A REPORT
TO THE
ARIZONA LEGISLATURE

Division of School Audits

Special Study

Arizona Public School Districts' Dollars Spent in the Classroom Fiscal Year 2009

February • 2010
Report No. 10-01

STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

Debra K. Davenport
Auditor General

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OFFICE OF THE
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February 24, 2010

Members of the Arizona Legislature

The Honorable Jan Brewer, Governor

I am pleased to present our report, *Arizona Public School Districts' Dollars Spent in the Classroom, Fiscal Year 2009*. We prepared this report in response to the Arizona Revised Statutes §41-1279.03 requirement to determine the percentage of every dollar Arizona school districts spend in the classroom. This report also describes how districts used Classroom Site Fund (CSF) monies resulting from Proposition 301. To provide a quick summary for your convenience, I am also including a copy of the Report Highlights.

In fiscal year 2009, Arizona's state-wide percentage of dollars spent in the classroom was 56.9 percent, which is the lowest that it has been in the 9 years my Office has been monitoring classroom dollars. While the classroom dollar percentage should not be the sole criterion for evaluating school districts' financial performance, it is a useful measure in several respects. First, its decline indicates that many districts are using their CSF monies to shift their non-CSF monies away from the classroom, which is a violation of state law. Second, available data indicates that in Arizona, higher classroom dollar percentages appear to be associated to some extent with higher student achievement. Further, high spending outside the classroom is a potential sign of inefficient operations.

Nonclassroom spending can be affected by a school district's size, type, or location. For example, a rural district may have high transportation costs because of its long transportation routes. However, despite the structural challenges of their different conditions, districts of all sizes, types, and locations have identified a number of cost-savings approaches, such as minimizing staffing levels, reducing excess space, conserving energy, and effectively managing vendor contracts.

Finally, Arizona's Proposition 301 performance pay system addresses many of the factors that researchers have identified as impeding a performance pay program's success in raising student achievement. However, because districts can modify the performance pay measures that are outlined in statute, the quality of performance pay plans varies widely and many plans do not emphasize student achievement goals.

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

This report will be released to the public on February 25, 2010.

Sincerely,

Debbie Davenport
Auditor General

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SUMMARY

Pursuant to Arizona Revised Statutes (A.R.S.) §41-1279.03, the Office of the Auditor General has conducted an analysis of Arizona school districts' percentage of dollars spent in the classroom. This report presents state-wide trends in classroom and nonclassroom spending, including a preliminary analysis of the association between the percentage of dollars spent in the classroom and student achievement. In addition, this report examines the adequacy of the districts' performance pay plans and a potential link between the adequacy of the performance pay plans and student achievement. Lastly, for each district, the report summarizes spending trends, operational efficiency measures, academic indicators, and the district-reported use of their Classroom Site Fund monies resulting from the Proposition 301 education sales tax approved by voters in 2000.

School district spending continues to shift away from the classroom (see pages 3 through 8)

Arizona's state-wide percentage of dollars spent in the classroom has decreased each year for the past 5 years, falling to a new low of 56.9 percent in fiscal year 2009. Despite an average annual increase of about $300 million in Classroom Site Fund (CSF) monies, which are largely restricted for classroom purposes, the classroom dollar percentage is lower than it was prior to receipt of the first CSF monies in fiscal year 2002.

While the classroom dollar percentage should not be the sole criterion for evaluating school districts' financial performance, it is a useful measure in several respects. First, the declining classroom dollar percentage indicates that many districts are shifting monies away from the classroom by using their CSF monies to replace, rather than add to, monies spent in the classroom, which constitutes supplanting and is a violation of A.R.S. §15-977(A). If districts had continued spending their non-CSF monies in the classroom at the same rate they did prior to receiving CSF monies, the fiscal year 2009 state-wide classroom dollar percentage would have been 59.6 percent. Second, available data indicate that in Arizona, higher classroom dollar percentages appear to be associated to some extent with higher student achievement. Auditors analyzed each district's percentage of students that met or

exceeded state standards on the AIMS's Math, Reading, and Writing assessments overall and found that higher percentages in this academic indicator appear to be associated with higher classroom dollar percentages. This association is significant even after considering other variables, such as poverty rate, that may affect student achievement. Third, performance audits of individual districts and separate analysis of state-wide data both show that districts with high classroom dollar percentages typically operate their nonclassroom operations more efficiently than districts with lower classroom dollar percentages. For example, 15 of the 18 districts that served at least 200 students and spent at least 60 percent in the classroom had more efficient performance cost measures than their peers. However, there can be particular circumstances within a district—such as long transportation routes or a high percentage of special needs students—that require higher spending in a particular nonclassroom area but do not signal inefficiency.

Districts of all sizes, types, and locations have identified ways to operate more efficiently (see pages 9 through 18)

Arizona's school districts have much to offer each other in terms of the approaches some districts have taken to monitor and reduce their nonclassroom costs. To a degree, these operational costs can be affected by a school district's size, type, or location. However, districts can still identify ways to operate more efficiently despite these factors. For example, a small district may have higher administrative costs per pupil than larger districts because it spreads fixed costs over fewer students, but some small districts have still found ways to reduce their administrative costs, such as relying on fewer staff to manage multiple duties. Similarly, a rural district may have higher transportation costs because of its longer transportation routes, but some rural districts have still been able to reduce transportation costs by monitoring the efficiency of their bus routes.

Performance indicators, such as transportation cost per mile and bus capacity usage, are used by only a few districts, but can help districts determine whether their costs are out of line relative to similar districts. Auditors compared costs across districts of similar size, type, and location and identified both high-cost, inefficient operations and districts that are employing good practices that keep costs low. Examples of the practices some Arizona districts are using to reduce costs include minimizing staffing levels by using staffing formulas, reducing excess space by combining schools, conserving energy by using centrally programmable thermostats, and effectively managing vendor contracts by monitoring performance cost measures.

Performance pay plan quality varies widely, but plans with strong student achievement goals may be linked to higher student achievement (see pages 19 through 23)

While national research has yet to establish a clear link between student achievement and teacher performance pay, it has identified a number of factors that can impede a performance pay system's success in raising student achievement. Arizona's Proposition 301 performance pay system established in statute addresses many of these factors and provides a list of eight different performance measurement elements that districts should incorporate into their performance pay plans. However, because statute also provides a way for districts to modify the type and number of performance measurement elements upon which they base teacher performance pay, the quality of performance pay plans varies widely. For example, we identified 29 districts with strong performance pay plans that did a good job of linking teacher performance pay to student achievement and 10 weak plans that had no links to student achievement. Districts with strong performance pay plans appeared to have higher percentages of students that met or exceeded state standards on the AIMS test than the districts with weak plans. Auditors also found many other plans that did not necessarily link student achievement to teacher performance, contained goals that allowed teachers to earn performance pay for responsibilities that are a regular part of their jobs, or simply did not require performance above and beyond already expected levels. Allowing districts the freedom to determine performance pay goals can help gain district and teacher buy-in to the State's performance pay system. However, it has also led to inconsistent performance pay plans and to situations in which teachers receive similar performance pay for significantly different levels of effort and related performance results.

Appendices (see pages a-1 through a-230)

Appendix A summarizes each district's classroom dollar percentage for fiscal year 2009. Appendix B presents more specific one-page summaries of each district's expenditure information, including classroom and nonclassroom spending, comparisons to peer district and state averages, academic indicators, and reported uses of CSF monies. Appendix C contains a detailed discussion of the definition of the classroom dollar percentage and the scope and methodology employed during this study.

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Introduction & Objectives

The Office of the Auditor General has conducted an analysis of Arizona school districts' percentage of dollars spent in the classroom. This analysis was conducted pursuant to Arizona Revised Statutes (A.R.S.) §41-1279.03, which requires the Auditor General to monitor the percentage of each dollar spent in the classroom and conduct performance audits of Arizona's school districts.

This report has two main objectives:

- It presents state-wide trends in classroom and nonclassroom spending, including factors associated with districts that spend a greater percentage of their dollars in the classroom, and a preliminary analysis of the association between the percentage of dollars spent in the classroom and student achievement.

- It analyzes districts' use of Proposition 301 funding and the adequacy of the districts' performance pay plans and a potential link between the adequacy of the performance pay plans and student achievement. In November 2000, voters approved Proposition 301, which raised the state sales tax by six-tenths of 1 percent for 20 years to fund educational programs. A portion of the monies raised through this additional tax are distributed to districts through a centralized state fund called the Classroom Site Fund (CSF). School districts may use this funding only for specified purposes, primarily increasing teacher pay.

While the body of the report focuses on state-wide information, Appendix A summarizes each district's classroom dollar percentage for fiscal year 2009, and Appendix B presents more specific one-page summaries of each district's expenditure information, including classroom and nonclassroom spending, reported uses of CSF monies, academic indicators, and student and teacher information.

The information used to prepare this report was not subjected to all the tests and confirmations that would be performed during an audit. However, to ensure the reasonableness of the information used in this report, auditors performed certain quality control procedures. Appendix C contains a detailed discussion of the definition of the classroom dollar percentage and the scope and methodology employed during this study.

The Auditor General and her staff express their appreciation to the Superintendent of Public Instruction, the staff of the Arizona Department of Education, and the staffs of

the Arizona public school districts for their cooperation and assistance during this study.

School District Spending Continues to Shift Away from the Classroom

Despite an average annual increase of about $300 million of Classroom Site Fund (CSF) monies, Arizona's state-wide percentage of dollars spent in the classroom has decreased each year for the past 5 years, falling to a new low of 56.9 percent in fiscal year 2009. While the classroom dollar percentage should not be the sole criterion for evaluating school districts' financial performance, it is a useful measure in several respects. The declining classroom dollar percentage indicates many districts are using CSF monies to shift their non-CSF monies away from the classroom. This shift is a concern not only because it violates state law, but also because available data indicates that in Arizona, higher classroom dollar percentages appear to be associated to some extent with higher student achievement. Further, high spending outside the classroom is a potential sign of inefficient operations. Districts can review their nonclassroom spending, using a wide range of performance indicators, to ensure their spending is as efficient and effective as possible. However, there may be particular circumstances within a district—such as long transportation routes or a high percentage of special needs students—that require higher spending in a particular nonclassroom area but do not signal inefficiency.

Arizona's 56.9 classroom dollar percentage at record low

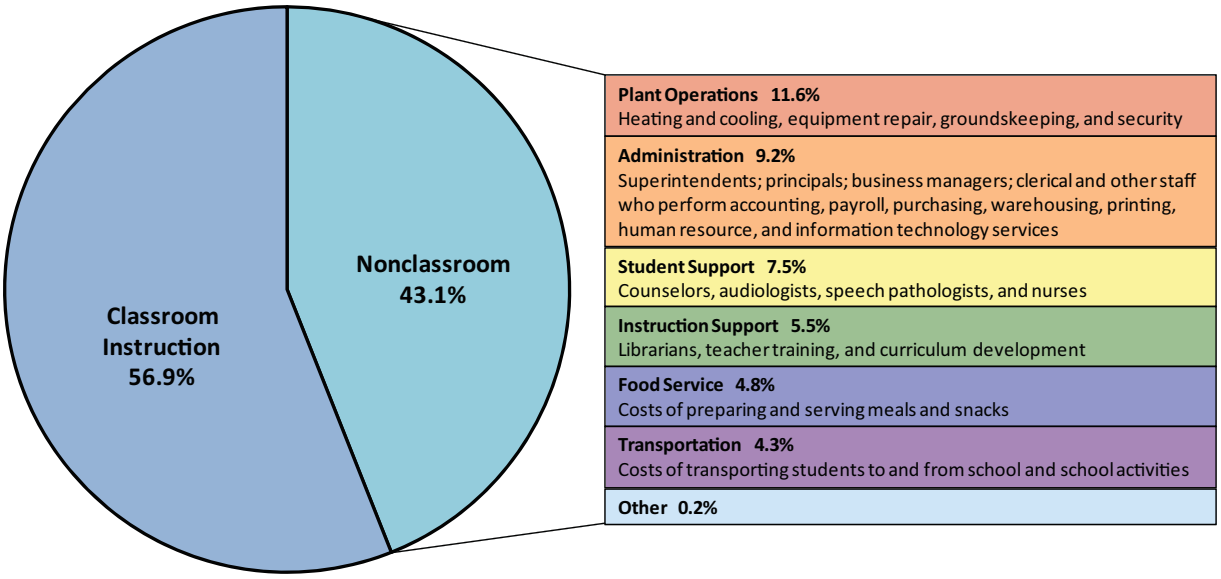
The classroom dollar percentage identifies the amount of available operating dollars spent on direct instruction—primarily salaries and benefits for teachers and instructional aides[1]. In 2001, before CSF monies were available, Arizona school districts spent 57.7 percent of the available operating dollars in the classroom. Spending in the classroom peaked at 58.6 percent in 2003 and 2004. However, despite an average annual increase of about $300 million in CSF monies, the state-wide classroom dollar percentage has declined ever since. As seen in Figure 1 on page 4, in fiscal year 2009, Arizona districts spent 56.9 percent of available operating dollars in the classroom, the lowest percentage in the 9 years that the Auditor General has been monitoring classroom dollars.

The State's classroom dollar percentage remains more than 4 percentage points below the most recent national average of 61 percent. Based on data available from

[1] Ninety percent of direct instruction dollars pay for salaries and benefits of teachers and instructional aides. The remainder pays for textbooks and other classroom supplies, tuition to private sources or instructional contracted services (such as retired teachers who return through third-party contractors), and other expenditures such as fees and dues to professional organizations.

the U.S. Department of Education's National Center for Education Statistics, the national average has remained between 61 and 62 percent for more than 10 years.

Figure 1: Current Expenditures by Functional Area
Fiscal Year 2009

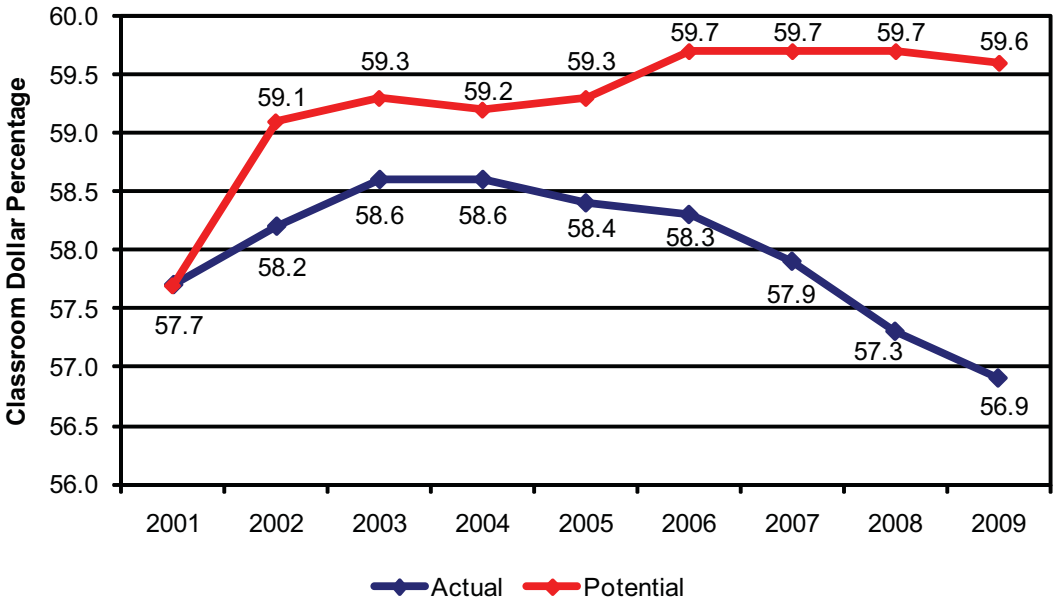


Source: Auditor General staff analysis of fiscal year 2009 summary accounting data provided by individual school districts.

Declining classroom dollar percentage indicates supplanting violations

One reason the declining classroom dollar percentage merits attention is that it is the opposite result of what was expected when voters authorized Proposition 301, which was intended to increase classroom spending. The CSF monies provided by Proposition 301 beginning in fiscal year 2002 were largely restricted for classroom purposes, primarily for increasing teacher pay. As we have reported in previous years, Arizona's declining classroom dollar percentage indicates that many districts are likely using these CSF monies to supplant other district monies, which is a violation of Arizona Revised Statutes §15-977(A). Supplanting means that districts have used the CSF monies to replace, rather than add to, monies being spent in the classroom. After an 8-year total increase of nearly $2.4 billion of CSF monies, an average annual increase of about $300 million, the state-wide classroom dollar percentage is, for a second year, lower than it was prior to receipt of the first CSF monies. As seen in Figure 2 on page 5, after an initial 2-year increase, the classroom dollar percentage has steadily decreased each of the last 5 years.

Figure 2: Arizona Actual and Potential Classroom Dollar Percentages
Fiscal Years 2001 through 2009



Source: Auditor General staff analysis of fiscal year 2009 School District Annual Financial Reports provided by the Arizona Department of Education, fiscal year 2009 summary accounting data provided by individual school districts, and previous reports on *Arizona Public School Districts' Dollars Spent in the Classroom*, fiscal years 2001 through 2008.

If districts had continued spending their non-CSF monies in the classroom at the same rate they did prior to receiving CSF monies, the state-wide classroom dollar percentage would have been 59.6 percent, 2.7 percentage points higher. Instead many districts are not spending their other monies for instructional activities at the same level of effort they did prior to receiving CSF monies. This declining level of effort is evident in the lower percentages of non-CSF monies spent in the classroom and on teacher salaries. Between fiscal years 2001 and 2009, districts reduced their level of instructional spending of non-CSF monies from 57.7 percent to 55.3 percent. At the same time, districts increased the percentages of non-CSF spending in student support, instructional support, and transportation services. Spending in some of these areas also appears to have shifted from in-house staff to contracted services for teacher training, counseling, and physical and speech therapy. District officials have expressed difficulty in hiring and retaining in-house staff, citing that those specialists prefer to provide contracted services.

We have identified instances of supplanting during our performance audits of individual school districts. For example, as part of one school district performance audit, auditors analyzed year-to-year changes in the salaries of a sample of 15 district employees. Over the two fiscal years analyzed, 13 of the 15 teachers had decreases in the non-CSF portion of their salaries. As a result, these 13 teachers' total salaries did not increase as much as they would have if the District had supplemented

salaries with CSF monies as intended. The supplanted amounts identified at this district and at three other audited districts totaled approximately $1.4 million. Each of these districts has reimbursed or is in the process of reimbursing the Classroom Site Fund.

A few Arizona districts did not appear to supplant and, instead, they significantly increased their non-CSF instruction spending from their 2001 levels, resulting in significantly higher classroom dollar percentages in 2009. These districts decreased the percentages spent on administration and plant operations, primarily by reducing staffing levels and spending on supply and energy costs.

Available evidence indicates association between student achievement and classroom dollar percentage

Another reason the declining classroom dollar percentage merits attention is that available evidence indicates that higher classroom dollar percentages appear to be associated to some extent with higher levels of student achievement. The Arizona Department of Education (ADE) evaluates district performance using academic indicators such as the percentage of students that met or exceeded state standards on AIMS, attendance rates, and high school graduation rates. The No Child Left Behind Act also assesses districts' adequate yearly progress toward the goal of having all students meet state standards by 2014. These indicators are aggregated and reported for each district in Appendix B.

Auditors analyzed each district's percentage of students that met or exceeded AIMS Math, Reading, and Writing assessments overall and found that higher percentages in this academic indicator appear to be associated with higher classroom dollar percentages. This association exists even after considering other variables that may affect students' performance. For example, the extent of poverty, such as a district's percentage of children between 5 and 17 years old who live at or below the poverty level has been shown to be strongly associated with student achievement.[1] In general, the research shows that high levels of poverty are associated with lower student achievement, while low levels of poverty are associated with higher student achievement. In Arizona, districts with lower rates of students living in poverty have higher percentages of students meeting or exceeding AIMS, on average. Given that poverty has been shown to be strongly associated with student achievement, auditors also took this variable into account in conducting further analysis.

This additional analysis showed that the association between classroom dollar percentages and student achievement is weaker—but still significant—when the district's poverty rate is considered. Auditors also grouped districts into peer groups based in part on poverty rates and found that within these groups, districts with

[1] Brooks-Gunn, Jeanne & Greg J. Duncan. The Effects of Poverty on Children. *Children and Poverty* 7, No.2 (Summer/Fall 1997); Harris, Douglas. High-Flying Schools, Student Disadvantage, and the Logic of NCLB. *The American Journal of Education* 113 (May 2007); and Machtinger, Howard. Summary of High Poverty Schools Conference at UNC Chapel Hill. *The High School Journal* (February/March 2007).

classroom dollar percentages higher than the state average had 11 percent more of their students passing AIMS than the districts with similar poverty rates and classroom dollar percentages below the state average. Thus, despite the impact of poverty on student achievement, our preliminary analyses suggest that, on average, districts' classroom dollar percentages appear to be related to their students' success in passing AIMS, perhaps because classroom spending indicates a district's commitment to dedicate resources to instruction.

High classroom dollar percentage often indicates more efficient operations, but additional performance indicators are needed to evaluate specific operational areas

Performance audits of individual districts and separate analysis of statewide data both show that districts with high classroom dollar percentages typically operate their nonclassroom operations more efficiently than districts with lower classroom dollar percentages. Auditors analyzed data for the 18 Arizona school districts that served at least 200 students and spent at least 60 percent of total dollars in the classroom and found that 15 of them had lower—that is, more efficient—performance cost measures than other schools in their peer groups in at least three key operational areas.[1] Three of these districts also received performance audits in which auditors confirmed that most nonclassroom operations were efficient compared to similarly sized districts. One of these districts has one of the highest classroom dollar percentages in the State, one of the lowest per-pupil administrative costs in the State, and efficient operations in the other operational areas.

Noninstructional cost areas:

Operational areas:
- Administration
- Plant operations
- Transportation
- Food services

Support services:
- Instruction support
- Student support

However, a low classroom dollar percentage does not always mean that the district is inefficient. During performance audits and interviews with district officials, auditors identified factors that are out of district control but may result in a lower classroom dollar percentage. For example, despite performing as or more efficiently than their peers in operational areas, two districts with significantly higher percentages of special education students had low classroom dollar percentages primarily because of their spending in student support services. Also, a district that received a performance audit had one-time legal costs that lowered its classroom dollar percentage, despite otherwise efficient management of nonclassroom operations. Another district that received a performance audit had efficient operations but transported many of its students long distances. The additional transportation costs resulted in a lower classroom dollar percentage, despite overall district efficiencies.

To fully evaluate individual operational areas, a wider range of performance measures is needed. Examples include administrative costs per pupil, plant costs per square

[1] Districts with similar size, type, and rural or urban location (see Appendix B).

foot, and food costs per meal. Such measures can help districts identify specific operations that perform well or need improvement. For example, a district could monitor its food costs per meal to identify changes in program efficiency and adjust its operations. Without that measure, the district might incorrectly attribute an increase in total food costs to higher student enrollment and more meals served. We describe these measures and discuss their use more fully in the next chapter.

Districts of All Sizes, Types, and Locations Have Identified Ways to Operate More Efficiently

Arizona's low classroom dollar percentage indicates a need for careful monitoring of costs in nonclassroom areas. In this regard, Arizona's school districts have much to offer each other in terms of the approaches some districts have taken to monitor and reduce these costs. To a degree, costs in some nonclassroom areas can be affected by a school district's size, type, or location. For example, a small district may have higher administrative costs per pupil than larger districts because it spreads fixed costs over fewer students. Similarly, a rural district may have higher transportation costs because of its longer transportation routes. Performance indicators, which few districts readily develop and use, can help determine whether a district's costs are out of line relative to similar districts. This chapter focuses on four nonclassroom operational areas—administration, plant operations, food service, and transportation—and discusses indicators that can help districts monitor performance and provides examples of the practices some Arizona districts are using to reduce costs in these areas. Despite the structural challenges of their different conditions, districts of various sizes, types, and locations can, and have, identified a number of cost-savings approaches, such as minimizing staffing levels, reducing excess space, conserving energy, and effectively managing vendor contracts.

District size, type, and location affect operational costs

Arizona districts vary significantly in their numbers of students. The districts also vary in the grade levels of students served and geographic proximity to urban centers. Size, type, and location can affect a district's nonclassroom costs, but in different ways for each operational area. For example, districts serving high school students may have high total plant costs associated with the additional square footage of high school facilities and districts in urban locations may have high transportation costs per rider because they transport many riders with special needs.

To help identify and analyze operational efficiencies, auditors placed each of the State's 208 districts into 1 of 12 operational peer groups based on district size, type, and location.[1] These 12 peer groups, which are shown in Table 1 on page 10, range from unified and high school districts located in urban areas serving more than 20,000 students to elementary school districts in rural areas serving fewer than 200

[1] See Appendix B. Excludes special purpose districts, such as JTED, transporting, and accommodation districts.

students. Arizona districts vary significantly in their numbers of students, with a range of 5 to 65,750 students. As reported in prior years, larger districts are able to achieve economies of scale in nonclassroom operations by spreading costs over more students, leaving additional dollars to spend in the classroom. For example, both large and small districts need to operate and maintain school buildings and pay for salaries of district- and school-level administrators, but larger districts spread these costs over more students. As a result, district size continues to be the primary factor associated with higher classroom dollar percentages. As seen in Table 1 below, as district size increases, so does the classroom dollar percentage, on average.

Table 1: Average Classroom Dollar Percentages of Districts Grouped by Operational Peer Group

District Size[1]	Location	Type	Classroom Dollar Percentage
Very Large	City/Suburb	HS/Unified	59.1%
Large	City/Suburb	HS/Unified	56.4
		Elementary	57.5
Medium-Large	City/Suburb	HS/Unified	57.5
Medium	City/Suburb	HS/Unified	55.2
		Elementary	55.3
	Town/Rural	HS/Unified	52.6
		Elementary	53.8
Small	Town/Rural	HS/Unified	51.2
		Elementary	54.7
Very Small	Town/Rural	HS/Unified	46.6
		Elementary	54.8

[1] Very large districts serve more than 20,000 students, large districts serve 8,000 to 19,999 students, medium-large districts serve 5,000 to 7,999 students, medium districts serve 600 to 4,999 students, small districts serve 200 to 599 students, and very small districts serve fewer than 200 students.

Source: Auditor General staff analysis of fiscal year 2009 School District Annual Financial Reports and average daily membership counts provided by the Arizona Department of Education and summary accounting data provided by individual school districts.

While district size affects per-pupil costs in all nonclassroom areas, geographic proximity to urban centers (location) and grade levels served (type) affect certain individual operational cost areas, such as plant operations and transportation services. In particular, as Table 2 on page 11 shows:

- The average plant costs per square foot are generally much higher for elementary districts than for those serving high school students. For example, in small-sized districts, plant costs average $6.94 per square foot for elementary districts, compared with $5.78 for districts that have high schools. The costs per

square foot for districts serving high school students are likely lower because costs are spread across the additional square footage often operated by high schools, such as athletic facilities.

- Transportation costs per mile are lower for rural districts, on average. For example, transportation costs average $5.18 per mile at medium-sized, urban elementary districts compared with $3.04 per mile at medium-sized, rural elementary districts. Costs per mile are lower in rural areas because these districts transport their riders farther than districts in urban areas and thereby spread costs such as driver salaries over more miles.

- Food costs per meal are lower for elementary districts. In medium-sized districts, the elementary schools spend between $0.26 and $0.51 less per meal than the districts serving high school students, perhaps because of the larger meal portions and greater variety of food offered at high schools.

In contrast to these variations in costs related to plant, transportation, and food service, the trends in administrative costs tend to be much more closely related to district size. As Table 2 below shows, administrative costs show relatively steady increases as district size diminishes.

Table 2: Average Costs for Selected Noninstructional Areas by Operational Peer Group

District Size	Location	Type	Performance Cost Measure Averages			
			Administrative Costs per Pupil	Plant Costs per Square Foot	Food Costs per Meal	Transportation Costs per Mile
Very Large	City/Suburb	HS/Unified	$639	$6.38	$2.49	$4.22
Large	City/Suburb	HS/Unified	634	6.67	2.64	3.44
		Elementary	705	6.62	2.44	4.77
Medium-Large	City/Suburb	HS/Unified	733	6.20	2.79	3.31
Medium	City/Suburb	HS/Unified	775	6.13	2.64	2.96
		Elementary	840	7.16	2.38	5.18
	Town/Rural	HS/Unified	1,148	5.49	3.07	2.53
		Elementary	921	6.71	2.56	3.04
Small	Town/Rural	HS/Unified	1,524	5.78	3.38	2.60
		Elementary	1,288	6.94	3.05	2.22
Very Small	Town/Rural	HS/Unified	2,646	4.99	4.15	1.93
		Elementary	2,656	7.53	5.10	1.79

Source: Auditor General staff analysis of fiscal year 2009 School District Annual Financial Reports, average daily membership counts, and transportation reports provided by the Arizona Department of Education; square footage reports provided by the School Facilities Board; U.S. Census Bureau location designations reported in the National Center for Education Statistics' Common Core of Data; and summary accounting data provided by individual school districts.

Certain districts operate efficiently, considering their size, type, and location

While the overall analysis above shows that nonclassroom costs can be affected by factors like size, type, and location, there are certain districts that operate more efficiently than other districts affected by those same factors. Using a larger set of performance indicators, auditors compared costs across districts of similar size, type, and location. These comparisons helped identify both high-cost, inefficient operations and districts that are employing good practices that keep costs low. Auditors then interviewed officials from these more efficient districts about their operations, challenges, and cost-savings measures. These conversations presented some "best-practice" ideas that districts with high costs may be able to adopt. Many of the opportunities for cost-savings were also identified during performance audits of individual districts. Most of the cost savings related to salaries and benefits, which compose 86 percent of administrative costs and between 39 and 68 percent of the other operational areas' costs.

For lower administrative costs, larger districts use staffing formulas and smaller districts have staff perform multiple duties—

Regardless of district management decisions, larger districts are able to gain efficiency on a per-pupil basis and achieve economies of scale by spreading administrative costs over more students. As seen in Table 2 on page 11, the very large district peer group spent $639 per pupil on administrative costs, on average, compared to the very small district peer groups that spent over $2,600 per pupil, or about four times that amount.

However, regardless of district size, some districts spend less per pupil than their peers because they have implemented certain cost-savings measures. Monitoring additional performance measures, such as the number of students served per administrator and the percentage spent on employee benefits, can help a district determine whether it is overstaffed or has benefit packages that are considerably out of line relative to other districts. Within each of the 12 peer groups, salary and benefit costs explain most of the differences between high-cost and low-cost districts. Auditors identified three primary types of practices that districts of various sizes could employ to keep costs under careful control in this area. Specifically:

Performance measures that districts can use to assess administrative costs:

- Cost per pupil
- Students per administrative staff
- Benefit-to-salaries ratio

- **Staffing formulas help larger districts:** In several performance audits of large-sized districts, auditors have recommended that the districts review their

administrative staffing levels. Within 9 of the 12 peer groups, there are significant differences in staffing levels per student. Across the medium-sized district peer groups, each administrative position at the low-cost districts served 66 students, compared to 51 students at the high-cost districts, on average. Staffing formulas, such as one low-cost district's policy of having one assistant principal per 800 students, can help districts control costs while ensuring an acceptable level of student service. Within one of the large-sized district peer groups, the high-cost district had about 2,000 fewer students but spent approximately $1.3 million more in total administrative costs and served about 20 fewer students per administrator than the low-cost district. According to officials from the low-cost district, it intentionally operated with a "lean staff" and used staffing formulas for all classified and administrative positions.

- **Smaller districts "wear many hats":** Smaller districts that have relatively efficient performance cost measures typically rely on fewer staff to manage more than one operational area. For example, within one of the small-district peer groups, the high-cost districts averaged 7.5 administrators compared to the 2.4 administrators at the low-cost district. According to officials at the low-cost district, the superintendent also serves half-time as principal and manages federal grant reporting and the business manager is a half-time employee who also manages federal lunch program applications and revenues.

- **Costly retirement programs:** In two performance audits, auditors have attributed part of the districts' high administrative costs to their early-retirement programs. In contrast, across 11 peer groups interviewed about their administrative costs, none of the low-cost districts had early-retirement programs. Further, in a recent performance audit of a high-cost district, auditors questioned whether the district's early retirement program really was cost effective as the savings analysis was not well supported, more than half the employees opting for early retirement were already eligible for retirement, and many individuals returned to work for the district after opting for the early retirement program.

For lower plant operations costs, districts monitor staffing levels, conserve energy, and reduce excess space—On a per-pupil basis, districts serving high school students spend more on plant operations, likely because of the larger and different types of facilities needed for high school programs. Compared to elementary schools, high schools typically have larger auditoriums, gymnasiums, and other athletic-related buildings, as well as additional facilities for vocational education. An additional performance cost measure, cost per square foot, helps districts monitor and compare the costs of operating each building and facility, regardless of how many students use them. On a per-square-foot basis, unified and high school districts typically spend less on plant operations because these costs are spread across more square footage. As seen in Table 2 on page 11, the medium- and small-sized unified and high

school peer groups spent between $5.49 and $6.13 per square foot on plant costs, compared to the similarly sized elementary peer groups that spent between $6.71 and $7.16 per square foot, on average. When assessing the efficiency of plant operations, districts should consider a variety of measures, including per-pupil and per-square-foot costs, the amount of square footage per pupil, and the intended number of students per school, or design capacity.

Performance measures that districts can use to assess plant operations costs:

- Cost per student
- Cost per square foot
- Energy cost per square foot
- Square footage per student
- Building design capacity
- Custodial staff per square foot

The kinds of useful or innovative practices that some Arizona districts used as cost-savings measures in plant operations included the following:

- **Monitoring staffing levels:** In many performance audits, auditors have recommended that districts review their maintenance and custodial staffing levels to reduce costs. The most efficient districts monitor their staffing levels for custodial and maintenance work. According to a national survey of school facility directors, the national average is 26,800 square feet per custodian.[1] Across the peer groups, low-cost districts operated 27,182 square feet per custodial and maintenance employee, while high-cost districts averaged 12,513.
- **Medium and small districts "wear many hats":** Efficient medium- and small-sized districts utilize their skilled employees across multiple operational areas. For example, at one low-cost, medium-sized district, the daytime custodians are also certified bus drivers and their salary and benefit costs are allocated between transportation and plant operations. Similarly, at a small, low-cost district, the maintenance director did most of the maintenance work himself and also served as the transportation director and bus driver.
- **Energy conservation measures:** Within 5 of the 12 peer groups, energy costs were significantly different between districts with high costs per square foot and those with lower costs. Officials at four of the low-cost districts said they implemented cost-savings practices such as replacing light fixtures, using programmable thermostats, and keeping up with preventative maintenance work like changing air conditioning filters and keeping equipment in optimal running condition. Officials at two of the high-cost districts said they were working on installing more efficient lighting. In two recent performance audits, lower plant costs were due in part to these and other energy conservation measures, including giving the electric company authority to change the district's rate plan as often as necessary to produce cost savings.

[1] The American School and University. "37th Annual Maintenance & Operations Cost Study-SCHOOLS," April 2008. <http://asumag.com/Maintenance/37th_annual_maintenance_schools.>

- **Maximizing building capacity:** One of the greatest challenges but biggest areas for cost-savings is the reduction of excess space which, in some cases, requires closing buildings or schools. In five performance audits, auditors have identified higher plant costs and recommended that the District examine ways to reduce the cost of excess space, including the lease of buildings, and closure or combining of schools. One of these districts, a medium-sized rural district, recently closed its junior high school and moved those students to its high school and reported an estimated annual savings of over $400,000.

Better management of contracted services, commodities, and staffing levels reduce food service costs—Food service costs appear to be influenced by all three structural conditions, which are district size, type, and location. For example, the peer groups with small and very small districts spend $1.70 more per meal equivalent (MEQ), on average, than the large and very large district peer groups.[1] Similarly, as seen in Table 2 on page 11, with the exception of very small districts, food costs per meal are between $0.20 and $0.51 lower for elementary districts than for districts serving high school students. Lastly, the peer groups with districts located in towns and rural areas spend $1.04 more per MEQ than the peer groups with districts located in cities and suburbs, on average. While larger districts may benefit from their economies of scale, districts in more urban areas may have more choices in food service vendors and lower delivery costs.

Food cost per MEQ is an important performance measure of a food service program, but additional measures are needed (see textbox). For example, meals per labor hour and supply costs per MEQ provide detail on two interrelated portions of food service costs. That is, when a district serves pre-packaged foods, such as frozen pizza, more than district-prepared meals, then the district will likely serve more meals per labor hour but have a higher food cost per MEQ. Another important measure is the food service program's breakeven measure, which indicates whether the program is self-sustaining or needs to be subsidized with other district monies. In fiscal year 2009, 40 percent of the State's food service programs appeared to be at least self-sustaining, meaning that the costs of the program were covered by the revenues generated. At the remaining 60 percent of the districts, food service program costs exceeded revenues.

Performance measures that districts can use to assess food service costs:

- Cost per student
- Cost per MEQ
- Meals per labor hour
- Supply cost per MEQ
- Ratio of revenues and expenditures

The kinds of useful or innovative practices that some Arizona districts used as cost-savings measures in their food service programs included the following:

- **Commodities:** In one half of the peer groups, the lower-cost districts used free commodities to a greater extent than the high-cost districts. The U.S. Department of Agriculture provides commodities, such as ground beef and

[1] Meal equivalents are comparable units of food service items. For example, one meal equivalent is equal to 1 student lunch, 2 breakfasts, or 3 snacks.

canned fruit and vegetables, to school districts at no cost. However, planning school lunch menus can be challenging for districts that use commodities because the availability and selection of commodities varies monthly. District officials at a recently audited district attributed a decrease in its food service costs from the prior year in part to its increased use of commodities.

- **Contract structure and oversight:** For districts that outsourced their food service programs, cost efficiency can depend on the contract structure and district oversight of the vendor. Districts that used contracted services ranged from having low, medium, and high costs per MEQ. During performance audits between 2003 and 2007, auditors repeatedly recommended that districts consider including a guaranteed profit or breakeven clause in their food service contracts. Additionally, in one of the medium-sized district peer groups, the districts that included food costs in their contracts had lower costs than those districts that contracted for food services and separately paid for food supplies. Lastly, there are differences in costs among vendors. Auditors identified one vendor that was used by the high-cost districts in 4 different peer groups.
- **Staffing levels:** Within 4 of the peer groups, the high-cost districts had higher salaries and/or staffing levels than the lower-cost districts. Specifically, the low-cost districts prepared 57 percent more meals per labor hour compared to the high-cost districts, on average.

Lower staffing levels and reduced overtime help reduce transportation costs—Transportation costs are significantly related to the number of miles that districts transport their riders. On average, districts in town and rural areas transport their riders 465 miles compared to the 247 miles per rider for districts located in the cities and suburbs.

However, assessing a transportation program's efficiency requires a variety of performance measures. As an added challenge, two key performance measures, cost per mile and cost per rider, are inversely related. That is, districts that transport riders for long distances will typically have a low cost per mile and a high cost per rider. Consequently, miles per rider provides useful information for choosing the most relevant cost measure and making valid comparisons and should be used when comparing districts within peer groups. Additional performance measures include staffing levels per mile, fuel costs per mile, and the percentage of bus seats occupied by riders, or bus capacity usage.

Performance measures that districts can use to assess transportation costs:

- Cost per mile
- Cost per rider
- Miles per rider
- Miles per driver
- Fuel cost per mile
- Bus capacity usage

The kinds of useful or innovative practices that some Arizona districts used as cost-savings measures in their transportation programs include the following:

- Staffing levels: Within 7 of 12 peer groups, the low-cost districts had significantly lower salaries and benefit costs than the high-cost districts. Officials at a low-cost, large district that had received a performance audit several years ago recently attributed their cost-savings to three factors: monitoring performance measures, adjusting their staffing levels so that they reduced overtime costs, and splitting the transportation employees' time with plant operations so that they performed custodial work between routes. In contrast, other performance audits have identified high-cost districts where auditors observed full-time transportation staff sitting for hours of unproductive time between their routes.

- Overtime and benefits: During performance audits, district officials have identified the challenge of retaining staff by offering full-time status and related medical benefits or employing part-time staff and potentially increasing staff turn-over and the number of missed routes. Performance audits have recommended that districts consistently monitor staffing levels and related salary and benefit costs of their transportation programs. Monitoring these costs can help districts decide which benefits to offer staff, especially at large districts, where salaries and benefits compose 70 percent of transportation costs. In one performance audit, the District awarded overtime to only the most experienced, full-time drivers, which resulted in high salary, overtime, and benefit costs. In contrast, another audited district managed to keep its costs lower than comparable districts primarily by employing part-time drivers and bus assistants, who did not receive benefits. Eighty percent of the low-cost district's bus drivers were part-time, compared to 10 percent at their comparable districts, on average.

- Bus maintenance: To decrease transportation maintenance costs and help extend the useful life of its buses, one audited district samples oil from its buses for testing. The results tell the district whether it can extend the amount of time between oil changes and if there are engine parts that potentially need to be replaced. The district potentially saves further costs because the testing can warn of bus parts that are wearing out, allowing the district to replace those parts before they cause damage to other engine parts and lead to more costly repairs or longer downtimes for the buses. In contrast, performance audits have identified many districts that fail to systematically perform preventative maintenance on their vehicles.

- Efficient routes: Performance audits of districts with high transportation costs frequently recommend that districts monitor the number of riders in each bus, or bus capacity usage. Even districts whose routes cover long distances can maximize their program's efficiency by monitoring their route efficiency. Two recent performance audits identified rural districts that maintain efficient routes

despite traveling across large geographical areas. One of these districts regularly monitored its bus capacity and operated routes at 79 percent of seat capacity. In contrast, a recent audit of a large urban district determined that about one-quarter of the District's bus routes operated below 50 percent capacity.

- **Transporting special needs and homeless populations:** Districts cannot control nor often anticipate the changing needs of the student population they transport. Districts that serve a greater percentage of students with special needs have higher costs per mile and per rider. In a recent performance audit, auditors determined that while the district had costs similar to other districts for regular transportation services, it spent a very high $9,959 per rider to transport students with special needs, about 22 times more per student than for its regular routes. Costs could have been lower if the district improved the bus utilization rate for both its contracted and in-house routes and improved its oversight of vendor billing. District location appears to be a factor in the composition of districts' riders. On average, within the districts located in cities and suburban areas, riders with special needs compose 8 percent of the total ridership, compared to 3 percent at districts located in towns and rural areas. In addition, the districts in cities and suburbs transport more homeless riders. While only one rural district reported transporting a homeless student, a very large urban district reported transporting over 1,200 homeless riders in fiscal year 2009.

Performance Pay Plan Quality Varies Widely, but Plans with Strong Student Achievement Goals May Be Linked to Higher Student Achievement

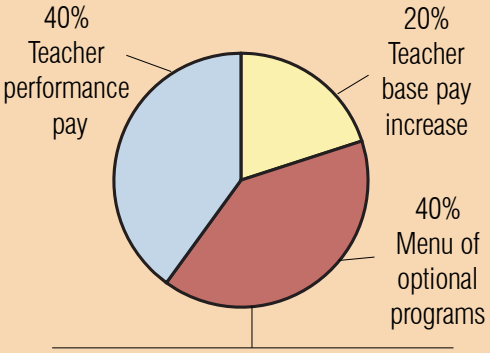
Research into the relationship between performance pay and student achievement has identified a number of factors that can impede a performance pay program's success in raising student achievement. Although the performance pay framework established for Arizona's Proposition 301 addresses many of these factors, Arizona districts vary widely in the degree to which they incorporate key elements of this framework into their performance plans—particularly a focus on student achievement goals. Developing plans with strong achievement goals is important because, for the most part, districts with a strong emphasis on student achievement goals in their performance plans generally had higher percentages of students passing the AIMS test than districts with weaker performance plans.

Arizona's Proposition 301 performance pay system includes elements that may promote student achievement

Arizona Revised Statutes (A.R.S.) §15-977 directs districts to use at least 60 percent of CSF monies for teacher compensation (see textbox). Districts are required to direct 40 percent toward pay for performance. In 2005, the Legislature established requirements for Proposition 301 performance pay, which previously did not have guidelines. These requirements specify that school district governing boards must adopt performance pay plans at public meetings and specifies eight different performance measurement elements that must be contained in the performance plans themselves. However, school district governing boards may modify the elements if they do so in a public meeting.

While national research has yet to establish a clear link between student achievement and teacher performance pay, the steps taken by the Arizona Legislature address a number of the issues that have blurred this link in other states. Other states' performance pay initiatives are in the early stages of

Required apportionment of Proposition 301 monies



- AIMS intervention programs
- Class size reduction
- Dropout prevention programs
- Teacher compensation increases
- Teacher development
- Teacher liability insurance premiums

implementation, and research regarding them is still ongoing. Enough information has not been collected to say whether a link is present or not. In particular, researchers find it difficult to separate the effects of teacher performance pay on student achievement from other programs in place that aim to increase achievement as well. However, researchers identified certain factors that may affect the success of teacher performance pay plans. The Legislature included many of these factors as requirements for Proposition 301 performance pay. Specifically:

Broad range of performance goals—Most studies agreed that evaluating teacher performance in a broad range of goals, such as principals' evaluation of and parents' satisfaction with teacher performance, rather than just student test scores, encourages greater levels of teacher participation in performance pay systems. The requirements the Legislature set in place in 2005 specify that performance pay plans should include the following performance measurement elements:

- School performance;
- District performance;
- Measures of academic progress toward state standards;
- Other measures of academic progress;
- Dropout/graduation rates;
- Attendance rates;
- School quality ratings from parents and students; and
- Teacher professional development programs.

While the number and types of goals districts included in their performance pay plans vary widely, in fiscal year 2009, all 222 school districts receiving CSF performance pay monies included one or more goals addressing the performance measurement elements outlined in statute. More specifically, 96 districts incorporated goals addressing at least four different areas of performance measurement, while the remaining 126 districts based performance pay on three or fewer goals.

Easy access to monies—Some studies found that if school districts and/or teachers had to go through a lengthy paperwork process, such as filling out applications, they were less likely to participate in performance pay systems. Arizona statute does not require districts to apply for or go through a lengthy process to receive CSF monies. Therefore, while this may have presented a problem for some other states' performance pay systems, it is not a problem for Arizona's Proposition 301 performance pay system.

District control of monies—Districts were more likely to participate in teacher performance pay systems if the systems allowed districts flexibility in how monies

would be spent. In addition, because Arizona school districts are responsible for drafting their own performance pay plans, they maintain control of how the monies are used and are able to target areas of improvement that relate directly to their district's needs.

Quality of districts' performance pay plans varies widely

Arizona's Proposition 301 pay system appears to address many of the factors identified by research as potentially having an effect on student achievement. However, because districts choose their own performance goals, the quality of performance pay plans state-wide varies widely. Auditors reviewed district performance pay plans falling on the extreme opposite ends of the spectrum, or plans with strong student achievement goals versus plans with no student achievement goals. Based on this review, we found that districts choosing to set strong student achievement goals tended to have higher percentages of students who met or exceeded AIMS standards, on average, than peer districts without any achievement goals. The opposite was true for districts choosing not to set any student achievement goals—that is, fewer of their students met or exceeded AIMS standards. Despite lower student achievement, teachers at districts with weaker performance pay plans still earned performance pay amounts comparable to teachers at districts with stronger performance pay plans.

Performance pay requirements vary widely—Arizona Revised Statutes (A.R.S.) §15-977 directs districts to evaluate teacher performance with a variety of measures, including school, district, and other measures of academic progress; attendance and graduation rates; and satisfaction surveys. Most of these suggested measures focus on student achievement; however, statute allows districts to modify these elements or consider additional elements as long as the performance pay plan is adopted at a public meeting. Common additional performance measurement elements that some school districts incorporate into their plans include goals addressing teacher performance evaluations, professional development, tutoring, leadership, and parent involvement.

Arizona districts differ substantially in the number and type of elements they incorporate into their performance pay plans. Auditors analyzed performance plans from the 222 Arizona districts that received CSF performance pay monies and identified 29 districts (13 percent) that had plan goals addressing a variety of the statutory performance measurement elements and that also appeared to do a good job of linking performance pay to student achievement. For example, these plans typically included goals that required:

- Students to meet targeted percentages of growth in standardized tests or district assessment scores;

- Teachers to determine specific strategies to help their students meet student achievement goals; and
- Teacher evaluations that included specific evaluation points, such as lesson plans that demonstrated the individual teachers' efforts to improve student achievement.

In contrast, auditors identified ten districts' plans that did not include any performance goals linked to student achievement. These plans included such criteria as teachers receiving satisfactory performance evaluations, achieving certain ratings on parent satisfaction surveys, and achieving certain rates of student attendance, but nothing linking performance pay to student achievement.[1]

Performance audits of specific districts conducted in 2009 identified other instances of weak performance pay plans, such as plans that paid teachers for performing responsibilities that are a regular part of their jobs or plans that did not require performance above and beyond already expected levels. Here are three examples:

- One district awarded performance pay to eligible employees if freshman students' algebra test scores increased by at least 10 percent between a pre- and post-test. The actual increase in test scores was almost 90 percent. Since the pre-test is given to freshman students who have never been exposed to algebra and the post-test is given to them after receiving a full year of algebra instruction, it should be expected that scores would increase significantly more than 10 percent. This same district also awarded performance pay to all eligible employees for completion of a district-wide goal that applied to only a few employees.
- Another district's performance pay plan included a goal requiring teachers to receive satisfactory performance evaluations. Therefore, all teachers not on a corrective action plan received this portion of performance pay. Further, some of these teachers received the performance pay without having actually received an evaluation because the district's practice was to evaluate a teacher only once every 3 years after a satisfactory evaluation was received.
- In order to meet the academic achievement goal at another district, special education teachers were required to fill out student Individual Education Programs (IEPs), which are already mandated by statute. Similarly, the music, art, and physical education teachers were required to conduct activities such as annual field day, musical concerts, and art shows that district officials reported had been conducted prior to the availability of the performance pay monies. In addition, the plan did not establish how this academic progress goal could be met by other staff such as the counselor and speech therapists, even though these positions received performance pay for this goal.

[1] The remaining 183 districts' plans addressed student achievement and other areas but were not as strong as the 29 plans with strong student achievement goals.

Districts with strong student achievement goals appeared to perform better on AIMS test—Comparisons of AIMS tests results for districts with strong student achievement goals and those with no student achievement goals showed differences in the numbers of students meeting state standards. Specifically, of the 29 districts with plans that did a good job of linking performance pay to student achievement, 19 had a higher percentage of students with passing scores on the AIMS test than the average percentage for their peer districts.[1] By contrast, 7 of the 10 districts with performance pay plans that did not include any performance goals linked to student achievement had smaller percentages of students with passing AIMS test scores than the average percentages for their peer districts.

Despite weak performance pay plans, teachers still earn significant performance pay amounts—The differences in performance pay plans across districts also raises an equity issue with regard to performance pay. Although teachers in districts with strong student achievement goals had to demonstrate performance that was more clearly tied to their students' performance than did teachers in districts with no student achievement goals, there was basically no difference in the amount of performance pay they received. Specifically, teachers in the ten districts with no student achievement goals earned an average of $2,471 each in performance pay, which is $400 more than the state-wide average of $2,071 and only $200 less than the 29 districts with strong plan goals.

The issues discussed above illustrate the tradeoffs that so far have been involved in implementing performance pay in Arizona. Allowing districts the freedom to determine the goals that performance pay is based on is a good way to gain district and teacher buy-in to the State's performance pay system. However, this freedom has also led to inconsistent performance pay plans and to situations in which teachers receive similar performance pay for significantly different levels of effort and related performance results. Finally, of greater concern, the differences in the quality of performance pay plans may also be affecting student achievement. As noted previously, our analysis suggests there may be a relationship between how fully a district's performance plan incorporates the framework envisioned in statute and how well students perform on state AIMS tests.

[1] For this analysis, districts were grouped with other districts of similar size, locations, and poverty rates. For further explanation, see Appendices B and C.

Appendix A

This appendix lists the fiscal year 2009 classroom dollar percentages for each of the 208 districts organized into peer groups based on size, location, and type; 11 accommodation districts; and 11 joint technological education districts. For further information, see Appendix B, which provides alphabetically organized, one-page summaries for each district.

Table 3: Districts Grouped by Size, Location, and Type and Ranked by Percentage of Dollars Spent in the Classroom[1] Fiscal Year 2009

District Size	Location	Type	District Name	Classroom Dollar Percentage	District Name	Classroom Dollar Percentage
Very Large	**City/Suburb**	**HS/Unified**	**Peer group average**	**59.1%**		
			Gilbert USD	62.7%	Mesa USD	59.8%
			Chandler USD	62.4%	Scottsdale USD	57.7%
			Deer Valley USD	60.6%	Dysart USD	57.2%
			Paradise Valley USD	60.6%	Phoenix UHSD	55.6%
			Peoria USD	60.5%	Tucson USD	53.5%
Large	**City/Suburb**	**HS/Unified**	**Peer group average**	**56.4%**		
			Vail USD	59.9%	Tempe UHSD	56.8%
			Glendale UHSD	58.6%	Higley USD	55.0%
			Amphitheater USD	58.5%	Tolleson UHSD	54.7%
			Marana USD	57.9%	Sunnyside USD	53.9%
			Flagstaff USD	57.2%	Yuma UHSD	51.1%
Large	**City/Suburb**	**Elementary**	**Peer group average**	**57.5%**		
			Kyrene ESD	62.9%	Glendale ESD	57.1%
			Cartwright ESD	61.1%	Pendergast ESD	56.0%
			Litchfield ESD	58.3%	Tempe ESD	56.0%
			Alhambra ESD	57.7%	Roosevelt ESD	54.6%
			Washington ESD	57.5%	Yuma ESD	54.0%

1 Accommodation and Joint Technological Education Districts are grouped separately.

Table 3 (Cont'd)

District Size	Location	Type	District Name	Classroom Dollar Percentage	District Name	Classroom Dollar Percentage
Medium-Large	**City/Suburb**	**HS/Unified**	**Peer group average**	**57.5%**		
			Prescott USD	61.6%	Fountain Hills USD	56.4%
			Humboldt USD	61.4%	Cave Creek USD	55.6%
			Tanque Verde USD	60.8%	Catalina Foothills USD	55.0%
			Queen Creek USD	59.7%	Agua Fria UHSD	53.7%
			Flowing Wells USD	58.4%	Casa Grande UHSD	53.3%
			Apache Junction USD	56.9%		
Medium	**City/Suburb**	**HS/Unified**	**Peer group average**	**55.2%**		
			Blue Ridge USD	64.1%	Douglas USD	54.9%
			Safford USD	63.1%	Show Low USD	54.9%
			Lake Havasu USD	59.5%	Winslow USD	54.5%
			Snowflake USD	59.5%	Sierra Vista USD	54.4%
			Colorado River UHSD	59.1%	Kingman USD	53.6%
			Sahuarita USD	57.7%	Coolidge USD	52.8%
			Chino Valley USD	57.2%	Nogales USD	52.7%
			Payson USD	57.2%	Maricopa USD	52.3%
			Buckeye UHSD	56.8%	Page USD	52.3%
			Santa Cruz Valley USD	55.5%	Window Rock USD	50.1%
			Florence USD	55.4%	Chinle USD	49.4%
			J. O. Combs USD	55.3%	Kayenta USD	42.1%
Medium	**City/Suburb**	**Elementary**	**Peer group average**	**55.3%**		
			Liberty ESD	60.3%	Tolleson ESD	54.8%
			Littleton ESD	59.0%	Madison ESD	54.6%
			Avondale ESD	58.6%	Casa Grande ESD	54.4%
			Fowler ESD	57.3%	Crane ESD	54.3%
			Union ESD	56.3%	Phoenix ESD	53.8%
			Balsz ESD	56.1%	Creighton ESD	52.6%
			Isaac ESD	55.8%	Osborn ESD	50.9%
			Wilson ESD	55.3%	Murphy ESD	50.6%
			Laveen ESD	55.2%		
Medium	**Town/Rural**	**HS/Unified**	**Peer group average**	**52.6%**		
			Mingus UHSD	62.6%	Round Valley USD	52.8%
			Thatcher USD	62.4%	Nadaburg USD	52.2%
			Pima USD	60.3%	Tombstone USD	52.2%
			Morenci USD	58.3%	Whiteriver USD	51.3%
			Wickenburg USD	57.7%	Parker USD	50.7%
			St. Johns USD	56.4%	San Carlos USD	50.3%
			Mammoth-San Manuel USD	56.3%	Saddle Mountain USD	49.9%
			Holbrook USD	56.1%	Sanders USD	49.0%
			Benson USD	55.8%	Bisbee USD	47.7%
			Willcox USD	55.8%	Indian Oasis-Baboquivari USD	47.7%
			Camp Verde USD	55.7%	Ganado USD	45.4%
			Miami USD	55.1%	Tuba City USD	44.5%
			Globe USD	54.7%	Red Mesa USD	38.7%
			Sedona-Oak Creek JUSD	54.4%	Pinon USD	37.7%
			Williams USD	53.9%		

Table 3 (Cont'd)

District Size	Location	Type	District Name	Classroom Dollar Percentage	District Name	Classroom Dollar Percentage
Medium	**Town/Rural**	**Elementary**	**Peer group average**	**53.8%**		
			Bullhead City ESD	59.5%	Palominas ESD	54.1%
			Toltec ESD	59.0%	Eloy ESD	50.7%
			Mohave Valley ESD	58.5%	Somerton ESD	49.6%
			Riverside ESD	57.7%	Gadsden ESD	49.1%
			Cottonwood-Oak Creek ESD	57.0%	Stanfield ESD	47.8%
			Buckeye ESD	54.9%	Altar Valley ESD	47.6%
Small	**Town/Rural**	**HS/Unified**	**Peer group average**	**51.2%**		
			Ajo USD	59.4%	Gila Bend USD	51.2%
			St. David USD	57.9%	Littlefield USD	50.6%
			Duncan USD	56.0%	Grand Canyon USD	48.5%
			Superior USD	55.1%	Joseph City USD	48.3%
			Ash Fork Joint USD	54.8%	Mayer USD	47.7%
			Ray USD	54.5%	Hayden-Winkelman USD	47.4%
			Bagdad USD	54.2%	Colorado City USD	46.6%
			Fredonia-Moccasin USD	53.4%	Heber-Overgaard USD	46.1%
			Antelope UHSD	52.6%	Cedar USD	44.5%
			Ft. Thomas USD	51.6%	Santa Cruz Valley UHSD	44.2%
Small	**Town/Rural**	**Elementary**	**Peer group average**	**54.7%**		
			Continental ESD	62.8%	Picacho ESD	55.6%
			Clarkdale-Jerome ESD	60.0%	Palo Verde ESD	51.9%
			Beaver Creek ESD	59.4%	Oracle ESD	49.9%
			Arlington ESD	56.6%	Sacaton ESD	49.9%
			Wellton ESD	56.4%	Quartzsite ESD	49.4%
			Naco ESD	55.6%	Red Rock ESD	48.4%
Very Small	**Town/Rural**	**HS/Unified**	**Peer group average**	**46.6%**		
			San Simon USD	54.5%	Clifton USD	43.0%
			Seligman USD	54.4%	Bicentennial UHSD	42.0%
			Bowie USD	51.1%	Peach Springs USD	41.3%
			Valley UHSD	47.2%	Patagonia UHSD	39.1%

Table 3 (Concl'd)

District Size	Location	Type	District Name	Classroom Dollar Percentage	District Name	Classroom Dollar Percentage
Very Small	**Town/Rural**	**Elementary**	**Peer group average**	**54.8%**		
			Valentine ESD	78.7%	Kirkland ESD	52.7%
			Blue ESD	78.1%	Skull Valley ESD	52.0%
			Sonoita ESD	69.6%	San Fernando ESD	51.9%
			Crown King ESD	68.3%	Canon ESD	51.7%
			Hillside ESD	64.8%	Solomon ESD	51.6%
			Mcnary ESD	63.2%	Young ESD	51.2%
			Yucca ESD	62.5%	Bouse ESD	51.0%
			Aguila ESD	62.1%	Elfrida ESD	51.0%
			Pomerene ESD	61.6%	Sentinel ESD	50.7%
			Double Adobe ESD	61.3%	Paloma ESD	50.1%
			Owens-Whitney ESD	61.2%	Morristown ESD	49.9%
			Bonita ESD	60.8%	Mohawk Valley ESD	49.5%
			Cochise ESD	59.7%	Wenden ESD	49.3%
			Santa Cruz ESD	59.7%	Yarnell ESD	49.3%
			Alpine ESD	58.4%	McNeal ESD	48.3%
			Topock ESD	58.3%	Pine Strawberry ESD	47.4%
			Pearce ESD	56.1%	Vernon ESD	44.0%
			Patagonia ESD	55.6%	Concho ESD	42.9%
			Apache ESD	54.9%	Salome Consolidated ESD	42.2%
			Hyder ESD	53.6%	Hackberry ESD	40.9%
			Congress ESD	53.5%	Ash Creek ESD	39.9%
			Maine Consolidated ESD	53.5%	Mobile ESD	39.6%
			Tonto Basin ESD	53.5%		

District Type	District Name	Classroom Dollars Percentage	District Name	Classroom Dollar Percentage
Accommodation	**Group average**	**47.8%**		
	Pima ASD	66.0%	Pinal County Special Education Program	45.0%
	Ft. Huachuca ASD	59.2%	Yavapai ASD	44.0%
	Gila County Regional SD	54.5%	Rainbow ASD	43.6%
	Maricopa County Regional SD	49.7%	Graham County Special Services	38.2%
	Mary C. O'Brien ASD	47.9%	Santa Cruz County Regional SD	32.4%
	Coconino County Regional ASD	45.3%		
JTED[1]	**Group average**	**30.0%**		
	EVIT	56.3%	GIFT	21.9%
	NAVIT	56.2%	CAVIAT	18.8%
	West MEC	50.9%	VACTE	9.4%
	CAVIT	48.6%	CVIT	0.0%
	NATIVE	45.0%	CTD	0.0%
	Pima County JTED	23.3%		

[1] The percentages for Joint Technological Education Districts include only their direct expenditures and exclude monies passed through to their member school districts.

Source: Auditor General staff analysis of fiscal year 2009 School District Annual Financial Reports and average daily membership counts provided by the Arizona Department of Education, U.S. Census Bureau location designations reported in the National Center for Education Statistics' Common Core of Data, and summary accounting data provided by individual school districts.

Appendix B

This appendix provides alphabetically organized, one-page information sheets on individual school districts. Each page contains a summary of the district's reported results using Proposition 301 monies, classroom and nonclassroom spending, and other cost measures relative to their operational peer group. Each page also contains descriptive and comparative student and teacher information. N/A indicates that information is not available, not applicable, or not appropriate because it would reveal personal information about individual district employees. NR indicates that Auditor General staff have determined that the District's information is not reliable and has therefore been excluded from analysis and group averages. All information is for fiscal year 2009 unless otherwise indicated. In addition, beginning on page a-219, there are half-page information sheets on JTED and accommodation districts.

Table 4 below shows the data sources used on the individual district pages and defines some of the common terms and acronyms used to describe districts' Proposition 301 goals and results. Also, for reference, a map of Arizona's counties is included as Figure 3, on page a-9.

Table 4: Individual District Page Source Information

Background	
Data	**Source**
District size	Auditor General staff analysis of ADE's ADM counts. District sizes were categorized as follows: • Very large 20,000+ • Large 8,000 to 19,999 • Medium-Large 2,000 to 7,999 • Medium 600 to 1,999 • Small 200 to 599 • Very small Fewer than 200
Students attending	Auditor General staff analysis of the Arizona Department of Education's (ADE) average daily membership (ADM) counts. ADM numbers are rounded to the nearest whole number. Auditors included kindergarten students' ADM at a full- or half-count depending on whether the districts offer all-day or half-day kindergarten at no charge to parents. Auditors also included ADM for students whose private school tuition is paid for by the district.
Number of schools	Auditor General staff analysis of ADM reports provided by ADE and Building Reports provided by the School Facilities Board.

Table 4 (Cont'd)

Operational Efficiency	
Data	**Source**
Operational peer group Auditor General staff categorized districts into operational peer groups based on their similarities in district size, type, and location. The 12 operational peer groups are labeled "A" through "L" and each includes between 8 and 45 districts. Special purpose districts, such as accommodation and joint technological education districts, are not categorized into peer groups.	
Average per-pupil spending	Auditor General staff analysis of school district summary accounting data and Annual Financial Reports (AFRs), and ADE's ADM counts.
5-year trend	Auditor General staff analysis of school district summary accounting data and AFRs and ADE's ADM counts for fiscal years 2004 through 2009.
District's cost measures relative to peer group Auditor General staff compared a district's cost measures, such as cost per mile, and other related measures, such as miles per rider, to those of its peer group averages. Auditors identified whether the district's cost measures were higher, lower, or comparable to its peer averages, and indicated the determination using a color bar for each operational cost area. When comparing cost measures, auditors also took into consideration other measures that could impact costs, such as the affect of extremely high square footage per student on the cost per square foot. In addition, auditors provided comparative information but did not compare the relative costs for the 53 very small districts. The operations and spending patterns of these districts are highly variable and result in less meaningful group averages. Therefore, the cost measures for these districts have no color indicators.	
Administration	Cost per pupil: Auditor General staff analysis of current administrative costs divided by the number of students, using school district summary accounting data and ADE's ADM counts.
	Students per administrator: The number of students divided by the number of administrative full-time equivalent employees (FTEs), using ADE's ADM counts and district-provided information on the School District Employee Report.
Plant Operations	Cost per square foot: Auditor General staff analysis of current plant operations and maintenance costs divided by the total square footage, using school district summary accounting data and Building Reports provided by the School Facilities Board (SFB).
	Square footage per student: Auditor General staff analysis of the total square footage divided by the number of students, using ADE's ADM counts and the SFB's Building Reports.
Food Service	Cost per meal equivalent: Auditor General staff analysis of current food service expenditures divided by the total number of meals served, using school district summary accounting data and AFRs.
Transportation	Cost per mile: Auditor General staff analysis of current transportation costs divided by the total miles, using school district summary accounting data and ADE's transportation route reports.
	Miles per rider: Auditor General staff analysis of the total miles divided by the total riders, using ADE's transportation route reports.
Per-pupil spending by function	
District	Auditor General staff analysis of fiscal years 2008 and 2009 school district summary accounting data and AFRs, and ADE's ADM counts.
Peer	Auditor General staff analysis of districts' fiscal year 2009 per-pupil expenditures. The group averages were calculated by adding individual districts' per-pupil expenditures and dividing by the number of districts in each peer group.
State	Auditor General staff analysis of school district summary accounting data and Annual Financial Reports, and ADE's ADM counts.
National	National Center for Education Statistics' fiscal year 2007 data. Although the 2009 data is not yet available, the national percentages have been relatively stable. For the most recent 5-year period that is available, fiscal years 2003-2007, the variations were less than 0.3 percentage points in any of the functional categories.

Table 4 (Cont'd)

Student Achievement And Teacher Information	
Data	**Source**
Student achievement peer groups Auditor General staff categorized districts into student achievement peer groups based on their similarities in district size, location, and poverty rate. Within the peer groups based on size and location, auditors grouped districts into high- and low-poverty groups based on whether the district's poverty rate was above or below the state average of 19 percent. The 13 peer groups include between 8 and 37 districts.	
Percentage of students meeting state standards (AIMS)	Auditor General staff analysis of ADE's Spring 2009 Math, Reading, and Writing test results on the Arizona Instrument to Measure Success (AIMS), as of January 2010. The district- and state-level percentages were calculated by dividing the number of students who met or exceeded the state standards for their grade by the total number of students who took the test. Auditors aggregated test results across grade levels and included results for grades 3 through 8 and high school grade 10, as applicable. The peer group average percentages were calculated by adding individual districts' percentages of students who met or exceeded grade-level standards and dividing by the number of districts in each peer group.
Adequate Yearly Progress	Districts' Adequate Yearly Progress (AYP) toward meeting federal goals, provided by ADE as of January 2010. To meet AYP, schools must meet the following requirements: annual student growth on the AIMS assessment of at least 10 percent, percentage of students tested on AIMS of at least 95 percent, high school graduation rate of at least 70 percent or at least a 1 percent improvement over the prior year, and attendance rate of at least 90 percent or at least a 1 percent improvement over the prior year.
Student and teacher information	
Attendance rate	Attendance rates provided by ADE as of January 2010. The district and state-level attendance rates were calculated by dividing the number of student attendance days by the number of student membership days as of the district's 100th-day membership count. The group average percentages were calculated by adding individual districts' attendance rates and dividing by the number of districts in each peer group.
Graduation rate	For districts serving high school students, the fiscal year 2008 four-year cohort graduation rates, provided by ADE as of January 2010. The district- and state-level graduation rates were calculated by dividing the number of cohort students who graduated after 4 years by the original number of cohort students adjusted for the students transferring in and out of the district. The group average percentages were calculated by adding individual districts' graduation rates and dividing by the number of districts in each peer group.
Poverty rate	Auditor General staff analysis of US Census Bureau fiscal year 2008 "Small Area Income and Poverty Estimates" published in December 2009. District- and state-level poverty rates were calculated by dividing the number of children between the ages of 5 and 17 years old who were living at or below the federal poverty level by the total number of children between the ages of 5 and 17 years old. The group average percentages were calculated by adding individual districts' poverty rates and dividing by the number of districts in each peer group.
Student/teacher ratio	Auditor General staff analysis of ADE's ADM and certified teacher counts as reported by districts on their Classroom Site Fund Narrative (CSF Narratives). In the few instances in which CSF Narrative information was not received or not reliable, certified teacher FTE was obtained from district-reported School District Employee Report data provided by ADE. The district- and state-level ratios were calculated by dividing total ADM by total certified teacher FTE and the group average percentages were calculated by adding individual districts' student-teacher ratios and dividing by the number of districts in each peer group.

Table 4 (Concl'd)

Student Achievement And Teacher Information (Concl'd)	
Data	**Source**
Average teacher salary	Auditor General staff analysis of total current expenditures for kindergarten through 12th grade instructional programs spent on certified teacher salaries (excluding salaries for substitute teachers) from district-reported summary accounting records and total number of certified teacher FTEs from district-reported CSF Narrative. In the few instances in which CSF Narrative information was not received or not reliable, certified teacher FTE was obtained from district-reported School District Employee Report data provided by ADE. The district- and state-level averages were calculated by dividing the total teacher salaries by total teacher FTE and the group average percentages were calculated by adding individual districts' average teacher salaries and dividing by the number of districts in each peer group.
Average years' experience	ADE October 2008 data on FTE certified teachers for fiscal year 2009. The number of years of experience included the actual number of years of experience for each certified teacher, instead of capping teachers with more than 15 years of experience at 15. The district- and state-level years of experience were calculated by weighting each number of years of experience by the total FTE for that number of years. The group average percentages were calculated by adding individual districts' average years of experience and dividing by the number of districts in each peer group.
Percent of teachers in first 3 years	ADE October 2008 data on FTE certified teachers for fiscal year 2009. The district- and state-level percentages were calculated by dividing the number of certified teachers in their first 3 years by the total number of certified teachers. The group average percentages were calculated by adding individual districts' percentages of teachers in their first 3 years and dividing by the number of districts in each peer group.
Proposition 301	Auditor General staff analysis of district-reported CSF Narrative Results. Each of the 223 districts receiving Proposition 301 monies in fiscal year 2009 completed the narrative form. 222 districts developed performance pay plan goals. Goals that were not included in the district's performance pay plan are shaded in grey.

Figure 3: Map of Arizona Counties

Appendix C

Definition of the classroom dollar percentage

The classroom dollar percentage is the amount spent for classroom purposes divided by the total amount spent for day-to-day operations, or total current expenditures. Current expenditures exclude monies spent for debt repayment; capital outlay, such as purchasing land, buildings, and equipment; and programs outside the scope of K-12 education, such as adult education and community services. Total current expenditures include classroom and nonclassroom expenses as shown below:

Classroom dollars

- Classroom personnel—Teachers, teachers' aides, substitute teachers, graders, and guest lecturers
- General instructional supplies—Paper, pencils, crayons, etc.
- Instructional aids—Textbooks, workbooks, software, films, etc.
- Activities—Field trips, athletics, and co-curricular activities such as choir and band
- Tuition—Paid to out-of-state and private institutions

Nonclassroom dollars

- **Administration**—Superintendents; principals; business managers; and clerical and other staff who perform accounting, payroll, purchasing, warehousing, printing, human resource activities, and administrative technology services
- **Plant operations and maintenance**—Heating and cooling, equipment repair, groundskeeping, and security
- **Food service**—Costs of preparing and serving meals and snacks
- **Transportation**—Costs of transporting students to and from school and school activities
- **Instructional support services**—Librarians, teacher training, curriculum development, and instruction-related technology services
- **Student support services**—Counselors, attendance clerks, audiologists, speech pathologists, and nurses

Scope

All of the State's 239 school districts were included in the calculation of the state-wide classroom dollar percentage and analysis of statewide supplanting. However, some districts were excluded from further analysis:

- When calculating individual district classroom dollar percentages, transporting districts were excluded. These districts transport all their students to other districts and, therefore, do not have classroom expenditures.
- When analyzing the efficiency of district operations, accommodation districts and joint technological education districts were also excluded. These districts, listed at the end of Appendix A, are unique in operation and few in number, and would, thereby, distort the analysis of factors generally affecting other district types.
- Only 223 districts received CSF monies for fiscal year 2009. The 16 districts not receiving fiscal year 2009 Proposition 301 monies included the 9 transporting districts and 7 of the 11 joint technological education districts.

Methodology

To analyze the most current expenditure and budget data available for Arizona's school districts, auditors obtained fiscal year 2009 school district AFRs and budgets from the Arizona Department of Education. In addition, all of the State's 239 school districts provided auditors with fiscal year 2009 summary accounting data, 223 districts submitted summaries of their CSF expenditures and program results, and 187 districts submitted their Proposition 301 performance pay plans. The information used to prepare this report was not audited; however, it was subject to certain quality control procedures to help ensure its reasonableness. For example, instead of auditing the AFRs, budgets, and summary accounting data to the underlying district records, auditors performed analytical procedures using the financial data and CSF Narratives of program results and interviewed school district officials about significant anomalies or variances. Auditors corrected any data errors prior to calculating classroom dollar percentages and analyzing performance measures.

Other information related to the analysis was obtained from ADE, such as school district staffing levels, academic achievement indicators, bus mileage, and average daily membership counts; and from the SFB, such as square footage and number of schools. In addition, auditors obtained national financial data and location relative to population centers from the National Center for Education Statistics (NCES) and district-level poverty rates from the U.S. Census Bureau.

Auditors made certain adjustments to the Arizona district-level data that affected the ADM counts for districts that did not offer free all-day kindergarten. This adjustment, which was needed to improve ADM comparability between districts, was made at the school level based on district responses to a survey. Auditors also made certain adjustments that affected the classroom dollar results reported for the State's 11 joint technological education districts. These districts typically pass through more than 50 percent of their available funding to their member school districts. Thus, to avoid counting the same expenditures twice, auditors calculated the classroom dollar percentage for each joint technological education district using only its direct expenditures. Lastly, because some districts pay tuition for students to attend private institutions, auditors included tuition payments in the district's classroom dollar calculation and the students in the district's ADM counts.

To compare school districts' efficiency and effectiveness, auditors developed two types of district peer groups. First, to compare performance measures related to costs, auditors developed operational peer groups using district size, type, and location. The six size categories are defined in Appendix B. Auditors grouped high school districts with unified districts because both districts serve high school students. As reported by the NCES, the U.S. Census Bureau classifies districts by distance and population density into four main categories: city, suburban area, town, and rural area. Auditors grouped together districts located in city and suburban areas

and then also grouped together districts located in town and rural areas. In the left-hand side of Appendix B district pages, auditors compared each district's expenditures and operational performance measures to those of its peer group averages. Second, to compare districts' academic indicators, auditors developed student achievement peer groups using the same size and location categories as in the operational peer groups, but with additional consideration of each district's poverty rate because poverty rate has been shown to be strongly related to student achievement. Auditors grouped districts into high- and low- poverty groups based on whether their poverty rates were above or below the state average. In the right-hand side of Appendix B district pages, auditors compared each district's academic indicators, such as the percentage of students who met or exceeded AIMS, attendance rate, and graduation rate, to the averages of its student achievement peer group.