
- Science
- Reading
- Health
- Economics

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	82%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	✓	54%

n/a—Kids at Hope Online Academy did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Kids at Hope	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	✓	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	X	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Kids at Hope	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$4,504	\$4,434	\$3,870	\$3,886
Administration	2,333	1,372	1,218	701
Student Support Services	47	88	89	474
Other Support Services	481	246	348	1,687
Total Per Pupil	\$7,366	\$6,140	\$5,526	\$6,749

Lake Havasu Unified School District

Havasu Online

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 17

Characteristics:

Targeted Populations—Homebound, special needs, and at-risk students as well as students seeking credit recovery or accelerated completion of graduation requirements.

Program/Courses—Many of the online quizzes and tests are interactive and provide immediate feedback. Students and parents can monitor student coursework progress online.

Testing—Final exams are taken in person in a proctored setting.

Online Teacher Training—Formal teacher training for an online environment is not required.

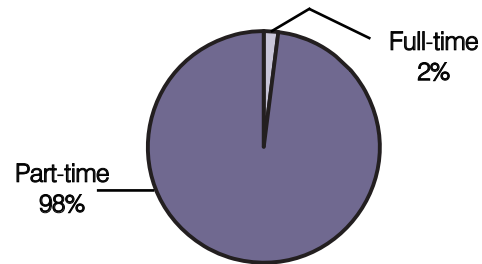
Instruction Hours—A sample of 20 students averaged 39 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 40 courses offered as of July 2007, including:

- Economics
- Government
- Physical Fitness
- Personal Development
- English
- Math
- Science
- History
- Skills for Success

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	90%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	n/a	

n/a—Lake Havasu only enrolled grades 9-12 and did not enroll students in fiscal year 2005.

Common Practices:

Practices for supporting student achievement	Havasu Online	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	✓	✓
Ensuring teacher-to-student communication	X	✓
Providing teacher training for online environment	X	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Havasu Online	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$4,838	\$1,472	\$3,870	\$3,886
Administration	3,168	562	1,218	701
Student Support Services		92	89	474
Other Support Services	131	784	348	1,687
Total Per Pupil	\$8,138	\$2,910	\$5,526	\$6,749

Marana Unified School District

Marana Distance Learning

Initial TAPBI Operations: 2004

Grades Served: 7-12

Fiscal Year 2006 ADM: 23

Characteristics:

Targeted Population—Students in grades 7 through 12 seeking alternative learning methods.

Program/Courses—Marana USD provides its program through Mesa USD. Marana USD employs a program coordinator who serves as an advisor and administers tests.

Testing—Tests are administered in a proctored setting.

Online Teacher Training—Teachers are expected to attend trainings, such as teaching strategies workshops, in each of their first 3 years with the District.

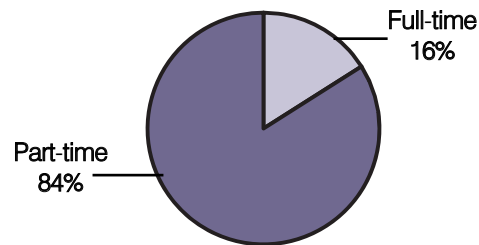
Instruction Hours—A sample of 20 students averaged 48 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 70 courses offered as of July 2007, including:

- Computer Technology
- Economics
- Art/Art History
- Government
- Science
- Wellness and Nutrition
- Physical Fitness
- English
- Writing
- Literature
- Math
- Music

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	98%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	✓	100%

n/a—Marana Distance Learning did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Marana Distance Learning	Online Schools in Other States
	Yes = ✓ No = X	Yes = ✓ No = X
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	✓	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Marana Distance Learning	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$1,393	\$1,472	\$3,870	\$3,886
Administration	603	562	1,218	701
Student Support Services	403	92	89	474
Other Support Services	5	784	348	1,687
Total Per Pupil	\$2,404	\$2,910	\$5,526	\$6,749

Mesa Unified School District

Mesa Distance Learning Program

Initial TAPBI Operations: 1999
 Grades Served: K-12
 Fiscal Year 2006 ADM: 353

Characteristics:

Targeted Population—Interest in serving home-schooled students in grade K-6. Otherwise, serves a broad range of students in grades K through 12.

Program/Courses—Online course curriculum is the same as Mesa USD's traditional schools. K-6 students can also participate in science and social studies field trips.

Testing—Tests are administered in a proctored setting.

Online Teacher Training—Training covers topics such as instruction tips for successful online teaching. Some trainings are delivered via e-mail and other mailings.

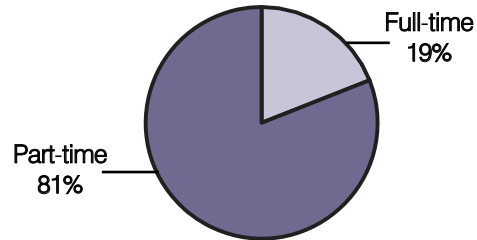
Instruction Hours—A sample of 20 high school students averaged 55 percent fewer than the state's minimum instruction hours. Based on a sample of 47 K-8 students, 6 students recorded 100 percent, while 41 students averaged 4 percent fewer than the minimum.

Curriculum:

Approximately 70 courses offered as of July 2007, including:

- Computer Technology
- Economics
- Art/Art History
- Government
- Science
- Wellness and Nutrition
- Physical Fitness
- English
- Writing
- Literature
- Math
- Music

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	87%
Kindergarten students had a sibling currently enrolled in TAPBI?	X	4
TAPBI growth was limited to 100 percent of prior year?	✓	-3%

Common Practices:

Practices for supporting student achievement	Mesa DLP	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	✓	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Mesa DLP	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$ 920	\$1,472	\$3,870	\$3,886
Administration	\$407	562	1,218	701
Student Support Services	81	92	89	474
Other Support Services	1,092	784	348	1,687
Total Per Pupil	\$2,499	\$2,910	\$5,526	\$6,749

Peoria Unified School District

Peoria eCampus

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 16

Characteristics:

Targeted Population—Peoria eCampus serves only Peoria USD high school students.

Program/Courses—Courses may include videos, audios, discussion boards, online quizzes, tests, and projects.

Testing—Students are required to take mid-term and final assessments in-person, typically at one of Peoria USD's high schools.

Online Teacher Training—New teachers must attend 15 hours of in-house seminars each school year. Continuing teachers must attend 4 hours of professional development sessions throughout the year.

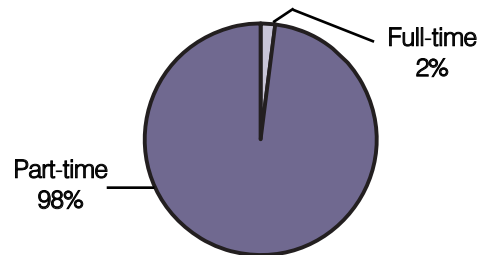
Instruction Hours—A sample of 20 students averaged 26 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 38 courses offered as of July 2007, including:

- Economics
- Foreign Language
- Government
- Music Theory
- Writing
- Honors Courses
- English
- Math
- History
- Health
- Physical Fitness
- Business

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	97%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	X	300%

n/a—Peoria eCampus did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Peoria eCampus	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Peoria eCampus	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$6,136	\$1,472	\$3,870	\$3,886
Administration	2,286	562	1,218	701
Student Support Services		92	89	474
Other Support Services	482	784	348	1,687
Total Per Pupil	\$8,905	\$2,910	\$5,526	\$6,749

Pinnacle Virtual High School

Pinnacle Education—Tempe, Inc.

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 430

Characteristics:

Targeted Population—Students who are unable to attend high school on a regular basis because of issues such as health or are returning to school. Also targeted are high school students who seek credit recovery or accelerated courses.

Program/Courses—All course materials are available online, including textbooks. Students struggling with courses may work in the school's computer lab and obtain in-person assistance from a teacher.

Testing—Final exams are not taken in person.

Online Teacher Training—Teachers must attend initial in-house orientation. However, no formal training is required.

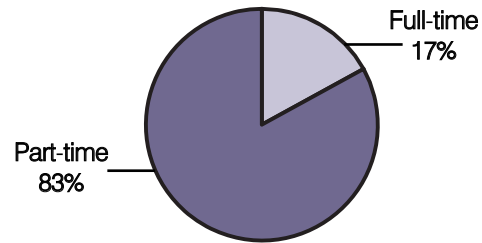
Instruction Hours—Enrollment information was not provided.

Curriculum:

Approximately 49 courses offered as of July 2007, including:

- Economics
- Government
- Health
- Business
- Business Management
- English
- Math
- Science
- Art
- Sports Marketing

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	83%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	✓	0%

n/a—Pinnacle Virtual High School did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Pinnacle VHS	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	X	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Pinnacle VHS	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$4,113	\$4,434	\$3,870	\$3,886
Administration	1,563	1,372	1,218	701
Student Support Services	138	88	89	474
Other Support Services	56	246	348	1,687
Total Per Pupil	\$5,871	\$6,140	\$5,526	\$6,749

Primavera Online

Primavera Technical Learning Center

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 697

Characteristics:

Targeted Population—At-risk high school students who are having difficulty passing the AIMS test.

Program/Courses—The at-risk student program includes a school counselor and a curriculum of Career Exploration, Career Planning, and Work Environment.

Testing—Students are not required to take exams in person.

Online Teacher Training—Formal training was not required. However, an initial orientation course is required.

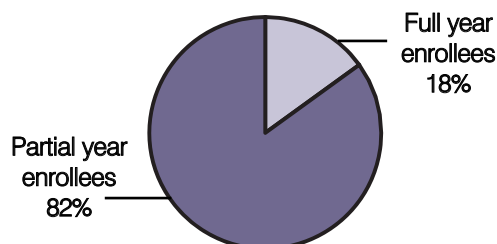
Instruction Hours—A sample of 20 students averaged 36 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 66 courses offered as of July 2007, including:

- Geography
- Economics
- Foreign Language
- Government
- Physical Fitness
- Career Exploration
- Music
- Art
- Fine Arts
- Language Arts
- Math
- Science
- Sociology
- Psychology

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	88%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	✓	93%

n/a—Primavera Online did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Primavera Online	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	X	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Primavera Online	TAPBI Charter Average	TAPBI Program Average	State Average
Instruction	\$6,277	\$4,434	\$3,870	\$3,886
Administration	788	1,372	1,218	701
Student Support Services	45	88	89	474
Other Support Services	235	246	348	1,687
Total Per Pupil	\$7,345	\$6,140	\$5,526	\$6,749

Tempe Union High School District

Tempe Union Online Learning

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 9

Characteristics:

Targeted Population—Homebound, at-risk and other high school students who may benefit from online instruction.

Program/Courses—Courses are project-based and typically have quizzes rather than tests.

Testing—When tests are given, they are timed and taken online.

Online Teacher Training—Teachers must attend 4 weeks of initial, in-house training. Formal training courses are not required after the initial training.

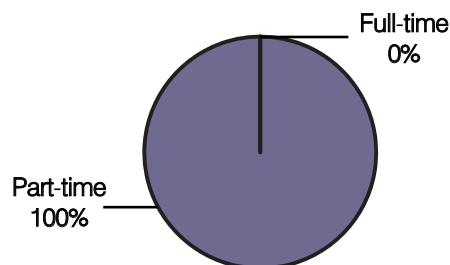
Instruction Hours—A sample of 20 students averaged 63 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 19 courses offered as of July 2007, including:

- Computer Technology
- Accounting
- Criminal Justice
- Art History
- Humanities/Composition
- English
- Government
- Health
- History
- Honors Courses

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	90%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	X	n/a

n/a—Tempe Union Online did not enroll students in fiscal year 2005 and did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Tempe Union Online	Online Schools in Other States
	Yes = ✓ No = X	No = X Yes = ✓
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	X	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Tempe Union Online	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$3,299	\$1,472	\$3,870	\$3,886
Administration	538	562	1,218	701
Student Support Services		92	89	474
Other Support Services		784	348	1,687
Total Per Pupil	\$3,838	\$2,910	\$5,526	\$6,749

Tucson Unified School District

TUSD—Distance Learning Program

Initial TAPBI Operations: 2003

Grades Served: 9-12

Fiscal Year 2006 ADM: 7

Characteristics:

Targeted Population—High school students needing credit recovery or credit acceleration.

Program/Courses—Tucson USD provides its program through Mesa USD. Tucson USD employs a program coordinator who serves as an advisor and administers tests.

Testing—Tests are administered in a proctored setting.

Online Teacher Training—Teachers are expected to attend training such as teaching strategies workshops in each of their first 3 years with the District.

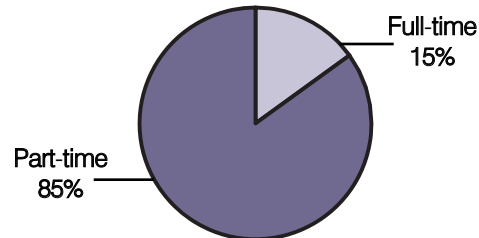
Instruction Hours—A sample of 13 students averaged 38 percent fewer than the state's minimum instruction hours.

Curriculum:

Approximately 70 courses offered as of July 2007, including:

- Computer Technology
- Economics
- Art/Art History
- Government
- Science
- Wellness and Nutrition
- Physical Fitness
- English
- Writing
- Literature
- Math
- Music

Fiscal Year 2006 Enrollment:



Enrollment Limits	Yes = ✓ No = X	Percent or Number
At least 80 percent of new enrollments were public school students?	✓	91%
Kindergarten students had a sibling currently enrolled in TAPBI?	n/a	
TAPBI growth was limited to 100 percent of prior year?	X	667%

n/a—Tucson Distance Learning did not serve Kindergarten students.

Common Practices:

Practices for supporting student achievement	Tucson DLP	Online Schools in Other States
	Yes = ✓ No = X	Yes = ✓ No = X
Requiring students to meet minimum instruction hours	X	✓
Requiring proctored testing and passing course exams	✓	✓
Ensuring teacher-to-student communication	✓	✓
Providing teacher training for online environment	✓	✓

Fiscal Year 2006 Per-Pupil Expenditures:

Category	Tucson DLP	TAPBI District Average	TAPBI Program Average	State Average
Instruction	\$1,734	\$1,472	\$3,870	\$3,886
Administration	2,308	562	1,218	701
Student Support Services	2,204	92	89	474
Other Support Services		784	348	1,687
Total Per Pupil	\$6,246	\$2,910	\$5,526	\$6,749

AGENCIES' RESPONSES



State of Arizona
Department of Education

Tom Horne
Superintendent of
Public Instruction

October 24, 2007

Ms. Debra K. Davenport, CPA
Auditor General
Office of the Auditor General
2910 North 44th Street, Suite 410
Phoenix, Arizona 85010

Dear Ms. Davenport:

The Arizona Department of Education is providing the enclosed response to the Auditor General's performance audit of the Technology Assisted Project-Based Instruction Program.

We appreciate your work on this performance audit, your consideration of our previous comments and suggestions and your acknowledgement of the quality and variety of work already provided by the Arizona Department of Education.

Please feel free to call me at (602) 364-2339 if any additional information is needed.

Sincerely,

Margaret Garcia Dugan
Deputy Superintendent

Enclosure



State of Arizona
Department of Education

Tom Horne
Superintendent of
Public Instruction

ADE GENERAL COMMENT

Before SAIS, schools were paid on the basis of the aggregate number of students that were reported by those schools. The State had no way to verify numbers and was unable to deduct for concurrent enrollment.

SAIS was first implemented in 2003 to the point where payment could be made on the State's records rather than on the schools' self-reported records. For the first time, it was possible to deduct for concurrent enrollments. SAIS has numerous other advantages over the previous system. These include, but are not limited to the following:

- SAIS allows verification that the required number of instructional days is being met.
- SAIS allows for exclusion of students over the age of 22.
- SAIS allows for more accurate and consistently calculated graduation rates and related cohort year information.
- SAIS allows for more detailed audits, saving the State many millions of dollars.

The deductions for concurrencies have not been perfect. Still, the current situation is a vast improvement over the situation before SAIS, where payment was made on self-reported numbers by schools. Imperfections are caused in part by the need to make adjustments for changes in legislation. Further, the consequences of change can increase over time, as new programs grow. These all require further improvements to SAIS to catch all concurrencies. We have given this the highest priority and will correct the problems described in the Auditor General's report.

Arizona began developing its automated student data collection system in 1997, before TAPBI legislation existed. The system's design was based on business rules reflecting previous administrations' views on school funding. The system was named the Student Accountability Information System, or SAIS. When TAPBI legislation passed in 1998, these previous administrations decided not to incorporate TAPBI into the SAIS system because they determined that the funding rules for TAPBIs were sufficiently different from regular schools. Since TAPBI schools still needed a way to report student data to the state, ADE created a separate web-based student data entry system for TAPBI schools.

In late 2005, recognizing that student populations in TAPBI were growing and concurrency (multiple enrollment) was becoming an issue, ADE began manual checks of TAPBI data. Those

manual checks enabled ADE to deduct concurrencies from TAPBI schools. However, for technical reasons, this couldn't be done for district schools. Since SAIS's fundamental design excluded TAPBIs, SAIS could not be readily adapted for TAPBI concurrency validation.

Because of TAPBI issues and other SAIS shortcomings, ADE determined last year that a comprehensive rewrite of SAIS programming was needed, rather than attempting a "Rube Goldberg" approach that would "band-aid" each problem as it arose. In fact, in the private sector, a ten-year-old major system like SAIS would normally be re-written due to changing system requirements and the evolution of technology. Short-term patchwork repairs are time consuming and expensive. These types of quick fixes can also impact data integrity, because of the myriad of data linkages that determine how state aid is distributed.

Last year ADE requested \$1.036 million, including 13 staff, in a Decision Package that would have allowed, among other things, the SAIS rewrite to begin. This was not granted. The Department is not complaining, and understands legislative priorities. However, this resulted in the necessity to triage competing SAIS priorities such as security, AIMS accuracy, school achievement profiles, teacher certification changes, No Child Left Behind requirements, federal requirements such as EDEN and EdFacts, legislative changes, audit support, legal support, school Safety, data pulls for open records law requests, etc.

ADE has now made addressing TAPBI concurrencies its highest SAIS priority. This reprioritization will mirror ADE's swift response to security-related recommendations made in the 2006 performance audit on Information Management. ADE information technology management focused staff resources on making security-related upgrades to fully protect all sensitive information entrusted to ADE.

Even giving the TAPBI concurrency issue the highest priority, implementing these changes will take six months. The implementation phase will give the Legislature time to consider whether it wishes to revise applicable statutes prior to the implementation date. Eliminating TAPBI concurrencies utilizing the patchwork approach will have a negative impact on the monthly window of time schools have to submit their student data to the department. In order to meet the statutory payment deadline, the department will have to reduce the schools' timeframe for submitting data by as much as a full week. A comprehensive rewrite of SAIS would address this.

ADE COMMENTS REGARDING CHAPTER 1: PAGES 13 -19

Chapter 1, Recommendation 2

To ensure that TAPBI ADM is properly calculated and funded, ADE should:

- a. Ensure that SAIS is programmed to identify and calculate necessary funding adjustments for TAPBI concurrent enrollments and summer school programs.
- b. Make appropriate adjustments to TAPBI funding for the fiscal year 2006 ADM calculation errors and any similar errors made in fiscal year 2007.
- c. Monitor whether TAPBI schools adhere to statutory enrollment limitations, including the requirements that 80 percent of new students must have been previously enrolled in a

public school, that kindergarten students must have a sibling enrolled in the program, and that enrollment growth must not exceed 100 percent in a year for individual TAPBI schools.

ADE Response

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

- a. ADE will program SAIS to address TAPBI funding adjustments. To accomplish this, ADE will re-prioritize existing IT resources to address these additional TAPBI programming requirements. ADE may again seek legislative support for additional resources to address TAPBI and other SAIS concerns. Last year's budget request for additional SAIS support was not approved.
- b. In the short-term, ADE will implement procedures that will address TAPBI funding adjustments for fiscal years 2006 and 2007. ADE expects to complete development of these procedures by April, 2008. Once developed, ADE will calculate and make the funding adjustments to the LEA's affected. ADE will notify the districts and schools affected, and will make the funding adjustments based on statutory guidelines.
- c. ADE's Information Technology Unit has developed SAIS programming to monitor both the 80 percent rule and the kindergarten sibling rule. ADE is in the process of implementing these programming changes. In addition, ADE will develop guidelines for TAPBI schools' data submission so that the ADE Audit Unit can verify compliance with these requirements.

ADE disagrees with the Auditor General's report regarding two schools exceeding the TAPBI enrollment limits for these two schools. In a response to ADE's questions regarding Senate Bill 1422, 1st Regular Session, 2005, the Attorney General stated that 1) Fiscal Year 2006 should be used as the base year for calculating subsequent 100 percent growth limitations; and 2) that the Superintendent of Public Instruction has the authority to establish and set the allowable cap for districts. ADE assigned a 450 student allowable cap enrollment for both the Peoria Unified School District and the Tucson Unified School District, and neither exceeded the allowable cap enrollment.

Chapter 1, Recommendation 3

ADE should seek legal advice to determine if the over-funding related to non-compliance with these enrollment limitations should be recovered from the TAPBI schools.

ADE Response

The finding of the Auditor General is agreed and the audit recommendation will be implemented.

ADE will seek an Attorney General opinion to help determine whether over funding related to non-compliance with enrollment limitations should be recovered from TAPBI schools. However, as indicated in our response to Chapter 1, Recommendation 2.C., ADE did not over fund the schools listed in the report.

Chapter 1, Recommendation 4

ADE should determine whether to recover TAPBI funding paid to the Humanities and Sciences Academy Arizona for fiscal years 2006 and 2007 that was not based on student logs of actual instruction time.

ADE Response

The finding of the Auditor General is agreed and the audit recommendation will be implemented.

ADE will audit Humanities and Sciences Academy Arizona to determine whether to recover TAPBI funding for fiscal years 2006 and 2007.

ADE COMMENTS REGARDING CHAPTER 2: PAGES 21 - 28

Chapter 2, Recommendation 1.b

To ensure compliance with statutory reporting requirements and to improve the accuracy of costs, the following actions should be considered:

- b. To facilitate this cost accounting, the Auditor General's Office and ADE should add a specific TAPBI program code to the Charts of Accounts provided in the Uniform Systems of Financial Records for Arizona School Districts and for Charter Schools.

ADE Response

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

ADE will work with the Auditor General's Office to add specific TAPBI program codes to the Charts of Accounts provided in the Uniform Systems of Financial Records for Arizona School Districts and for Charter Schools.

ADE COMMENTS REGARDING CHAPTER 3: PAGES 29 – 39

Chapter 3, Recommendation 3

ADE should ensure that TAPBI courses provide students with at least the minimum instruction hours required by statute.

ADE Response

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

Currently, ADE is distributing Basic State Aid to TAPBI schools based on reported instructional hours. Thus, for example, if a high school student is attending less than 720 hours per year, the TAPBI school receives reduced funding based on statutory requirements.

ADE will request an Attorney General opinion as to whether the instructional hours mandated in the statutes also apply to TAPBI schools.

Chapter 3, Recommendation 4

ADE should determine whether Arizona Distance Learning and Pinnacle Education Virtual Academy have sufficient student enrollment records to demonstrate compliance with statutory minimum instruction hour requirements.

ADE Response

The finding of the Auditor General is agreed to and the audit recommendation will be implemented

ADE will audit the Arizona Distance Learning and Pinnacle Education Virtual Academy to determine whether they have sufficient student enrollment records to demonstrate compliance with attendance reporting requirements for funding. If it is deemed that statutorily-mandated instructional hours are education-based, then ADE will audit the entity to determine compliance.

Arizona State Board for Charter Schools

1700 W. Washington Street, Room 164
Phoenix, AZ 85007



Phone: (602) 364-3080
Fax: (602) 364-3089

September 26, 2007

Debbie Davenport
Auditor General
Office of the Auditor General
2910 N. 44th Street, Suite 410
Phoenix, AZ 85018

Dear Ms. Davenport:

Thank you for the opportunity to provide comments on the performance audit of the Technology Assisted Project-Based Instruction (TAPBI) program conducted in response to Laws 2005, Chapter 323, §2. I appreciated the opportunity to discuss the content of the entire document and the clarification provided during that dialog.

The Arizona State Board for Charter Schools believes that high quality TAPBI charter schools provide not only an additional choice for parents, but also an additional means to improve pupil achievement. As stated in the responses below, the Board will give serious consideration to the recommendations provided by your office to ensure that there is a continued focus on reliable and consistent information regarding the effectiveness of participating schools which may be used to determine whether to renew a school's participation in the program.

Please feel free to contact me at (602) 364-3080 if you have any questions.

Sincerely,

DeAnna Rowe
Executive Director

cc: Lynne Adams, President State Board for Charter Schools
Vince Yanez, Executive Director State Board of Education

Arizona State Board for Charter Schools
Technology Assisted Project-Based Instruction Program Performance Audit
Agency Response

CHAPTER 1

As these recommendations are addressed to the Legislature and the Arizona Department of Education and not the Arizona State Board for Charter Schools (ASBCS), following the instructions provided to the ASBCS, a response to the recommendations in this chapter is not provided.

CHAPTER 2, Recommendation 1a:

To ensure compliance with statutory reporting requirements and to improve the accuracy of costs, the following actions should be considered:

- a. In reviewing and compiling the annual TAPBI self-reports, the state education Boards should ensure that TAPBI schools are properly allocating costs between TAPBI and non-TAPBI operations, using an allocation basis that best reflects how the costs are incurred.

ASBCS Response:

The finding of the Auditor General is agreed to, and the audit recommendation will be implemented.

The ASBCS understands the need for stakeholders to have reliable cost information upon which to base decisions and evaluations of the TAPBI program. To that end, and to the extent possible, the ASBCS will consider and work with the State Board of Education (SBE) to consider and develop a cost allocation format in the annual TAPBI report template, providing clarification for the TAPBI charter schools to help ensure that shared costs between their TAPBI and non-TAPBI operations are properly categorized.

CHAPTER 2, Recommendation 1b:

To ensure compliance with statutory reporting requirements and to improve the accuracy of costs, the following actions should be considered:

- b. To facilitate this cost accounting, the Auditor General's Office and ADE should add a specific TAPBI program code to the Chart of Accounts provided in the Uniform Systems of Financial Records for Arizona School Districts and for Charter Schools.

ASBCS Response:

As these recommendations are addressed to the Auditor General's Office and the Arizona Department of Education and not the ASBCS, following the instructions provided to the ASBCS, a response to the recommendations in this chapter is not provided.

CHAPTER 2, Recommendation 1c:

To ensure compliance with statutory reporting requirements and to improve the accuracy of costs, the following actions should be considered:

- c. To help TAPBI schools accurately report their costs in the Annual TAPBI Report, the state education Boards should consider aligning the Report's cost categories to the Uniform Chart of Accounts.

ASBCS Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

The ASBCS will consider the recommendation and work with the SBE to align the report's cost categories to the Uniform Chart of Accounts to the extent possible. Because charter schools may be exempt from certain accounting provisions, some allowances may need to be considered. Further, due to the differences between TAPBI and traditional brick-and-mortar schools, some variation of the Uniform Chart of Accounts may be necessary. Additional analysis will be required.

CHAPTER 2, Recommendation 1d:

To ensure compliance with statutory reporting requirements and to improve the accuracy of costs, the following actions should be considered:

- d. The State Board for Charter Schools should consider requiring the TAPBI Charter Schools to follow the Uniform Chart of Accounts for their TAPBI programs.

ASBCS Response:

The finding of the Auditor General is agreed to and a different recommendation will be implemented.

As the Auditor General's report states, pursuant to A.R.S. § 15-183(E)(6), the ASBCS has previously granted the seven TAPBI charter schools exceptions to the requirements of the Uniform System of Financial Records for Charter Schools. Rather than requiring the TAPBI charter schools to follow the Uniform Chart of Accounts, the ASBCS believes that other alternatives exist to provide reliable and consistent charter school data that will allow for accurate comparisons between TAPBI schools.

CHAPTER 2, Recommendation 2:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should assess the schools' cost effectiveness, including the level of administration expenditures and the fiscal impact of software or management agreements on costs.

ASBCS Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

The ASBCS believes that A.R.S. § 15-808(B) currently requires a school's cost effectiveness to be reviewed as part of the decision about whether a school should continue in the TAPBI program. The ASBCS will work cooperatively with the SBE and, to the extent possible, incorporate the collection of this information into the annual TAPBI report.

CHAPTER 3, Recommendation 1a:

To better measure TAPBI schools' effect on student achievement, the state education Boards should consider the following:

- a. Whether they can more accurately analyze standardized test results, such as only comparing test scores for full-time TAPBI students to statewide averages.

ASBCS Response: The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

To the extent possible, the ASBCS will work with the SBE and consider whether there can be a better method to more accurately analyze standardized test results given certain limitations, such as concurrent and summer enrollments.

Chapter 3, Recommendation 1b:

To better measure TAPBI schools' effect on student achievement, the state education Boards should consider the following:

- b. Whether there are other indicators of a TAPBI school's performance, such as credits recovered contributing to on-time graduations; advanced classes made available that were not available in the student's traditional school; or changes to students' learning assessment scores.

ASBCS Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

The ASBCS will work cooperatively with the SBE to explore other indicators of a TAPBI school's performance to the extent possible.

Chapter 3, Recommendation 2a:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should consider whether the TAPBI schools' policies and procedures support student achievement, including the following:

- a. Procedures for ensuring minimum required instruction hours are met.

ASBCS Response: The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

If the Arizona Department of Education implements Recommendation #3 (see below), the ASBCS will also request and consider the conclusions reached by ADE as to whether the courses provided by each TAPBI charter school have provided students with at least the minimum instruction hours as required by statute.

Chapter 3, Recommendation 2b:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should consider whether the TAPBI schools' policies and procedures support student achievement, including the following:

- b. Procedures for ensuring academic integrity, such as establishing controls for limiting student access to online grades, requiring students to take exams in person in a proctored environment, and requiring students to demonstrate proficiency through proctored course exams to pass a course.

ASBCS Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

The ASBCS agrees that ensuring the academic integrity of each TAPBI program is important to its continuation. The ASBCS will look at ways to ensure the academic integrity of the TAPBI program while considering the inherent nature of the program and preserving the fundamental intent of the program.

Chapter 3, Recommendation 2c:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should consider whether the TAPBI schools' policies and procedures support student achievement, including the following:

- c. Policies and performance measures regarding the frequency of teacher-to-student contact.

ASBCS Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

Recommendation 2d:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should consider whether the TAPBI schools' policies and procedures support student achievement, including the following:

- d. Policies and procedures for training teachers to instruct students in an online environment.

ASBCS Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

Recommendation 3:

ADE should ensure that TAPBI courses provide students with at least the minimum instruction hours required by statute.

ASBCS Response:

As this recommendation is addressed to the Arizona Department of Education and not the ASBCS, following the instructions provided to the ASBCS, a response to the recommendations in this chapter is not provided.

Recommendation 4:

ADE should determine whether Arizona Distance Learning and Pinnacle Education Virtual Academy have sufficient student enrollment records to demonstrate compliance with statutory minimum instruction hour requirements.

ASBCS Response:

As this recommendation is addressed to the Arizona Department of Education and not the ASBCS, following the instructions provided to the ASBCS, a response to the recommendations in this chapter is not provided.



1535 West Jefferson
Phoenix, Arizona 85007
(602) 542-5057
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September 26, 2007

President:
Dr. Karen Nicodemus

Vice President:
Dr. Vicki Balentine

**Superintendent of
Public Instruction:**
Tom Horne

Members:

Jesse Ary

Dr. John Haeger

Martha Harmon

Joanne Kramer

Lawrence Lucero

Anita Mendoza

Jacob Moore

Cecilia Owen

Ms. Debbie Davenport
Auditor General
Office of the Auditor General
2910 North 44th Street, Suite 410
Phoenix, AZ 85018

Dear Ms. Davenport:

On behalf of the State Board of Education (the "Board"), I would like to thank the Office of the Auditor General for the opportunity to respond to the audit of the Technology Assisted Project-Based Instruction Program. The Board appreciates the professionalism and courtesy of the auditors responsible for this report.

I have attached a detailed response to each recommendation applicable to the Board's duties and responsibilities. As you will see, the recommendations are agreed to, and the Board will see that each is implemented as soon as possible. Consistent with instructions provided by your office the Board did not respond to those recommendations addressed to the Arizona Department of Education or the State Board for Charter Schools.

If you have any questions please contact me at (602)542-5057.

Sincerely,

Vince Yanez
Executive Director

cc: Members, State Board of Education
Deanna Rowe, State Board for Charter Schools

**ARIZONA STATE BOARD OF EDUCATION
TECHNOLOGY ASSISTED PROJECT-BASED INSTRUCTION PROGRAM AUDIT
AGENCY RESPONSE**

CHAPTER 1

No recommendations applicable to the State Board of Education ("SBE").

CHAPTER 2, RECOMMENDATION 1A:

To ensure compliance with statutory reporting requirements and to improve the accuracy of costs the state Boards of education should ensure that TAPBI schools are properly allocating costs between TAPBI and non-TAPBI operations, using an allocation basis that best reflects how costs are incurred.

SBE Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented.

The SBE will work cooperatively with the State Board for Charter Schools ("SBCS") to modify the reporting format to accurately and uniformly capture the primary shared costs realized by most TAPBI programs. Due to the unique structure and organization of the various TAPBI programs is difficult to define all areas where shared costs are realized.

Additionally, the SBE is required to ensure compliance through the development and execution of the annual TAPBI report. The SBE is not resourced to conduct onsite audits for each of the TAPBI schools to verify the provided information.

CHAPTER 2, RECOMMENDATION 1C:

To help TAPBI schools accurately report their costs in the annual TAPBI report, the state education Boards should consider aligning the report's cost categories to the Uniform Charts of Accounts.

SBE Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented. The SBE recognizes the importance of ensuring that TAPBI schools report their costs in a consistent manner. As the SBE moves to implement this recommendation it is important to note that traditional public

schools and charter schools are not subject to the same requirements with respect to accounting practices. Charter schools (and therefore seven of the fourteen TAPBI programs) may be exempt from certain accounting provisions which apply to traditional public schools. Further analysis is needed to assess whether the annual TAPBI report can be aligned strictly to the Uniform Chart of Accounts, or whether some allowances will have to be made to account for specific charter school exemptions. The SBE will work closely with the SBCS to implement this recommendation to the extent possible.

CHAPTER 2, RECOMMENDATION 2:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should assess the schools' cost effectiveness, including the level of administration expenditures and the fiscal impact of software or management agreements on costs.

SBE Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented. Arizona Revised Statute § 15-808 (B) requires the SBE and SBCS to review the effectiveness of each TAPBI school and other information that is contained in the annual report when considering whether to renew a school's participation in the program. The SBE will comply with the provisions of this law and, to the extent possible, incorporate assessments of programs' administrative expenditures and software or management agreement costs.

CHAPTER 3, RECOMMENDATION 1A:

To better measure TAPBI schools' effect on student achievement, the state education Boards should consider the following:

- a. Whether they can more accurately analyze standardized test results, such as only comparing test scores for full-time TAPBI students to statewide averages.
- b. Whether there are other indicators of a TAPBI school's performance, such as credits recovered contributing to on-time graduations; advanced classes made available that there not available in the student's traditional school; or changes to students' learning assessment scores.

SBE Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented. The SBE will work cooperatively with the SBCS to consider the Auditor General's recommendations to improve how TAPBI student achievement is assessed. Measuring TAPBI student achievement presents several challenges. It difficult to gauge the benefits of online course delivery because the majority of students enrolled in a district TAPBI program are also taking courses in traditional classroom settings. Concurrent enrollment complicates the SBE's ability to assign students' academic gains or losses to either TAPBI programs or to the work done in traditional classrooms. The SBE will analyze whether there is a sufficient sample of full-time TAPBI students to provide a reliable measure of student achievement.

The SBE will incorporate alternative measures of student performance in its annual review of TAPBI programs. These measures shall include: credits recovered contributing to on-time graduations and advanced classes made available that were not available in the student's traditional school.

CHAPTER 3, RECOMMENDATION 2:

In reviewing whether to allow the TAPBI schools to continue in the TAPBI program, the state education Boards should consider whether the TAPBI schools' policies and procedures support student achievement, including the following:

- a. Procedures for ensuring minimum required instruction hours are met.
- b. Procedures for ensuring academic integrity, such as establishing controls for limiting student access to online grades, requiring students to take exams in person in a proctored environment, and requiring students to demonstrate proficiency through proctored course exams to pass a course.
- c. Policies and performance measures regarding the frequency of teacher-to-student contact.
- d. Policies and procedures for training teachers to instruct students in an online environment.

SBE Response:

The finding of the Auditor General is agreed to and the audit recommendation will be implemented. The SBE will work cooperatively with the SBCS to consider these recommendations and implement them to the extent possible.

When evaluating whether a TAPBI school's procedures support student achievement the SBE must consider the legislature's original intent of TAPBI

schools to “improve pupil achievement and extend academic options beyond the four walls of the traditional classroom¹.” Therefore, with respect to the recommendations concerning proctoring student exams, it will be necessary to consider alternative methods that both improve academic integrity and uphold the stated intent of TAPBI schools.

¹ 1998 Ariz. Sess. Laws Ch. 224, § 3.