



Mary Taylor, CPA
Auditor of State

CHILlicothe CITY SCHOOL DISTRICT PERFORMANCE AUDIT

MAY 10, 2007



Mary Taylor, CPA Auditor of State

To the Residents and Board of Education of the Chillicothe City School District:

Consistent with the recommendations of Governor Taft's Blue Ribbon Task Force on Financing Student Success, the Ohio General Assembly provided funding for comprehensive performance audits of selected Ohio school districts. The Ohio Revised Code also permits the Auditor of State to review any programs or areas of operation in school districts experiencing financial difficulties in which the Auditor believes that greater operational efficiency, effectiveness, and accountability can be achieved. Based on its financial condition going into FY 2005-06 and at the District's request, Chillicothe City School District (the District) was selected to receive a comprehensive performance audit.

The five functional areas assessed in the performance audit were financial systems, human resources, facilities, transportation, and technology. These areas were selected because they are important components of school operations, and because improvements in these areas can assist the District in its continuing efforts to improve and stabilize its long-term financial situation.

The performance audit contains recommendations which identify the potential for cost savings and efficiency improvements. The performance audit also provides an independent assessment of the Chillicothe City School District's financial situation and a framework for addressing projected deficits in the later years of its forecast. While the recommendations contained in the audit report are resources intended to assist in developing and refining future five-year forecasts, the District is also encouraged to assess overall operations and develop other alternatives independent of the performance audit. During the course of the performance audit, the District implemented several of the recommendations which are noted in the report.

An executive summary has been prepared which includes the project history; a district overview; the scope, objectives and methodology of the performance audit; and a summary of noteworthy accomplishments, recommendations, issues for further study, and financial implications. This report has been provided to the Chillicothe City School District, and its contents discussed with the appropriate officials and District management. The District has been encouraged to use the results of the performance audit as a resource in further improving its overall operations, service delivery, and financial stability.

Additional copies of this report can be requested by calling the Clerk of the Bureau's office at (614) 466-2310 or toll free at (800) 282-0370. In addition, this performance audit can be accessed online through the Auditor of State of Ohio website at <http://www.auditor.state.oh.us/> by choosing the "On-Line Audit Search" option.

Sincerely,

A handwritten signature in cursive script that reads "Mary Taylor".

MARY TAYLOR
Auditor of State

May 10, 2007

Executive Summary

Project History

§ 206.09.12 of Amended Substitute House Bill 66 of the 126th General Assembly (HB 66) provided funding for comprehensive performance audits of selected Ohio school districts consistent with the recommendations of the Governor's Blue Ribbon Task Force on Financing Student Success. The Ohio Revised Code also permits the Auditor of State (AOS) to review any programs or areas of operation in which the Auditor believes that greater operational efficiency, effectiveness, and accountability can be achieved. Based on its financial condition going into FY 2005-06, the Chillicothe City School District (Chillicothe CSD or "the District") was selected as one of the initial school districts to receive a comprehensive performance audit.

The performance audit included reviews of the following operational areas:

- Financial Systems;
- Human Resources;
- Facilities;
- Transportation; and
- Technology.

Audit field work took place between March and October 2006. The goal of the performance audit process was to assist Chillicothe CSD management in identifying cost saving opportunities and improved management practices. The ensuing recommendations comprise options the District can consider in its continuing efforts to improve and stabilize its long-term financial condition.

District Overview

Chillicothe CSD is located in Ross County and encompasses 22 square miles. The District operates under an elected Board of Education consisting of five members. In FY 2005-06, the District provided educational services to 3,145 preschool through grade twelve students in six school buildings including a high school, a middle school, and four elementary schools.

In FY 2004-05, the District received approximately 37.7 percent of its revenue from the State of Ohio, 50.8 percent from local taxes, and 11.6 percent from federal grants and other sources. Based on the District's FY 2004-05 financial records, per pupil expenditures were \$7,697.

In FY 2005-06, the District reported employing approximately 353 full-time equivalent (FTE) staff consisting of 15 FTE administrators, 203 FTE educational personnel, 18 FTE other professional/technical personnel, 49 FTE office/clerical staff, and 67 FTE operations and other staff. The regular education student-to-teacher ratio in FY 2005-06 was 21 to 1. Also in FY 2004-05, the District met 12 of 23 academic performance indicators established by ODE and was categorized as an effective district.

On December 31, 2003 Chillicothe CSD was placed in fiscal caution based on an ODE financial analysis that indicated potential deficits starting in FY 2003-04. On February 28, 2004, the District submitted a recovery plan that addressed the current year deficit, but relied on the passage of a new 6 mill operating levy to avoid the projected deficits for future years. ODE approved the District's fiscal caution recovery plan on March 10, 2004, but expressed concerns about future year deficits without new money from the proposed operating levy. Therefore, ODE also instructed Chillicothe CSD to address the FY 2004-05 deficit, without relying on new local revenues, as part of the required May 31st five-year forecast submission. The new operating levy passed on May 3, 2005 which allowed Chillicothe CSD to submit a March 31, 2004 five-year forecast with positive fund balances for at least the next two fiscal years. The District has since updated its fiscal caution recovery plan and was projecting favorable fund balances until FY 2008-09.

While the February 2006 five-year forecast indicates a positive fund balance through FY 2007-08, the District expects a cumulative deficit of approximately \$4.5 million over the last two years of the five-year forecast period. The AOS revised forecast presented in the **financial systems** section indicates that if Chillicothe CSD implements the performance audit recommendations and limits its planned additional spending, it can avoid deficits through the end of the forecast period. The District should begin planning now in order to avoid the deficits that are projected in FY 2010-11 and beyond as more severe reductions in classroom teachers and educational service personnel may be needed if potential deficits are not addressed proactively.

Objectives, Scope and Methodology

This performance audit was conducted in accordance with Generally Accepted Government Auditing Standards. The audit assessed key operations of the District in the areas of financial systems, human resources, facilities, transportation, and technology. Major assessments included the following:

- The District's February 2006 five-year financial forecast, including the reasonableness of the underlying assumptions and the adequacy of the supporting documentation;
- The District's staffing levels, wages and benefits, and collective bargaining agreements;
- School building capacity and utilization, as well as custodial and maintenance operations;

- Key transportation operational statistics, such as students per bus, cost per student, and cost per mile; and
- The provision and use of technology within the District.

To complete this report, auditors gathered and assessed data from various sources pertaining to key operations, conducted interviews with District personnel, and assessed requested information from Chillicothe CSD and other school districts. Throughout this report, comparisons are made to the average of ten peer districts.¹ These districts were selected as peers based on demographic groupings, academic performance indicators, and expenditures per pupil. Best practice information from ODE, the State Employment Relations Board (SERB), American Schools and Universities (AS&U), the National Center for Education Statistics (NCES), and other related service industries was also used as a basis for comparisons.

The performance audit process involved significant information sharing with Chillicothe CSD, including preliminary drafts of findings and proposed recommendations related to the identified audit areas. Furthermore, periodic status meetings were held throughout the engagement to inform the District of key issues impacting selected areas, and to share proposed recommendations to improve or enhance operations. Throughout the audit process, input from Chillicothe CSD was solicited and considered when assessing the selected areas and framing recommendations. Finally, the District provided verbal and written comments in response to the various recommendations, which were taken into consideration during the reporting process. Where warranted, AOS modified the report based on the District's comments.

The Auditor of State and staff express their appreciation to the Chillicothe CSD and the peer school districts for their cooperation and assistance throughout this audit.

Noteworthy Accomplishments

Noteworthy accomplishments acknowledge significant achievements or exemplary practices. The following are key noteworthy accomplishments identified during the course of the performance audit.

In the area of Financial Systems:

- **Five-Year Forecast Updates:** The current Treasurer has continued the practice enacted by the previous Treasurer of updating the five-year forecast on a monthly basis, and presenting it at the Board meetings. This practice provides timely, up-to-date financial

¹ Peer Districts: Boardman Local School District (Mahoning Co.), Dover City School District (Tuscarawas Co.), Elida Local School District (Allen Co.), Fairland Local School District (Lawrence Co.), Heath City School District Licking Co.), Indian Creek Local School District (Jefferson Co.), Lowellville Local School District (Mahoning Co.), McDonald Local School District (Trumbull Co.), Tiffin City School District (Seneca Co.), and Wheelersburg Local School District (Scioto Co.).

information for the Board, which can be used to identify potential financial problems before they occur and to make incremental changes to improve performance over both the short and long term.

In the area of Human Resources:

- **Staffing Plan:** Chillicothe CSD has a staffing plan that addresses the allocation of personnel and various building and functional staffing needs. The Board approved a revised staffing plan in July 2006 which incorporates best practices.
- **Teacher Qualifications:** Chillicothe CSD reports that 100 percent of its core courses are taught by “highly qualified” teachers. The statewide average is 92.5 percent.
- **Dental and Vision Insurance Premiums:** The District’s dental and vision insurance premiums are below the SERB average and the Board’s share of premiums is prorated for part-time employees.

In the area of Facilities:

- **Grounds Keeping Expenditures:** Chillicothe CSD has assigned 1 FTE maintenance employee to maintain 84 acres. AS&U’s national median for grounds keeping in districts with 1,000 to 3,499 students is 48 acres per grounds keeping FTE. Chillicothe CSD supplements grounds keeping staff by assigning additional employees on an as needed basis and by using volunteer services when possible.

In the area of Transportation:

- **Bus Insurance:** The District’s bus insurance coverage exceeds State minimum requirements while still maintaining insurance expenditures per bus 17.7 percent below the peer districts’ average.
- **Fuel Security:** Access to fuel is controlled through the use of key cards assigned to each driver. Drivers are limited to 40 gallons at a time even though most buses have a 60 gallon tank. The Districts’ fuel tanks are computerized which enables the system to generate data such as the amount of fuel issued by card number, vehicle number, and type (gas or diesel). This data is transferred to the Transportation Department for tracking and management purposes. The system calculates miles per gallon and the date and time of fill-up. Purchased fuel is reconciled with fuel usage to ensure there are no losses.
- **Fleet Maintenance and Repair Expenditures:** In FY 2005-06, Chillicothe CSD’s vehicle maintenance and repair-related expenditures were 12.0 percent lower per rider,

33.1 percent lower per bus, and 32.7 percent lower per routine mile than the peer district average. The District has lowered its maintenance and repair costs by eliminating one full-time mechanic and discontinuing the practice of using outside contractors for major repairs.

In the area of Technology:

- **Software Purchasing Procedures:** During the course of this audit, the technology staff implemented written software purchasing procedures. The District now identifies and documents the need for software; then tests the software through a formal evaluation process before purchasing the application. Evaluations are kept on file to provide justification for decisions and serve as reference materials for decision-makers in the future. In addition, a post-purchase evaluation is designed to occur one year after acquisition. This process helps the District better identify and evaluate its software needs.

Key Recommendations

The performance audit contains several recommendations pertaining to Chillicothe CSD's operations. The following is a summary of the key recommendations which are detailed in the report.

In the area of Financial Systems, the District should:

- Fully develop financial policies that are in line with best practices. In addition, the District should implement procedures, derived from the Board policies, to clarify day-to-day operations. Furthermore, the District should review and update existing fiscal management policies as several are outdated, no longer relevant, or repetitive.
- Fully develop a performance measurement system for educational and operational functions, programs, and activities, including input, output, effectiveness, and efficiency measures. Furthermore, Chillicothe CSD should compare performance measures to established benchmarks during the planning, budgeting, management and communication stages. In addition, the District should conduct periodic evaluations of its operational and educational functions/activities using performance information and other reasonable criteria.
- Maintain and publish a clearly written, multi-year strategic plan that articulates a vision and provides direction for its employees and the community. The plan should incorporate the Comprehensive Continuous Improvement Plan and other operational areas such as technology, facilities, and financial systems. The strategic plans should clearly delineate the District's goals and objectives, and the strategies for achieving them; the priority the

Board assigns to its goals, objectives, and strategies; the performance measures and standards the district will use to judge its progress toward meeting its goals; and the entities responsible for implementing the strategies in the plan and the time frames for implementation. During the course of the audit, Chillicothe CSD began work on a more comprehensive strategic plan that reflects recommended practices.

- Evaluate classified, certificated, and substitute employee payroll schedules and attempt to negotiate a reduced number of payrolls. Limiting the payroll runs each month would increase the efficiency of payroll operations and allow more time to review and reconcile payrolls.
- Consider making the recommended forecast adjustments, and implementing the other performance audit recommendations contained in this and other report sections. Implementing the performance audit recommendations will offset projected deficits and allow the District to maintain a positive year-end balance through FY 2009-10.

In the area of *Human Resources*, Chillicothe CSD should:

- Consider reducing staff in support categories to bring the District in line with peer averages including:
 - Up to 10 FTE office/clerical positions, resulting in a savings of approximately \$291,000 in salaries and benefits annually.
 - 6 FTE remedial specialists within the other non-teaching educational category who are paid from the General Fund, resulting in a savings of approximately \$89,000 annually in salaries and benefits.
 - 4 FTE employees within the library support classification, resulting in annual savings of approximately \$90,000.
- Consider limiting future administrative and classified employee cost of living adjustments (COLAs) to 1 percent each year in order to bring average salaries more in-line with the county averages.
- Attempt to renegotiate language in the certificated employee collective bargaining agreement (certificated agreement) that specifies the type of health insurance the Board must provide. Instead, the District should negotiate the formation of an insurance committee to make recommendations regarding health insurance coverage. In order to bring the health insurance premiums paid by the Board more in line with the State Employment Relations Board (SERB) average, Chillicothe CSD should consider cost containment strategies such as exploring other insurance carriers, modifying health

insurance coverage and terms, and other strategies recommended by the Government Finance Officers Association (GFOA).

- Attempt to negotiate an increase in the employee contribution for the single member health insurance plan to 10 percent. An increase in the employee contribution will allow the Board to reduce its benefit costs. Savings from reduced healthcare costs could then be used to avoid projected future year deficits.
- Include the recommended additional policies and procedures in its Workers' Compensation Program. The implementation of the policies and procedure best practices could establish more effective review and inspection processes and supplement the District's efforts to reduce its workers' compensation risk rating to a more acceptable level.
- Establish and document a collective bargaining process that incorporates all the recommended elements of an effective process. Specifically, the District should designate individuals to be involved in the process and clearly define their roles and responsibilities. The District should also ensure that all individuals involved in the process are properly trained to carry out their responsibilities.
- Document the annual costs and savings from the early retirement incentive provided within the certificated agreement. The District should conduct a cost benefit analysis to determine the effect that the incentive for early retirement is having. If the District cannot document annual savings from the retirement incentive, it should negotiate changes to make the program cost effective.
- Strive to reduce the amount of sick leave used by developing a strong district-wide policy on sick leave abuse. Although the District tracks employee leave use, it should also regularly monitor employee leave use to identify potential patterns of abuse.
- Formally distribute surveys to employees annually to gather their opinions on job satisfaction and other information about the working environment.
- Evaluate, either formally or informally, its certificated personnel by some means on at least an annual basis to be more consistent with recommended best practices. In addition, the District should negotiate changes to the certificated collective bargaining agreement that would allow formal evaluations each year.

In the area of *Facilities*, the District should:

- Refrain from hiring any new custodians until the current construction project is complete in FY 2007-08 and the appropriate number of elementary schools has been determined. After the District determines the appropriate number of buildings, it should reallocate custodial staff to its buildings to achieve a workload that is balanced among custodians and in line with national benchmarks.
- Routinely compare its facilities maintenance and operations procedures, practices, and costs to accredited professional benchmark organizations both state-wide and nationally.
- Establish a policy and procedures manual for its custodial and maintenance operations to help the staff better maintain functional, clean and safe facilities.
- Develop and implement performance standards for the custodial and maintenance operations. Once performance standards are in place and assessed, the District should make information regarding its facilities and performance standards available to the community through its website.
- Develop and document a formal facility evaluation process.
- Incorporate its enrollment projections in an updated facility master plan and develop a capital improvement plan based on the updated master plan. The facility master plan should clearly state the District's plans for its buildings, including which buildings are to be renovated, closed, sold, and constructed. Both the master plan and capital plan should be supportive of the District's educational programs and academic achievement goals identified in its Continuous Improvement Plan (CIP).
- Develop and implement a formal preventive maintenance program that addresses all routine, cyclical, and planned building maintenance functions.
- Implement a more detailed energy management and conservation plan in order to reduce utility costs. The District should also consider establishing and implementing energy conservation training programs. The training programs should be aimed at educating District staff and students about the standards and procedures stated in the plan and at ensuring the proper use of facilities.
- Consider reconfiguring its elementary schools to accommodate the 6th graders currently attending the J.A. Smith Middle School. The reconfiguration of the District's K-6 students should be part of a District-wide facilities master plan and should result in the closure of at least one building. In addition, Chillicothe CSD should develop and document a methodology for determining building capacities and use its enrollment projections to periodically review building utilization rates.

In the area of *Transportation*, the District should:

- Attempt to eliminate at least three buses by using staggering bell schedules, additional cluster stops, and routing software that was recently purchased by the District. The reduction of three bus routes would bring ridership levels more in line with the peer district average.
- Reallocate some staff time to the Transportation Department to assist the Transportation Supervisor with managing the office and monitoring operations. Support is needed to provide emergency back up for the Transportation Supervisor; to assist in communications with bus drivers, parents, school personnel; and to assist with tracking and reporting transportation-related data.
- Establish formal procedures and guidelines for filling out the required ODE transportation forms (T-forms). In particular, the District should develop procedures for identifying, allocating, and verifying all transportation costs incurred by the District and charged to the Transportation Department. The District should then develop and document a method for allocating costs between routine and non-routine use of buses. Once costs are identified for the routine use of buses, a method should be developed and documented for allocating routine costs between regular and special needs transportation.
- Formally establish a preventive maintenance policy for its buses. In addition, the District should formally document its preventive maintenance program and procedures to ensure that maintenance and repair activities are prioritized and scheduled for maximum shop efficiency; that all non-emergency maintenance activities are scheduled based on the equipment's priority to the user; and to maximize the effectiveness of available shop space and manpower. Preventive maintenance policies and procedures should require that maintenance costs be tracked by bus.
- Track the price it pays for gas and diesel fuel to ensure that it is competitive with the price it could get from the Ohio Department of Administrative Services (ODAS) or other consortiums. If the District finds that the local supplier's price is consistently above the ODAS bid price, it should consider soliciting competitive bids, issuing a request for proposal (RFPs) for fuel, or using the ODAS contract.
- Establish a formal bus replacement plan to ensure it is properly planning and budgeting for the purchase of new buses. The District should develop a replacement plan that establishes criteria for bus replacement based on the age, mileage, operating costs, bus condition, and the ability of the bus to pass safety inspections.

In the area of *Technology*, Chillicothe CSD should:

- Improve technology planning and budgeting by better linking the District's Technology Plan, to its strategic plan and annual budget. The Technology Committee should be heavily involved in developing the Technology Plan and it should perform annual assessments to formally update the Plan to reflect any unexpected funding and expenditure changes.
- Employ web-based tools to capture the total cost of ownership (TCO) related to its technology expenditures to enhance planning and budgeting information. In addition to the initial purchase cost of hardware and software, TCO includes the cost of providing training and effectively supporting the technology, thereby capturing the true cost of technology purchases.
- Adopt a computer replacement policy that replaces computers on a regular five-year cycle. The computer replacement policy should be implemented through the District's Technology Plan and funded in each year's budget.
- Devise a methodology and set up its accounting system to track all technology and technology related expenditures. Specifically, the District should expand its use of the Operational Unit (OPU) within the Uniform School Accounting System (USAS) to track all technology expenditures. By tracking expenditure information, District officials will have a more accurate understanding of all technology-related costs.
- Establish a formal technology department with a clear chain of command that allows for the efficient deployment of technology throughout the District. The District should designate the Technology Coordinator, or an individual with similar experience, as its Chief Information Officer (CIO). The CIO should report directly to the Superintendent and be responsible for all technology-related issues within the District.
- Assemble a detailed technical support strategy and document support policies and procedures through a written manual, posting appropriate documentation online.
- Develop standards outlining the desired levels of technology support and then measure its performance against those standards. To accomplish this goal, the District should strengthen its data tracking for feedback and evaluation purposes. Trouble tickets should be issued for all help requests and delegated to the appropriate technician.
- Create technological competency expectations for all staff. These competency expectations should be achieved through ongoing professional development programs.

The District should strive to spend at least 15 percent of the technology budget on these programs.

Issues for Further Study

During the audit, the following areas were identified that may warrant further examination but were outside the scope of the current audit engagement:

- **Provision of Substitute Teachers:** The District's use of a non-automated code-a-phone substitute system reportedly results in minimal problems and achieves the intended results. Whereas this assessment does not yield a recommendation, the Chillicothe CSD should review its non-automated code-a-phone system to ensure an efficient system is in place. In addition, there is a perception that the District is not effective in identifying and placing qualified substitute teachers. According to an AOS survey of District employees, 15 percent strongly disagreed and 18 percent disagreed when asked whether the current system is effective in placing substitutes. In addition, the AOS survey revealed that when employees were asked whether the District's substitutes were qualified and effective, 17 percent strongly disagreed and 34 percent disagreed. However, the performance audit analyzed the District's procedures for obtaining substitute employees, not the effectiveness of those substitutes.
- **10-Month Custodial Positions:** Chillicothe CSD currently has 18 custodians cleaning 462,404 square feet or 25,689 square feet per FTE custodian. The NCES recommends 28,000 square feet per FTE custodian. The District's custodians are cleaning fewer square feet than the national benchmark which suggests the potential for a reduction in custodial staff. However, upon the completion of the construction project in FY 2007-08, the District will have additional square footage to be cleaned, so the existing custodial staff may be necessary. Nevertheless, upon the completion of the construction project, the District should explore using 10-month custodians in a limited number of positions.
- **Transportation Salary Survey:** Chillicothe CSD reported having difficulty maintaining enough bus drivers and substitute drivers to transport its students. It has experienced turnover in the mechanic position. A review of salary schedules in a few other districts in the area suggest that Chillicothe CSD may benefit from conducting a salary survey within Ross County and surrounding areas for bus drivers and mechanic positions. The survey should include base salary, salary range, turnover, longevity of staff, and training costs. After the survey, the District should determine if salaries are in-line with other districts.

- **Transportation Salary Survey:** Chillicothe CSD reported having difficulty maintaining enough bus drivers and substitute drivers to transport its students. It has also experienced turnover in the mechanic position. A review of salary schedules in a selected number of other districts in the area suggest that Chillicothe CSD may benefit from conducting a salary survey within Ross County and surrounding areas for bus drivers and mechanic positions. The survey should include base salary, salary range, turnover, longevity of staff, and training costs. After the survey, the District should determine if salaries are in-line with other districts.

Summary of Financial Implications

The following table summarizes the performance audit recommendations which contain financial implications. These recommendations provide a series of ideas or suggestions that Chillicothe CSD should consider. Some of the recommendations are dependent on labor negotiations or collective bargaining agreements (see **human resources** section). Detailed information concerning the financial implications, including assumptions, is contained within the individual sections of the performance audit.

Summary of Performance Audit Recommendations

	Estimated Annual Savings ¹
Not Subject to Negotiations	
R3.1 Reduce 10 Clerical Staff ²	\$291,000
R3.2 Reduce 4 Teaching Staff	\$89,000
R3.3 Reduce 4 Library Staff ²	\$90,000
R3.11 Reduce the Use of Sick Leave	\$19,000
R4.6 Reduce M&O Dept. Overtime	\$23,000
R4.12 Implement a Detailed Energy Management Program	\$14,000
R4.13 Close an Elementary school	\$253,000
R5.1 Reduce 3 Buses	\$60,000
Subtotal Not Subject to Negotiations	\$839,000
Subject to Negotiation	
R3.4 Reduce COLA for Classified Staff to 1% Through the Forecasted Period	\$65,000
R3.5 Implement Cost Containment Strategies for Insurance	\$112,000
R3.6 Raise Single Family Insurance Contributions to 10%	\$51,000
Subtotal Subject to Negotiations	\$228,000
Total Cost Savings from Performance Audit Recommendations	\$1,067,000

Source: AOS Performance Audit Recommendations

Note: The financial implications summarized above are presented on an individual basis. The magnitude of cost savings associated with some recommendations could be affected or offset by the implementation of other interrelated recommendations. Therefore, the actual cost savings could vary when compared to estimated cost savings.

¹ Cost savings are based on implementations of recommendations in FY 2007-08.

² Although aware of the recommendation for mid-year reductions, no action was taken therefore the AOS adjusted forecast in the financial systems section does not reflect potential savings for FY 2006-07.

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Financial Systems

Background

This section focuses on the financial systems within the Chillicothe City School District (Chillicothe CSD, or the District). The objective was to analyze the current and future financial condition of Chillicothe CSD for the purpose of developing recommendations for improvements in the financial processes and identifying opportunities to increase efficiency. Chillicothe CSD's five-year forecast was also analyzed to ensure that the projections reasonably represent future operational and financial conditions. Operations were evaluated against best practices, industry benchmarks, operational standards, and the average of ten peer districts¹ for the purpose of developing recommendations to improve efficiencies and business practices.

Ohio Revised Code (ORC) §3316.03 allows the Auditor of State (AOS) to place a school district in fiscal watch or fiscal emergency if certain conditions are met. ORC §3316.03 was amended effective April 10, 2001 to give the Ohio Department of Education (ODE) the ability to place a school district in fiscal caution if it identified fiscal practices or budgetary conditions that if left uncorrected could lead to fiscal watch or emergency conditions. Before declaring fiscal caution, ODE is to consult with the school district. If fiscal caution is declared, the school board is given 60 days to provide a written proposal to ODE that outlines a plan to correct the practices or conditions that led to the declaration.

According to the fiscal caution guidelines, a district may be placed in fiscal caution by the Superintendent of Public Instruction when the district projects a current year ending fund balance less than or equal to two percent of current year projected revenue or a deficit greater than two percent in the next fiscal year. On December 31, 2003 Chillicothe CSD was placed in fiscal caution based on an ODE financial analysis that indicated potential deficits starting in FY 2003-04. On February 28, 2004, the District submitted a recovery plan that addressed the current year deficit but relied on the passage of a 6 mill operating levy to avoid projected deficits in future years. On March 10, 2004 ODE approved the District's fiscal caution proposal; but expressed concerns about future year deficits if the proposed operating levy did not pass. Therefore, ODE instructed Chillicothe CSD to show how it could maintain a positive fund balance for at least FY 2004-05, even if the operating levy did not pass before it submitted the required May 31st forecast. The levy passed on May 3, 2005, allowing Chillicothe CSD to submit a revised five-year forecast with a positive fund balances for at least the next two fiscal years, which was

¹ Peer Districts: Boardman Local School District, Dover City School District, Elida Local School District, Fairland Local School District, Heath City School District, Indian Creek Local School District, Lowellville Local School District, McDonald Local School District, Tiffin City School District, and Wheelersburg Local School District.

acceptable to ODE. The District has since updated its fiscal caution recovery plan and is projecting favorable fund balances until FY 2008-09.

Staffing within the Treasurer's Office

The Treasurer's Office consists of 5 full-time equivalent (FTE) employees, including a treasurer, executive secretary, payroll supervisor, payroll assistant, and an accounts receivable/accounts payable clerk. The Treasurer is primarily responsible for managing and tracking the District's revenue and expenditures, developing the annual tax budget, preparing financial statements, and maintaining the District's five-year forecast. The Executive Secretary is responsible for the coordination of the daily accounting and budgeting functions. The Payroll Supervisor and Payroll Assistant are responsible for computing salaries and wages and processing payroll for all persons employed by the District. Their responsibilities also include reporting activities ranging from federal, State, and local taxes to State Teachers and School Employees Retirement Systems. The Accounts Receivable/Accounts Payable Clerk is responsible for maintaining accurate records of all requisitions, purchase orders, vouchers, account records and other information to support financial operations.

Financial Condition

The financial forecast presented in **Table 2-1** represents the Treasurer's projections of present and future financial conditions at the time of the audit engagement. AOS has reviewed the assumptions that have a significant impact on the forecast, such as tax revenue, property tax allocation, unrestricted and restricted State funding, and salaries and benefits. Following **Table 2-1** is a summary and explanation of the District's forecast assumptions, along with AOS comments and assessments. Chillicothe CSD updates, reviews, and submits a revised forecast to ODE when material differences occur, which is consistent with best practices suggested in *Best Practices in Public Budgeting* (Government Finance Officers Association, 2000).

Table 2-1: Chillicothe CSD Five-Year Forecast (in 000's)

	Actual			Forecasted				
	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Revenue:								
General Property Tax (Real Estate)	\$5,894	\$6,124	\$6,283	\$7,435	\$8,230	\$8,379	\$8,520	\$8,605
Tangible Personal Tax	\$5,559	\$5,985	\$4,553	\$4,164	\$3,682	\$2,655	\$1,593	\$803
Unrestricted Grants-in-Aid	\$6,353	\$6,317	\$7,169	\$6,382	\$6,360	\$6,787	\$7,301	\$7,804
Restricted Grants-in Aid	\$1,213	\$1,206	\$1,227	\$1,883	\$1,883	\$1,883	\$1,921	\$1,921
Property Tax Allocation	\$992	\$983	\$998	\$1,384	\$2,592	\$3,234	\$3,770	\$3,978
All Other Revenues	\$1,544	\$1,273	\$2,170	\$2,079	\$1,573	\$1,634	\$1,701	\$1,771
Total Revenues	\$21,558	\$21,890	\$22,401	\$23,330	\$24,323	\$24,575	\$24,809	\$24,885
Other Financing Sources:								
Operating Transfers-In	\$1	\$800	\$300					
Advances-In	\$8	\$17	\$64	\$162	\$20	\$20	\$20	\$20
All Other Financial Sources	\$40	\$6	\$1	\$525	\$55	\$55	\$55	\$55
Total Other Financing Sources	\$49	\$824	\$366	\$737	\$75	\$75	\$75	\$75
Total Revenues and Other Financing Sources	\$21,607	\$22,714	\$22,768	\$24,017	\$24,398	\$24,650	\$24,884	\$24,960
Expenditures:								
Personal Services	\$14,263	\$13,475	\$12,951	\$13,388	\$13,800	\$14,379	\$14,983	\$15,613
Employees' Retirement/Insurance Benefits	\$4,371	\$4,635	\$4,298	\$4,482	\$4,738	\$5,036	\$5,354	\$5,694
Purchased Services	\$2,252	\$2,899	\$3,301	\$4,002	\$4,151	\$4,303	\$4,469	\$4,641
Supplies and Materials	\$668	\$453	\$340	\$440	\$483	\$498	\$513	\$528
Capital Outlay	\$320	\$97	\$29	\$10	\$11	\$11	\$11	\$12
Debt Service:								
Principal-HB 264 Loans	\$135	\$140	\$150	\$155	\$165	\$170	\$180	\$190
Interest and Fiscal Charges	\$95	\$88	\$81	\$73	\$66	\$57	\$49	\$40
Other Objects	\$497	\$558	\$518	\$533	\$549	\$566	\$583	\$600
Total Expenditures	\$22,604	\$22,347	\$21,671	\$23,087	\$23,965	\$25,023	\$26,145	\$27,321
Other Financing Uses:								
Operational Transfers-Out		\$300	\$993	\$310	\$310	\$10	\$10	\$10
Advances-Out	\$17	\$64	\$142	\$20	\$20	\$20	\$20	\$20
All Other Financing Uses	\$1	\$1	\$1	\$2	\$2	\$2	\$2	\$2
Total Other Financing Uses	\$17	\$364	\$1,136	\$582	\$332	\$32	\$32	\$32
Total Expenditures and Other Financing Uses	\$22,622	\$22,712	\$22,807	\$23,437	\$24,446	\$25,185	\$26,311	\$27,490
Result of Operations (Net)	\$(1,014)	\$2,621	\$(39)	\$579	\$(48)	\$(534)	\$(1,426)	\$(2,530)
Balance July 1	\$1,904	\$889	\$892	\$852	\$1,432	\$1,383	\$849	\$(577)
Cash Balance June 30	\$889	\$892	\$852	\$1,432	\$1,383	\$849	\$(577)	\$(3,108)
Estimated Encumbrances June 30	\$270	\$248	\$276	\$300	\$300	\$300	\$400	\$400
Fund Balance June 30 for Certification of Appropriations	\$619	\$643	\$575	\$1,132	\$1,083	\$549	\$(977)	\$(3,508)

Source: Chillicothe City School District February 2006 five-year forecast.

Revenue

General Property Tax (Real Estate)

General property tax includes local revenue collected and paid to the District from residential real estate taxes, public utility property taxes, and manufactured home taxes. General property tax collections represented approximately 27.5 percent of the District's general operating revenue in FY 2004-05, and a projected 30.9 percent in FY 2005-06. General property taxes represent a larger portion of general operating revenue in FY 2005-06 due the passage of a new operating levy in May 2005. The average increase in general property tax has been 3.2 percent over the past four fiscal years.

The District's general property tax projections are based on actual revenue amounts from the last historical year or the prior year's projected amount and take into account several known factors, including estimates of resources provided by the Ross County Auditor's Office and the effects of House Bill 920.² The FY 2006-07 projection also includes adjustments for increases due to new construction within the District. Finally, the FY 2007-08 through FY 2009-10 projections include adjustments for any increases due to new construction, and valuation or reappraisal of property. The District uses an average increase in new construction of 1.0 percent per year based on the average increase over the past four calendar years. The District assumes a 5 percent increase during reappraisal years based on the historical average increase.

The District projects general property tax revenue to increase by an average of 6.7 percent over the forecast period. This increase is greater than the average historical amounts and can be explained by the passage of the 6 mill continuing operating levy (May, 2005). Projections for FY 2005-06 through the forecasted period seem reasonable, but conservative based upon known factors such as the new levy money, and projected factors such as increases in construction and reappraisals.

Tangible Personal Property Tax

Tangible personal property taxes are paid by businesses based on the assessed value of the furniture and fixtures, machinery and equipment, supplies, and inventory used in conducting their business. Tangible personal property taxes (TPPT) represented approximately 20.0 percent of the District's general operating revenue in FY 2004-05. In FY 2005-06, the District is projecting tangible personal property tax to be approximately 17.3 percent of the general operating revenue. House Bill 66 (HB 66) phases out the tangible personal property tax by reducing the assessed valuation rates on general businesses, telephone and telecommunications companies, and railroads each year. At the same time, it replaces the revenue lost due to the

² HB 920 states that when a district reaches the 20 mill floor it is no longer subject to the millage rate reduction factor that limits inflationary growth resulting from real estate reappraisals.

phasing out of TPPT. In the first five years, school districts and local governments are reimbursed fully (Hold-Harmless Period) for the lost revenue; in the following seven years, the reimbursement is phased out (Phase-Out Period) at a decreasing value per year.

Chillicothe CSD experienced an average decrease of 7.0 percent in TPPT revenue over the past four years. The majority of the decrease occurred in FY 2004-05 and can be primarily attributed to significantly lower TPPT valuations at a major manufacturing facility. Future TPPT revenue is expected to decrease by an average of 27.5 percent per year over the forecasted period due to HB 66. However, the District will not experience losses in overall revenue during the “hold harmless period” because of TPPT reimbursements from the State.

The District estimated TPPT for FY 2005-06 and 2006-07 based on actual receipts, information provided by the Ross County Auditor’s Office (such as the certificate of estimated resources and delinquent taxes) and both the loss of revenue from the Mead Westvaco Corporation, and the implementation of HB 66. FY 2007-08 through FY 2009-10 projections are based on provisions in HB 66 and the estimated dollar valuation of tangible personal property.

The projections for the current and future years seem reasonable based on the assumptions about the impact of HB 66, future property valuations, and estimates provided by the County Auditor’s Office.

State Revenue

State funding represents unrestricted and restricted grants-in-aid received from the State of Ohio through the State foundation and other programs. The funding levels are established by the State legislature and the program is administered by the Ohio Department of Education (ODE). State revenue represented approximately 36.8 percent of general operating revenue for the District in FY 2004-05, and is projected to be 35.1 percent in FY 2005-06. The District’s assumptions for projecting state funding are based on the following and are broken up into restricted and unrestricted monies:

Unrestricted Grants-in-Aid

The major components in the projections for the forecasted period include foundation level, enrollment projections (ADM), charge off of local property tax revenue, categorical items, and tangible personal property tax (TPPT) reimbursement.

FY 2005-06 and FY 2006-07 foundation levels are provided by the State and are \$5,283 and \$5,404 per student respectively. The projections also include the phase out of the cost of doing business factor. Chillicothe includes a 2 percent increase in foundation amounts for FY 2007-08 through the end of the forecasted period based on historical trends. The District used ODE’s enrollment projections for FY 2005-06 and FY 2006-07. During the remainder of the forecast

period, the District is expecting a slight decrease in ADM of about 5-10 students per year. Although this decrease is less than historical amounts, Chillicothe CSD is confident that, with the recent passage of the levy and the opening of the new high school, the decrease in enrollment will taper off.

Charge-off of local revenue from property valuations is based upon assessed valuations provided by the County Auditor's Office, the historical percent change in new construction, and the percent change in revaluation and updates. These projections also take into account the loss of Tangible Personal Property tax valuation in accordance with HB 66. Categorical items are projected based upon known factors and/or historical trends for the forecasted period.³ Last, TPPT reimbursement is based upon a percentage of the amount lost in tangible personal property tax due to HB 66 as calculated by the Treasurer.⁴

Restricted Grants-in-Aid

The major components in the projections for the forecasted period include career tech money, poverty based assistance, and bus purchase replacement funds.

Career Tech FY 2006-05 amounts are based on the March number two SF-3 report published by ODE, while the remaining forecast amounts are based on historical trends. Poverty-based assistance (PBA) is calculated using known factors within the District such as all day kindergarten and class size reductions.⁵ Bus purchase replacement funds (BPRF) include \$10,000 of replacement money per fiscal year during the forecasted period.

The projections of State revenue for the current and future years seem reasonable based on the assumptions for foundation levels, enrollment (ADM), charge-off of local property values, categorical items, career tech, PBA, and BPRF monies. However, TPPT reimbursements should be accounted for in property tax allocation line item, and not unrestricted State revenue (see **R2.2**).

Property Tax Allocation

Property tax allocation is funding received from the State as a result of homestead exemption legislation, property tax rollback legislation, and personal property tax exemptions. Starting in May 2006, the majority of school districts will receive their first payment of the TPPT reimbursement from the tangible personal property tax loss as a result of HB 66. ODE and AOS

³ These include add-on building blocks; the State share of special education, speech, and gifted programs; excess costs; transportation reimbursements; State aid guarantees; and parity aid.

⁴ These amounts are projected at \$177,617 in FY 2006-07, \$1,296,909 in FY 2006-07, \$1,928,874 in FY 2007-08, \$2,466,934 in FY 2008-09, and \$2,683,349 in FY 2009-10.

⁵ The District projects PBA at \$1,872,662 for FY 2005-06 through FY 2007-08, and \$1,910,115 for FY 2008-09 through FY 2009-10.

determined that the receipt code for the TPPT reimbursement should be included in property tax allocation. For Chillicothe CSD, property tax allocation represented approximately 4.3 percent of FY 2004-05 operating revenue, and 5.0 percent of projected operating revenue in FY 2005-06. Over the past four years, the average percent change in property tax allocation has been 1.3 percent.

District projections for FY 2005-06 through FY 2009-10 include an additional 12.5 percent rollback increase based upon projected increases in valuations, and a projected increase in homestead based upon increased valuation. The projections also include an additional \$129,509 in FY 2005-06 and \$109,879 in FY 2006-07 as a result of half-year collections from the recently passed levy. The assumptions also include year-to-date information provided by the County Auditor's Office for FY 2005-06.

The District is projecting an average increase in property tax allocation of approximately 5.7 percent during the forecasted period. In FY 2005-06, property tax allocation revenue increased due to a half-year's collection on the operating levy, which passed in May of 2005. In FY 2006-07, property tax allocation revenue increased 7.3 percent due to a full-year collection on the May, 2005 levy. In FY 2007-08 the Treasurer expects a slight increase from the prior year, while for FY 2008-09 and FY 2009-10 a slight decrease is expected each year.

The projections for the current and future years seem reasonable based on the assumptions for future property valuations, and information provided by the County Auditor's Office. However, the District has accounted for the TPPT reimbursement in unrestricted grants-in-aids, when it should have been included in unrestricted grant-in-aids, and property tax allocation (see **R2.2**)

Other Revenue Sources

Other revenue consists of tuition payments coming into a district, earnings on investments, extracurricular activities, classroom supplies and materials, and miscellaneous items. Other revenues represented approximately 9.5 percent of FY 2004-05 General Fund operating revenue, and 8.6 percent of projected General Fund operating revenue.

Other revenue has experienced an average percent change of 9.9 percent over the past four years. FY 2004-05 had the most dramatic increase in the four year history with a 73.2 percent increase from FY 2003-04. The majority of this increase can be explained by the additional interest revenue generated by current construction project funds. The following are the District's assumptions for other revenue:

During the forecasted period, other revenue projections are based upon actual amounts received or projected in prior years plus a projected annual increase of 3 percent for investments. The projections also account for any projected change in open enrollment students coming in, and

other known factors such as interest earned on construction funds which could increase or decrease projected revenue.

The District is projecting an average decrease in other revenues of approximately 3.0 percent during the forecasted period. FY 2006-07 has the greatest percentage decrease at approximately 24.3 percent. This decrease can be explained by the completion of the construction project which would eliminate interest earned on the construction fund money.

The projections for the current and future years seem reasonable based on the assumptions for future investments, open enrollment students coming in, and interest earned due to the construction fund.

Expenditures

Personal Services

Personal Services represented approximately 56.7 percent of the District's FY 2004-05 general operating expenditures, and is projected to be approximately 57.1 percent of FY 2005-06 general operating expenditures. Personal services consists of employees' wages, substitute costs, supplemental contracts, severance pay, and overtime.

On average, expenditures for personal services have decreased by about 1.2 percent over the past four fiscal years. The majority of the decrease can be attributed to reductions in personnel in both FY 2003-04 and FY 2004-05 due to District actions to address projected deficits.

The assumptions used by the District to project personal services are as follows:

The FY 2005-06 projection is based on the actual expenditures from FY 2004-05 and assumes a 3 percent cost of living adjustment (COLA) for classified, certified and administrators, and a 1.2 percent increase for salary schedule step increases. These same percent increases are used throughout the forecasted period to predict increases in salaries. The projections also include adjustments for staffing reductions made in FY 2004-05, and retirements in positions which the District plans not to fill. The District has also accounted for reestablishment of Spring supplemental contracts which were not included in FY 2004-05. Other factors which are included in the projections are the certified and classified employee signing bonus, and adjustments for year-to-date information.

The projections for FY 2006-07 through FY 2009-10 are based on the previous fiscal year and assume a 3 percent cost of living adjustment (COLA) for classified, certified, and administrators; and a 1.2 percent average increase for negotiated step increases in each year. The projection for FY 2006-07 also includes known factors such as the retirement of teachers, and subtracts out signing bonuses that were received in FY 2005-06.

The District's forecast shows future expenditures increasing by an average of 3.8 percent per year. This percent increase is greater than historical amounts, but the District does not anticipate the staff reductions in future years that it experienced previously. Projections for FY 2005-06 through the forecasted period seem reasonable based upon an additional 3.0 percent for COLA's, and 1.2 percent for step increases over the previous years' actual amounts. For opportunities to reduce spending in this area see **R3.1** through **R3.4** in the **human resource** section.

Employee Retirement/Insurance Benefits (ERIB)

ERIB represented approximately 18.8 percent of the District's FY 2004-05 general operating expenditures, and is projected to be approximately 19.1 percent of FY 2005-06 general operating expenditures. ERIB includes the cost of employee health insurance, retirement, Medicare, workers compensation, life insurance, and dental insurance. Employee retirement and benefits has increased by an average of approximately 3.6 percent over the past four fiscal years. The majority of the increase can be attributed to the increased cost of health care premiums.

The District's projections for FY 2005-06 are based on actual expenditures from FY 2004-05, and assume an 8.0 percent annual increase in health insurance premiums. However, in 2004, the District's insurance carrier offered a 15 month renewal rate that included no increase in premiums through March of 2006. Therefore the insurance rate increased by only 4.2 percent. The District has also accounted for increases in salaries, which will increase retirement, workers compensation, and other personnel related items. Additional assumptions account for other known factors, such as savings from long term substitutes that are no longer in the District, and FY 2004-05 staff reductions.

From FY 2006-07 through the remainder of the forecasted period, the District assumes an 8 percent annual increase for insurance premiums, and an additional increase in benefits due to increases in salaries from one year to the next.

Future expenditures, as shown in the forecast, are expected to increase by an average of 5.7 percent. While this percent increase is greater than historical amounts, the District does not anticipate the personnel reductions it experienced in previous years. Projections for FY 2005-06 through the remainder of the forecasted period appear to be reasonable.

Purchased Services

Purchased services represented approximately 14.4 percent of the District's FY 2004-05 general operating expenditures. The purchased services category accounts for fixed-cost items such as utilities (electricity, gas, water, and telephone) and property insurance. Other items in this area include tuition, leases, repairs and maintenance, postage, legal fees, and staff development.

The average increase for purchased services has been 14.8 percent over the past four fiscal years. The majority of the increase can be attributed to an increase in open enrollment payments to other districts. Open enrollment payments have increased by an average of 62.7 percent in the last two fiscal years.

In the projections for FY 2005-06, the forecasted amounts are based on actual expenditures from FY 2004-05 and assume a 3 percent increase for inflation. In addition, changes in community school and open enrollment payments are projected separately. These payout projections were adjusted after the October count week. Community school payouts are expected to increase due to a projected increase of 79 students. Open enrollment payouts are expected to increase because the District projects the number of open enrollment students to increase from 260 to 340. The District projections also account for the increasing cost of utilities as natural gas costs are projected to increase by about 33 percent or \$120,000 over FY 2004-05. Finally, the District has included other factors such as \$20,000 in special education costs being transferred to Title VIB, a \$25,000 savings from a copy machine lease, and a reduction in moving expenses of \$12,500.

FY 2006-07 projections are based on the projected expenditures from FY 2005-06, and assume a 3 percent increase for inflation. The District has also included an additional \$114,896 in utilities due to the operation of the new high school/middle school. The District has also accounted for \$15,000 in storage fees related to costs incurred from the move to the newly constructed high school. The FY 2007-08 projections are based on the projected expenditures from FY 2006-07, and assume a 3 percent increase for inflation. The District has also included utility cost savings of \$27,789 due to the closure of the Smith Building based on the actual utility costs for that building. Finally, FY 2008-09 and FY 2009-10 assume a 3 percent increase for inflation over the previous fiscal year amounts.

In its forecast, the District projects average annual increases to purchased services of 7.9 percent. The District's projections increase at about half the historical rate because it will be shifting several expenditures to the recently passed permanent improvement (PI) levy fund. Projections for FY 2005-06 through the end of the forecasted period seem reasonable.

Supplies and Materials

Supplies and materials represents approximately 1.4 percent of the District's FY 2004-05 general operating expenditures and consists primarily of instructional and non-instructional supplies and materials. Expenditure reductions made to address the District's potential deficits have contributed to the decrease in supplies and materials from FY 2001-02 through FY 2004-05.

The District's projections for FY 2005-06 are based on actual expenditures from FY 2004-05 and assume a 3 percent increase for inflation. The projections also assume a \$30,000 increase in the building budgets to return services to levels prior to the onset of financial difficulties. The District has also accounted for purchasing \$250,000 in new textbooks. However, with the recent

passage of the PI levy, textbook purchases will be transferred to the PI fund. The District has also anticipated an increase of \$60,000 in fuel costs.

The FY 2006-07 projection assumes a 3 percent increase for inflation over the FY 2005-06 amount. The District also assumes an additional \$30,000 increase in building budgets. Finally, the projections for FY 2007-08 through the end of the forecasted period assume a 3 percent inflationary increase over the previous years' projections.

Although the District has experienced a decrease in supplies and materials expenditures during the historical period, this decrease is attributed to its financial situation and the efforts to cut costs. During the forecast period, the District expects to increase spending by an average of 9.7 percent per year, comprised primarily of increases in fuel costs and building budgets. Projections for FY 2005-06 through the end of the forecasted period seem reasonable.

Capital Outlay

Capital outlay consists of capital purchases for the operational needs of a district, which could include expenditures for land, improvements to grounds, construction of buildings, additions to buildings, remodeling of buildings, equipment, furnishings, and vehicles. Capital Outlay represented only about 0.1 percent of the District's FY 2004-05 general operating expenditures, and is projected to represent a negligible amount of FY 2005-06 operating expenditures. In March of 2004, the voters approved a 2.5 mill P.I. levy. With the passage of this levy, the District moved the majority of capital purchases from the General Fund to the new P.I. Fund.

The District has experienced an average decrease of 6.1 percent in capital outlay over the past four years. The District's projections for capital outlay are based on the prior year's actual or projected amounts with a 3.0 percent inflationary increase, minus the costs expected to be shifted to the PI fund in FY 2005-06. Projections for FY 2005-06 through the forecasted period seem reasonable based upon a 3.0 percent increase over the previous year's amounts, plus any known changes in factors impacting the projections.

Financial Operations

Expenditure per Pupil

The allocation of resources between the various functions of a school district is one of the most important aspects of the budgeting process. Given the limited resources available, functions must be continually evaluated and prioritized. **Table 2-2** compares Chillicothe CSDs FY 2004-05 expenditures per pupil (EPP) to the peer district average. Expenditures per pupil are based on the ODE Expenditure Flow Model (EFM). The purpose of the EFM, as described by ODE, is to categorize and report expenses related to the education of students and does not include all the funds accounted for by a school district. In FY 2004-05, the District expenditures per pupil were

higher than the peer district average in three of five categories. An examination of the expenditures in these categories and the implementation of the performance audit recommendations should help the District identify potential changes in spending that would bring its EPP more in line with the peer districts.

Table 2-2: FY 2004-05 Expenditures per Pupil (EPP)

	Chillicothe City School District		Peer Average		Difference vs. Peer Average	
	Dollars	EPP	Dollars	EPP	Dollars	EPP
Administration	\$2,699,418	\$865	\$1,839,464	\$894	\$859,954	(\$29)
Operations	\$4,143,181	\$1,328	\$3,043,345	\$1,352	\$1,099,836	(\$24)
Staff Support	\$945,099	\$303	\$215,755	\$103	\$729,344	\$200
Pupil Support	\$2,652,754	\$850	\$1,678,008	\$727	\$974,746	\$123
Instruction	\$13,581,493	\$4,352	\$9,053,888	\$4,171	\$4,527,606	\$181
Total EFM	\$24,021,945	7,696.87	\$15,830,460	\$7,246	\$8,191,485	\$451

Source: Ohio Department of Education's Expenditure Flow Model: This is derived from the District's un-audited year end financial records and has not been tested.

Table 2-2 shows Chillicothe CSD spent significantly more than the peer average in the following categories:

- **Staff Support:** Chillicothe CSD spent nearly three times more per pupil than the peer average. The staffing analysis completed in the **human resources** section of this report reveals that the District has a higher number of office/clerical staff. See **R3.1** in the **human resources** section.
- **Pupil Support:** Chillicothe CSD spent \$123 (or 16 percent) more per pupil than the peer district average. The staffing analysis completed in the **human resources** section of this report reveals that the District has a higher number of library support staff than the peer district average. See **R3.3** in the **human resource** section.
- **Instruction:** Chillicothe CSD spent approximately \$181 (or 4 percent) more per pupil than the peer district average. The staffing analyses completed in the **human resource** section of this report determined that the District exceeded the peer average in educational staff. See **R3.2** in the **human resource** section.⁶

The District should experience future expenditures per pupil more comparable to the peers if the recommendations in this performance audit are implemented.

⁶ Due to the District's low performance indicator scores, some potential reductions in instructional staff were not recommended because they would likely hinder the ability to raise overall academic performance.

Discretionary Expenditures

Table 2-3 shows FY 2004-05 General Fund discretionary expenditures, discretionary expenditures per student, and the percent of total FY 2004-05 General Fund expenditures for Chillicothe CSD in comparison to the peer district average. Discretionary expenditures accounted for approximately 6.4 percent of the District's General Fund expenditures in FY 2004-05 whereas, the peer districts spent an average of nearly 11.9 percent on discretionary items.

Table 2-3: Discretionary Expenditures Comparison

Discretionary Expenditures	Chillicothe City Schools			Peer District Average			Difference vs. Peer Districts		
	ADM:	2,981		ADM:	2,028		ADM:	953	
	Total \$	\$ per Student	% of Gen. Fund	Total \$	\$ per Student	% of Gen. Fund	Total \$	\$ per Student	% of Gen. Fund
Professional and Technical Services	\$133,642	\$45	0.63%	\$207,826	\$99	1.29%	(\$74,184)	(\$54)	(0.66%)
Property Services	\$279,953	\$94	1.31%	\$242,365	\$140	1.80%	\$37,588	(\$46)	(0.49%)
Mileage/Meeting Expense	\$12,752	\$4	0.06%	\$19,802	\$9	0.13%	(\$7,050)	(\$5)	(0.07%)
Communications	\$60,262	\$20	0.28%	\$57,609	\$30	0.41%	\$2,653	(\$10)	(0.13%)
Craft or Trade Services	\$29,586	\$10	0.14%	\$3,802	\$2	0.02%	(\$25,784)	\$8	0.12%
Pupil Transportation Services	\$10,027	\$3	0.05%	\$19,839	\$14	0.19%	(\$9,812)	(\$11)	(0.14%)
Other Purchased Services	\$0	\$0	0.00%	\$12,966	\$5	0.02%	(\$12,966)	(\$5)	(0.02%)
General Supplies	\$120,294	\$40	0.56%	\$205,005	\$119	1.58%	(\$84,711)	(\$79)	(1.02%)
Textbooks/Reference Materials	\$38,469	\$13	0.18%	\$88,498	\$43	0.57%	(\$50,028)	(\$31)	(0.39%)
Plant Maintenance and Repairs	\$85,446	\$29	0.40%	\$87,372	\$49	0.67%	(\$1,926)	(\$21)	(0.27%)
Fleet Maintenance and Repairs	\$81,692	\$27	0.38%	\$105,616	\$46	0.62%	(\$23,924)	(\$19)	(0.24%)
Other Supplies and Materials	\$0	\$0	0.00%	\$9,581	\$4	0.06%	(\$9,581)	(\$4)	(0.06%)
Capital Outlay (New)	\$0	\$0	0.00%	\$237,137	\$144	1.27%	(\$237,137)	(\$144)	(1.27%)
Dues and Fees	\$484,241	\$162	2.27%	\$281,949	\$157	1.98%	\$202,292	\$5	0.29%
Insurance	\$19,767	\$7	0.09%	\$30,253	\$16	0.21%	(\$10,486)	(\$9)	(0.12%)
Total Discretionary Expenditures	\$1,356,130	\$455	6.35%	\$1,598,895	\$828	11.88%	(\$242,765)	(\$373)	(5.53%)

Source: Chillicothe CSD and peer districts FY 2004-05 un-audited year-end financial records.

As shown in **Table 2-3**, all but two of the discretionary spending categories were at or below the peer district average on a per student basis. Overall, the District's discretionary expenditures were a little more than half of the peer district average. This is a result of substantial efforts by the District to trim discretionary spending.

Local Revenue

Because local revenue is generated by applying millage rates to assessed valuations, assessed valuation can be useful in gauging a district's ability to generate local revenue. **Table 2-4** compares assessed valuation per ADM and local tax revenue collected per ADM with the peer districts, other districts in Ross County, and the ODE twenty similar districts.

Table 2-4: Local Revenue Comparison

	Chillicothe CSD	Peer District Average	County Average	ODE Similar District Average
Average Daily Membership (ADM)	2,933.86	2,027.60	1,324.49	3,113.06
Assessed Value	\$477,543,587	\$278,831,201	\$97,457,211	\$374,326,542
Assessed Value per ADM	\$162,770	\$120,253	\$71,158	119,215
Property / Income Taxes Collected	\$13,157,156	\$9,344,107	\$2,507,653	\$13,269,419
Dollars Collected Per ADM	\$4,485	\$3,891	\$1,804	4,213
Dollars Collected Per ADM as a % of Assessed Value per ADM	2.8%	3.2%	2.5%	3.5%

Source: The Ohio Department of Education and the Ohio Department of Taxation.

Chillicothe CSD's assessed valuation per ADM (\$162,770) exceeds the peer district average (\$120,253) by 35.3 percent, the Ross county average (\$71,158) by 128.7 percent, and the ODE similar district average (\$119,215) by 36.5 percent. This means that, on average, the same voted millage in Chillicothe CSD has the ability to generate more local revenue per student than in the peer districts, the other districts in the county, or the ODE similar districts. While Chillicothe CSD collects more local revenue per ADM, the difference is not as great as the difference in assessed valuation per ADM. For example, the District's assessed valuation per ADM is 35.3 percent higher than the peer average; however, it collects only 6.4 percent more revenue per ADM from local taxes than the peer district average.

Noteworthy Accomplishments

During the course of the performance audit, the Auditor of State (AOS) identified the following as a noteworthy accomplishment.

Five-Year Forecast Updates: The Treasurer has continued the practice enacted by the previous Treasurer of updating the five-year forecast monthly, and presenting it at the Board meetings. This practice provides timely, up-to-date financial information for the Board, which can be used to identify potential financial problems before they occur and make incremental changes to improve performance over both the short and long term.

Assessment Not Yielding Recommendations

- **Five-year Forecast:** The District's five-year forecast was assessed and it was determined that the projections reasonably represent future revenues and expenditures. However, **R2.2** recommends a reallocation of revenues from one line item to another. This change does not affect forecasted ending fund balances.
- **Forecasting Process:** Appropriate and responsible parties are included in the forecasting process.
- **Historical Data:** A review of the financial audits and management letters identified no unresolved or reportable conditions that would invalidate the District's historical data. Chillicothe CSD has taken action to address audit citations by ensuring that the Board members are fully aware and using audit results to improve operations.
- **Local Options to Increase Revenues:** The District has pursued various local revenues as evidenced by the passage of a permanent improvement levy in March of 2004, and a 6 mill continuing operating levy in May of 2005. In addition, the District has obtained several million dollars in State and federal grants.
- **Performance Standards:** The District uses a performance measurement system that encompasses a majority of the best practices recommended by the GFOA. However the District should consider fully implementing the performance measures by linking performance standards to financial objectives (see **R2.4** for more details).
- **Operational Policies:** The District has established effective internal controls over the operating budget by monitoring appropriations and expended amounts in addition to its accounting procedures.
- **Feedback to the Board and Management:** The financial staff provides stakeholders with the appropriate financial information regarding funding sources, budget limitations, and the financial impact related to major proposals. In addition, financial information is presented to the Board in a manner which facilitates quality decision making.
- **Community Involvement and Decision Making:** Chillicothe CSD is effective at maintaining communication with the residents of the District and has active parent teacher organizations in its schools.

Recommendations

R2.1 Although Chillicothe CSD has established policies, several do not contain best practice elements. Therefore, the District should fully develop policies that are in line with best practices. In addition, the District should implement procedures, derived from the Board policies to clarify day-to-day operations. The implementation of policies and procedures helps promote proper internal controls over the financial reporting process and general District operations. Furthermore, the District should review and update existing fiscal management policies as several are outdated, no longer relevant, or repetitive.

The District has financial policies; however they lack some vital elements that are considered best practices. According to recommended best practices presented below, financial policies and procedures should be consistent with broad governmental goals and should be the outcome of sound analysis. Policies and procedures should be consistent with each other and the relationships between policies and procedures should be identified. Further, financial policies and procedures should be an integral part of the development and implementation of services, operations, capital management, financial plans, and the budget.

Recommended Budget Practices: A Framework for Improved State and Local Government Budgeting (Government Finance Officers Association (GFOA), 1999) recommends policies for the following items:

- **Financial Planning** - to expand a government's awareness of options, potential problems, and opportunities.
- **Budget Stabilization Funds** – to guide the creation, maintenance, and use of resources for financial stabilization purposes.
- **Fees and Charges** - to identify the manner in which fees and charges are set and the extent to which they cover the cost of the service provided.
- **Debt Issuance and Management** - to guide the issuance and management of debt because issuing debt commits a government's revenues several years into the future, and may limit the government's flexibility to respond to changing service priorities, revenue inflows, or cost structures.
- **Debt Level and Capacity** – to set a limit on the amount of debt and debt service that should be outstanding at any one time.

- **Use of One-Time Revenues** - to prohibit the use of one-time revenues for ongoing expenditures because by definition, one-time revenues cannot be relied on in future budget periods.
- **Use of Unpredictable Revenues** - to identify major revenue sources considered unpredictable and to define how these revenues may be used because by definition, these revenue sources cannot be relied upon.
- **Revenue Diversification** - to encourage diversity of revenue sources because all revenue sources have particular characteristics in terms of stability, growth, sensitivity to inflation or business cycle effects, and impact on taxes and taxpayers.
- **Contingency Planning** - to guide the financial actions the entity will take in the event of emergencies, natural disasters, or other unexpected events.
- **Capital Asset Acquisition, Maintenance, Replacement, and Retirement** - to help ensure that capital assets or improvements receive appropriate consideration in the budgeting process and that older capital assets are considered for retirement or replacement.
- **Inventorying and Assessing Fixed Assets** – to define the processes for inventorying its capital assets and assessing the need for and the condition of those assets.
- **Vendor Payments** – to ensure that vendors are paid on time and that the entity is taking advantage of all discounts, including, timing payment so that there are neither late nor early payments.

Best Financial Management Practices with their Associated Indicators (Florida Office of Program Policy Analysis and Government Accountability, 2002) recommends additional policies in the following areas:

- **Volume Discounts** – to outline the procedures that the business office uses in order to maximize volume discounts or and obtain special pricing agreements.
- **Effective Management of Inventory** – to establish proper controls over inventory turnover, inventory processes, and annual physical counts.
- **Disbursing Process** – to enhance the internal controls over the disbursing process.

- **Payroll Reporting** - to ensure appropriate and timely reporting and remitting of federal payroll taxes, payroll deductions, payroll and attendance information; to ensure compliance with laws, rules, and policies; and ensure that salary costs are properly charged to the correct accounting codes.

Furthermore, the Institute of Internal Auditors, in *International Standards of the Professional Practices of Internal Auditing* (2005) recommends including:

- **Internal Audit Policies** – including, but not limited to, elements such as, organizational independence, planning processes, criteria for communicating, and internal audit activities.

Also, the Texas Education Agency's *Financial Accountability System Resource Guide* (2006) recommends:

- **Receipt Process Policies** – including receipt timeline, appropriate forms, and verification process, in addition to a proper audit trail.
- **Purchasing Procedures Manual**- to address purchasing goals and objectives, statutes, regulations, purchasing authority, requisition and purchase order process, vendor selection and relations, receiving and distribution, and the disposal of obsolete and surplus property.

Finally, *Internal Control Practices: Payroll* (University of California, 2006) recommends:

- **Payroll Procedures** – to establish control over the payroll processes, including approving payroll actions; reviewing expense reports; reviewing and reconciling financial records; and the distribution of payroll.

While there is some overlap in the above, implementing comprehensive policies as recommended by best practices could help the District better manage its limited resources and help ensure consistency in financial practices. Such policies can help the District operate smoothly; be used as a tool for financial decision making; and improve the ability to take timely action. In addition, sound financial policies aid in the overall management of the budget.

R2.2 Chillicothe CSD should adjust its revenue projections for unrestricted grants-in-aid and property tax allocation to be more consistent with the accounting requirements for tangible personal property tax (TPPT) reimbursements from the State. The adjustment should include the reallocation of the tangible personal property tax (TPPT) reimbursement from unrestricted grants-in-aid to property tax allocations.

During the course of the audit the Treasurer implemented this recommendation by reallocating the revenue amounts in accordance with the Auditor of State (AOS) and Ohio Department of Education (ODE) specifications.

Chillicothe CSD's February five-year forecast accounts for the HB 66 TPPT reimbursement in unrestricted grants-in-aid. Although the projected amounts for the reimbursement seem reasonable, the TPPT reimbursements should be shown under property tax allocations instead of unrestricted grants-in-aid. This change will have no net impact on forecasted fund balances.

After the passage of HB 66, ODE and AOS determined that the receipts of TPPT reimbursements should be receipted into property tax allocations. The receipt codes for property tax allocations are being expanded in order for districts to track TPPT reimbursements separately. Starting March 31, 2006, districts will be able to code TPPT reimbursements under a separate receipt code (3135).

Table 2-5 shows the effect of reclassifying TPPT reimbursements from unrestricted grants-in-aid to property tax allocation. As illustrated this reallocation has no net impact on the five-year forecast.

Table 2-5: Impact on State Aid and Property Tax Allocation

	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Chillicothe CSD Unrestricted Grants-In-Aids	\$6,559,343	\$7,657,097	\$8,716,784	\$9,768,887	\$10,487,966
AOS Unrestricted Grants-In-Aids	\$6,382,490	\$6,360,188	\$6,787,910	\$7,301,953	\$7,804,617
Impact on Unrestricted Grants-In-Aid	(\$176,853)	(\$1,296,909)	(\$1,928,874)	(\$2,466,934)	(\$2,683,349)
Chillicothe CSD Property Tax Allocation	\$1,207,218	\$1,295,318	\$1,305,309	\$1,303,859	\$1,295,567
AOS Property Tax Allocation	\$1,384,071	\$2,592,227	\$3,234,183	\$3,770,793	\$3,978,916
Impact on Property Tax Allocation	\$176,853	\$1,296,909	\$1,928,874	\$2,466,934	\$2,683,349

Source: Chillicothe City School District February 2006 five-year forecast.

R2.3 The Treasurer's Office should develop cross-training opportunities for employees in accordance with best practices. The Office should analyze the potential benefits for the employee and the District, track employee training, and monitor feedback from management and employees during implementation.

Although the Treasurer's Office has back-up personnel for key operational duties, current cross-training practices are informal and could benefit from formalization consistent with best practices.

Several organizations have developed cross-training programs for major functional areas. Cross-training has enabled these organizations to be more flexible with employees' schedules, while decreasing the risk of functional down time in critical operational areas. According to *Cross Training – Value in Today's Environment* (Society for Human Resource Management (SHRM), 2001), cross-training can be beneficial to both the organization and the employees by increasing employees' knowledge and ability to perform different tasks. Cross-training also adds variety to employees' workday, adds new challenges to their jobs, and enhances future career opportunities within the organization. Furthermore, cross-training can help employees better understand interrelationships between jobs, in addition to enhancing their overall perception of operations.

By implementing cross-training programs, tracking performance, and monitoring feedback, organizations can be better prepared in the event of short or long terms absents and ensure that job functions are performed with minimal impact on operations. The Treasurer's Office could implement this recommendation at no additional cost to the District.

R2.4 Chillicothe CSD should fully develop a performance measurement system for educational and operational functions, programs, and activities including input, output, effectiveness, and efficiency measures. Furthermore, Chillicothe CSD should compare performance measures to established benchmarks during the planning, budgeting, management and communication stages. In addition, Chillicothe CSD should conduct periodic evaluations of its operational and educational functions/activities using performance information and other reasonable criteria.

The District states that benchmarking is an important part of its Comprehensive Continuous Improvement Plan (CCIP). Through the CCIP, the District discusses many areas of concern and its plans to achieve performance objectives. Yet, the District does not compare its performance with similar districts. The primary assessment resources for the District are State standards and requirements, which the District uses as measures of performance. There is also evidence that the District is comparing current to past performance in educational areas like math and reading, attendance and safety. However, while the District is striving to incorporate some of the best practices related to performance measurement and evaluation outlined by GFOA, it does not fully use all of the best practice performance measures.

According to *Implementing Performance Measurement in Government: Illustrations and Resources* (GFOA, 1997), performance measures can be classified into four basic types:

- **Input measures:** Input indicators measure the volume of resources, both monetary and non-monetary, that are used in delivering a program or service.

Total expenditures arising from the provision of a program or service is a frequently used monetary input measure.

- **Output measures:** Output indicators report the quantity or volume of products and services provided by the program.
- **Effectiveness/Outcome measures:** Effectiveness indicators measure the results, accomplishments, or quality of the item or service provided.
- **Efficiency measures:** Efficiency indicators quantify the relationship between input and output. They can be expressed as productivity ratios or as unit cost ratios.

Performance measures can help management direct and manage organizations or operational programs. They also provide tools to allow managers to determine the most appropriate tasks to perform or eliminate. It is also often easier to focus on achieving goals and objectives if they can be expressed as the achievement of quantifiable measures. In addition, performance benchmarks, along with an accompanying review of each chosen provider's service approach, can be helpful in making improvements. These comparisons may provide valuable information and insight to policy makers, managers, and other stakeholders that can be used to guide the direction of a function, program, or activity. Performance benchmarks also help stakeholders better assess whether government performance in a particular area is acceptable or could be improved.

Furthermore, as indicated above, the District looks at performance measures for academic performance and curriculum, yet there is little indication that it uses performance measures in its long-term financial planning. For example, the cost of the various programs the District supports is not compared to similar districts. Therefore, while the District projects revenues and utilizes forecasting as a tool, it does not consistently use performance indicators in its financial planning and budgeting.

According to the GFOA, the information provided from a performance measurement system is useful for many functions, including:

- **Planning** – governments have found that the measurement-development process provides a focus and a discipline for engaging in planning. The addition of performance measures adds more detail and rigor to the planning, monitoring, and evaluating stages of a strategic planning process.
- **Budgeting** – performance measures can contribute to the formulation and justification of budget requests. They can serve to illustrate the benefits that can be achieved with an additional level of resources made available to a program.

Similarly, in cases of scarce resources, performance measures can help governments make the case for budget reductions targeted at particular programs or functional areas rather than effecting reductions with across-the-board cuts.

- **Management and communications** – the most significant impact of performance measurement may be to improve and strengthen internal managerial processes. Performance data is pivotal to the success of several managerial initiatives, such as customer-focused management, market-driven management, strategic planning, and total quality management.

Performance measurement is most useful, not as a score-keeping and reporting system, but as a tool for serving a variety of management processes.

In its current use, performance measures are being used for score-keeping, because the District is looking at test scores and working to improve them, without looking closely at the financial implications.

Finally, the District has not fully implemented performance measures so it is not able to take full advantage of the benefits they provide. If this recommendation is implemented, the District will have little trouble using the data to improve performance. After fully implementing performance measures, the District will be able to use the resulting analyses in a wider range of administrative functions.

While Chillicothe CSD has employed the use of benchmarks by comparing its performance with State requirements, there is no indication that the District evaluates its programs to see if they are meeting performance objectives in a cost-effective manner. It is important to note that the District does annually review its educational programs at the building and district level, and is working to increase student performance in several curriculum areas. Yet, as noted in above, the District focuses primarily on outputs with no connection to the related financial implications.

According to Florida Office of Program Analysis and Government Accountability (OPPAGA), a district should formally evaluate the performance and cost of its major educational and operational programs and use evaluation results to improve the programs' performance and cost-efficiency. In order to do so, a district should do the following:

- Conduct evaluations of its educational and operational programs, functions, or activities using performance information and other reasonable criteria.
- At a minimum, examine whether the program or activity is meeting its goals and objectives in a cost-effective manner.

- Evaluate reports that include findings and recommendations to improve the effectiveness.

Chillicothe CSD has not been able to look at the cost effectiveness of its operations because it has not examined program inputs and has not yet linked inputs with outcomes in order to examine the efficiency of its programs.

R2.5 Chillicothe CSD should maintain and publish a clearly written, multi-year strategic plan that articulates a vision and provides direction for its employees and the community. The plan should incorporate the Comprehensive Continuous Improvement Plan (CCIP), and other operational areas such as the technology (see technology section of this report for more details on planning and budgeting), facilities (see facilities section of this report on updating its facilities master plan), and financial systems. When developing the strategic plan, the Board should identify and formally adopt a limited number of priorities to guide the District's strategies and major financial and program decisions. The strategic plan should also instruct staff on how these priorities should be considered in making program and budget decisions.

The strategic plans should clearly delineate the District's goals and objectives, and strategies for achieving them; the priorities the Board assigns to its goals, objectives, and strategies; the performance measures and standards the district will use to judge its progress toward meeting goals; and the individuals or entities responsible for implementing the strategies in the plan as well as the time frames for implementation.

During the course of the audit, Chillicothe CSD began working with the Ohio School Boards Association to develop a long range strategic plan.

The District has developed a CCIP in accordance with ODE requirements, in addition to a technology and facilities plan. However, the District has not developed a multi-year strategic plan that incorporates all elements of District operations.

According to the Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), a strategic plan should incorporate the actions described below.

- Maintain and publish a clearly written, multi-year (five years at a minimum) strategic plan to provide vision and direction for the district's effort. The plan should link State and District education goals, including student performance goals.

- Develop a strategic plan in which the Board identifies and formally adopts a limited number of (5 to 10) District priorities to guide the District's strategies and major financial and program decisions; considers issues such as fund balance levels, teacher salary increases, health benefit levels, and class size reductions; and instructs District staff on how these priorities should be considered in making program and budgetary decisions.
- Clearly delineate the District's goals and objectives and strategies for achieving them. In developing these strategies, the District should consider alternative educational delivery systems such as charter schools, magnet schools, and school choice.
- Delineate the priorities the Board assigns to its goals, objectives, and strategies.
- Make the objectives in the strategic plan measurable, and set annual standards for each objective for at least five years into the future.
- Ensure that the District's goals, objectives, and standards are based on past performance, identified needs, projected enrollment, and revenues.
- Delineate the individuals or areas responsible for implementing the strategies in the plan and the time frames for implementation.
- Annually review and, if necessary, amend its priorities and strategic plan to reflect changes in community standards, student needs, or Board direction.
- Know if Board action is inconsistent with the priorities in the strategic plan. The rationale for the action should be clearly stated in the Board minutes or the Board should amend the plan.

It is important to note that the District is in compliance with ODE requirements for a CCIP and has begun to develop an all-encompassing strategic plan.

A strategic plan should be adopted that includes the District's improvement plans and that links educational goals with other operational areas of the district. A comprehensive strategic plan would help integrate academic and business goals and allow the District to be more effective and efficient in its delivery of services to its students.

R2.6 The Board annually assesses the District's progress towards achieving the objectives of the CCIP and, when necessary, amends its priorities. However, when R2.5 is implemented, the District should assess all parts of the strategic plan, including the facilities master plan, and the technology plan.

The District, in accordance with State requirements, has developed and annually updates a CCIP. The Assistant Superintendent, administrators, staff, and parents comprise the committee that crafts the CCIP and reviews it annually. The committee evaluates its progress using the District's Local Report Card as well as the North-Central standards to help develop its goals for the following year. Moreover, the District surveys staff and parents annually, business leaders biannually, and is beginning to survey students to examine the environment and relationships that exists in the District. This information helped frame one of the goals for the coming school year, dealing with the issue of "respect". The Board also conducts a self-evaluation to help determine the direction of the District.

Traditionally, the CCIP has included the goals and challenges that the District will face in the coming year. The goals are mostly educational, and tend to remain the same from year to year. In contrast the challenges of the District change and may or may not relate directly to the educational aspect of the District. During the summer months the Assistant Superintendent prepares an analysis of the test scores and shares it with the Board and administration. In July, the Board hears public comment and then adopts the CCIP.

The District is required, through Senate Bill 55, to develop and update a strategic plan. The main focus of this plan, per State requirements, is to develop strategies to help improve academic performance and identify the resources that will be used to aid the District. Because of these requirements, the District's CCIP is focused on educational aspects and gives little attention to business operations or capital plans. Assessing strategies and goals provides the District an opportunity to determine what changes need to be made to the curriculum, staffing, and/or other District operations.

R2.7 Chillicothe CSD should adopt a Board-approved ethics policy, particularly for financial staff, that requires employees to conduct themselves, at all times, in a manner that avoids favoritism, bias, and the appearance of impropriety. The ethics policy should contain conduct restraints that mirror those recommended by the Ohio Ethics Commission.

The District does not have an ethics policy that meets the guidelines suggested by the Ohio Ethics Commission (OEC). According to OEC, ethics policies for local governments should state that officials and employees must, at all times, abide by Ohio's ethics laws, as found in Chapters 102 and 2921 of the Ohio Revised Code (ORC), and as interpreted by the Ohio Ethics Commission and Ohio courts. A copy of these laws should be provided to appropriate staff members and staff members should acknowledge receiving the policies, as required in ORC §102.09(D).⁷

⁷ A recommended ethics policy for all officials and employees can be found at http://www.ethics.ohio.gov/ModelEthicsPoilcy_localagencies.html.

An updated ethics policy will help make it clear to employees that they are expected to conduct themselves, at all times, in a manner conducive to the best interests of the District.

R2.8 After releasing its comprehensive annual financial report (CAFR), the Chillicothe CSD should use its web site as another means of distribution. The District should also consider developing a popular annual financial report (PAFR) for those stakeholders who desire a summarized overview of financial activities.

Chillicothe CSD has developed, and distributed a CAFR to several stakeholders within and outside the community. Although the District has developed a CAFR, its web site is not used as a form of distribution. The Olentangy Local School District (OLSD) in Delaware County has distributed several years of CAFR reports via its web site. These reports are readily available to all stakeholders, and provide detailed information on the financial activities of the OLSD.

Due to financial constraints, the District does not develop a PAFR. A PAFR provides interested individuals with a less detailed overview of the financial activities of the District. GFOA recommends that a PAFR be designed to assist those who need or desire a less detailed overview of government financial activities than the CAFR provides. A PAFR can take the form of consolidated or aggregated presentations, or a variety of other forms. Although outsourcing the development of a PAFR can be costly, the District can create a PAFR-like document using the sample characteristics suggested by GFOA at <http://www.gfoa.org>.

Posting the CAFR and PAFR on the District web site would allow stakeholders who have access to the Internet the ability to review the financial activities of the District. The PAFR is designed to allow a non-accountant a comprehensive overview of the financial audit of a government. This report can be used to address accountability issues within the community, and can also be used as an additional tool to inform the community of the financial situation of the District. More importantly, a PAFR may encourage individuals to become more proactive in the District, and can help better inform citizens during the decision making process.

R2.9 Chillicothe CSD should evaluate classified, certificated, and substitute employee payroll schedules and attempt to negotiate a reduced number of payrolls. Limiting the payroll runs each month would increase the efficiency of the payroll operations and allow more time to review and reconcile payroll data.

According to the District's fiscal management policy, salary schedules are approved by Chillicothe CSD Board of Education. Certificated and classified employees are paid on separate payroll schedules. Certificated employees are paid on the last working day of the

month or the last weekday of the month during the summer. Additionally, certificated employees are paid on the second Friday of the month of January, which totals 13 pays for the year. Classified employees have semi-monthly pay periods (1st thru 15th and 16th thru last day of the month) and are paid on the 5th and the 20th of each month. If those days fall on a weekend, employees are paid the Friday before. This schedule could leave as little as 2 days between the processing of payrolls.

Certificated substitute employees are paid on the same schedule as certificated employees. Classified substitute employees are paid semi-monthly with payroll periods running the 26th through the 10th and the 11th through the 25th of the month. Supplemental payrolls are paid three times per year on the 15th of December, March, and June. The purpose of the supplemental pay and when the job is completed, determine the date on which the supplemental contracts are paid.

With this schedule, payroll is processed three or four times each month. Processing multiple payroll cycles is time-consuming and leaves little room for cleaning up paperwork or making improvements to basic operations. According to *Accounting Best Practices – Third Edition, Minimize Payroll Cycles*, (John Wiley and Sons, Inc., 2004), entities should consolidate the payroll cycles into a single, companywide cycle. By doing so, the payroll staff would no longer have to spend extra time on additional payroll processing, nor would they have to worry about the different pay rules that may apply to each processing period.

By consolidating payroll schedules, the District will be able to improve the efficiency of the payroll function and ensure an adequate review of payroll data. A consolidated payroll schedule would simplify the work of the payroll department and allow more time for improving basic operations.

R2.10 Chillicothe CSD should expand the use of direct deposit and consider negotiating mandatory direct deposit in future collective bargaining agreements. The District should also require mandatory direct deposit for long-term substitute teachers and employees not covered by collective bargaining agreements.

Chillicothe CSD offers employees the option of participating in direct deposit. According to the payroll department, 86.5 percent of current employees use direct deposit, which is mandatory only for new employees.

Direct deposit reduces the administrative burdens associated with traditional payment methods. Direct deposit can also benefit employees by avoiding mail delays, address changes, and paydays falling on school holidays.

The Electronic Payment Association highlights several benefits of direct deposit, including reductions in the cost and time associated with printing checks, financial institution charges, the potential for manual errors, fraud and counterfeiting, and administrative time; eliminating lost and stolen checks; and simplifying account reconciliation. The Association notes that companies reported saving more than 40 cents per check in processing costs and that problems with direct deposit are a fraction of those associated with paper checks.

The District and the employees could benefit greatly if all employees were required to participate in the direct deposit program. The District could reduce expenses associated with bank fees and time associated with the processing of printed checks. Employees would benefit from the instant availability of funds; save the time associated with cashing checks; and eliminate the risk of lost checks. At the same time employees would be contributing to the District's effort to reduce costs.

R2.11 Chillicothe CSD should consider making the recommended forecast adjustment (see R2.2), and implementing the other performance audit recommendations contained in this and the other report sections. Implementing the performance audit recommendations would offset projected deficits and allow the District to maintain a positive year-end balance through FY 2009-10.

By implementing the performance audit recommendations and renewing the emergency operating levy, Chillicothe CSD can maintain a positive fund balance through FY 2009-10. **Table 2-6** demonstrates the affect on the five-year forecast and ending fund balances, assuming that forecast adjustments are made and all recommendations contained in this audit are implemented. It should be noted that during the course of the audit, the District's fiscal year ended. Therefore in **Table 2-6**, FY 2005-06 forecasted amounts are the District's actual final expenditures.

Table 2-6: Revised Five-year Forecast (in 000's)

	Actual			Forecasted				
	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06 ¹	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Revenue:								
General Property Tax	\$5,894	\$6,124	\$6,283	\$7,669	\$8,743	\$8,,897	\$9,043	\$ 9,133
Tangible Personal Tax	\$5,559	\$5,985	\$4,553	\$4,296	\$3,610	\$2,588	\$1,686	\$878
Unrestricted Grants-in-Aid	\$6,353	\$6,317	\$7,169	\$6,627	\$6,364	\$7,011	\$7,430	\$7,793
Restricted Grants-in Aid	\$1,213	\$1,206	\$1,227	\$1,869	\$2,003	\$2,003	\$2,003	\$2,043
Property Tax Allocation	\$992	\$983	\$998	\$1,139	\$2,382	\$2,674	\$3,022	\$3,449
All Other Revenues	\$1,544	\$1,273	\$2,170	\$2,365	\$1,757	\$1,502	\$1,566	\$1,631
Total Revenues	\$21,558	\$21,890	\$22,401	\$23,968	\$24,861	\$24,677	\$24,751	\$24,929
Other Financing Sources:								
Operating Transfers-In	\$1	\$800	\$300	\$ 85				
Advances-In	\$8	\$17	\$64	\$ 142	\$96	\$20	\$20	\$20
All Other Financial Sources	\$40	\$6	\$1	\$2	\$455	\$55	\$55	\$55
Total Other Financing Sources	\$49	\$824	\$366	\$229	\$551	\$75	\$75	\$75
Total Revenues / Other Financing Sources	\$21,607	\$22,714	\$22,768	\$24,198	\$25,412	\$ 24,752	\$24,826	\$25,004
Expenditures:								
Personal Services	\$14,263	\$13,475	\$12,951	\$13,429	\$13,809	\$14,370	\$14,974	\$15,604
Retirement / Insurance Benefits	\$4,371	\$4,635	\$4,298	\$4,317	\$4,588	\$4,861	\$5,165	\$5,490
Purchased Services	\$2,252	\$2,899	\$3,301	\$4,237	\$4,581	\$4,654	\$4,827	\$5,010
Supplies and Materials	\$668	\$453	\$340	\$380	\$422	\$434	\$447	\$461
Capital Outlay	\$320	\$97	\$29	\$0	\$49	\$2	\$4	\$1
Debt Service:								
Principal-HB 264 Loans	\$135	\$140	\$150	\$155	\$165	\$170	\$180	\$190
Interest / Fiscal Charges	\$95	\$88	\$81	\$73	\$66	\$58	\$49	\$40
Other Objects	\$497	\$558	\$518	\$554	\$571	\$588	\$606	\$624
Total Expenditures	\$22,604	\$22,347	\$21,671	\$23,149	\$24,251	\$25,137	\$26,252	\$27,420
Other Financing Uses:								
Operational Transfers-Out		\$300	\$993	\$946	\$285	\$10	\$10	\$10
Advances-Out	\$17	\$64	\$142	\$76	\$20	\$20	\$20	\$20
All Other Financing Uses	\$1	\$1	\$1	\$0	\$2	\$2	\$2	\$2
Total Other Financing Uses	\$17	\$364	\$1,136	\$1,023	\$307	\$32	\$32	\$32
Performance Audit Recommendations						\$(1,067)	\$(1,187)	\$(1,314)
Total Expenditures and Other Financing Uses	\$22,622	\$22,712	\$22,807	\$24,173	\$24,560	\$24,104	\$25,099	\$26,140
Result of Operations (Net)	\$(1,014)	\$2,621	\$(39)	\$25	\$852	\$647	\$(272)	\$(1,136)
Balance July 1	\$1,904	\$889	\$892	\$852	\$877	\$1,729	\$2,377	\$2,105
Cash Balance June 30	\$889	\$892	\$852	\$877	\$1,729	\$2,377	\$2,105	\$969
Est. Encumbrances June 30	\$270	\$248	\$276	\$300	\$300	\$300	\$400	\$400
Fund Balance June 30 for Certification of Appropriations	\$619	\$643	\$575	\$577	\$1,429	\$2,077	\$1,705	\$569

Source: Chillicothe CSD's financial forecast and recommendations identified throughout this performance audit.

Note: Dollars in thousands. Numbers may vary depending upon rounding.

¹ Forecast for FY 2005-06 has been updated to reflect actual revenue and expenditures for that year.

Table 2-7 summarizes the performance audit recommendations reflected in the revised five-year forecast. Recommendations are divided into two categories, those requiring negotiation and those not subject to negotiation. With the implementation of these recommendations, it is projected that Chillicothe CSD could maintain a positive fund balance through FY 2009-10.

Table 2-7: Summary of Performance Audit Recommendations

	FY 2006-07 ¹	FY 2007-08	FY 2008-09	FY 2009-10
Not Subject to Negotiations				
R3.1 Reduce 10 Office/Clerical Positions	\$138,000	\$291,000	\$305,000	\$320,000
R3.2 Reduce 4 Remedial Specialist Positions		\$89,000	\$93,000	\$97,000
R3.3 Reduce 4 Library Staff	\$43,000	\$90,000	\$94,000	\$99,000
R3.11 Implement Policies to Reduce Sick Leave		\$19,000	\$39,000	\$58,000
R4.6 Reduce M&O Dept. Overtime		\$23,000	\$23,000	\$23,000
R4.12 Implement a Detailed Energy Management Program		\$14,000	\$14,000	\$14,000
R4.13 Close at Least One School Building		\$253,000	\$260,000	\$269,000
R5.1 Reduce 3 Bus Routes		\$60,000	\$60,000	\$60,000
Subtotal Not Subject to Negotiations	\$181,000	\$839,000	\$888,000	\$940,000
Subject to Negotiation				
	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
R3.4 Reduce COLA for Classified Staff to 1% Through the Forecasted Period		\$65,000	\$136,000	\$211,000
R3.5 Implement Cost Containment Strategies for Insurance		\$112,000	\$112,000	\$112,000
R3.6 Increase Employee Contribution for Single Family Healthcare Plan		\$51,000	\$51,000	\$51,000
Subtotal Subject to Negotiation		\$228,000	\$299,000	\$374,000
Total Cost Savings from Performance Audit Recommendations	\$181,000	\$1,067,000	\$1,187,000	\$1,314,000

Source: AOS Performance Audit Recommendations

¹ Although Chillicothe CSD was made aware of the recommendations for mid-year reductions, the District did not take action on the recommendations. Therefore, the savings from mid-year staff reductions are not reflected in the AOS revised forecast (see Table 2-6).

Human Resources

Background

This section of the performance audit focuses on the human resources functions of the Chillicothe City School District (Chillicothe CSD or the District). Operations were evaluated against best practices, industry benchmarks, operational standards, and the average of ten peer districts¹ for the purpose of developing recommendations to improve efficiency and business practices. Recommendations also identify potential cost savings to assist the District in its efforts to address projected future year deficits. This assessment of human resource operations includes staffing levels and compensation, negotiated agreements, human resources management, and program operation processes. Best practices and industry standards were drawn from various sources including, but not limited to, the Ohio Revised Code (ORC), the Ohio Administrative Code (OAC), the Ohio Department of Education (ODE), the Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), the Kaiser Family Foundation Annual Survey (Kaiser), and the State Employment Relations Board Annual Survey (SERB).

Organizational Structure

In the State of Ohio, all school districts are required to have a superintendent and a treasurer who report directly to the board of education. Chillicothe CSD also employs an Assistant Superintendent who reports directly to the Superintendent. The Assistant Superintendent is the person primarily responsible for the District's human resources functions. Because of other responsibilities, the Assistant Superintendent only spends a portion of her time addressing human resource issues.

The Human Resources Department consists of the Assistant Superintendent and one administrative assistant who manages various personnel matters such as scheduling, archiving employee forms, and tracking teacher certifications. The Treasurer's Office oversees the benefits component of human resources, as well as payroll operations.

Staffing

Table 3-1 shows the number of full-time equivalent (FTE) employees per 1,000 students for Chillicothe CSD and the peer district average.

¹ Peer Districts: Boardman Local School District (Mahoning Co.), Dover City School District (Tuscarawas Co.), Elida Local School District (Allen Co.), Fairland Local School District (Lawrence Co.), Heath City School District (Licking Co.), Indian Creek Local School District (Jefferson Co.), Lowellville Local School District (Mahoning Co.), McDonald Local School District (Trumbull Co.), Tiffin City School District (Seneca Co.), and Wheelersburg Local School District (Scioto Co.).

Table 3-1: Staffing Comparison (FTE Staff per 1,000 Students¹)

Category	Chillicothe CSD	Peer District Average	Difference vs. Peer Districts ²
Students Educated	2,912	2,069	843
Administrators: Subtotal	5.2	5.9	(0.7)
Site Based Administrators	3.3	2.7	0.6
Central Administrators	1.8	3.2	(1.4)
Educational Staff: Subtotal	69.8	67.3	2.5
Curriculum Specialist	0.0	0.0	(0.0)
Regular Teachers	47.5	48.7	(1.2)
Special Education Teachers	1.4	5.8	(4.4)
Vocational Teachers	0.0	0.5	(0.5)
ESP Teachers	4.3	4.5	(0.2)
Tutor / Small Group Instructors	0.0	1.0	(1.0)
Counselors	2.1	2.3	(0.3)
Librarian / Media	0.7	0.7	(0.0)
Remedial Specialist	4.2	2.1	2.1
Suppl. Spec. Edu. Teacher	7.9	1.5	6.4
All Other Education Staff	1.7	0.1	1.6
Professional Staff: Subtotal	3.2	1.8	1.4
Technical Staff: Subtotal	2.9	3.1	(0.2)
Librarian Technician / Aide	2.6	1.3	1.3
All Other Technical Staff	0.3	0.2	0.1
Office / Clerical Staff: Subtotal	16.9	11.5	5.4
Clerical	7.6	5.9	1.7
Teaching Aide	6.9	5.0	1.8
All Other Office Staff	2.4	0.6	1.8
Transportation: Subtotal	5.5	8.0	(2.5)
Facilities: Subtotal	8.6	9.6	(1.0)
Food Service Workers	7.5	7.7	(0.2)
All Other Personnel	1.5	2.5	(1.0)
Total FTE per 1,000 Students	121.1	117.5	3.6

Source: School district FY 2005-06 EMIS data as reported to ODE ¹. Peer data has not been tested.

¹ Comparing staffing levels on a per 1,000 student basis eliminates differences caused by the size of the districts.

² EMIS requires districts to enter full-time equivalents (FTE) based on the number of hours included in a full time position in the employees' collective bargaining agreement. In most cases, this represents an eight-hour day, but in classifications like food service and transportation, an FTE, as defined by the district's collective bargaining agreement may be less than eight hours and differ from district to district.

Table 3-1 shows that when compared to the average staffing level of the peer districts, Chillicothe CSD exceeds the peer average in the broad categories of educational staff, professional staff, and office/clerical staff. Each category where the staffing levels are higher than the peer district average presents an opportunity for the District to reduce staff and save money while maintaining staffing levels similar to that of other peer districts (see **R3.1**, **R3.2**,

and R3.3). Savings from staff reductions, particularly in support positions, can be used to avoid projected deficits. In the future, more extensive staff reductions could be made, particularly where minimum State standards apply, if necessary to avoid deficits.

Compensation

Table 3-2 shows the District's average salaries in comparison to the peer district average during FY 2005-06. Years of service, cost of living allowances, step increases, and in some cases, the education level attained by the personnel within a category all directly impact average salaries.

Table 3-2: Average Salary Comparison (FY 2005-06)

Personnel Category	Chillicothe CSD	Peer District Average	Difference vs. Peer Districts
Administrative Staff	\$74,749	\$63,156	18%
Certificated Staff	\$46,873	\$45,007	4%
Professional Staff	\$55,405	\$48,237	15%
Technical Staff	\$21,448	\$17,237	24%
Office/Clerical Staff	\$21,226	\$21,386	(1%)
Transportation Workers	\$13,647	\$14,867	(8%)
Maintenance Worker	\$32,827	\$35,802	(8%)
Service Worker	\$21,235	\$18,116	17%

Source: ODE 2006 EMIS data.

As illustrated in **Table 3-2**, average salaries for administrative staff, professional staff, technical staff, and service workers are all significantly higher than the average of the peer districts and therefore, warrant further investigation (see **R3.4**).

Negotiated Agreements

In FY 2005-06, the District's two main employee groups, certificated and classified personnel were covered under collective bargaining agreements.

- **Chillicothe Education Association (CEA) Agreement (August 1, 2004 to July 31, 2007):** Membership in this collective bargaining unit includes all teachers and other certificated and professional staff.
- **Ohio Association of Public School Employees (OAPSE) Agreement (July 1, 2004 to June 30, 2007):** Membership in this collective bargaining unit comprises most support staff including clerks, custodians, maintenance workers, food service staff, and technical staff.

As part of this performance audit, certain contractual and employment issues were assessed and compared to Ohio law and industry benchmarks.

Noteworthy Accomplishments

During the course of this performance audit, AOS identified the following noteworthy accomplishments or best practices.

- **Dental and Vision Insurance Premiums:** The District's dental and vision insurance premiums are below the SERB average and the premiums are prorated for part-time employees.
- **Staffing Plan:** Chillicothe CSD has a staffing plan that addresses the allocation of personnel and various building and functional staffing needs. The Board approved a revised staffing plan in July 2006 which incorporates best practices.
- **Teacher Qualifications:** Chillicothe CSD reports that 100 percent of its core courses are taught by "highly qualified" teachers. The statewide average is 92.5 percent.

Assessments Not Yielding Recommendations

In addition to the analyses presented in this section, assessments that did not result in recommendations or warrant changes include the following:

Staffing Levels

- **Administrative Staff:** In FY 2005-06, overall administrative staffing levels were lower than the peer district average.
- **Regular Classroom Teachers:** In FY 2005-06, Chillicothe CSD had a somewhat higher number of regular classroom teacher per 1,000 regular students than the average of the peer districts. The District reported employing about 59.8 FTE regular classroom teachers per 1,000 regular students while the average of the peer districts was 56.3 FTE classroom teachers per 1,000 regular students. The District could reduce about 8 FTE classroom teaching positions and still be in line with the average staffing levels of the peer districts. Further, Chillicothe CSD had 46 regular classroom teachers more than the State minimum requirement. However, because the District is below the peer district average in terms of the number of performance indicators met, and implementation of the AOS recommendations in this report would avoid deficits through FY 2009-10 (see **R2.21** in **financial systems** section), reductions in classroom teachers are not recommended at this time. While it may be necessary to reduce the number of classroom teachers to avoid future deficits, doing so could potentially hinder the District's ability to raise overall academic performance.

- **Educational Service Personnel (ESP):** In FY 2005-06, the District reported employing about 10.2 FTE ESP per 1,000 regular students which was slightly higher than the peer district average of 9.4 per 1,000 students. Chillicothe CSD could reduce 2 FTE ESP positions and remain in line with the peer district average. The District also had about 12 more FTE ESP positions than required by the State. However, the District is below the peer district average in academic performance indicators and reductions in ESP staff could hinder its ability to raise overall student performance. Further, cost-savings for the District have been identified in other sections of this performance audit that, if implemented, should avoid projected deficits for the next several years (see **R2.21** in the **financial systems** section). Therefore, no recommendation to reduce ESP staff is being made at this time.
- **Teaching Aides and Instructional Paraprofessionals:** In FY 2005-06, Chillicothe CSD was only 0.4 FTE positions per 1,000 students above the peer district average.

Compensation

- **Certificated Average Salaries:** Average salaries were approximately 5 percent above the Ross County average based on FY 2004-05 data, which was the latest information available at the time of the audit. However, the majority of the District's certificated staff have 10 years or more experience which contributes to the slightly higher than average salaries.
- **Supplemental Contracts:** Expenditures on extra-curricular activities, including supplemental contracts, were below the average peer district cost per pupil.
- **Substitute Wages:** The District's daily rate is consistent with other districts in Ross County.

Insurance Benefit Packages

- **Pick-up of Employee Retirement Contributions:** This additional fringe benefit is offered to only the Superintendent and Treasurer.

Certificated Collective Bargaining Agreement

- **School Year/ Instructional Time:** The number of days schools are open for instruction is in compliance with the Ohio Revised Code (ORC) requirements.
- **Planning and Lunch Periods:** Sufficient time is provided for designing work, evaluating student progress, conferencing, and team planning as required by the Ohio Administrative Code (OAC). Teachers are provided a 30-minute "duty free" lunch period as prescribed in the ORC.
- **Reduction in Force:** The District is allowed to reduce staff for financial reasons.

- **Professional Development/Sabbatical Leave:** The certificated agreement provides for sabbatical leave in accordance with ORC provisions.
- **Personal Leave:** Leave is provided in accordance with the ORC and is in line with sound business practices.

Classified Collective Bargaining Agreement

- **Workweek:** The standard workweek is 40 hours which is in accordance with the ORC.
- **Minimum Call-In Hours:** Call-in pay is set at two hours at the applicable rate.
- **Holidays:** Holidays are consistent with provisions in the ORC and other school districts.
- **Vacation Accrual:** This provision is consistent with provisions in the ORC.
- **Personal Leave:** Leave is consistent with provisions in the ORC and is in line with sound business practices.

Human Resource Management

- Chillicothe CSD has a Local Professional Development Committee (LPDC), in accordance with Senate Bill 230.

Human Resource Information System

- Chillicothe CSD has a combination of integrated software packages, databases, and documentation that includes the use of EMIS and the Uniform School Accounting System (USAS). The District uses an automated record-keeping system that minimizes the use of antiquated or time-consuming hardcopy record systems.
- The District has ensured that all newly hired employees whose position requires use of the HR systems receive in-house training. Access to the District's HR systems is restricted, and those who have varying levels of access include administrators and staff within the Treasurer's Office. In addition, only Human Resource Department employees have access to sensitive information such as social security numbers and health histories. Employees access the HR systems via a password that is reset every 90 days.

Board Roles and Responsibilities

- Chillicothe CSD has written policies that clearly delineate the roles and responsibilities of the Board and its members. In addition, new Board members receive orientation training when they assume a position with the Board. The District also has a policy describing appropriate communications between staff and Board members.
- The District has policies that describe the roles and duties of the Superintendent and Treasurer. The Board also annually evaluates the performance of the Superintendent and Treasurer.
- Chillicothe CSD routinely updates its policies to ensure relevance and completeness. The District policies are continually updated to reflect new developments cited by OSBA.
- The Board of Education annually conducts self-evaluations of its performance. The Board follows the National School Board Association (NSBA) best practices for school board evaluations.

Special Education Programs

- Based on its special needs population, the number of special education teachers employed by the District is in line with the Ohio Administrative Code (OAC) requirements and ODE guidelines. By meeting the minimum requirement for special education teachers, the District ensures that it operates within the State guidelines for the delivery of special education services and keeps its costs at a reasonable level.
- Chillicothe CSD follows best practices for providing effective and efficient exceptional education programs for students with disabilities. The District's policy provides that all students living within the District should be identified, evaluated, and placed in appropriate educational programs. In addition, the policy also provides that all students with suspected disabilities within the District receive a multifaceted evaluation to assess their needs. Further all students with special needs are to have an individualized education program (IEP) that meets their unique educational needs, and the opportunity for placement in the least restrictive environment. The District also encourages parents of students with special needs to participate in their child's IEP.
- Chillicothe CSD uses the special education services offered through the Ross-Pike County Educational Service Center (ESC) and has established procedures to ensure the accuracy of the December child count.

At-Risk Student Programming

- Chillicothe CSD actively seeks to identify at-risk students and acts in a timely manner to place students in appropriate programs. The District also participates in consortiums to offer a range of services and periodically reviews the effectiveness of programs. The District employs the National Dropout Prevention Center's (NDPC) recommended holistic approaches, combining frequent student evaluations, flexibility in scheduling of intervention programming, and meaningful off-campus experiences.

Workforce Development

- Chillicothe CSD students have access to the Pickaway-Ross Career and Technology Center (PRCTC) in which the District is a charter member.

Accelerated Programs

- Chillicothe CSD provides accelerated/gifted student programs that comply with State regulations.
- The District's gifted program teachers are partially funded by ODE gifted unit supplemental funds and staff levels appeared appropriate.

Issues for Further Study

- **Provision of Substitute Teachers:** The District's use of a non-automated code-a-phone substitute system reportedly results in minimal problems and achieves the intended results. Whereas this assessment does not yield a recommendation, the Chillicothe CSD should review its non-automated code-a-phone system to ensure an efficient system is in place. In addition, there is a perception that the District is not effective in identifying and placing qualified substitute teachers. According to an AOS survey of District employees, 15 percent strongly disagreed and 18 percent disagreed when asked whether the current system is effective in placing substitutes. In addition, the AOS survey revealed that when employees were asked whether the District's substitutes were qualified and effective, 17 percent strongly disagreed and 34 percent disagreed. However, the performance audit analyzed the District's procedures for obtaining substitute employees, not the effectiveness of those substitutes.

Recommendations

Staffing

- R3.1 Chillicothe CSD should consider reducing up to 10 FTE office/clerical positions to bring staffing levels more in line with the peer district average. Savings from reduced salary and benefits expenditures can then be used to avoid projected deficits in future years or be reallocated to other District priorities.**

Table 3-3 shows office/clerical staffing levels for Chillicothe CSD in comparison to the peer district average.

Table 3-3: Office/Clerical Staffing Comparison

	Chillicothe CSD	Peer District Average	Difference
Office/Clerical Staff (FTE)	29.2	13.4	15.8
Students Educated (FTE)	2,912	2,069	843
Staff per 1,000 Students	10.0	6.5	3.5
FTE Staff Above Peer Districts (based on students educated)			10.2

Source: School district FY 2005-06 EMIS data as reported to ODE. Peer data has not been tested.

Office/clerical staffing levels are impacted by the number of students in a district, the number of administrators, total district staff, and the number of school buildings. **Table 3-3** indicates that in FY 2005-06, the District reported employing about 29 FTE clerical/office staff, excluding teaching aides, which was approximately 3.5 FTE positions higher than the peer district average on a per 1,000 students basis, or about 10 FTE positions. A reduction of 10 FTE office/clerical positions would bring the number of staff per 1,000 students more in line with the peer district average and save the District a significant amount through reduced salary and benefit costs.

Financial Implication: By reducing 10 FTE clerical/office positions, the District could save approximately \$139,000 in salaries and benefits if reductions are implemented halfway through FY 2006-07; \$291,000 in FY 2007-08 and a cumulative total of \$1.1 million dollars by FY 2009-10.

- R3.2 Chillicothe CSD should consider reducing the 6 FTE remedial specialists within the other non-teaching educational category who are paid from the General Fund. A reduction of 6 FTE positions would bring the District more in line with peer district staffing levels. Before making these reductions, the District should consider the potential effect on academic performance.**

Table 3-4 shows the District's other non-teaching educational staff in comparison to the peer district average. Non-teaching educational staff consists of curriculum specialists, remedial specialists, tutors/small group instructors, and other professional educational staff.

Table 3-4: Other Non-teaching Educational Staffing Comparison

	Chillicothe CSD	Peer District Average	Difference
Curriculum Specialists	0.0	0.1	(0.1)
Remedial Specialists	12.2	4.4	7.8
Tutor/Small Group Instructors	0.0	2.0	(2.0)
Other Professional Educational Staff	5.0	0.2	4.8
Total Other Non-teaching Educational Staff (FTE)	17.2	6.7	10.5
Students Educated (FTE)	2,912	2,069	843
Staff per 1,000 Students	5.9	3.2	2.7
FTE Staff Above Peer Districts (based on students educated)			7.9

Source: School district FY 2005-06 EMIS data as reported to ODE. Peer data has not been tested.

In comparison to the peer district average, the District employed about 2.7 FTEs per 1,000 students more than the peer districts, or about 8 FTE positions. According to the District's EMIS information, most positions in this category are grant funded, however about 6 FTE remedial specialists are funded by the General Fund. Eliminating the 6 FTE remedial specialists paid from the General Fund would reduce the District's salary and benefit costs.

Financial Implication: By reducing 6 FTEs within the other certificated staff classification, the District could save approximately \$89,000 in salaries and benefits in FY 2007-08 and a cumulative total of \$279,000 by FY 2009-10.

R3.3 Chillicothe CSD should consider reducing library support staff by 4 FTE employees. By reducing staffing in this area, the District can improve its future financial condition through reduced salary and benefit costs. A reduction of 4 FTE library support personnel would also bring the District more in line with the peer district average.

Table 3-5 shows library staffing levels for Chillicothe CSD in comparison to the peer districts.

Table 3-5: Library Support Staff Comparison

	Chillicothe CSD	Peer Districts Average	Difference
Library Technicians and Aides (FTE)	7.5	2.7	4.8
Students Educated (FTE)	2,912	2,069	843
Staff per 1,000 Students	2.6	1.3	1.3
Staff Above Peer Districts (based on students educated)			3.8

Source: School district FY 2005-06 EMIS data as reported to ODE. Peer data has not been tested.

Table 3-5 indicates that in FY 2005-06, the District employed approximately 1.3 more library technicians and aides per 1,000 students than the peer district average, or about 3.8 FTE positions. If Chillicothe CSD reduced library support staffing by 4 FTE positions it would be more in line with the peer district average and would save money through reduced salary and benefit costs.

Financial Implication: By reducing 4 FTE library support positions, the District could save approximately \$43,000 if reductions are made halfway through FY 2006-07; \$90,000 in FY 2007-08; and a cumulative total of \$326,000 by FY 2009-10.

Compensation

R3.4 Chillicothe CSD should consider limiting future administrative and classified employee cost of living adjustments (COLAs) to 1 percent each year in order to bring average salaries more in-line with the county averages. The above average administrative and classified average salaries suggest that limiting COLAs could provide the District with an opportunity to reduce costs while maintaining competitive salaries.

Table 3-6 illustrates Chillicothe CSD's administrative and classified average salaries in comparison to other districts in Ross County.

Table 3-6: FY 2004-05 Average Salary Comparison

District	Average Administrative Salary	Average Classified Salary
Chillicothe City SD	\$70,126	\$21,027
Ross County Average	\$61,332	\$18,897
Percentage Above County	13%	10%

Source: Ohio Department of Education (ODE). Data has not been tested for reliability.

FY 2004-05 average administrative and classified salaries were above the county average by 13 and 10 percent respectively. During the course of the audit, the District requested that an additional analysis regarding the administrative average salary be completed comparing the District's administrative average salary to other selected city school

districts in the area.² This additional analysis concluded that the average administrative salary in Chillicothe CSD was about 5 percent higher than these other city school districts. By limiting future COLAs to 1 percent in FY 2007-08 through FY 2009-10, administrative and classified average salaries would become more consistent with the county averages.

Financial Implication: Based on the assumptions in the District's five-year forecast, the District could save approximately \$65,000 in FY 2007-08, \$136,000 in FY 2008-09, and \$211,000 in FY 2009-10 for a cumulative savings of approximately \$412,000.

Insurance

R3.5 Chillicothe CSD should attempt to renegotiate language in its certificated employee collective bargaining agreement (certificated agreement) that specifies the type of health insurance the Board must provide. Instead, the District should negotiate the formation of an insurance committee to make recommendations regarding health insurance coverage. In order bring the health insurance premiums paid by the Board more in line with the State Employment Relations Board (SERB) average, Chillicothe CSD should consider cost containment strategies such as exploring other insurance carriers, modifying its health insurance coverage and terms, and other strategies recommended by the Government Finance Officers Association (GFOA). Achieving lower premiums will save money for both the District and its employees.

Table 3-7 and **Table 3-8** illustrate health insurance premiums and employee contribution rates in FY 2005-06 for single and family coverage, respectively. The District's health insurance premiums were compared to the SERB average for districts with enrollments ranging from 2,500 to 9,999 students.

² City school districts used for salary comparisons were Athens City, Circleville City, Jackson City, and Portsmouth City school districts.

Table 3-7: Single Health Insurance Premiums and Contribution Rates

District	Provider	Single Plan Monthly Premium	Board Share	Single Share	Number of Employees	Employee Share	Annual Board Cost
Chillicothe CSD	Anthem Blue Cross / Blue Shield						
	Certificated (Full-time)	\$403.45	\$403.45	\$-	72	0.0%	\$348,580.80
	Classified (Full-time)	\$403.45	\$393.45	\$10.00	53	2.5%	\$250,234.20
	Half-time	\$403.45	\$201.73	\$201.72	0	50.0%	
	Classified (71% time)	\$403.45	\$286.45	\$117.00	3	29.0%	\$10,312.20
Weighted Average		\$403.45	\$396.57	\$6.88	128	1.7%	\$609,127.00
SERB 2005 (2,500-9,999 ADM)		\$382.74	\$346.76	\$35.98	N/A	9.4%	N/A

Source: Chillicothe CSD Single Health Insurance Plan and Enrollment and SERB benchmark.

Table 3-8: Family Health Insurance Premiums and Contributions

District	Provider	Family Plan Monthly Premium	Board Share	Family Share	Number of Employees	Employee Share	Annual Board Cost
Chillicothe CSD	Anthem Blue Cross / Blue Shield						
	Full-time	\$1,090.39	\$970.45	\$119.94	162	11.0%	\$1,886,554.80
	Half-time	\$1,090.39	\$485.23	\$605.16	0	55.5%	NA
	71% time	\$1,090.39	\$689.02	\$401.37	2	36.8%	\$16,536.48
Weighted Average		\$1,090.39	\$967.02	\$123.37	164	11.3%	\$1,903,091.28
SERB 2005 (2,500-9,999 ADM)		\$1,044.08	\$937.58	\$106.50	N/A	10.2%	N/A

Source: Chillicothe CSD and State Employment Relations Board.

Tables 3-7 and 3-8 show the District's single and family health insurance premiums are more costly than the SERB benchmark. The District's current premium for the single health insurance plan is about \$403 per month per employee, compared to the SERB average of \$383. For family coverage, the District's premium is about \$1,090 per month per employee compared to the SERB average of \$1,044.

Health Care Cost Containment (GFOA, 2004) suggests several best practices/programs for controlling healthcare costs, including the following:

- **Plan Design:** This includes adjusting co-payment and co-insurance levels to influence individual behavior with respect to network/out of network services, brand/generic prescriptions and over the counter medication, inpatient/outpatient services, and other decisions.

- **Vendor Management:** This includes steps such as audits of claims to ensure that carriers or third-party administrators pay benefits according to plan rules, verification of enrolled participants, and coordination of benefits.
- **Individual Health Management:** This includes efforts to encourage lifestyle changes through the implementation of wellness programs, disease management, financial incentives for behavior/lifestyle modification, employee education on healthcare matters, and greater cost awareness by making provider costs more “visible” to participants.
- **Aggregation (Consortium):** This includes obtaining better pricing and market leverage by participating in health care insurance pools.
- **Cost Sharing:** This includes obtaining savings through joint payment of premiums, co-payments, and co-insurance.

According to GFOA, healthcare cost containment for active and, when applicable, retired employees, is a critical component of long-term financial planning and budgeting. Cost containment is necessary to ensure a manageable level of Board liability.

Financial Implication: A reduction in single and family health insurance premiums to the SERB average would save the District approximately \$112,000 annually. Cumulative savings would be approximately \$336,000 over the forecast period.

R3.6 Chillicothe CSD should consider negotiating an increase in the employee contribution for the single member health insurance plan to 10 percent. An increase in the employee contribution will allow the District to reduce its benefit costs. Savings from reduced healthcare costs should then be used to avoid projected future year deficits.

In FY 2005-06, employees opting for family health insurance coverage paid about 11 percent of the total premium while employees enrolling in single coverage paid an average of less than 2 percent. SERB reports an average employee contribution level of around 10 percent for both single and family coverage. Because employees with single insurance coverage pay a much lower percent of insurance premiums, District costs are higher than if all employees contributed at rates similar to the SERB average.

Financial Implication: An increase in the employee contributions for single health insurance plans could save approximately \$51,000 annually. Cumulative savings over the remainder of the five-year forecast period would be approximately \$153,000.

R3.7 Chillicothe CSD should incorporate additional recommended policies and procedures into its Workers' Compensation Program. The implementation of the policy and procedure best practices could result in more effective review and inspection processes and supplement the District's efforts to reduce its workers' compensation risk rating to a more acceptable level.

According to the Bureau of Workers Compensation (BWC), the experience rating system is an incentive to promote safe working conditions. Employers who become experience rated can be credit-rated or penalty rated, depending on the claims cost record of their business. An experience modifier of less than 1.00 indicates that the entity has effectively managed workers' compensation costs and would be eligible for group rating programs in most cases. Group rating allows employers who are substantially similar in business type to merge their experiences (as one large employer) in an effort to achieve a lower premium rate than they could on their own.

Chillicothe CSD's Workers' Compensation experience modifier for FY 2005-06 is 1.09, which is above the 1.00 level, indicative of a penalty rating. The District's past experience modifiers are as follows: FY 2004-05 = 1.05; FY 2003-04 = 0.46; and FY 2002-03 = 0.41, which shows a trend toward higher penalty ratings. The District has created some practices in an attempt to mitigate the Workers' Compensation risk rating. Some of the practices the District has developed include accident analysis reports and inspection reports. The District has also contracted with an independent entity to monitor its workers' compensation program and claims.

OPPAGA (*Best Financial Management Practices*, 2002) suggests that school districts clearly assign school principals the authority they need to effectively manage their schools while adhering to district-wide policies and procedures. In doing so, school districts should complete the following:

- Review its Workers' Compensation Program to evaluate claims and expenses;
- Develop procedures that are distributed to all employees concerning prompt reporting of all on-the-job injuries;
- Develop a safety inspection program that determines the corrective actions necessary based upon past claims experience and proactive inspections of known and probable high-risk areas and professions; and,
- Develop strong cost-containment measures to limit the amount to be placed annually into the workers' compensation reserve fund.

Negotiated Agreements and the Collective Bargaining Process

- R3.8 Chillicothe CSD should establish and document a collective bargaining process that incorporates all the recommended elements of an effective process. Specifically, the District should designate individuals to be involved in the process and clearly define their roles and responsibilities. The District should also ensure that all individuals involved in the process are properly trained to carry out their responsibilities.**

The District's practices and procedures for collective bargaining are not documented. It uses historical, but undocumented, practices and procedures throughout the negotiation process and the make up of the negotiating team has not been consistent. Prior to the most recent negotiations, an administration team that included the Superintendent, Assistant Superintendent, and Treasurer along with the District's attorney participated in a meeting for the purpose of preparing a negotiation strategy, but this has not been a consistent practice.

According to OPPAGA (*Best Financial Management Practices*, 2002), school districts should designate a specific staff member or members to be responsible for labor relations and contract negotiations. Such staff should participate in annual training to enhance their knowledge of the negotiation process and legislative mandates. School districts should clearly define the roles and responsibilities of the persons participating in negotiations along with the roles of the superintendent and school board in order to prioritize issues while maintaining the confidentiality of the negotiation process.

Prior to negotiations, school districts should identify potential issues of concern that could be raised during the collective bargaining process and determine the potential costs related to those issues. In addition, school districts should determine estimated costs for all union proposals prior to continuing negotiations; ensure that its appointed negotiators have access to an attorney trained in collective bargaining law and procedure; and maintain and update records of the negotiating process.

- R3.9 Chillicothe CSD should seek to negotiate contract language addressing maximum class size in its certificated agreement that is consistent with the Ohio Administrative Code (OAC). The certificated agreement contains language that is inconsistent in that it requires the ratio of students to teachers to be based on average daily membership (ADM) while also requiring the ratio be calculated in accordance with the OAC.**

Requiring at least one FTE classroom teacher per 25 pupils in ADM is in conflict with the OAC §3301-35-05 which uses the "regular student population" to determine maximum class size. Using ADM to calculate the ratio of teachers to pupils requires the

District to operate above the State prescribed minimum standard of at least one classroom teacher for every 25 students in its regular student population.

By revising the language to accurately reflect provisions of the ORC, the certificated agreement will be in compliance with State laws; eliminate any confusion regarding how to calculate the student to teacher ratio; and provide the District with the flexibility to reduce staffing levels to State minimum standards if the need arises.

R3.10 Chillicothe CSD should document the annual costs and savings from the early retirement incentive provided within the certificated agreement. The District should conduct a cost benefit analysis to determine the effect the incentive for early retirement is having on the District. If the District cannot document annual savings from the retirement incentive, it should negotiate changes to make the program cost effective.

The District currently has a significant number of certificated personnel who are eligible for retirement. The certificated agreement offers an incentive for early retirement that ranges from 40 percent of final salary after 30 years of service to 10 percent with 34 years of service.

The retirement incentive has reportedly been included in the certificated agreements since 1983. The Board has attempted to remove the retirement incentive provision from the certificated agreement in the past but has been unsuccessful. Neither the Board nor the administration has ever completed a cost benefit analysis on the incentive. At one time, the District's administrators attempted to conduct an analysis of the retirement incentive; however the data collected was insufficient to reach a conclusion.

The Oregon School Boards Association recommends that prior to offering an early retirement incentive (ERI), school districts should conduct a cost-benefit analysis to ensure the offering adds value and enhances the overall retirement program. If school districts fail to conduct an analysis prior to initiating the ERI, the result could be a significant financial burden to the district. School districts should evaluate an ERI both in terms of effectiveness and fiscal impact.

According to the Oregon School Boards Association, early retirement does not create employee attrition; it borrows it from the near future. The beneficial use of early retirement incentives would appear to be restricted to situations where an employer is facing a one-time need to cut back or reorganize. This means that frequent repetition of early retirement incentives is not likely to be cost effective.

R3.11 Chillicothe CSD should strive to reduce sick leave use by developing a strong district-wide policy on sick leave abuse. Although the District tracks employee leave use, it should also regularly monitor employee leave use to identify potential patterns of abuse.

The District does not have leave policies in place to govern leave use or address patterns of abuse. The District cited no known instances of sick leave abuse but was unable to provide documentation to support this assertion. The District reported that certificated staff tend to exhaust their personal time each school year. The District also believes that both certificated and classified staff do not always adhere to guidelines for acceptable personal leave use outlined in the collective bargaining agreements. In response to an AOS survey of District employees, 30 percent of responders strongly disagreed, 49 percent disagreed, and 11 percent were neutral when asked if the District's employee sick leave policy is too lenient.

Table 3-9 shows how Chillicothe CSD certificated and classified employee leave use compared to State averages in FY 2004-05.

Table 3-9: Employee Sick Leave Comparison for FY 2004-05

	Total Days Taken	Total Number of Employees	Leave Hours Per Employee	Average Leave Days Per Employee	State Average Leave Hours Per Employee	State Average Days Per Employee	Leave Days Above State Average
Certificated	2,026.5	203	79.9	10.0	51.3	6.4	3.6
Classified	1,105.2	121	73.1	9.1	57.8	7.2	1.9

Source: Chillicothe CSD and Ohio Department of Administrative Services. Data not tested for reliability.

As shown in **Table 3-9**, Chillicothe CSD was higher than the State average reported by the Ohio Department of Administrative Services (DAS) for sick leave use for both certificated and classified employees.

The certificated agreement provides a financial incentive to employees who limit their leave use. The District's certificated employee "Perfect Attendance Plan" pays an employee \$500 for using no sick leave, no personal leave, and no unpaid leave during the school year. An employee who uses one day of leave during a school year is paid \$300. An employee who uses no more than two days of leave during the school year is paid \$150. Because the District's rate of sick leave use is higher than the State average, the incentive may not be effective and the District may want to consider altering or eliminating the incentive in future certificated agreements.

The certificated collective bargaining agreement also has a provision that new and returning employees will be advanced the number of sick days at the beginning of their

first month of service for the school year so their accrued sick leave balance equals five days. Effectively, employees that use all their sick leave in the prior year, start the new year with five sick days. The agreement also provides certificated employees with a sick leave bank that allows employees to deposit sick leave and makes them eligible for withdrawals of sick leave from the bank when necessary. These two provisions in the certificated agreement provide an incentive for employees to use any accrued sick leave.

Table 3-9 shows that classified employees' sick leave use was also higher than the DAS average by 1.91 days per employee. While in most cases there is no direct cost to the District when classified employees take sick leave, there is a loss in productivity which cannot be easily quantified.

The classified agreement does not provide an employee leave incentive, yet the rate of sick leave use was lower than that of certificated employees. Similar to the language in the certificated employee collective bargaining agreement, new and returning classified employees are credited with a specific number of sick days at the beginning of each year so their total number of sick days equals five.

Best Financial Management Practices (OPPAGA, 2002) recommends that school districts have an efficient and cost-effective system for managing absenteeism, the use of substitute teachers, and other substitute personnel. School districts should monitor absence rates for teachers and other employees and should develop policies/practices to deal effectively with excessive absenteeism. According to the Society for Human Resources Management (SHRM), an incentive to reduce sick leave use can help organizations manage attendance proactively.

The District should strive to bring its sick leave use, particularly for certificated employees, more in line with the State averages. Developing an employee leave policy could help the District reduce the costs and lost productivity associated with absenteeism.

Financial Implication: If the District was able to reduce certificated employee sick leave to the reported State average, it would save approximately \$58,000 annually based on a substitute pay rate of \$80 per day.

R3.12 Chillicothe CSD should attempt to negotiate a lower maximum number of sick days that certificated and classified employees that can accrue and/or reduce the payout for sick days upon separation in order to reduce the District's severance liability.

Section 3319.141 of the ORC allows school employees to accrue up to 120 days of sick leave, but allows boards of education to approve a higher amount. According to ORC section 124.39, if an individual retires from active service with ten or more years of service, they are entitled to be paid in cash for one-fourth of the value of their accrued but

unused sick leave credit up to 30 days. However, the ORC allows boards of education to adopt policies allowing payment for more than one-fourth the value of their unused sick leave, payment for more than the aggregate value of thirty days of unused sick leave, and the number of years of service to be less than ten.

The District's certificated agreement allows employees to accrue up to 266 sick days. More importantly, the certificated agreement requires the payout of unused sick leave to be calculated at a rate of 28 percent for the first 210 days accumulated and 10 percent for the next 50 days. A certificated employee who has accumulated the maximum number of sick days under the current certificated agreement would receive a severance payout equivalent to 63.8 days of pay which is more than double the guideline established in the ORC.

The District's classified agreement provides that the calculation of severance pay shall be based on the employee's accumulated and unused sick leave, and the maximum accumulated and unused sick leave for this calculation shall be limited to 172 days. A classified employee who separates from service for reasons other than retirement or for just cause discharge shall have his/her accumulated sick leave multiplied by 25 percent and that figure shall be multiplied by the employee's rate of pay at the time of separation. For an employee who retires, the accumulated sick leave shall be multiplied by 40 percent and that figure shall be multiplied by the employee's rate of pay at the time of service retirement. A classified employee who retires with the maximum number of accrued sick days could earn the equivalent of 68.8 days pay, which is also more than double the amount suggested by the ORC guidelines.

By reducing the maximum number of sick days that certificated and classified employees can accrue, the District could reduce its liability for severance pay when an eligible employee retires or elects to terminate employment with the District. No financial implication on the five-year forecast was calculated because the number of employees retiring and the amount of their accrued sick leave could not be estimated.

Human Resources Management Issues

R3.13 Chillicothe CSD should formally survey its employees annually to gather their opinions on job satisfaction and other information about the working environment.

During the course of the audit, the District completed a staff survey developed by the North Central Association Commission on Accreditation and School Improvement.

The District's business office has survey forms available for all employees that address improving District efficiency. Employees can complete the forms to provide opinions,

feedback, comments on job satisfaction, and other information about the working environment. Even though the District provides employees the opportunity to provide feedback, only a few take advantage of it. In an AOS survey of District employees, approximately 32 percent of responders indicated they were not satisfied with how human resources activities are managed, and 32 percent of responders were neutral. Also, the AOS survey indicated that approximately 31 percent of responders disagreed with the overall effectiveness of human resources management policies and procedures, and 30 percent of responders were neutral.

Best Financial Management Practices (OPPAGA, 2002) recommends that school districts provide opportunities for employee feedback on district policies and practices that affect their areas of work or expertise. Also, the Society for Human Resource Management states that employee surveys are designed to address broad work-related topics to gauge employee morale, department interactions, attitudes toward management, and root causes of turnover.

By periodically distributing survey forms to staff, the District will receive feedback from a larger number of employees and thus achieve a better understanding of employee job satisfaction. The District should use the survey data to improve the work environment for its employees.

R3.14 Chillicothe CSD should develop and adopt a formal recruiting plan that encompasses all National Education Association (NEA) best practices for recruiting. A formal recruiting plan would help the District effectively address staffing needs.

During the course of the audit, the District developed a formal recruiting plan.

Chillicothe CSD does not have a documented recruiting plan. When the District has an open position, the announcement is first posted in each school building within the District for approximately one week. The posting is then placed on both the State of Ohio and District websites. The District allows a brief period of time for in-house applicants to apply for first consideration and then accepts outside applications. The certificated contract requires that for a regular teaching or supplemental position, the personnel office must post the vacancy. In addition, two copies of the vacancy are sent to each school building with one copy is posted on the faculty bulletin board. The classified contract does not address postings for job vacancies.

The principal of the building with a vacant certificated position reviews applications and interviews candidates. If the posting is for a classified position, the immediate supervisor of that open position reviews applications and interviews candidates. After supervisors or principals interview candidates, they submit recommendations to the Superintendent who then conducts a final interview and makes the decision whether to hire the candidate.

In an AOS survey of District employees, when asked whether the overall District recruitment process was effective, 20 percent of responders disagreed and 27 percent responded as neutral.

NEA recommends that school districts develop a comprehensive recruiting plan to address staffing needs. NEA suggests that districts:

- Gather a recruitment team to evaluate the district's needs, identify resources, and recommend a list of desired changes in policies and practices;
- Assess the needs of the district to determine the number of teaching staff that are needed as well as the curriculum areas;
- Clarify the academic mission, identify what new teaching staff should be able to provide, identify the population of potential teachers and how to appeal to their interests, as well as how to attract them to the community; and
- Ensure that accurate data is maintained throughout the recruiting process to assist with future recruiting efforts by determining which methods are effective, ineffective, or require alteration.

A formal recruiting plan would help the District efficiently and systematically address educational staffing needs. A recruiting plan that incorporates NEA best recruiting practices would ensure that candidates who best represent the District's requirements for its educational work force are identified and targeted.

R3.15 Chillicothe CSD should complete the process of updating job descriptions for all District staff to ensure that position information is accurate, sufficiently detailed, and clearly communicates performance expectations. Once the process is complete, the District should annually review job descriptions and revise them as needed.

The District does not have current, up-to-date job descriptions for all employees. Prior to FY 2005-06, job descriptions had remained unaltered since the 1970s. In FY 2005-06, the Assistant Superintendent began the process of updating job descriptions. Updated job descriptions are dated and submitted to the Board for approval. Job description reviews are listed on Board meeting agendas and documented in Board minutes. According to the classified agreement, District administrators must include representatives from the bargaining unit in the process of updating employees' job descriptions. The Assistant Superintendent indicated that this provision has delayed the process for updating classified employee job descriptions. In the certificated agreement, there is no such requirement for certificated employees or their representative to participate in updating job descriptions. However, the District indicated that the certificated employee bargaining unit wants to provide input on job descriptions and participate in the updating process.

How to Write Job Descriptions (Business & Legal Reports, Inc., 1993) states that job descriptions fulfill the following:

- Clarify who is responsible for what within the company;
- Define relationships between individuals and departments;
- May settle grievances, minimize conflicts, and improve communications;
- Help the jobholder understand the responsibilities of the position;
- Assist job applicants, employees, supervisors, and human resources professionals at every state in the employment relationship, from recruitment to retirement;
- Help management analyze and improve the company's structure; and,
- Provide a basis for job evaluation, wage and salary surveys, and an equitable wage and salary structure.

Best Financial Management Practices (OPPAGA, 2002) recommends that school districts maintain up-to-date, clear, concise, and readily accessible position descriptions that accurately identify the duties of each position and the education, experience, knowledge, skills, and competency levels required for each class of position and for each district-level administrative position.

By maintaining up-to-date job descriptions, the District could eliminate many questions regarding employee job duties. In addition, updated job descriptions could encompass changes in technology that are now essential for the District's operations. Job descriptions could also be used to ensure that qualified candidates are hired for the positions.

R3.16 Chillicothe CSD should formally or informally evaluate its certificated personnel by some means on at least an annual basis to be more consistent with recommended best practices. In addition, the District should negotiate changes to certificated agreement that would allow formal evaluations each year.

In accordance with the certificated employee collective bargaining agreement, the District's principals conduct certificated employee evaluations. Certificated employees who have limited contracts, or contracts effective for a fixed term not exceeding five years, are evaluated during the first year of employment, then every three years, and in the final year of the contract. Certificated employees who have continuing contracts, or contracts that remain in effect until the teacher either resigns or elects to retire, are subject to evaluations once every five years. Evaluations are outlined in the certificated contract and consist of a pre-observation conference, an observation of classroom performance, and a post-observation conference held within seven school days after the classroom observation. Certificated evaluations address such areas as organization, goals, student responsibilities, presentation of information, and professionalism.

OPPAGA (*Best Financial Management Practices*, 2002) recommends that school districts establish and implement procedures for assessing the performance of all personnel. School districts should verify that all instructional employees receive performance evaluations at least once a year and all non-instructional employees receive performance evaluations as required by district policy. The evaluation process should be structured in such a way that employees are clearly informed when their performance does not meet the district's expectations. As for school administrators, OPPAGA recommends the evaluation be made after considering feedback solicited and received from non-administrative personnel and/or parents.

Limiting certificated employee evaluations to one occasion during a five-year period creates a potential adverse situation for the District. Because the Chillicothe CSD does not conduct evaluations or periodically monitor certificated staff by some means each year, the District could be unaware of certificated staff that are performing below expectations and require additional training. By conducting annual evaluations and providing annual feedback, the District will more clearly communicate goals and expectations to its certificated employees and will establish criteria to assess certificated employee performance under limited and continuing contracts.

R3.17 Chillicothe CSD should formally compile the results of exit interviews with employees who have voluntarily left the District. The District should also maintain historical data on turnover rates for major employee classifications. Exit interview information and employee turnover rates would be helpful in identifying trends and areas of concern.

The District reported that it experiences high employee turnover but was not able to provide specific data. Other than the District's practices for employee retention, the District cited no other means to address employee turnover. The District payroll supervisor conducts exit interviews with staff who resign from their position. Information collected from exit interviews is, on some occasions, passed on to the exiting staff member's supervisor. However, exit interview information is not formally captured or summarized in a consistent manner.

OPPAGA recommends that school districts conduct exit interviews with employees who terminate employment and compile the results of the interviews. School districts should maintain historical data on turnover rates for major classes of employees and monitor this data to identify unusual variations. By documenting information obtained from exit interviews, the District can refer to it when addressing turnover, job satisfaction or other employee issues that might not be immediately apparent to supervisors, administrators and the Board.

Special Education Programs

R3.18 Chillicothe CSD should implement the strategies it has identified to improve test scores of students with special needs and monitor the progress toward achieving federal improvement goals. After implementing improvement strategies, the District should continue to monitor its yearly progress.

Table 3-10 shows Chillicothe CSD and the peer district adequate yearly progress (AYP) based on the FY 2005-06 Local Report Cards issued by ODE.

Table 3-10: Chillicothe CSD and Peer District Performance Standards and Achievements for Students with Disabilities

	Chillicothe CSD	Peer Districts Average ¹
# of Performance Standards Met out of 25	17	23
Performance Index Scores	92	100
Students with Disabilities Proficiency Area	FY 2005-06 AYP	FY 2005-06 Average AYP
Reading		
Proficiency Percentage Goal	71%	71%
Percent Proficient	40%	60%
Math		
Proficiency Percentage Goal	54%	54%
Percent Proficient	35%	66%

Source: Ohio Department of Education

¹ Two of the ten peer districts were not required to measure adequate yearly progress in reading and three of the ten peer districts were not required to measure adequate yearly progress in mathematics both due to student group sizes being below minimum numbers for statistical reliability. The minimum student group size is 30, except "students with disabilities," which has a minimum group size of 45.

ODE reports school district AYP within its *Local Report Cards*. According to ODE, AYP is a federal mandate that holds schools accountable for the performance of all students and student subgroups. The goals for school districts and the State are to meet or exceed the annual objective or to make progress compared to the previous school year. The final goal is to have 100 percent of all students at or above proficient levels by FY 2013-14 in reading and math.

OPPAGA recommends that school districts maintain clearly stated goals and measurable objectives that can be achieved within budget for special education as well as for other major educational program areas. School districts should maintain an accountability system for routinely measuring special education programs and should compare performance to appropriate benchmarks and standards.

By continually monitoring the progress of special education programming and implementing methods to raise special needs student achievement, the District could progress towards performance levels more in line with the peer districts and provide some assurance to the community that the District is committed to students with special needs.

Financial Implications Summary

The following table summarizes the estimated savings for recommendations in this section of the performance audit. Some recommendations are subject to negotiation and will require agreement from the respective bargaining units.

Summary of Financial Implications for Human Resources

	Estimated Annual Savings
Recommendations Not Subject to Negotiations	
R3.1 Eliminate 10 Office/Clerical Positions	\$291,000
R3.2 Eliminate the 6 Remedial Specialist Paid Out of the General Fund	\$89,000
R3.3 Eliminate 4 Library Support Positions	\$90,000
<i>Subtotal Savings Not Subject to Negotiations</i>	<i>\$470,000</i>
Recommendation Subject to Negotiations	
R3.4 Limiting Future COLA for Administrative and Classified Staff	\$65,000
R3.5 Implement Cost Saving Strategies to Reduce Healthcare Premiums	\$112,000
R3.6 Increase Employee Contribution for Single Healthcare Plan	\$51,000
R3.11 Implement Policies to Reduce Sick Leave	\$19,000 ¹
<i>Subtotal Savings Subject to Negotiation</i>	<i>\$247,000</i>
Estimated Savings for FY 2007-08	\$717,000

Source: Chillicothe CSD and AOS.

¹Represents one-third of annual savings. Total annual savings estimated to be \$58,000.

Appendix 3-A: Employee Survey Responses

An employee survey was distributed by AOS to all Chillicothe CSD employees. The purpose of the survey was to obtain employee feedback and perceptions of customer service and related issues. A section of the survey solicited responses to a variety of human resource issues and the results are illustrated in **Table 3-11**. Survey responses were based on a scale of 5 to 1, where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree.

Table 3-11: AOS Employee Survey Results - Human Resources

Survey Questions	Client Results
1) I am aware of the duties required in my job description. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	1% 4% 3% 33% 58% 1%
2) My job description accurately reflects my actual daily routine. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	4% 11% 7% 37% 37% 4%
3) Our department could effectively maintain productivity in the event of a short-term absence. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	4% 10% 8% 46% 29% 4%
4) The Board of Education monitors its performance and achievement of its goals. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	2% 5% 24% 41% 15% 13%

Survey Questions	Client Results
5) I am aware of the Board of Education's achievement goals. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	3% 20% 25% 36% 13% 3%
6) Cross-training has been implemented in my department. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	5% 19% 22% 21% 9% 24%
7) Staff training is effective in my department. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	6% 18% 21% 34% 15% 6%
8) I am evaluated annually. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	4% 21% 12% 32% 22% 9%
9) The evaluation process provides timely and relevant feedback. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	3% 11% 16% 42% 21% 7%
10) Evaluations are done in accordance with collective bargaining contracts. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	1% 4% 11% 40% 35% 8%
11) The evaluation form used is relevant to my job duties. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	1% 8% 17% 43% 24% 6%

Survey Questions	Client Results
12) Management responds and acts on recommendations made in evaluation sessions. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	4% 8% 27% 36% 12% 12%
13) The District's employee's sick leave policy is too lenient. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	30% 49% 11% 1% 3% 6%
14) The District's employee substitutes are qualified and effective. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	17% 34% 25% 18% 2% 5%
15) Current substitute system is effective in placing substitutes. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	15% 18% 25% 29% 7% 6%
16) I am aware of few lapses in certificate/licenses due to lack of management oversight. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	8% 13% 23% 18% 8% 30%
17) I am satisfied with how Human Resources activities are managed in the District. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	10% 22% 32% 23% 5% 9%

Survey Questions	Client Results
18) I am satisfied with the overall effectiveness of Human Resources management policies and procedures. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	8% 23% 30% 24% 4% 11%
19) I am informed of changes in District policies and procedures. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	6% 20% 25% 32% 11% 7%
20) The Districts overall recruitment process is effective. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	9% 20% 27% 19% 2% 22%
21) The District's procedures regarding job posting and hiring are effective. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	5% 20% 21% 39% 11% 4%
22) I am satisfied with procedures regarding health benefits. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	5% 20% 18% 41% 10% 6%
23) Current grievance procedures are fair and effective. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	8% 13% 25% 33% 6% 15%

Survey Questions	Client Results
24) Current discipline procedures are fair and effective. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	14% 23% 25% 23% 4% 11%
25) I feel overall District employee's satisfaction and morale is positive. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree 6) No Opinion	8% 39% 20% 28% 4% 1%

Source: AOS Client Survey of Chillicothe CSD employees.

Facilities

Background

The facilities section focuses on custodial and maintenance staffing; operations; expenditures; and building utilization in the Chillicothe City School District (Chillicothe CSD or the District). The objective is to analyze building operations and develop recommendations for improvements and possible reductions in expenditures. Throughout the report, comparisons are made to best practices and benchmarks from the following organizations: the National Center for Education Statistics (NCES), the Florida Office of Program Policy Analysis and Governmental Accountability (OPPAGA), the Offices of the Legislative Auditor of the State of Minnesota, the U.S. Department of Energy (DOE), the International Sanitary Supply Association's (ISSA), the American School and University Magazine (AS&U), and DeJong and Associates, Inc.

Chillicothe CSD consists of twelve buildings: four elementary schools, one middle school, and one high school. The District's administrative offices are located at the Western Annex building, which also accommodates classroom space for the District's preschool program. Additional District facilities include the Hopewell building, the Trent building, the Bus Garage, the Field House, and the locker room.

The District sold Central Elementary School and a warehouse in FY 2004-05. In FY 2005-06, the District entered an agreement to sell McArthur Elementary School which ultimately failed; however, the District is not planning to put the building back into service. To accommodate the redistribution of students from the closure of Central Elementary School, the District consolidated into one middle school (J.A. Smith Middle School) and converted the Mount Logan Middle School into an elementary school. Furthermore, the District repurposed the Hopewell Elementary School to house the maintenance department and the facilities administration offices, along with the District's latchkey program.

The District is in the process of renovating and adding on to its high school. Construction is scheduled to be completed in two phases. The first phase was completed in 2006 and includes an addition to the north end to create the new Chillicothe High School. Phase two of the construction project includes renovations to the original section of the high school building, as well as additions to the south end of the facility which will serve as the new middle school. Phase two additions also will include music rooms and a basketball gymnasium. The new middle school is scheduled to open in FY 2007-08.

In 1997, Chillicothe CSD issued bonds authorized by House Bill 264 to make energy efficiency upgrades throughout the District. The District installed new valve controls on the heating units

and added technology to monitor energy usage. It also made plumbing modifications; replaced old windows; added new boilers; and upgraded lighting fixtures. The total cost for installing the new equipment was \$2.4 million. According to the District, the installation of the new equipment generated a cost savings from FY 1998-99 to FY 2003-04 of \$1.9 million. Additionally, the Supervisor of Buildings and Grounds stated that the District has continued to contract with its vendor to monitor the District's utility usage and to provide the District with quarterly reports of its utilities expenditures at a cost of \$14,000 a year. The vendor also notifies the Supervisor of Buildings and Grounds of abnormal changes in utility usage and costs that may merit an investigation.

Organizational Structure and Function

The facilities office is responsible for the operation and upkeep of the District's facilities. The Supervisor of Buildings and Grounds spends approximately 65 percent of his time managing and overseeing the operation of the facilities. The remainder of his time is divided into three categories: 20 percent as a construction liaison, 15 percent as a grounds keeper in the summer, and any remaining time on miscellaneous activities, such as resolving pesticide issues or attempting to complete preventive maintenance. The facilities administrative staff also includes an assistant to the supervisor whose time is split between two job functions. Approximately half of the assistant's time is used in scheduling substitute custodians (see **R3.11** in **human resources** section). The other half of the assistant's time is committed to maintaining the work order system and other various administrative tasks. The building principals are responsible for managing custodial staff, overseeing day-to-day building operations, and reporting any issues to the Supervisor of Buildings and Grounds.

Table 4-1 illustrates the custodial and maintenance staffing levels responsible for maintaining Chillicothe CSD's facilities.

Table 4-1: Custodial and Maintenance Staffing for FY 2005-06 (in FTEs)

Classification	Total Number of FTE Positions¹
Supervisor	1
Assistant to the Supervisor	1
Maintenance Staff	5
Custodians	18
Groundskeeper	1
Total Facilities Staff	26

Source: Chillicothe CSD

¹The number of custodial and maintenance employees in the **facilities** section may differ from that of the **human resources** section because of the manner in which the EMIS report presents FTE employees by position.

The District has a total of 18 FTE custodians. The custodians report directly to the building principals and are responsible for providing a clean and safe environment for the students, staff, and public who use the facilities. In addition, the District has 5 FTE maintenance workers, 1 FTE grounds keeper, and a full-time assistant to the supervisor who all report directly to the Supervisor of Buildings and Grounds. The District employs only one groundskeeper because it has historically received additional volunteer services in order to meet grounds keeping needs.

Key Statistics

Key statistics related to the maintenance and operations of Chillicothe CSD are presented in **Table 4-2**. In addition, results from the 34th Annual American Schools & University (AS&U) *Maintenance & Operations Cost Study* and statistics from the National Center for Education Statistics (NCES) are used in **Table 4-2** and throughout this section of the audit. AS&U conducted a detailed survey of chief business officials at public school districts across the nation to gather information regarding staffing levels, expenditures, and salaries for maintenance and custodial workers. This year's report provides the national median and a national mean number for districts with enrollment of less than 1,000 students; between 1,000 and 3,499 students; and greater than 3,500 students.

Table 4-2: Key Statistics and Indicators

Number of Buildings	12
Elementary Schools	4
Middle School	1
High School	1
Administration	1
Other ¹	5
Total Square Feet Maintained	462,404
Elementary Schools ²	231,412
Middle School ³	82,342
High School ⁴	148,650
Square Feet Per FTE Custodial Staff Member (18 FTEs)	25,689
Elementary Schools ² (9 FTEs)	25,712
Middle School ³ (4 FTEs)	20,586
High School ⁴ (5 FTEs)	29,730
NCES National Average	28,000
Square Feet Per FTE Maintenance Staff Member (5 FTEs)	92,481
AS&U 34th Annual Cost Survey > 3,500 Student Median	85,572
AS&U 34th Annual Cost Survey National Median	87,931
FY 2004-05 Maintenance and Operations Expenditures Per Square Foot⁵	\$4.33
Custodial and Maintenance	\$2.84
Utilities	\$1.48
AS&U 34th Annual Cost Survey > 3,500 Student Median	\$3.94
AS&U 34th Annual Cost Survey National Median	\$3.84

Source: Chillicothe CSD's AS&U 34th Annual Maintenance & Operations Cost Survey, and the National Center for Education Statistics (NCES). District square footage was self-reported by the District and is not tested for reliability.

¹Other buildings includes the Hopewell building, the Bus garage, the Field house, the Locker room, and the Trent building.

²Elementary School square footage includes the Western Annex (administrative offices) and the Hopewell buildings.

³Middle School square footage includes the J.A. Smith Middle School, the Field House, and the Locker room.

⁴High School square footage includes the Trent building and bus garage.

⁵Cost per square foot may vary due to rounding.

Financial Data

Table 4-3 illustrates the General Fund expenditures incurred to maintain and operate Chillicothe CSD's facilities for FY 2002-03, FY 2003-04, and FY 2004-05.

Table 4-3: Maintenance and Operations Expenditures

Accounts	FY 2002-03	FY 2003-04	Percent Change from FY 2002-03	FY 2004-05	Percent Change from FY 2003-04
Salaries	\$1,070,158	\$960,201	(10.3%)	\$777,234	(19.1%)
Benefits	\$425,071	\$454,205	6.9%	\$359,876	(20.8%)
Purchased Services	\$165,548	\$167,550	(3.1%)	\$70,886	(57.7%)
Utilities	\$627,224	\$650,402	3.7%	\$685,980	5.5%
Supplies/Materials	\$151,535	\$106,493	(29.7%)	\$87,312	(18.0%)
Capital Outlay ¹	\$29,706	\$1,671	(94.4%)	\$0	(100.0%)
Other	\$11,597	\$30,579	100.0%	\$20,171	(34.0%)
Total	\$2,480,838	\$2,371,101	(4.4%)	\$2,001,459	(15.6%)

Source: Chillicothe CSD year-end unaudited financial records for FY 2002-03, 2003-04, and 2004-05. Data was not tested for reliability.

¹The District passed a Permanent Improvement Levy in FY 2003-04 that is used to fund Capital Outlay expenditures.

The decreases in expenditures from FY 2002-03 to FY 2004-05, as shown in **Table 4-3**, are due to the District's financial condition and efforts to reduce costs. The decreases occurred in the salaries and benefits, purchased services, supplies and materials, and other categories. The decrease in salaries and benefits is due primarily to the reduction of four custodial and maintenance staff from FY 2003-04 to FY 2004-05. The decrease in purchased services is primarily attributed to the reduction of expenditures in operation and maintenance services due to the District's financial condition (see *Assessments Not Yielding Recommendations*).

Table 4-4 illustrates Chillicothe CSD's FY 2004-05 General Fund custodial and maintenance-related expenditures per square foot along with results from the AS&U cost study.

Table 4-4: Facilities Expenditures per Square Foot in FY 2004-05

Cost Area	Chillicothe CSD	AS&U Median 1,000 – 3,499 Students	AS&U National Median
Salaries/Benefits	\$2.46	\$2.05	\$1.79
Purchased Services (excl. utilities)	\$0.15	\$0.17	\$0.24
Utilities	\$1.48	\$1.36	\$1.35
Supplies/Materials	\$0.19	\$0.25	\$0.27
Capital Outlay	\$0.00	N/A ¹	N/A ¹
Other	\$0.04	\$0.11	\$0.19
Total General Fund Expenditures²	\$4.33	\$3.94	\$3.84

Source: Chillicothe CSD FY 2004-05 unaudited year-end financial records and AS&U 34th Annual Maintenance & Operations Cost Survey. Data was not tested for reliability.

¹N/A is stated for any categories where AS&U does not report a national median.

²Cost per square foot figures may vary due to rounding.

As indicated in **Table 4-4**, salaries and benefits per square foot are higher than the AS&U median for districts with 1,000 to 3,499 students, which is primarily attributable to several employees' long tenure in the District and the previous higher staffing in custodial and maintenance positions. Utilities expenditures per square foot are also higher than the national median, due mainly to regional increases in the cost of natural gas. As a result, the District reported total General Fund expenditures of \$4.33 per square foot, which is approximately 10 percent higher than the AS&U median for districts with 1,000 to 3,499 students.

Noteworthy Accomplishment

During the course of the audit, the following practice was identified as a noteworthy accomplishment because it met or exceeded best practices:

- **Grounds Keeping Expenditures:** Chillicothe CSD has assigned 1 FTE maintenance employee to maintain 84 acres. AS&U's national median for grounds keeping in districts with 1,000 to 3,499 students is 48 acres per grounds keeping FTE. Chillicothe CSD supplements grounds keeping by assigning additional employees on an as needed basis and by using volunteer services when possible.

Assessments Not Yielding Recommendations

In addition to the analyses presented under *recommendations*, assessments were conducted on other aspects of facilities operations that did not warrant changes and did not yield recommendations. These areas include the following:

- **Custodial and Maintenance Reporting Relationships:** An assessment of the District's lines of authority indicates that proper checks and balances are in place. Based on a review of the District's organizational chart and lines of authority, it was concluded that appropriate levels of management and supervision exist.
- **Purchased Services Expenditures:** In FY 2004-05, the District reported \$71,000 in purchased services costs, which represents approximately \$0.15 per square foot while the AS&U reports the national median for districts with 1,000 to 3,499 students of \$0.17 per square foot.
- **Work Order Procedures:** Chillicothe CSD has established an effective manual work order system. The assistant to the supervisor effectively monitors the work order process and provides each principal with monthly status reports.

Issues for Further Study

Auditing standards require the disclosure of issues identified during an audit that were not reviewed in depth. Those issues may not be directly related to the audit objectives or may be issues that the auditor does not review within the scope of the audit. AOS has identified the following as issue requiring further study:

- **10-Month custodial positions:** Chillicothe CSD currently has 18 custodians cleaning 462,404 square feet or 25,689 square feet per FTE custodian. The NCES recommends 28,000 square feet per FTE custodian. The District's custodians are cleaning fewer square feet than the national benchmark which suggests the potential for a reduction in custodial staff. However, upon the completion of the construction project in FY 2007-08, the District will have additional square footage that needs to be cleaned, so the existing custodial staff may be necessary (see **R4.1**). Nevertheless, upon the completion of the construction project, the District should explore using 10-month custodians in a limited number of positions.

Recommendations

R4.1 Chillicothe CSD should refrain from hiring any new custodians until the current construction project is complete in FY 2007-08 and the appropriate number of elementary schools has been determined (see R4.13). The District's current staffing level should be adequate to clean and maintain the additional square footage resulting from the completion of the construction project. Furthermore, after the Board determines the number of buildings it will operate, Chillicothe CSD should reallocate custodial staff to achieve a workload that is balanced among custodians and in line with the national benchmarks.

Table 4-5a illustrates the average square footage cleaned per custodian in 2005-06 and, in Table & 4-5b, how this will increase when the construction project is complete.

Table 4-5a: Custodial Staffing by Building Type

Building Type	FTE Custodians	FY 2005-06 Square Footage Cleaned	FY 2005-06 Sq Ft. per Custodian
Elementary ¹	9.00	231,412	25,712
Middle School ²	4.00	82,342	20,586
High School ³	5.00	148,650	29,730
Total for all buildings	18.00	462,404	25,689

Source: Chillicothe CSD. District square footage not tested for reliability.

¹Elementary School square footage includes the Western Annex and Hopewell buildings.

²Middle School square footage includes the J.A. Smith Middle School, the Field House, and the Locker room.

³High School square footage includes the Trent building and bus garage.

Table 4-5b: Projected Custodial Staffing by Building Type

Building Type	FTE Custodians	FY 2007-08 Square Footage Cleaned	FY 2007-08 Sq Ft. per Custodian
Elementary Schools ¹	9.00	231,412	25,712
High School and Middle School Campus ²	9.00	281,108	31,234
Total for all buildings	18.00	512,520	28,473

Source: Chillicothe CSD. District square footage not tested for reliability.

¹Elementary Schools square footage includes the Western Annex and Hopewell buildings.

²High School and Middle School square footage includes the new high school and middle school campus as well as the Trent building, Locker Room, Field House, and bus garage.

Based on the 462,404 square feet cleaned in FY 2005-06, custodians are cleaning an average of 25,689 square feet which is below the NCES national average of 28,000 shown in Table 4-2. However, upon the completion of the construction project, the average square footage cleaned per custodian across the District will increase to 28,473 based on an estimated total square footage of 515,520. However, according to the

District, it is unlikely that the full 515,520 square feet will be cleaned and maintained because the Board is considering reconfiguring grades and buildings (see **R4.13**).

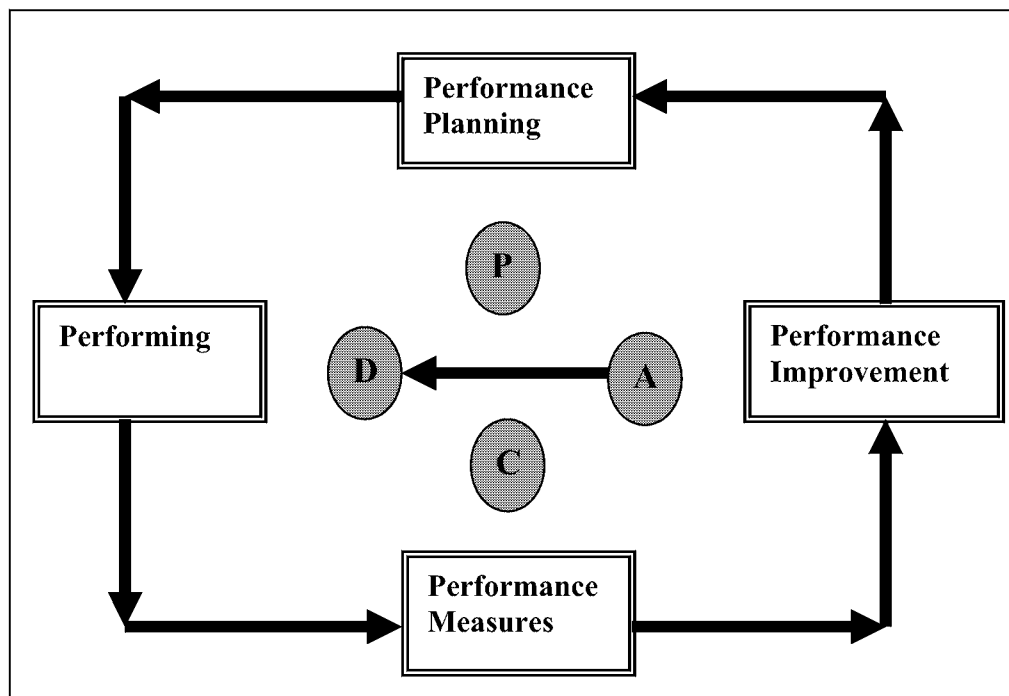
Operating with an average square footage per custodian that is below the national average can result in higher salary and benefit costs. Consolidating or maintaining staffing levels to bring the square footage in line with the national benchmarks will generate more efficient custodial operations and reduce expenditures of scarce District resources.

R4.2 Chillicothe CSD should routinely compare its facilities maintenance and operations procedures, practices, and costs to accredited professional benchmark organizations, both state-wide and nationally. Doing so will enable the District to identify opportunities to reduce costs and improve the efficiency of its operations.

Chillicothe CSD does not routinely compare its operations and practices to benchmark criteria. However, an energy services company monitors energy usage and costs for the District, enabling it to evaluate energy-related operations and make decisions based on data. Any anomalies noted in cost or usage are immediately conveyed to the District and corrective action is considered. In addition, the District uses the consultant to evaluate energy purchase proposals.

Benchmarking and comparisons are part of a comprehensive performance management system. The model of a performance management system shown in **Figure 4-1** follows the Plan, Do, Check, Act (PDCA) cycle. These phases typically overlap in any performance management system and consist of:

- **Planning** – where the objectives and processes necessary to deliver results in accordance with the specifications are established.
- **Doing** – where the processes are implemented.
- **Checking** – where results against objectives and specifications are monitored, evaluated and reported.
- **Acting** – where actions are applied to improve outcomes.

Figure 4-1: Performance Management System Model

Source: W. Edward Deming's Performance Management System Model

Performance measures are identified by AS&U and published in an annual maintenance and cost study. The AS&U measures are developed using a specific survey methodology. The methodology consists of a detailed questionnaire that is sent to chief business officials at the nation's public school districts, asking them to document maintenance and operation (M&O) costs.¹ The annual M&O cost study offers various tables and charts that can help districts benchmark their M&O expenditures.

Routinely comparing facilities maintenance and operations procedures, practices, and costs to accredited professional benchmark organizations will provide the District with performance measures to evaluate the various aspects of facilities maintenance and operations. The District can then take action to improve the activities measured or compared. Further, routinely reviewing and modifying the steps in the performance management process will enable the District to continuously improve the efficiency and effectiveness of its facility operations.

¹ These costs may include salary/payroll, outside contract labor, utilities, gas, electricity, trash collection/disposal, maintenance and grounds equipment and supplies, and other costs, as well as various maintenance practices.

R4.3 Chillicothe CSD should establish a policy and procedures manual for its custodial and maintenance operations to help the staff better maintain functional, clean and safe facilities. Work processes and management, physical asset management, and resource management are the primary topics that should be covered in the policy and procedures manual. Furthermore, the District should review its policies and procedures annually and update them as needed.

The District does not have a custodial handbook or a maintenance handbook. Additionally, the District has not developed or implemented formal policy and procedures manuals for the custodial and maintenance operations, which was attributed to the long tenure and experience of the custodial and maintenance staff. District staff surveyed during the course of the audit replied in the negative over 65 percent of the time when asked if custodial and maintenance staff deliver quality services. Sixty one percent said that facilities were not properly cleaned. Fifty one percent of respondents said that the cleaning schedule was not appropriate. In addition, 47 percent of respondents indicated that custodial tasks were not completed in an effective or efficient manner. Several respondents also commented that their building exhibited poor cleaning and had an unclean odor. While walking through buildings, auditors noted that one was unclean and had trash in the hallways.

NCES, in its *Planning Guide for Maintaining School Facilities* (February 2003), recommends that every maintenance and operations department have a policy and procedures manual to govern day-to-day operations. The manual should be readily accessible (perhaps via Intranet or Internet), and written at a level consistent with the reading ability of department members. NCES suggests that a maintenance manual include items like repair standards, vehicle use guidelines, work order procedures, and security and safety procedures.

According to NCES, the need to develop and maintain a custodian handbook derives from the changes in the custodial needs of the district and the development of new products and equipment. The International Sanitary Supply Association (ISSA) recommends custodial policies and procedures contain, at a minimum, the following criteria:

- Floor finish application;
- Damp/wet mopping;
- Proper dilution methods;
- Wall Washing;
- Scrubbing/stripping;
- Carpet care and maintenance;
- Dust mopping;
- Oscillating and multiple brush floor scrubbers;

- Rotary floor machines;
- Spray buffing/high speed burnishing;
- Washroom cleaning;
- Wet/dry vacuums; and
- Window cleaning.

Outdated or word-of-mouth procedures result in inconsistent work management, leading to inconsistent and potentially inappropriate application of cleaning procedures and chemicals. However, written policies and procedures would provide a resource to District staff if questions arise, ensuring that issues are managed in a consistent manner. For example, sanitary procedures ensure that cleaning is conducted in an effective manner and a procedural manual could be consulted to ensure that appropriate sanitary procedures are applied in specific environments. Lastly, clearly written policies and procedures establish performance expectations and help to provide an objective means for evaluating the work of staff.

R4.4 Chillicothe CSD should develop and implement performance standards for custodial and maintenance operations. Developing performance standards will ensure that all personnel are familiar with work expectations and that employee performance appraisals are objective.

Once performance standards are in place and measured, the District should make information regarding its facilities and performance standards available to the community through its website.

The District has not developed or implemented written performance standards for its custodial and maintenance operations. Performance standards are established to communicate job expectations and to assess staff performance. Because standards have not been implemented, employees may not know what is expected of them and the District does not have an effective way to evaluate employee performance.

OPPAGA *Information Brief: Report No. 01-57* (November 2001) includes best practices for school facilities management. The *Information Brief* recommends districts establish performance standards for commonly repeated tasks to ensure employee familiarity with assigned work and to facilitate performance appraisals. Furthermore, NCES states in its *Planning Guide for Maintaining School Facilities* (February 2003) that to assess staff productivity and ensure that all schools are maintained equitably, a school district must establish performance standards. Examples of these performance standards for a custodian's performance include measuring the amount of floor space or number of rooms serviced, the cleanliness of those facilities, and the custodian's attendance history. Last, the use of performance standards helps to ensure that all custodial employees are effective and efficient in completing assigned job tasks.

In the absence of written standards, employees could interpret expectations inconsistently, leading to differences in work effort, cleanliness, and levels of building maintenance. Performance assessments of employees may not be objective due to the lack of standards by which to evaluate their work. Without objective evaluations, employees may not be willing to change their behavior in ways that will improve performance.

R4.5 Chillicothe CSD should routinely provide training to its custodial and maintenance employees when cleaning or maintenance standards are changed due to the introduction of new equipment, technology, or procedures. To reduce training costs, the District should, whenever possible, use manufacturer training programs to acquaint employees with new processes and equipment.

Likewise, Chillicothe CSD should routinely document the completion of training programs for new employees and ongoing training programs for veteran employees. Formally documenting the completion of these programs will provide evidence to ensure that all employees have received the most up-to-date training available and help to ensure the overall effectiveness and efficiency of staff.

The District has not developed a program to train all custodial and maintenance employees as new equipment, technology, or procedures are introduced. The District hires substitute custodians as full-time employees when vacancies occur. In addition, the District conducts a brief “shadowing” program as a form of new employee orientation for the custodial and maintenance departments. The Supervisor of Buildings and Grounds also noted that the District had recently purchased various training materials to modernize cleaning and maintenance procedures. However, training is not routinely provided or documented.

The NCES *Planning Guide for Maintaining School Facilities* suggests that because a person has been taught how to perform a specialized task does not mean that he or she will be able to perform the task in the future, especially if the task is not a regular part of his or her routine. While there is a trade-off between the benefits of staff training and the costs of lost work time during training, preparing staff to perform their work properly, efficiently, and safely is generally cost-effective. Often, free training is provided by vendors or can be developed in-house with existing resources.

Documentation of ongoing training programs would allow the District to report all training events that were conducted and who completed the events. This would serve as a monitoring system to ensure that all custodial and maintenance staff complete the required training. Employees that are properly trained should be able to meet performance standards that result in clean, well-maintained facilities at a reasonable cost.

R4.6 Chillicothe CSD should reduce its dependence on overtime use for day-to-day maintenance and custodial activities. This reduction could be achieved through improved planning, staff training, fostering adherence to performance standards, and developing and implementing policies and procedures. Prescribed performance standards enable objective performance assessments and improved staff training (see R4.5). Developing these methods and incorporating them into day-to-day operations will, over time, enable the District to improve operational performance of the maintenance and custodial staff, reduce the use of overtime, and reduce costs.

In FY 2003-04 and 2004-05, Chillicothe spent \$41,267 and \$32,981 in overtime costs respectively, which was 6 percent of the overall salary and wage total each year. In 2003, the District spent \$54,509 on overtime costs, or 7 percent of the total salary and wage expenditures. The Facilities Supervisor at Chillicothe CSD is the administrator responsible for monitoring and authorizing any overtime worked. Overtime has been attributed to evening functions at school buildings and additional time required for employees to complete cleaning and maintenance tasks.

FacilitiesNet.com suggests a threshold of no more than 2 percent for overtime costs. Chillicothe CSD, with overtime costs equaling 6 percent of total salaries, may need to consider implementing additional measures to control its use within this operational area. **Table 4-6** shows the differences in overtime costs between Chillicothe CSD and the recommended benchmark.

Table 4-6: Overtime Reduction to Best Practice Standard

Overtime Comparison	Chillicothe FY 2004-05	Best Practice Facilities Net.com	Net Impact of Recommendations
Total OT Costs:	\$32,981	\$10,343	(\$22,639)
Salary costs	\$517,095	\$517,095	\$517,095
Overtime % of salary costs	6.4%	2.0%	(4.4%)

Source: Chillicothe CSD and FacilitiesNet.Com

In *Best Practices: Maximizing Maintenance* (FacilitiesNet.com, 2003) recommends measuring and tracking maintenance efficiency, and accumulating and analyzing data on equipment failures to determine performance in comparison to national averages. Best practices in maximizing maintenance performance include:

- 100 percent of a maintenance person's time is covered by a work order;
- 90 percent of work orders are generated by preventive maintenance;
- 30 percent of work is preventive maintenance;
- 90 percent of work is planned or scheduled;
- 100 percent reliability is reached 100 percent of the time;

- Overtime is less than 2 percent of total maintenance time; and
- The budget is within +/-2 percent of the total actual maintenance expenditures.

Although the District made recent reductions to the custodial staff, the 6 percent in overtime costs merits additional consideration. Reducing the use of overtime by custodial and maintenance personnel would help reduce operating costs in non-instructional areas. According to the District, previous reductions in the custodial staff were made to lower District costs. However, in order to maintain the same level of custodial services, overtime has been required. Developing methods to enable staff to systematically apply performance standards and use best practice in day-to-day operations would enable Chillicothe CSD to phase out the use of overtime without negatively impacting building conditions.

Financial Implication: If the District limits overtime costs to 2 percent of total salaries as recommended by Facilities.net, it would reduce annual costs by about \$23,000. Over the remainder of the five-year forecast period, the cost savings would be approximately \$69,000.

R4.7 Chillicothe CSD should consider upgrading its data management system to gain access to various facility and equipment controls throughout the District. Upgrades should be considered after the District updates its Facilities Master Plan (see R4.10) and decides on the number of buildings to be used in the future (see R4.13). Incorporating an up-to-date data management system will allow the District to monitor its facilities and equipment more effectively. By using NCES guidelines to benchmark its facility management system the District should be better equipped to make informed facility management decisions.

The District has a central data system to maintain facilities information, but the system is considered obsolete. The central system had been installed and maintained to provide centralized collection of facility and equipment control data, like boiler monitoring information. With the introduction of an updated computer system in the District the centralized data collection process is no longer functional. Furthermore, the District reconfiguration that is underway will play a part in future data management system needs. The Supervisor of Buildings and Grounds stated that the data system in place at the District has become obsolete and, because of the evolution of technology, a new network was recently implemented. As a result, the District has relied on routine boiler checks by certified staff to monitor the boiler operations. As the district works through its reconfiguration it should consider facility tracking needs.

The NCES *Planning Guide for Maintaining School Facilities* lists features common to a good data collection system for facilities:

- The element list includes all buildings, grounds, and equipment at all sites.
- The element list is comprehensive for all rooms and spaces in all buildings.
- The element list reflects both permanent features (structures) and temporary features (e.g., traffic patterns, snow buildup areas).
- Data collections are element driven and do not include fields for long narratives (i.e., the data must be able to fit into a spreadsheet format).
- Data are collected on an element-by-element basis so that records are maintained about each individual component (e.g., for each window a record is kept of its precise location, year of installation, brand of replacement parts, service dates and descriptions, etc.).
- The data are recorded electronically in a format that can be exported into a database or spreadsheet without re-keying (saving time and reducing clerical errors).
- The data are reviewed for accuracy and completeness by the facility management and maintenance team. This team prioritizes the findings and modifies the scope of the data collection as new issues are identified.

Facilities data is not only useful, but also a necessary component for responsible facilities management. In general, data generated from a thorough building inspection assesses a building's condition (a facility's audit) and facilitates the decision-making process with respect to repairs, renovations, maintenance, or abandonment of buildings and equipment. Some facilities data must be readily accessible in the event of an emergency. Other data is necessary for day-to-day operations and long-term planning. Data gathering activities and processes provide better information for facility planning and management decision making.

The District's newly constructed and renovated high school and middle school campus is equipped with a data management system. The District previously received a quote to install a data management control system in six other buildings for approximately \$225,000. However, due to the likely reconfiguration and closure of some District facilities, the existing bid is no longer relevant and the cost of a new data management system could not be accurately quantified. Therefore implementation costs are not included in the revised forecast (see **Table 2-6** in **financial systems** section). Nevertheless, incorporating data management controls in the remaining buildings would allow the District to monitor all its facilities from a central location. Once the Board decides which buildings will be maintained to house kindergarten through sixth grade students, the cost of installing a data management system in its remaining facilities should be incorporated into the five-year forecast.

R4.8 Chillicothe CSD should develop and document a formal facility evaluation process. Formally documenting a facility evaluation process will help ensure facility and maintenance issues are addressed and all safety and health guidelines (see R4.9) are being met.

The Supervisor of Buildings and Grounds conducts informal annual evaluations of the District's facilities. The purpose of the evaluations is to identify items that require attention that may not have been completed during the winter months when school is in session. According to the Supervisor, items discovered through the evaluation process are completed in the summer by the custodial and maintenance staff. Items that may require maintenance are floors, walls, painting, side walk repair and other concrete related issues, and fence repairs. However, there is no formal written evaluation process or guidelines to follow.

NCES suggests that districts develop a guide to help plant and facilities managers conduct inspections and evaluations of their facilities in order to identify and address problems in the areas of maintenance, safety, energy efficiency, and environmental compliance. Conducting formal facilities evaluations will allow the District to identify such issues in a timely manner. Neglecting these issues could result in increased costs in the future and potentially harm building occupants.

R4.9 Chillicothe CSD should include additional elements in its evaluations of health, safety, and security programs in order to be more consistent with best practices. Health and safety programs cover a wide range of the District's facilities, health and safety goals. A more thorough approach to evaluating buildings and policies will help the District conduct more comprehensive reviews. Furthermore, Chillicothe CSD should incorporate additional elements into security protocols and plans for each of its schools to ensure safe conditions for all facility users. The security measures should include activities for maintaining secure buildings, protecting them from fire hazards, and prohibiting unsafe practices.

Chillicothe CSD adopted a safety program on March 18, 1992 to provide for the safety of all students, employees, visitors and others present on District property or at events at other sites. The program was last revised on March 16, 1996. However, the safety program lacks particular elements that are suggested by best practices. The District developed a buildings and grounds security policy on March 22, 1994 that established parameters to guide its security measures. The security measures include maintenance of secure buildings, protection from fire hazards and faulty equipment, and protection from unsafe practices in the use of electrical, plumbing and heating equipment.

Safety and security programs at a district work together to enable it to run optimally with minimal disruption and enhance the wellbeing of the staff and students. In *School Safety and Security Best Practices* (OPPAGA, 2001), recommended practices include:

- Each school has a system in place to identify the early warning signs of student violence.

- The district identifies and implements parent and community outreach strategies to promote safety in the home and community.
- The district conducts a hazards analysis to determine the potential safety and security issues facing each school.
- The district conducts an annual review of all relevant health and safety issues for each educational facility.

Ensuring safe conditions is the major component of effective school facility management. NCES suggests that facilities maintenance is concerned first and foremost with ensuring safe conditions for facility users. As important as cleanliness, orderliness, and instructional support may be to facilities planners, the safety of facility occupants should always be the top priority of the district. Therefore, NCES has developed a checklist that details particular elements that should be present in any safety program. The checklist recommends the following elements be included in all safety protocols:

- Do facilities planners recognize that occupant safety is always their overarching priority?
- Has the organization contacted regulatory agencies (e.g., the EPA) the U.S. Department of Education, its state department of education, professional associations, and peer institutions to obtain information about applicable environmental regulations?
- Does the organization have a plan for responsibly managing indoor air quality, asbestos, water quality and use, playgrounds, and locking systems,
- Does the organization have a plan for ensuring pedestrian and vehicle visibility?
- Does the organization have a plan for policing/securing facilities and for protecting equipment and communication systems?
- Does the organization have a plan for responsibly managing fire protection?
- Does the organization have a plan for introducing environmentally friendly school concepts into new construction and renovation projects?

Districts can use these safety protocols to benchmark their implementation of NCES recommended practices. Adoption of the NCES protocols helps districts avoid possible environmental and/or safety incidents that may result in personal injury. Using NCES protocols to adopt and enhance its building safety plans provides some assurance that proper measures have been taken to ensure the safety of Chillicothe CSD staff and students. The District can then apply the PDCA process cycle, (see **R4.2, Figure 4-1**) to ensure that updated measures meet District needs.

R4.10 Chillicothe CSD should incorporate its enrollment projections in an updated facility master plan and develop a capital improvement plan based on the updated master plan. The master plan and capital plan should be supportive of educational

programs and academic achievement goals identified in the District's Continuous Improvement Plan (CIP).

The facility master plan should clearly state the District's plans for its buildings, including which buildings are to be renovated, closed, sold, and constructed. The master plan should include a 10-year enrollment history; enrollment projections, and building capacity data (see R4.13); a list of the cost estimates for planned improvements in its capital plan; and a description of the District's educational plan.

In 2003, the District created a Facility Master Plan. The District's Facility Master Plan includes recommendations for a new addition to Chillicothe High School and renovations to the existing space to house the middle school students. The plan also suggests the closure of the J.A. Smith Middle School and the relocation of its students to other facilities. Furthermore, the plan details the creation of two elementary campuses, grades Pre K-6. The campuses would include a total of four schools, with two school buildings on each site, which would have shared facilities (cafeteria, gymnasium, and library). To obtain this configuration, additions and renovations would be made to Mt. Logan Elementary School and Worthington Elementary School. The Facilities Master Plan also considers closing Central Elementary (no longer owned by the District), Hopewell Elementary (occupied by the Facilities personnel office, the maintenance department, and the Latchkey program), Allen Elementary, and Tiffin Elementary. The District also has separate enrollment projections to help determine future facility needs. However, the Master Plan does not include several best practice elements required for comprehensive long-term facilities planning.

Creating a Successful Facility Master Plan (DeJong and Associates, Inc., School Planning and Management, July 2001) identifies several essential components that should be incorporated in a comprehensive facility master plan, including:

- Historical and projected student enrollment;
- Facility inventory;
- Capacity analysis;
- Descriptions of educational programs;
- Academic achievement; and
- Financial and tax information.

A facility master plan can have a significant effect on the quality of education in a school district. The master plan provides pertinent information regarding a district's facility plans and a coinciding timeline. Furthermore, the development of a facility master plan will require the collaboration of educators, administrators, policy makers, and community

members, which provides a route for communicating the elements incorporated in the master plan to the community.

R4.11 Chillicothe CSD should develop and implement a formal preventive maintenance program that addresses all routine, cyclical, and planned building maintenance functions. Regular preventive maintenance ensures equipment reliability, reduces operating costs, and increases the life expectancy of facilities and equipment. As part of a continuous improvement plan, the District should consider surveying staff about the operations of the custodial and maintenance staff. This could be part of the PDCA cycle detailed in R4.2 and shown in Figure 4-1. Finally, the formal preventive maintenance program should be incorporated into a comprehensive facilities management system.

The District has not implemented a formal preventive maintenance program or a comprehensive facilities management system. It has created criteria that a preventive maintenance program should include but has not yet established a program. The Supervisor of Buildings and Grounds has assumed responsibility for monitoring the buildings and equipment and recognizing any issues that may be problematic. The maintenance staff is responsible for maintaining the facilities, including any electrical work; repairing equipment on an as needed basis; and completing work orders submitted by district personnel and authorized by the Supervisor of Buildings and Grounds. The employee survey suggested an area for improvement would be communication with the schools in advance of work being performed. More than 50 percent of the survey respondents thought the work scheduling system was disruptive. Better notification of pending work could be accomplished more easily with the introduction of a formalized preventive maintenance plan and facilities management system.

Emergency (or response) maintenance is handled by the District on an as needed basis using a work order system. Timeliness in response to work orders was noted as problematic in the survey of District employees -- 43 percent of survey respondents felt the response to work order requests was not timely. The survey also noted only 10 percent of the respondents felt they had been adequately notified if the work order was not completed. Further areas in need of improvement raised by more than half the respondents to the survey included the maintenance of buildings and grounds.

NCES states that a well-designed facility management system generally encompasses four categories of maintenance: emergency (or response) maintenance, routine maintenance, preventive maintenance, and predictive maintenance. The Offices of the Legislative Auditor of the State of Minnesota published guidelines for preventive maintenance of government buildings. The guidelines suggest the following seven best practices:

- Inventory building components and assess their conditions;
- Build the capacity for ranking maintenance projects and evaluating their costs;
- Plan strategically for preventive maintenance in the long and short term;
- Structure a framework for operating a preventive maintenance program;
- Use tools to optimize preventive maintenance programs;
- Advance the competence of maintenance workers and managers; and
- Involve appropriate maintenance personnel in decision making and in communicating buildings' needs.

Relying on informal preventive maintenance can lead to increased costs. On the other hand, the periodic evaluation of facilities and equipment by knowledgeable staff can ensure proper preventive and predictive maintenance measures are executed effectively. Formally organizing preventive maintenance, and communicating both preventive and responsive maintenance plans to the maintenance staff and other District employees, helps educators prepare for disruptions and develops a good rapport between building personnel and maintenance staff.

R4.12 Chillicothe CSD should implement a more detailed energy management and conservation plan in order to reduce utility costs. Although building controls are in place and utility costs are only slightly above national averages, a detailed energy conservation program would help the District manage these costs as energy costs continue to increase. The District should also consider establishing and implementing energy conservation training programs. The training programs should be aimed at educating District staff and students about the standards and procedures stated in the plan and ensuring the proper use of facilities.

The District has established an Energy Conservation Plan that identifies measures that should be taken to conserve energy, protect natural resources, and minimize the District's utility expenditures. The plan requires the District to conduct periodic building energy audits. Furthermore, the plan suggests that the building audits should take into consideration the mechanical systems (heating, cooling, and ventilation), lighting and use of glass, and utility bills or measurement of fuel consumed. However, the District has not developed training opportunities to inform students and staff about the practices that are incorporated in the Energy Conservation Plan. In addition, the plan does not offer any specific guidelines like maximum temperature settings during the heating season to help ensure that proper energy conservation measures are implemented.

In order to reduce energy costs, the District has entered into the Ohio Department of Administrative Services energy purchasing consortium. The District is slightly above the AS&U National median for utility costs per square foot at \$1.48 compared to the AS&U National median for districts with 1,000 to 3,499 students of \$1.35 (see **Table 4-4**).

The U.S. Department of Energy (DOE) published energy design guidelines for high performance schools which suggest the following six goals for improving school energy efficiency:

- Reducing operating costs;
- Designing buildings that teach;
- Improving academic performance;
- Protecting the environment;
- Designing for health, safety and comfort; and
- Supporting community values.

Likewise, the Ohio Department of Education (ODE) suggests various best practices/programs for controlling energy costs. The following is a list of programs that could be helpful to the Chillicothe CSD:

- **Monitoring Energy Costs:** This includes collecting, recording, and tracking monthly energy costs for analysis. Chillicothe CSD uses a consultant to monitor its utility costs.
- **Voluntary Energy Awareness:** This includes educating the faculty, staff, and students to be aware of energy costs and to do their part to control costs such as “turn off the lights” stickers in the bathrooms.
- **Performance Contracting:** This includes contractual agreements with contractors to provide energy services in exchange for a percentage of the savings.
- **Quick Fix and Low Cost:** This includes identifying and repairing simple building problems such as weather-stripping around doors and windows.

According to ODE, once a district has decided which program/programs to use, it must define and implement a district-wide energy policy. For the energy savings program to work, the district must be aware of the following critical factors:

- **Program Visibility and Progress Reporting** which sustains interest of the local school board, staff and the community by communicating the energy savings and information; and
- **Detailed Procedure Manual** which informs/reminds staff of the new procedures and tells them how to perform certain key conservation functions.

ODE suggests that at the initial implementation of energy savings programs, schools can save 1 to 3 percent on energy bills just because people are more aware of waste and means to prevent wasteful consumption. Incorporating the elements suggested by DOE and ODE in the operations and maintenance energy plan may save on average \$0.01 to \$0.04 per square foot of annual utility costs.

Financial Implication: If the District could save an average of 2 percent per square foot, then the District would reduce its utility costs from 1.48 to \$1.45 per square foot for an annual cost savings of approximately \$14,000. Over the remainder of the five-year forecast period, the cost savings would be approximately \$42,000.

- R4.13** Because the new middle school will not have the capacity to be a grade 6-8 building, the District should consider reconfiguring its elementary schools to accommodate the 6th graders currently attending the J.A. Smith Middle School. The reconfiguration should be part of a District-wide facilities master plan and should result in the closure of at least one building. As part of the reconfiguration process, the District should also consider alternatives that would allow the administrative offices and the preschool program to move from the Western Annex building. As a result of declining enrollment, the construction project, and grade reconfiguration, Chillicothe CSD is expected to have several buildings that are no longer needed. The facilities master plan should include the potential sale of all buildings the District does not need for operations.

In addition, Chillicothe CSD should develop and document a methodology for determining building capacities and use its enrollment projections to periodically review building utilization rates. The methodology should be approved by the Board and account for the District's educational needs and philosophy.

The District has developed and routinely updates its enrollment projections, but it has not formally established approved building capacities. Enrollment projections are a valuable planning tool that can assist a district with evaluating building use and capacity, as well as predicting state funding allocations, completing financial forecasts, and determining appropriate staffing levels for certificated and classified staff. To enhance the accuracy of the projections, districts should evaluate the number of resident students attending the surrounding districts and consider the effects on future enrollment of residential growth in the city.

Table 4-7 shows the District's historical enrollment, by grade, for 2001 through 2006 and projected enrollments based on an AOS modified version of the cohort survival method for 2007 through 2011.

Table 4-7: Five Year Enrollment Projections

Grade	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Pre K	132	137	124	147	156	141	156	163	168	172	177
K	314	329	279	302	265	258	233	251	242	233	224
1	286	284	283	254	276	243	260	227	244	236	227
2	280	264	243	248	224	260	255	263	230	248	239
3	269	275	258	232	231	206	224	240	248	217	233
4	279	262	274	230	231	228	249	221	237	245	214
5	285	264	253	251	232	222	221	245	217	233	241
6	293	268	255	244	234	206	237	214	237	210	225
7	271	283	275	243	230	227	212	225	203	225	199
8	284	266	268	256	234	207	226	205	217	196	217
9	327	330	289	262	256	239	228	212	192	204	184
10	309	298	328	281	237	239	223	221	205	186	197
11	313	300	274	286	252	219	221	212	210	195	177
12	287	290	288	284	283	250	253	215	206	203	189
Total	3,929	3,850	3,691	3,520	3,341	3,145	3,198	3,113	3,056	3,002	2,943

Source: The Ohio Department of Education and the Auditor of State's Cohort-Survivor Enrollment Projection Method

Table 4-7 illustrates projected yearly fluctuations in enrollment and a general downward trend. Factors that could potentially affect this projection include birth rates, new housing developments, and area job opportunities.

Building capacity is a vital component of planning for future facility needs. Maintaining accurate building capacity and utilization rates will allow the District to ensure adequate classroom availability based on projected student populations. This will also allow the District to more accurately forecast expenses related to capacity issues and determine the best use of facility space.

Chillicothe CSD's overall utilization rate during FY 2005-06 in grades kindergarten through 12 was approximately 89 percent. Excluded from the utilization calculations is the Western Annex facility that currently holds the District's preschool program and administrative offices. While the District-wide utilization was above the 85 percent benchmark recommended by industry experts, overall utilization of the four elementary schools (79 percent) was below the benchmark. Chillicothe High School, J. A. Smith Middle School, and Allen Elementary School all exceeded the recommended 85 percent utilization rate as illustrated in **Table 4-8**.

Table 4-8: 2005-06 AOS Building Capacity and Utilization Rates

Building	Building Capacity	2005-06 Enrollment	Over/(Under) Capacity	Building Utilization Rate
Allen Elem	375	343	(32)	91%
Mt. Logan Elem ¹	650	492	(158)	76%
Tiffin Elem	425	342	(83)	80%
Worthington Elem	470	347	(123)	74%
Total Elementary Schools ²	1,920	1,524	(396)	79%
J.A. Smith Middle School ¹	610	557	(53)	91%
Chillicothe High School	860	947	87	110%
Total for Open Buildings	3,390	3,028	(362)	89%

Source: District Floor Plans and the EMIS Student Enrollment FY 2005-06.

¹ In FY 2005-06, 83 sixth graders attended Mt. Logan Elementary School.

² Capacity and enrollment of preschool program at Western Annex building is excluded from the analysis.

During FY 2006-07 and FY 2007-08, the District will transition to new and/or renovated high school and middle school facilities. The new high school is scheduled to open in FY 2006-07, and the new middle school in FY 2007-08. When the construction project is complete, the new high school will have the additional capacity for about 200 students. However, the renovated space for the new middle school will have the capacity for about 100 fewer students than the J.A. Smith Middle School. **Table 4-9** below shows projected building utilization rates once the construction project is complete in FY 2007-08 and assuming sixth grade students are reassigned to the elementary schools.

Table 4-9: 2007-08 Projected Building Capacity and Utilization Rates

Building	Building Capacity	2007-08 Enrollment	Over/(Under) Capacity	Building Utilization Rate
Total Elementary Schools ^{1,2}	2,530	1,661	(869)	66%
Chillicothe Middle School ³	510	430	(80)	84%
Chillicothe High School ⁴	1,060	860	(200)	81%
Total for Open Buildings	4,100	2,951	(1,149)	72%

Source: District Floor Plans and the EMIS Student Enrollment FY 2005-06.

¹ Includes the capacity of the former J.A. Smith Middle School and all K-6 grade students.

² Capacity and enrollment of preschool program at Western Annex building is excluded from the analysis.

³ Includes only 7th and 8th grade students.

⁴ Includes increased capacity due to completion of construction project.

The new middle school is expected to have a capacity of about 510 students. The FY 2007-08 enrollment in grades 7 and 8 is expected to be about 430 students which would utilize 84 percent of the new middle school. Projected enrollment for grades 6 through 8 is 644 students which is more than the new middle school's capacity. Therefore, the District will need to accommodate 6th grade students in its other buildings.

In FY 2007-08, after the new middle school opens, the District will have excess capacity in the remaining buildings, including the J.A. Smith building, to house kindergarten through grade 6 students. When the J.A. Smith building is added to the capacity of the existing elementary schools, the District has the capacity house 2,530 kindergarten through 6th graders. Enrollment in grades kindergarten through grade 6 is expected to be about 1,661 in FY 2007-08 which uses only 65.7 percent of the available capacity. Without the closure of at least one school building, the District will be substantially underutilizing its elementary school buildings.

Chillicothe CSD believes enrollment will stabilize due to its improved financial situation and new or renovated facilities. However, if enrollment continues to decline, utilization rates will also decrease which means Chillicothe CSD may be willing to tolerate higher than ideal utilization rates in the short-term in order to increase cost savings through building closures.

As the District considers various building and grade configuration options that will accommodate kindergarten to 6th graders after the new middle school opens, it should also look for opportunities to reduce costs. Alternatives should be pursued that have the greatest potential for improving operating efficiencies and reducing District-wide facility costs. Chillicothe CSD should consider selling the Trent building and the J.A. Smith Middle School unless its facility master plan calls for utilizing space at these facilities. As a way to better utilize space and reduce operating costs, the District should consider closing the Western Annex and moving its administrative offices and preschool classes to other facilities.

Financial Implication: If Chillicothe CSD closed at least one school building and vacated the Trent and Western Annex buildings, savings are conservatively estimated to be approximately \$253,000 in salaries, benefits, and utilities. Over the five-year forecast period, the cost savings associated with the closing of one building would be approximately \$782,000.

Financial Implications Summary

The following table lists annual savings assuming the recommendations are implemented by the start of FY 2007-08. For the purpose of this table, only recommendations with quantifiable impacts are listed.

Summary of Financial Implications for Facilities

Recommendation	Annual Savings
R4.6 Reduce the use of overtime	\$23,000
R4.12 Implement a detailed energy management program	\$14,000
R4.13 Close at least one school building	\$253,000
Total Annual Financial Implications	\$290,000

Source: AOS Recommendations

Note: Annual cost savings based on FY 2007-08.

Appendix 4-A: Employee Survey Responses

An employee survey was distributed to 535 Chillicothe CSD employees and 152 responses were received. The purpose of this portion of the survey was to obtain employee feedback and perceptions of customer service and related issues in the area of custodial and maintenance services. Survey responses were based on a scale of 5 to 1: where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree. **Table 4-10** illustrates the results.

Table 4-10: AOS Survey Results - Facilities

Survey Questions	Client Results
1) Work orders are responded to in a timely manner. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	13% 30% 20% 18% 4%
2) Custodial and maintenance employees deliver quality services. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	18% 33% 14% 30% 3%
3) Emergency work orders are given top priority. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	8% 16% 31% 13% 4%
4) Schools are notified in advance of work to be performed. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	10% 28% 26% 14% 2%
5) Schools are advised of incomplete work orders. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	9% 18% 33% 9% 1%
6) Work is scheduled so it is not disruptive. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	14% 38% 13% 22% 2%

Survey Questions	Client Results
7) Workers are careful near children. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	1% 8% 26% 45% 10%
8) Overall, I am satisfied with the maintenance department. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	17% 30% 18% 29% 2%
9) The regular cleaning schedule appears to be appropriate. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	27% 24% 13% 28% 5%
10) Custodial tasks are completed efficiently. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	26% 21% 13% 23% 10%
11) Facilities are properly cleaned. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	34% 27% 8% 26% 4%
12) Custodians are polite and have a good work ethic and attitude. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	9% 17% 23% 30% 19%
13) There appears to be a sufficient number of custodians in my building. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	26% 26% 13% 23% 10%
14) School grounds are properly maintained. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	22% 21% 13% 30% 9%

Survey Questions	Client Results
15) Custodial staff cooperates with other staff regarding safety of equipment on school grounds. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	8% 6% 16% 43% 17%
16) Work appears to be scheduled according to priorities. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	13% 11% 21% 29% 6%
17) Workers show respect for school property. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	9% 12% 19% 43% 10%
18) Playground equipment is properly maintained. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	7% 13% 25% 23% 5%
19) Overall, I am satisfied with the custodial staff's work. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	23% 18% 18% 28% 11%

Transportation

Background

This section of the performance audit focuses on the Chillicothe City School District's (Chillicothe CSD or the District) transportation operations. The operations were evaluated against best practices, operational standards, and selected peer school districts.¹ Comparisons were made for the purpose of developing recommendations to improve efficiencies and/or business practices.

Ohio Revised Code (ORC) § 3327.01 requires that, at a minimum, school districts provide transportation to and from school to all students in kindergarten through eighth grade who live more than two miles from their assigned school. School districts are also required to provide transportation to community school and non-public students on the same basis as provided to their students. In addition, school districts must provide transportation to disabled students who are unable to walk to school, regardless of the distance. Finally, when required by an individualized education plan (IEP), school districts must provide specialized, door-to-door transportation to special needs students based on the unique needs of the child.

The Chillicothe CSD Board of Education (the Board) transportation policy states "In general, the law requires that the Board of Education provide transportation for resident elementary students, kindergarten through grade eight, who live more than two miles from school and for all those with physical and mental disabilities which make walking impossible or unsafe. The transportation of high school students is optional." However, using two tiers and approximately eighteen routes, Chillicothe CSD actually provides transportation to any student in kindergarten through grade eight who desires school transportation, regardless of the distance from their school, which is above the State required minimum level of service and above the Board's policy. Several students are transported who live less than one mile from their assigned school and the District receives no State funding for these students. Due to its financial situation, the District now transports high school students only if they are on an established route. Prior to this change the District transported all high school students who desired transportation.

¹ Peer Districts: Boardman Local School District, Dover City School District, Elida Local School District, Fairland Local School District, Heath City School District, Indian Creek Local School District, Lowellville Local School District, McDonald Local School District, Tiffin City School District, and Wheelersburg Local School District.

Organizational Structure and Responsibilities

The Transportation Supervisor manages the District's Transportation Department and had supervisory responsibilities for 15 bus drivers, 3 substitute bus drivers, 2 bus aides, and a mechanic in FY 2005-06. There is no job description for the Transportation Supervisor who reports to the Superintendent (see **R3.14** in **human resources** section). However, the Supervisor is evaluated on a multitude of criteria and duties which broadly include recruiting drivers, driver training and orientation programs, setting up bus routes, coordinating and scheduling field and athletic trips, preparing the transportation budget, evaluating staff, maintaining records, and performing other duties as assigned by the Superintendent.

In addition to these duties, the Supervisor acts as a substitute driver when needed and must be available when buses are on field and athletic trips after normal hours. There does not appear to be any uninterrupted time during the day to allow the supervisor to perform duties that require concentration and accuracy such as completing the Ohio Department of Education (ODE) transportation forms (T-forms) and preparing statistical data for analysis and budgeting. In the event the Transportation Supervisor is absent, there is no one on site to perform her job functions or handle emergency situations (see **R5.2**).

Operational Expenditures

Basic demographic and expenditure data for Chillicothe CSD and the peer district averages are displayed in **Table 5-1**.

Table 5-1: Square Miles and Expenditure Comparison (FY 2004-05)

	Chillicothe CSD	Peer District Average	Percent Above (Below) Peer Districts
District Square Miles	22.0	38.7	(43.2%)
Number of Students ¹	3,341	2,199	51.9%
Students per Square Mile	151.9	101.6 ³	49.5%
Total General Fund Expenditures	\$21,358,314	\$15,152,594	41.0%
Transportation Expenditures ²	\$670,069	\$786,419	(14.8%)
Percent of General Funds	3.1%	4.5% ⁴	(1.4%)

Source: Ohio Department of Education

Note: Differences may occur due to rounding. Peer District data untested and used for information purposes.

¹ Number of Students equals enrollment headcount as reported to ODE.

² Includes all function code 2800 expenditures from the General Fund which, according to the USAS User's Manual, encompass activities concerned with the conveyance of individuals to and from school in accordance with State law.

³ To give each peer district equal weight, the peer district average is the average of each district's students per square mile.

⁴ To give each peer district equal weight, the peer district average is the average of each district's percent of General Funds.

The District has a higher number of students per square mile (151.9) than the peer average (101.6), which indicates a higher student population density. Districts with higher population densities can typically be more efficient because buses do not have to travel as far and routes do

not have to be as long to reach students. **Table 5-1** also shows that Chillicothe CSD spends 3.1 percent of its General Fund on transportation, compared to 4.5 percent for the peer districts.

Details of transportation expenditures as reported by the District to ODE for FY 2002-03, FY 2003-04, and FY 2004-05 are presented in **Table 5-2**. Expenditures and riders are for those students riding District owned yellow buses and include the cost of transporting Chillicothe CSD students as well as students attending non-public and community schools.

Table 5-2: Transportation Expenditures by Line Item

	FY 2002-03	FY 2003-04	% Change from Previous Year	FY 2004-05	% Change from Previous Year
YELLOW BUS RIDERS					
Regular Needs	932	1018	9.2%	988	(2.9%)
Special Needs	38	32	(15.8%)	37	15.6%
Total Riders	970	1050	8.2%	1025	(2.4%)
PERSONNEL EXPENDITURES					
Supervisor	\$42,193	\$36,247	(14.1%)	\$33,109	(8.7%)
Regular Driver Salaries	\$211,616	\$239,801	13.3%	\$223,008	(7.0%)
Substitute Driver Salaries	\$16,296	\$24,680	51.4%	\$12,985	(47.4%)
Bus Attendant Salaries	\$0	\$0	0.0%	\$15,790	NA
Mechanic/Mechanic Helper	\$49,624	\$44,663	(10.0%)	\$41,228	(7.7%)
Retirement	\$48,802	\$52,942	8.5%	\$53,414	0.9%
Workers' Compensation	\$3,201	\$1,890	(41.0%)	\$3,265	72.8%
Employee Insurance	\$155,333	\$159,734	2.8%	\$126,086	(21.1%)
Certification and Licensing Cost	\$0	\$453	NA	\$395	(12.8%)
Training (All)	\$1,659	\$0	(100.0%)	\$450	NA
Personnel Subtotal	\$528,724	\$560,410	6.0%	\$509,730	(9.0%)
Cost Per Rider	\$545.08	\$533.72	(2.1%)	\$497.30	(6.8%)
GENERAL OPERATIONS EXPENDITURES					
Maintenance and Repairs	\$26,668	\$27,154	1.8%	\$21,400	(21.2%)
Tires and Tubes	\$6,908	\$2,123	(69.3%)	\$2,586	21.8%
Fuel	\$55,328	\$61,504	11.2%	\$60,242	(2.1%)
Bus Insurance	\$22,862	\$32,062	40.2%	\$16,198	(49.5%)
Maintenance Supplies	\$6,048	\$709	(88.3%)	\$530	(25.2%)
Utilities	\$15,658	\$8,923	(43.0%)	\$10,760	20.6%
Other	\$5,844	\$0	(100.0%)	\$0	0.0%
General Operations Subtotal	\$139,316	\$132,475	(4.9%)	\$111,716	(15.7%)
Cost Per Rider	\$143.62	\$126.17	(12.2%)	\$108.99	(14.3%)
TOTAL TRANSPORTATION EXPENDITURES					
Total Dollars¹	\$668,040	\$692,885	3.9%	\$621,446	(10.5%)
Cost Per Rider	\$688.70	\$659.89	(4.0%)	\$606.29	(8.3%)

Source: Chillicothe CSD transportation reports as submitted to the Ohio Department of Education.

Note: Differences may occur due to rounding.

¹ Includes expenditures for Board-owned buses (Type I) only.

As presented in **Table 5-2**, Chillicothe CSD reported a decrease each year in terms of total cost per rider. In FY 2003-04, the cost per rider dropped 4.0 percent and in FY 2004-05, the cost per rider dropped an additional 8.3 percent. FY 2004-05 total transportation expenditures were about 7.0 percent lower than in FY 2002-03 despite a 5.7 percent increase in ridership.

Between FY 2002-03 and FY 2003-04 the District's ridership increased by 80 students or 8.2 percent. During the same period the increase in personnel expenditures was 6.0 percent. Therefore, the District was able to reduce the per student cost of personnel from \$545.08 in FY 2002-03 to \$533.72 in FY 2003-04. Additionally, during the same period, the District decreased its operational expenditures 4.9 percent from \$139,316 to \$132,475.

From FY 2003-04 to FY 2004-05 the District reduced the number of full time equivalent (FTE) employees to 18.0. The reduction in employees generated a decrease in personnel expenditures of 9.0 percent between FY 2003-04 and FY 2004-05. The reduction in expenditures includes a reduction in mechanic staffing from 2.0 FTE to 1.0 FTE. In that same period, the District's ridership dropped by 25 students or 2.4 percent.

From FY 2003-04 to FY 2004-05, operational expenditures decreased from \$132,475 to \$111,716, or 15.7 percent. A majority of the reductions were in maintenance and insurance costs. All bus maintenance was completed in-house in FY 2004-05 where previously, major repairs were done by outside vendors (see *noteworthy accomplishments*). Bus insurance also decreased significantly due to a bidding process which resulted in a change in carriers (see *noteworthy accomplishments*).

Students Transported

In FY 2004-05, which was the latest data available at the time of the audit, Chillicothe CSD transported 1,025 students to 6 District public schools, 4 out-of-district public schools, 1 non-public school, 1 alternative school, 1 joint vocational school, 3 preschool sites, 1 Head Start site, and 1 day care site. **Table 5-3** compares the number of students transported by Chillicothe CSD on district-owned yellow buses to the peer district average.

Table 5-3: FY 2004–05 Students Riding Yellow Buses

	Chillicothe CSD	Peer Districts' Average	Percent Above (Below) Peer Districts
Regular Needs Riders			
Public	915	1,372	(49.9%)
Non-Public	73	125	(70.5%)
Total	988	1,497	(51.5%)
Special Needs Riders	37	47	(27.0%)
Total Yellow Bus Riders	1,025	1,525	(48.8%)
Non-public Students (%)	7.1%	5.9%	16.8%
Special Needs Students (%)	3.6%	3.2%	12.1%
October Enrollment	3,341	2,199	34.2%
Public Riders as % of Enrollment	27.4%	58.4%	(113.1%)

Source: Ohio Department of Education and Chillicothe CSD FY 2004-05 transportation reports.

Note: Differences may occur due to rounding.

Note: Peer districts average percents are an average of the percents of each district.

As shown in **Table 5-3**, Chillicothe CSD transported a smaller percentage of its enrollment on yellow buses (27.4 percent) when compared to the peer district average (58.4 percent), which reflects the District's more urban and densely populated makeup. Because of the higher student population density seen in urban districts, a greater number of students are often within walking distance of their schools. While the District transported a smaller percentage of its students, a slightly higher percentage of the students transported require specialized transportation (3.6 percent) when compared to the peers (3.2 percent). Chillicothe CSD also transports a higher percentage of non-public students than the peer districts.

Operational Statistics and Cost Ratios

Table 5-4 shows key operating statistics and cost ratios based on FY 2004-05 data for Chillicothe CSD and the peer districts.

Table 5-4: Key Operating Statistics and Ratios

Key Operating Statistics	Chillicothe CSD	Peer District Average	Percent Above(Below) Peer Districts
Yellow Bus Riders ¹	1,025	1,525	(32.8%)
District Square Miles	22	39	(43.2%)
Annual Routine Miles ²	171,360	210,690	(18.7%)
Active Buses	16	18	(11.1%)
Regular Buses ³	14	16	(11.4%)
Operating Ratios			
Riders Per Active Bus	64.1	91.4	(29.9%)
Riders per Square Mile	46.6	39.4	18.2%
Miles per Active Bus	10,710	11,705	(8.5%)
Miles per Yellow Bus Rider	167.2	138.2	21.0%
Percent Spare Buses to Total Buses	20.0%	25.5%	(2.2%)
Cost Ratios			
Cost per Active Bus	\$38,840	\$38,196	1.7%
Cost per Yellow Bus Rider	\$606	\$462	31.2%
Cost per Routine Mile	\$3.63	\$3.42	6.1%
Percent of Costs Reimbursed ⁴	43.9%	41.6%	5.5%

Source: Chillicothe CSD and peer district FY 2004-05 transportation data as reported to ODE. Peer district data was not tested.

Note: Figures include both regular and special needs-related expenditures and are rounded to the nearest dollar.

Note: Differences may occur due to rounding.

¹ Yellow bus riders includes Type I transportation only

² Daily miles on T-1 report times 180 days.

³ Regular bus totals allocated based on ridership and/or mileage in T reports.

⁴ Reported costs may have been adjusted to account for items known to be incorrectly included, excluded, categorized, or allocated.

The key operating statistics in **Table 5-4** indicate that overall, Chillicothe CSD has a smaller transportation operation than the average of the peer districts. Chillicothe CSD covers 43.2 percent fewer square miles than the peer district average. When compared to the peers, Chillicothe CSD had 32.8 percent fewer yellow buses riders and traveled 18.7 percent fewer routine miles, but used only 11.1 percent fewer buses.

The operating ratios in **Table 5-4** indicate Chillicothe CSD transportation operation was generally less efficient than the peers. Specifically, Chillicothe CSD averaged 64.1 riders per bus in FY 2004-05 while the peer districts averaged 91.4 riders per bus. The District's low ridership (29.9 percent below the peers) and miles per bus (8.5 percent below the peers) indicates that opportunities exist to improve transportation efficiency.

The cost ratios offer an additional perspective on the Transportation Department's overall efficiency. Cost per rider comparisons show that Chillicothe CSD exceeded the peer average by \$144 per rider or 31.2 percent. Cost per mile for Chillicothe (\$3.63) was also higher than the peer average (\$3.42) by \$0.21 or 6.1 percent (See **R5.1**).

Noteworthy Accomplishments

During the course of the audit, the following best practices or noteworthy accomplishments were identified:

- **Bus Insurance:** The District's bus insurance coverage exceeds State minimum requirements while maintaining insurance expenditures per bus 17.7 percent below the peer district average. In April 2005 the District requested proposals for fleet insurance to be effective July 1, 2005 through June 30, 2006. The insurance policy was awarded for a premium of \$19,512 which is lower than in FY 2002-03 or FY 2003-04 (see **Table 5-2**).
- **Fuel Security:** Access to fuel is controlled through a key card that is assigned to each driver. Drivers are limited to 40 gallons at a time even though most buses have 60 gallon tanks. The Districts' fuel system is computerized, which enables it to generate data such as the amount of fuel issued by card number, vehicle number, and type (gas or diesel). This data is transferred to the transportation administration office for tracking and management purposes. The system calculates miles per gallon and the date and time of fill-up. Purchased fuel is reconciled with fuel usage to ensure there are no losses.
- **Fleet Maintenance and Repair Expenditures:** **Table 5-5** compares Chillicothe CSD's vehicle maintenance and repair-related expenditures to the average of the peer districts.

Table 5-5: FY 2004-05 Transportation Maintenance and Repair Expenditure Ratios

	Chillicothe CSD	Peer District Average	Percent Above (Below)
Maintenance and Repair Costs	\$24,516	\$39,977	(38.7%)
• Per Rider	\$24.00	\$27.18	(12.0%)
• Per Bus	\$1,226	\$1,833	(33.1%)
• Per Routine Mile	\$0.14	\$0.21	(32.7%)

Source: Chillicothe CSD FY 2004-05 transportation reports.

Note: Maintenance and repairs also includes cost of tires and tubes, and maintenance and repairs.

Table 5-5 shows that Chillicothe CSD maintenance and repair costs are 12.0 percent lower per rider, 33.1 percent lower per bus, and 32.7 percent lower per routine mile. The District has lowered its maintenance and repair costs by eliminating one full-time mechanic and discontinuing the practice of using outside contractors for major repairs.

Assessments Not Yielding Recommendations

In addition to the analyses presented in this report, assessments were conducted on several areas of the transportation operation that did not warrant changes and did not yield any recommendations. These areas include the following:

- **Individualized Education Plan (IEP):** The District includes the Transportation Supervisor in the IEP meetings and decisions that require transportation as a related service.
- **Spare Buses:** According to the Federal Transportation Administration (FTA) spare buses are generally 20.0 percent of total buses, depending on the age and condition of the fleet. Chillicothe CSD has 4 spare buses in a fleet of 20 buses for a ratio of 20 percent.
- **Fuel Conservation:** The District has reduced fuel costs by instituting fuel conservation practices such as eliminating all engine idling time. This practice can be applied to engine warm-up time, layovers between routes, and times when the buses are parked at school for loading and unloading. The District also requires vehicles to stay with field trips and stay parked with the engine off. This eliminates ‘deadhead’ mileage of a bus returning to the bus lot and then going back to the field trip.
- **Fuel Costs:** The District attempts to minimize its fuel-related costs by maintaining two centralized fuel tanks on-site and purchasing fuel in bulk. The Transportation Supervisor also submits the appropriate documentation for reimbursement of fuel taxes to the Ohio Department of Taxation.

Issues for Further Study

Areas that were identified during the course of the audit that may warrant further examination but were outside the scope of the current audit engagement are discussed below.

Salary Survey: Chillicothe CSD should consider conducting a salary survey within Ross County and surrounding areas for bus drivers and mechanics. The survey should include base salary, salary range, turnover, longevity of staff, and training costs. After the survey, the District should determine if salaries are in-line with other districts.

Table 5-6 compares the District’s bus drivers’ and mechanics’ hourly rates with some surrounding school districts.

Table 5-6: Analysis of Bus Driver and Mechanic Salaries

Bus Drivers	Salary Range
Chillicothe CSD (FY 2004-05)	\$11.47-\$13.61
Zane Trace LSD (FY 2005-06)	\$10.62-\$17.96
Union-Scioto LSD (FY 2004-05)	\$10.50-\$16.09
Paint Valley LSD (FY 2004-05)	\$14.17-\$16.78
Huntington LSD (FY 2004-05)	\$14.34-\$14.65
Mechanics	
Chillicothe CSD (FY 2004-05)	\$12.61-\$15.50
Zane Trace LSD (FY 2005-06)	\$16.32-\$22.30
Union-Scioto LSD (FY 2004-05)	\$10.84-\$16.61
Paint Valley LSD (FY 2004-05)	\$15.00-\$19.39

Source: Union contracts for Ross County Districts; Chillicothe CSD; Zane Trace; Union-Scioto; Paint Valley LSD. No information was available for Huntington LSD.

FY 2004-05 bus driver starting wage rates for Chillicothe CSD were \$11.47 per hour which was lower than 2 of the 4 reported districts. The maximum rate for Chillicothe bus drivers is lower than all 4 reported districts. The mechanics beginning rate was higher in Chillicothe CSD than one district and lower than the other districts in FY 2004-05. The maximum rate in Chillicothe CSD was lower than reported districts.

The District reported that it has difficulty maintaining the correct number of bus drivers and substitute drivers needed to transport the students and has experienced turnover in the mechanic position. An analysis of the cost of turnover in the Chillicothe CSD could be conducted to help determine if the cost of turnover is more or less than the savings associated with lower salaries.

Recommendations

Operations and Staffing

R5.1 In order to bring ridership levels more in line with the peers, Chillicothe CSD should attempt to eliminate at least three buses by using staggering bell schedules, additional cluster stops, and routing software, which was recently purchased by the District, to look for ways to optimize routing efficiency. While running a multi-tiered system can help improve efficiency, the buses are not full. The District should also seek assistance from ODE's Office of Pupil Transportation. Commensurate with the rerouting, the District should eliminate at least three bus driver positions. In addition to reducing personnel and variable expenditures such as fuel and maintenance, eliminating the buses from the active fleet would enable Chillicothe CSD to use newer more efficient buses as spare buses and possibly delay future bus replacement costs. Reducing the number of bus routes could also help reduce the costs associated with the use of substitute drivers.

Chillicothe CSD is transporting an average of 64.1 students per bus while operating a multi-tier routing system. This is low in comparison to the peer district average (see **Table 5-4**). Usually, the District runs two tiers but it also uses shuttles to transport students between schools. Also, Chillicothe CSD owns buses of varying sizes, ranging from 65 passengers to 78 passengers, with a median of 72 passengers.

According to *School Bus Seating Capacity* (National Association of State Directors of Pupil Transportation Services, 1999), the typical school bus seat is 39 inches wide and generally is considered to have a maximum seating capacity of three. This capacity rating is not meant to be a measure of the absolute capacity but rather it is the rated maximum capacity determined by the manufacturer. In practice, school buses transport students of varying sizes, from pre-school to high school students. An integral part of providing safe transportation in a school bus is that the passenger be properly seated. While a 39 inch seat may safely accommodate three pre-school children it may not safely accommodate the same number of older children.

Most transportation directors agree that it is not reasonable to assume a bus could provide service comfortably and safely with three students per seat, particularly in the case of high school age riders. Therefore, a more accurate capacity assumption for a 72 passenger bus would be 48 riders (two per seat). Based on this calculation, Chillicothe CSD could transport 96 riders per bus and potentially eliminate up to 3 regular buses.

In the past, reducing the service levels and ridership resulted in reduced reimbursements from the State. However, according to ODE, the legislature is considering a new funding

formula for FY 2007-08 that is simplified when compared to the prior regression model and is based on factors that include efficiency and ridership. If the new transportation funding formula is adopted, this should result in more State reimbursement dollars to districts that operate more efficiently. Low ridership contributes to the District's higher transportation costs per rider. By reducing the number of active buses, the riders per bus would increase significantly and the costs per rider should decrease and become more comparable to the peers.

Financial Implication: If the District can improve routing efficiency and eliminate three bus routes, it is estimated that the District could save approximately \$59,700 per year based on reduced bus driver salaries and benefits and variable operating costs for fuel, maintenance, and supplies.

- R5.2 Chillicothe CSD should allocate some additional staff time to the Transportation Department to assist the Transportation Supervisor with managing the office and monitoring operations. Over the past several years, budget constraints have prevented the department from replacing the routing coordinator position that was previously eliminated. Support is needed to provide emergency back up for the Transportation Supervisor; to assist in communications with bus drivers, parents, and school personnel; and to assist with tracking and reporting transportation-related data. The realignment and reallocation of job responsibilities could also provide the department with better responsiveness to management information requests and stakeholder needs. For example, requests by the Board for information regarding transportation operations could be prepared in a more, timely manner with the assistance of another office person.**

The organization and staffing of the Transportation Department determines its ability to be supportive of the educational priorities of the District. The Transportation Department consists of a Transportation Supervisor, a mechanic, and 15 drivers. In addition substitute drivers are used when necessary. All staff report to the Transportation Supervisor, who reports to the Superintendent.

The Transportation Supervisor is responsible for all operational and administrative office duties, as well as spending a considerable amount of time out of the office driving buses, recruiting, and training and observing new bus drivers. Administrative duties include determining routes, attending meetings and training, handling student and parent concerns, recommending discipline for students, and supervising staff. While the Transportation Supervisor is out of the office, there is no back-up person to handle the Supervisor's job duties. Additionally, the mechanic frequently works in the same facility and is often left by himself. Due to the nature of the mechanic's work, this places the District in a position of risk if there were to be an injury.

The scope of the District's transportation operation is generally in line with that of the peers. However, some of the peer districts allocate a staff person in an administrative or route coordinator role. The responsibilities of these office staff can vary and should be defined through their job descriptions in order to meet the needs of the District.

The benefits associated with adding a routing coordinator in the Department could include the following:

- Assisting with the multitude of phone calls from parents and staff;
- Serving as either a morning or afternoon radio contact for the drivers;
- Providing emergency back-up;
- Maintaining records of routes, drivers, and student seating assignments; and
- Documenting and automate the preventive maintain system.

Additional support for the transportation operation would allow the Transportation Supervisor to have more time to dedicate to improving routing efficiency, documenting operating procedures, and developing accurate and timely management reports. In order to implement the clerical reductions recommend in the human resources section of this report (see **R3.1**), the District will need to review and realign office and clerical support responsibilities. This realignment should take into account the support needs of the Transportation Department and should not add to the District's costs.

Policies and Procedures

R5.3 Chillicothe CSD should establish formal procedures and guidelines for filling out the required ODE transportation forms (T-forms). In particular, the District should develop procedures for identifying, allocating, and verifying all transportation costs attributable to the Transportation Department. The District should then develop and document a method for allocating costs between routine and non-routine use of buses. Because the Transportation Department incurs expenses from servicing vehicles and lawn mowers which are not related to the routine use of buses, the District should also develop and document a procedure to ensure the appropriate expenditures are charged to the departments that own and use these vehicles.

Once costs are identified for the routine use of buses, a method should be developed and documented for allocating routine costs between regular and special needs transportation. All methods for identifying and allocating costs should be approved by the Superintendent. Finally, the Treasurer's Office should verify adherence to the District's procedures before approving the T-2 report.

Finally, the Transportation Supervisor and a representative from the Treasurer's Office should also periodically attend ODE training sessions on completing

transportation forms. Attending ODE training sessions will help ensure that the District's procedures and guidelines are in compliance with ODE requirements.

The District does not have standard written procedures for completing T-forms. Rather, an informal process exists whereby the Transportation Supervisor works to compile and submit the information to ODE. According to the Transportation Supervisor, the District follows the T-form instructions provided on the ODE website. However, there were errors on Chillicothe CSD's T-Forms that could have been avoided if there were written procedures and guidelines to follow. For example, the District reported no special needs riders transported using privately owned or other vehicles (type VI transportation) on its T-1 Form during FY 2004-05, but reported expenditures for this service (\$2,363) on its T-2 Form. Additionally, total assigned buses, spare buses, total daily miles per assigned bus, number of students within 1 mile, and amount spent to purchase school buses were missing from the FY 2004-05 T- forms.

According to the 2003 report, *Student Transportation in Ohio*, issued by the Legislative Office of Education Oversight (LOEO), accuracy problems for transportation related data exist in a number of school districts, especially in terms of the number of students transported, daily bus miles traveled per student, and district transportation costs. One recommendation put forth by LOEO was that ODE work with school districts to improve the accuracy of the data submitted in these areas, which ODE is doing.

Following written procedures and guidelines will help ensure that reports contain accurate data, comply with ODE instructions, and are completed in a timely manner. Moreover, formal procedures will help ensure that the District receives all State transportation reimbursements for which it is eligible. Without written procedures that identify the process for completing the T-Forms and reviewing their accuracy and completeness, Chillicothe CSD risks submitting incorrect information. The use of inaccurate information can lead to poor management decisions which may unnecessarily increase expenditures or cause the District to receive less than the reimbursement amount to which it is entitled.

By implementing formal procedures and guidelines for completing the T-forms, data submitted to ODE should become more accurate and consistent. If Chillicothe CSD personnel need assistance with completing the T-Forms or clarification regarding ODE expectations, they should contact the ODE Pupil Transportation Office or attend one of the free training sessions offered by ODE.

R5.4 Chillicothe CSD should adopt policies to clarify its intent to charge for non-routine use of buses and the extent to which costs are to be recovered. To properly understand its costs, the District must first identify both direct and indirect costs for the non-routine use of buses (see R5.3). If the District's policy is to not fully recover

the cost of non-routine bus use, then the reasons for not recovering the full cost should be identified and explained.

The Board's policy for the special use of buses states that fees for the use of buses are to be established and made part of the District regulations. However the policy is silent as to what is to be included in the fees and whether or not the fees are expected to include the full cost of non-routine bus use.

The District charges for field trips within Ross County are based on \$22.70 per hour for driver time based on average wages and benefits, a minimum of 2 hours, and \$1.50 per mile. Field trips outside Ross County are charged at \$22.70 per hour for driver time plus \$4.20 per mile. However, the District could not provide the basis for the two mileage rates or documentation that it expects the full cost of trips to be recovered.

In FY 2004-05, Chillicothe CSD had a higher percent of total miles attributed to non-routine bus use, 16.1 percent compared to the peer average of 12.0 percent. According to ODE, non-routine service typically comprises about 10 percent of annual miles. The District's average cost per mile for the combined routine and non-routine use of buses was \$3.04 per mile in FY 2004-05, which was \$.17 per mile more than the peer average.

The Government Finance Officers Association (GFOA) recommends that policies be adopted to identify the manner in which fees and charges are set and the extent to which they cover the cost of the service provided. Policies that require identification of both the cost of the program and the portion of the cost that will be recovered through fees and charges allow stakeholders to develop a better understanding of the cost of services and to consider the appropriateness of established fees. Policies on fees and charges should be publicly available and summarized.

Costs of service includes direct and indirect costs such as operating and maintenance costs, overhead, and charges for use of capital (depreciation). According to GFOA, a district may choose not to recover all costs, but it should identify such costs and the reasons for not recovering the full amount should be identified and explained.

R5.5 Chillicothe CSD should regularly review and update its transportation policies to ensure that current practices and the Board's expectations are reflected. Chillicothe CSD should promulgate official policies and procedures for the identification and evaluation of hazardous areas that would require exceptions to the transportation policy. A formal procedure would ensure the assessment of potentially hazardous areas using the same criteria, which would help to ensure all students are transported safely and as efficiently as possible. Furthermore, the District should consider a walk to school policy that denotes the health benefits to students. When reviewing the policies, Chillicothe CSD should seek input from internal and external

stakeholders (e.g. the transportation supervisor, developers, parents, and local government) to help the District better address community needs, plan for new growth, and anticipate the need for new routes.

It is the District's policy to provide transportation services for all eligible students and comply with all applicable provisions of ORC § 3327.01, as well as with regulations issued by the Ohio Department of Education, the Ohio State Highway Patrol and the Ohio Department of Public Safety. Board policy requires the District to provide transportation for resident elementary students, kindergarten through grade eight, who live more than two miles from their school. Exceptions to the established policy may be made by the Board or Superintendent in the following instances:

- When walking conditions to the student's school are extremely hazardous.
- When overcrowding occurs and it is necessary to assign students to another building and the Board deems transportation a necessity.
- For medical and other reasons only when road conditions are such that the bus can operate safely and efficiently and only upon submitting an application including a physician's certificate for special consideration.

The District's transportation practices allow service levels to exceed the standards set by the policy. The District actually provides pupil transportation services to and student in grades K-8 regardless of the distance from the school, to students in grades 9-12 who reside more than one and a half miles from school with no other transportation available that live on a regular bus route. The District transports approximately 69 students that are above the minimum State requirements and the Board's official policy, which means there is no State reimbursement money for these students.

Also, the District does not have procedures that define what constitutes "hazardous walking conditions." This may result in inconsistent application of standards in the determination of what could be considered hazardous walking conditions. The National Association of State Directors of Pupil Transportation (NASDPT) indicates that school transportation officials should use guidelines and develop a system for identifying school bus route hazards in the school districts. Additional methodology on the identification of hazards can be found in *Identification and Evaluation of School Bus Route and Hazard Marking Systems* (NASDPT, 1998).

The District has a *Transportation Policies and Procedures Handbook* that includes Board policies and department procedures, school calendars, examples of forms, and a list of related Board policies with indexes and approval dates. However, exception procedures and processes for hazardous areas are not listed in this handbook, nor is there any

reference to the health benefits of walking to school. The United States Department of Health and Human Services (HHS) considers walking programs an important step in improving the health of children. In addition, the Centers for Disease Control and Prevention indicated the following benefits correspond directly with the “Kids Walk to School Program” and the physical activity associated therewith:

- Builds and maintains healthy bones, muscles, and joints;
- Helps control weight, build lean muscle, and reduce fat;
- Improves sense of self-image and autonomy; and
- Fosters health, social, and emotional development

According to *Key Legal Issues for Schools* (Association of School Business Officials (ASBO), 2006), the general operating procedures for school boards should include annual reviews of all new and revised policies to determine whether modifications should be made on the basis of implementation and experiences. ASBO further recommends that school boards consider developing a policy review committee to identify issues and situations that should be considered for annual policy review. Such a committee should systematically review one-third of the district’s policy manual each year and make recommendations to the board for revisions. Policy decision making, at its best, will lay out a vision for strengthening the relationships between schools and communities while establishing procedures for meeting a district’s needs and creating benchmarks for its own success.

Once the Board reviews its transportation policies and establishes procedures for carrying out and granting exceptions, the District’s transportation handbook should be updated and distributed to internal and external stakeholders. Having the transportation policies and procedures handbook available through the District’s website is an efficient and effective way to communicate its content.

Preventive Maintenance and Asset Management

R5.6 Chillicothe CSD should formally establish a preventive maintenance policy for its buses. In addition, the District should formally document its preventative maintenance program and procedures to ensure that maintenance and repair activities are prioritized and scheduled for maximum shop efficiency; that all non-emergency maintenance activities are scheduled based on the equipment’s priority to the user; and to maximize the effectiveness of available shop space and manpower. Preventive maintenance policies and procedures should require that costs be tracked by bus and stress that replacement be scheduled at the most economical point in the life cycle. Most importantly, bus by bus information should be maintained in a manner that allows for timely and accurate reporting for decision making purposes. Additionally, the District should establish written

procedures for the disposal of oil, tires, batteries, and other parts in an environmentally sound manner.

All District buses have partial service every 2,500 miles and full service every 5,000 miles. Small vans and vehicles are serviced every 3,500 miles. The mechanic places a sticker on each bus/van that indicates the mileage at which the next preventive maintenance needs performed. The bus driver fills out a purchase order (PO) when the vehicle is due for service and notes any problems that need special attention in addition to the normal maintenance. When the mechanic services the vehicle, he signs and dates the PO, keeps a copy for his files and sends two copies to the Transportation Supervisor who keeps one copy and forwards a copy to the driver of the bus. The mechanic keeps a copy of all POs and serial numbers in the bus file. He uses this when he needs to order replacement parts. The mechanic has a record of all service dates and parts used and replaced in all vehicles.

OAC 3301-83-11(B) requires bus drivers to conduct preventive bus inspections and make reports on a daily basis. Inspections are made on a number of areas, including warning lights, doors, engine performance, fuel, mileage, and tires. However, this process is not documented in any policy or procedures manual.

According to the Public Works Management Association, effective preventive maintenance plans should keep fleet vehicles in top running condition, ready to take the next trip (*The Public Works Practices Manual*, 4th edition). To accomplish this, the District should do the following:

- Schedule numerous preventive maintenance procedures for each vehicle, decreasing unscheduled vehicle repairs and downtime;
- Specify, in number of days, miles, hours, or gallons of fuel the desired preventive maintenance service intervals; and
- Automatically update the preventive maintenance status for a vehicle upon completion of a work order.

The Transportation Department documents everything on paper in manual files. The Transportation Supervisor plans to transfer all the maintenance information prepared by the mechanic to an excel spreadsheet. During the course of the audit, the mechanic, received a new computer and uses it to perform maintenance diagnostics on the bus motors. However, the inventory and preventive maintenance process is still on paper. This paper process is time intensive and results in ineffective tracking and documenting of preventive and reactive maintenance activities. To improve data accessibility and management information reporting, the manual system should be automated, perhaps through a spreadsheet or formal PM tracking software.

A formal preventative maintenance program that is periodically updated and adjusted will provide the Transportation Department with a management tool for monitoring and scheduling bus maintenance and replacement. This could be implemented within existing resources using a standard spreadsheet program.

R5.7 Chillicothe CSD should track the price it pays for gas and diesel fuel to ensure that it is competitive with the price it could get from the Ohio Department of Administrative Services (ODAS) or other consortiums. If the District finds that the local supplier's price is consistently above the ODAS bid price, it should consider soliciting competitive bids, issuing a request for proposal (RFPs) for fuel, or using the ODAS contract .

As shown in **Table 5-2**, Chillicothe CSD spends about \$60,000 per year on fuel. According to the Transportation Supervisor, the District is under contract for the next two years with a local fuel supplier who also provides the refueling equipment and computer based tank monitoring and cost tracking system that was financed through the fuel supply contract as an add on fee (see **noteworthy accomplishments**).

The District does not have a formal policy or procedures for fuel procurement and has historically relied on one local vendor to fill all fuel-related orders. Chillicothe CSD is not a member of a fuel purchasing consortium, such as that offered by ODAS. Furthermore, it does not regularly solicit competitive bids or issue requests for proposals for fuel procurement.

After the District pays off the fixed of the cost of the fuel tank monitoring equipment, it is eligible to purchase fuel using the State contracted rate. The ODAS Office of State Purchasing uses a bidding process to purchase gasoline and diesel fuel. In accordance with ORC § 125.04, the ODAS Director may permit a county, township, municipal corporation, or school district to participate in contracts into which ODAS has entered for the purchase of certain supplies, services, materials, and equipment.

The State contract rate for diesel fuel fluctuates weekly based on the wholesale rate (rack rate) published in the *Oil Price Information Service*. The formula for fuel purchases stated in the contract is based on the weekly rate plus regional delivery cost differentials and applicable taxes. The contract for diesel fuel can be found on the general services - procurement section of the ODAS website. (www.das.ohio.gov.) AOS determined the February 2007 local price for fuel, without the add-on cost for the monitoring and tracking system, is approximately 5 percent above the ODAS February, 2007 supply price. Over the course of a year, based on the District's fuel consumption, Chillicothe CSD might save up to \$3,000 on fuel. However, additional costs to purchase the monitoring equipment would be incurred by the District and may negate the cost savings associated with purchasing fuel on the State contract. Furthermore, procedures would

have to be implemented to ensure that the fuel supply is monitored and the District is re-supplied in a timely manner.

By monitoring local fuel prices and comparing them to the ODAS contract price, the District may be able to avoid significant increases in fuel costs after the expiration of the existing agreement and help ensure the District's method of fuel procurement remains cost effective. If the District chooses to use the State contract, there will be an additional cost of approximately \$110 annually to join the State cooperative and the Board would be required to pass a resolution to join the program. Also, the District would be required to pay the balance remaining on its monitoring equipment. Because Chillicothe CSD has an onsite storage tank, it should be able to meet the ODAS contract requirement for tank deliveries of 250 gallons and avoid additional shipping charges.

R5.8 Chillicothe CSD should establish a formal bus replacement plan to ensure it is properly planning and budgeting for the purchase of new buses. The District should develop a replacement plan that establishes criteria for bus replacement based on the age, mileage, operating costs, bus condition, and ability of the bus to pass safety inspections. Once established the District's bus replacement plan should be periodically reviewed and updated. In addition, District enrollment projections should be considered when determining future fleet sizes. By formalizing a replacement plan, the District will be better able to plan for future expenditures while maintaining an adequate bus fleet based on current and future enrollment levels.

Chillicothe CSD does not maintain a formal bus replacement schedule. The District has historically replaced buses on an ad hoc basis; buying buses based on the availability of financial resources. There are no policies or procedures to indicate when buses should be replaced, nor is there a process for allocating revenues for bus replacement.

According to *Best Practices in Public Budgeting* (GFOA, 2000), a government should adopt policies and plans for capital asset acquisition, maintenance, replacement, and retirement. These policies and plans help ensure that needed capital assets or improvements receive appropriate consideration in the budgeting process, and that older capital assets are considered for retirement or replacement. These policies and plans are necessary to anticipate large expenditures and to minimize deferred maintenance.

GFOA further recommends that a bus replacement plan should establish criteria for replacements based on the age, mileage, and condition of the buses. Districts should monitor operating costs and safety inspections to determine when and which buses should be replaced. Finally, future bus purchases should take into consideration district enrollment projections and future bus ridership levels based on historical trends and the community's desired level of service.

There are no State guidelines for bus replacement beyond the requirement that buses be able to pass the annual state inspection. As long as the bus can pass the inspection, a district may continue to use it for transportation, regardless of age or mileage. The Transportation Supervisor indicated that all but two District buses passed the Ohio State Highway Patrol safety inspections in FY 2004-05 and those two buses have been sold.

The National Association of State Directors of Pupil Transportation Services (NASDPTS) independent studies of annual school bus operating costs conducted in Washington and California indicate that after 12 years of use, the annual operating costs of school buses begin to increase significantly and continue to increase each year thereafter. NASDPTS suggests that conducting a cost benefit analysis might offer insight concerning the best time to replace buses. A recent South Carolina study recommends replacing diesel buses after 15 years or 250,000 miles, providing another benchmark to consider when developing a replacement plan. In conclusion, the NASDPTS suggests that maintaining accurate and thorough records of maintenance and operating costs on a bus-by-bus basis will enable districts to make informed management decisions regarding bus replacement. Furthermore, the timely replacement of school buses must be a planned process, and funding availability is likely to be the single most important consideration in determining the replacement schedule.

The District's FY 2005-06 bus inventory is presented in **Table 5-7**, along with an illustration of the fleet after recommended reductions are made and proposed replacement time frames.

Table 5-7: CCSD Bus Inventory for FY 2005-06

Bus #	Year	Age Yrs	Capacity 3/seat	Status	Mileage	Comments
Buses Scheduled for Disposal (2)						
13	1985	21	65	Disposal	199,732	Disposal-will not pass inspection
22	1987	19	65	Disposal	190,271	Disposal-will not pass inspection
Buses No Longer Needed (5)						
10	1992	14	66	Inactive	282,551	Remove from inventory
2	1994	12	72	Inactive	185,726	Remove from inventory
4	1990	16	65	Inactive	184,779	Remove from inventory
11	1992	14	71	Inactive	174,951	Remove from inventory
5	1990	16	65	Inactive	172,300	Remove from inventory
Buses Remaining in Fleet (15)						
6	1990	16	68	Spare	161,499	¹ Estimated year for replacement: 2014
3	1990	16	65	Spare	160,945	¹ Estimated year for replacement: 2014
15	2001	5	78	Spare	158,253	Bought used. ¹ Estimated year for replacement: 2014
14	1994	12	72	Active	133,644	¹ Estimated year for replacement: 2016
1	1990	16	65	Active	127,331	Rebuilt engine. ¹ Estimated year for replacement: 2017
7	1999	7	78	Active	124,611	¹ Estimated year for replacement: 2017
17	1998	8	72	Active	122,912	¹ Estimated year for replacement: 2017
24	1998	8	72	Active	110,503	¹ Estimated year for replacement: 2018
8	1992	14	24	Active	106,070	¹ Estimated year for replacement: 2018
9	2001	5	48	Active	67,679	¹ Estimated year for replacement: 2022
12	2003	3	72	Active	49,944	¹ Estimated year for replacement: 2024
18	2003	3	72	Active	46,141	¹ Estimated year for replacement: 2024
27	2003	3	54	Active	34,809	¹ Estimated year for replacement: 2025
16	2005	1	72	Active	21,740	¹ Estimated year for replacement: 2026
19	2005	1	72	Active	17,640	¹ Estimated year for replacement: 2027

Source: Chillicothe CSD

¹ Estimated year for replaced is based on average annual mileage of 11,000 per year and total mileage not to exceed 250,000.

AOS reviewed the bus inventory and found that, out of the 20 buses in use as either active (regular) or spares, only 1 had more than 250,000 miles and 10 were 12 years old or older. However, one 16 year old bus has a rebuilt engine and had less than 130,000 miles.

In reducing three of its active buses to bring the number of riders per active bus more in line with the peer district average (see **R5.1**), Chillicothe CSD would also be able to eliminate two spare buses and still meet the benchmark ratio of having 20 percent of its fleet as spare buses. If the District reduced the 5 buses (3 active and 2 spares) with the highest mileage from its fleet, it would have only 5 buses 12 years old or older with mileage ranging from 161,070 to 106,070. Then, by using the three highest mileage buses remaining as spares, the District's active bus fleet would not include a bus with more than 140,000 miles.

Although Chillicothe CSD may not need to consider bus replacements until 2014, after the forecast period, bus replacement costs have not been considered as a component of the forecast. Chillicothe CSD could develop a bus replacement plan at no additional cost. By planning to periodically replace its buses based on the safety of the students and best practice criteria, Chillicothe CSD will be better able to manage the costs of acquiring these capital assets.

Financial Implications Summary

The following table represents a summary of the estimated annual for the recommendations in this section of the report. Estimates are based on implementation in FY 2007-08 and only recommendations with quantifiable financial implications are listed.

Summary of Financial Implications for Transportation

Recommendation	Annual Savings
R5.1 Reduce three bus routes.	\$59,700
Total	\$59,700

Source: AOS Recommendations

Appendix 5-A: Employee Survey Responses

An employee survey was distributed to all Chillicothe CSD employees. The purpose of the survey was to obtain employee feedback and perceptions of customer service and related issues and one section solicited responses to statements concerning transportation services. The results are illustrated in **Table 5-8**. Survey responses were based on a scale of 5 to 1: where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree.

Table 5-8: AOS Transportation Survey Results - Transportation

Survey Questions	Client Results
1) Effective communication if transportation policies and routes exists. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No opinion	1% 7% 21% 30% 7% 35%
2) Effective coordination of routes and special trips exists between departments. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No Opinion	2% 8% 23% 25% 5% 36%
3) The transportation department provides timely transportation to and from school. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No Opinion	1% 3% 14% 45% 11% 26%
4) The transportation department provides timely transportation to and from special events. . 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No Opinion	1% 2% 15% 42% 10% 31%

Survey Questions	Client Results
5) The transportation department is effective in addressing complaints. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No opinion	3% 2% 23% 22% 15% 45%
6) Transportation routes are completed with regard to the safety of the children. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No opinion	2% 1% 15% 35% 13% 35%
7) The attitude, courtesy, and work ethic of the transportation department are positive. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No opinion	2% 8% 21% 28% 8% 33%
8) Overall, the quality of all transportation services provided is good. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree 6) No opinion	1% 2% 19% 39% 9% 31%

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Technology

Background

This section of the performance audit focuses on technology functions within the Chillicothe City School District (Chillicothe CSD or the District). The objective of this section is to assess the level of technology support, planning and budgeting, policies and procedures, security, hardware and software, communications, network infrastructure, and professional development as well as instructional and management software. Where warranted, the assessments were used to develop recommendations to increase the effectiveness and efficiency of technology utilization. Data from relevant sources is used for comparisons throughout this section of the report. These sources include Ohio's 2006-07 Biennial Educational Technology Assessment (BETA) survey, the Consortium for School Networking, Florida's Office of Program Policy Analysis and Government Accountability (OPPAGA), Texas School Performance Review and the International Society for Technology in Education (ISTE). Furthermore, the Auditor of State (AOS) administered a survey of Chillicothe CSD's employees regarding technology services and the results of the survey were used in this report (see **Appendix 6-A**).

Organization and Staffing

Technology implementation and support are managed by the District's technology staff. The staff consists of 4.7 full time equivalent (FTE) employees, including the Technology Coordinator, Technology Specialist, Media Technologist, 0.9 FTE Help Desk Secretary, and 0.8 FTE Technician.

According to the Technology Coordinator, the District does not have an officially designated Technology Department with a technology leader and a clear chain of command. Rather, all of the technology staff report directly to the Assistant Superintendent (see **R6.7**).

Organizational Function

Chillicothe CSD technology staff support the District's instructional and administrative technology needs. The Technology Coordinator's function is to provide vision and direction to drive the development of the District's Technology Plan in addition to training staff, maintaining the network and collaborating with curriculum committees to procure equipment and software. The Technology Specialist has broad responsibilities that include the maintenance and enhancement of all technology systems, and training. The Media Technologist provides technical support to Chillicothe High School in addition to other responsibilities. Help Desk functions provide end-user support and require a majority of the Secretary's time. Duties include basic

trouble shooting and trouble ticket entry and assignment. Finally, the Technician provides end user support.

During the course of the audit, Chillicothe CSD updated its Technology Plan to cover FYs 2006-07 to 2008-09 (see **R6.1**). The plan conforms to the SchoolNet Ohio template which, once approved, makes the District eligible for eTech Ohio grants. The updated plan focuses on technology integration in the classroom while the previous three-year plan focused on articulating the District's vision for technology. A committee comprised of the Technology Coordinator, administrators, Board members, community members, students, and teachers worked together to develop the Technology Plan.

Summary of Operations

Over the last six years, the District's technology operations have transitioned from a basic, ad hoc operation to one that has become considerably more sophisticated. The District now has a single operating system, standardized software, a District web site, improved network security, and established policies and procedures (see **R6.6**, **R6.10**, **R6.13**, and **R6.14**). Chillicothe CSD's web site contains District news, a school events calendar, contact information, forms, and lunch menus, as well as other District-related items (see **R6.15**). Advanced network applications¹ are now used to increase support efficiencies.

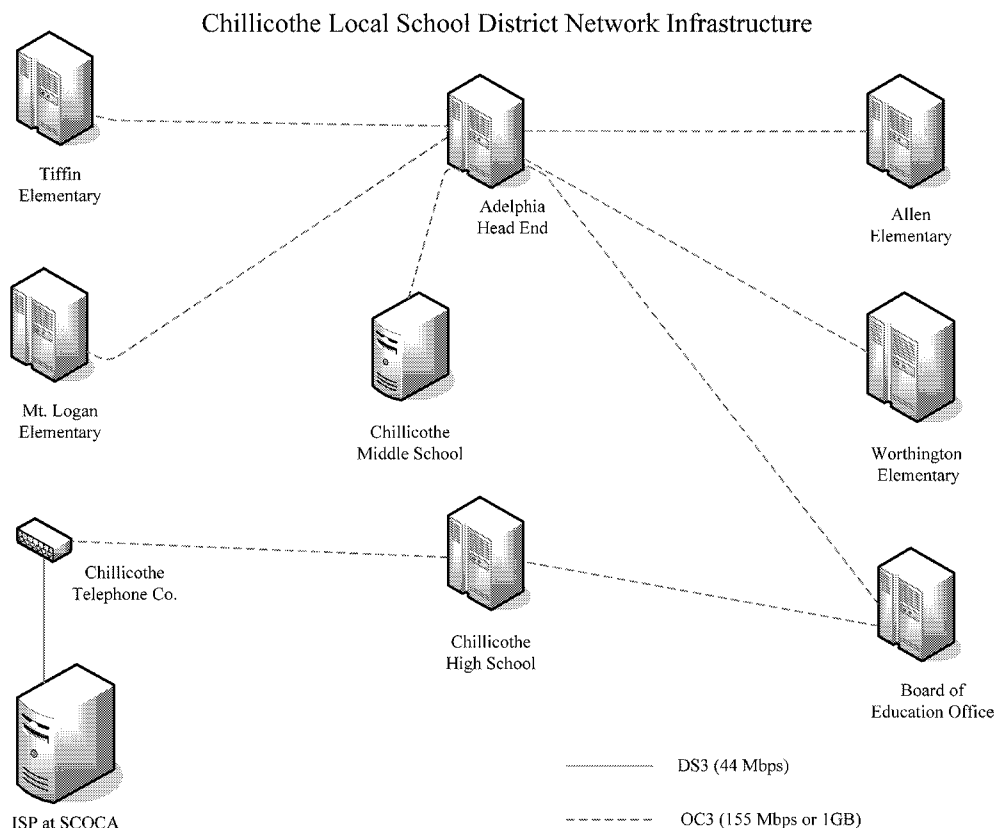
One of the District's goals is to create a state-of-the-art academic environment. However, in order to achieve this goal, the District must provide committed funding, departmental structure, professional development, and additional policies and procedures, as discussed in the recommendations.

The District uses the South Central Ohio Computer Association (SCOCA) as its Information Technology Center (ITC)². SCOCA serves as the District's Internet service provider (ISP) and designated data acquisition site. SCOCA provides a commercial firewall, Internet filtering, and virus software to safeguard the system. Chillicothe CSD's fiber optic network is connected to SCOCA through a local telephone line. Although the network is undergoing reconfiguration in conjunction with changes in District facilities, the District's Wide Area Network (WAN) during FY 2005-06 is depicted in **Diagram 6-1**.

¹ Network applications include: Novell Zenworks remote computer management and General Hardware Oriented System Transfer (Ghost) imaging software to reduce the need to load and manage software on individual computers. This allows administrators and technicians to automatically configure, update, and troubleshoot workstations and servers from remote locations, without having to visit each device.

² Information Technology Centers (ITCs) are districts' A-sites or Data Acquisition Sites.

Diagram 6-1: Chillicothe CSD Wide Area Network



Source: Chillicothe CSD

Chillicothe CSD’s network takes on a star diagram configuration, spanning out to all District school buildings except the high school. The unconventional network diagram is a result of piecemeal cable installation due to limited funding and existing architecture. Reconfiguration efforts will integrate the new high school into a star diagram with a direct connection.

Financial Data

Chillicothe CSD spends approximately \$400,000 annually on technology, with the majority of expenditures related to salaries and benefits, and contracted services of the Technology Coordinator. About one third of the total is spent on capital outlay and replacement.³ Over the

³ Capital outlay for FY 2006-07 is expected to increase. The proposed FY 2006-07 budget included a \$100,000 request for new equipment purchases with the bulk of that money going to the new high school.

past three years, because of financial difficulties, technology spending has decreased 18.6 percent with large reductions in capital outlay and replacement, supplies and materials, and purchased services. Only Salaries and Benefits have increased (3.6 and 32.6 percent net three-year increase, respectively). The District does not account for all spending related to technology in a single function or special cost center and, therefore, costs must be aggregated from several accounts to develop a true picture of technology spending (see **R6.5**). Grant revenues provided 39 percent of the FY 2002-03 technology budget. In FY 2005-06, grant revenues dropped to only 17 percent of the technology budget (see **R6.4**).

Noteworthy Accomplishments

The following practice was identified as a noteworthy accomplishment.

- **Software Purchasing Procedures:** During the course of this audit, the technology staff implemented written software purchasing procedures. The District now identifies and documents the need for software; then tests the software through a formal evaluation process before purchasing the application. Evaluations are kept on file to provide justification for decisions and serve as reference materials for decision-makers in the future. In addition, a post-purchase evaluation is designed to occur one year after the acquisition. This process helps the District better identify and evaluate its software needs.

Assessments Not Yielding Recommendations

In addition to the analyses presented in support of recommendations, assessments were conducted on other areas within the technology operations that did not warrant changes and did not yield any recommendations.

- **Network:** The District has a sufficient fiber-optic network that provides users with high-speed connections throughout the District. As the District completes building reconstruction efforts, it should continue its ongoing infrastructure efforts to upgrade and streamline its network technology.
- **Remote Computer Management:** Chillicothe CSD uses software to manage and support desktops, laptops, and servers from a single computer. This capability reduces support efforts and costs by simplifying management tasks and enabling staff to reduce the time spent on routine computer maintenance tasks.
- **Imaging Technology:** Chillicothe CSD uses General Hardware Oriented System Transfer (Ghost) software. Ghost software can mirror or clone (copy) the entire contents of a hard disk to another computer's hard disk or to storage media, automatically formatting and

partitioning the target disk. This product is useful when one system is to be replicated on a number of computers or in performing full back-ups.

- **Computer Access:** Chillicothe CSD is providing over 3,300 students and staff with appropriate access to the District's network. Access is controlled by usernames and passwords.
- **Hardware Allocation:** Chillicothe CSD has an overall inventory of 917 computers for 3,339 students and staff network users. The District's ratio of one computer to every four computer users meets the State minimum goal.
- **Management Software:** The management software applications are meeting District needs and are properly integrated. This enables the District to transfer information from system to system without having to manually input data, reducing duplication of effort. The management software applications are of appropriate size for the District, and integration between software applications is not an issue.
- **Appropriate Use Policy:** The District has a written *On-line Computer Services Agreement* for staff and students. This policy describes acceptable computer use and expectations of the computer users. The agreement is signed before a user can access their account.
- **Communication:** Chillicothe CSD actively uses email technology to improve communication. The District uses email as a means of notifying and updating staff. All staff members have email accounts and access to a computer.
- **Printers:** The District is replacing inkjet printers with networked laser printers, which are less costly to operate, as funds become available. The District pays SCOCA an annual printer maintenance fee of \$400 per printer. This fee will be eliminated as the District implements the Data for Student Learning (DASL) system in December 2006.

Recommendations

Planning and Budgeting

R6.1 Chillicothe CSD should improve technology planning and budgeting by better linking its Technology Plan to the strategic plan (see R2.7 in financial systems section), and annual budget. The Technology Committee should be heavily involved in developing the Technology Plan and it should perform annual assessments to formally update the Plan to reflect any unexpected funding and expenditure changes. The Technology Plan should be supported by the District through committed short and long-term funding.

Ohio school district technology plans are created in response to the Ohio SchoolNet Commission eligibility requirements for various State and federal grant monies available through eTech Ohio. Districts develop their technology plans by using the SchoolNet template and submit plans to that organization for approval. During the course of this audit, Chillicothe CSD updated its Technology Plan for FYs 2006-07 to 2008-09.

While the Technology Plan meets State requirements, it omits elements that provide meaningful direction in planning and budgeting for technology. The District's plan does not adopt or discuss funding a computer replacement cycle (see **R6.3**). Furthermore, total cost of ownership (TCO) estimates that attempt to determine the real costs of technology are not included in the plan (see **R6.2**). These missing elements can be partially attributed to the simplified format of the Ohio SchoolNet template. Also, because the District relies on its Continuous Improvement Plan as its strategic plan, it does not have the ability to integrate educational and business goals in its planning documents.

The Plan for FYs 2003-04 to 2005-06 included goals, strategies, and a proposed three-year budget. Actual expenses for those three years were only 93 percent of the budgeted amount.

The Florida Office of Program Policy Analysis and Government Accountability (OPPAGA) recommends that school districts adopt the following information technology practices.

- Technology plans should be approved by the district's board of education.
 - Chillicothe's CSD's FYs 2003-06 Plan was not Board-approved. The Technology Plan for FYs 2006-09 was approved by the Board in July of 2006.

- Districts should conduct annual assessments to identify district and school-level technology needs.
 - While eTech Ohio requests an annual update to the three-year Technology Plan, and the Technology Coordinator pursues this goal, the plan is not formally updated.
- The technology plan should address individual school technology needs.
 - The District's Plan does not specifically address individual school technology needs.
- Plans should address professional development for technology users.
 - While Chillicothe CSD's Technology Plan does discuss professional development, specific and measurable goals are not included.
- Objectives in the technology plan should be measurable and reflect the desired outcomes for educational and operational programs.
 - Chillicothe CSD does not have a strategic plan to which its Technology Plan can be linked.

Recommended Budget Practices: A Framework for Improved State and Local Budgeting, (Government Finance Officers Association, 1998), recommends a financial planning process be in place to identify the long-term financial implications of proposed programs and projects. These financial implications can then be included in annual appropriations, thereby funding appropriate strategies to achieve district goals.

Financial planning will enhance District awareness of options, problems and opportunities in technology planning. The process will keep decision-makers better informed of planned expenditures and provide for more timely corrective actions. This framework, in conjunction with efforts already underway, can be implemented with existing resources and will help the District ensure achievement of its technology goals.

R6.2 Chillicothe CSD should employ web-based tools to capture the total cost of ownership (TCO) related to its technology expenditures to enhance planning and budgeting information. In addition to the initial purchase cost of hardware and software, TCO includes the cost of providing training and effectively supporting the technology, thereby capturing the true cost of technology purchases.

The District does not use TCO calculations to determine the long term costs of technology purchases. However, the Technology Coordinator expressed interest in the topic and during the course of the audit the District has made an effort to incorporate TCO calculations into the planning process. In fact, TCO is addressed in the Technology Plan for FYs 2006-09 with specific references on how it will be used in the future. The

plan references a free web-based tool recommended by the Consortium for School Networking (COSN). This tool was created to help school leaders understand costs and adequately budget for technology investments.

TCO calculations, help districts explain to external audiences the costs associated with maintaining and operating existing technologies and future projects. In fact, *Technology Budgeting Basics*, (Kenyon, 2000) estimates that only 30 percent of the total cost of owning a computer system is the initial purchase of hardware, software and peripherals.

When districts use TCO calculations as a budgeting tool, they are less likely to make technology planning errors and will better understand the long term costs associated with projects. As a result the District will be less likely to purchase items it can not afford to support and maintain.

R6.3 Chillicothe CSD should adopt a computer replacement policy that replaces computers on a regular cycle, at least every five years. The computer replacement policy should be implemented through the District's Technology Plan and funded in each year's budget.

The District uses an informal replacement cycle of six years. However, this may result in the retention of hardware beyond the items life cycle. The age and percentage of total computers, as well as estimated replacement costs for District computers, is shown in **Table 6-1**.

Table 6-1: Age and Replacement Cost of Districts Total Computer Inventory

Age	Number of Computers	Percentage of Total	Replacement Cost
5 Years or Older	239	24%	\$356,697
4 Years	274	27%	\$221,696
3 Years	200	20%	\$133,247
2 Years	266	26%	\$146,470
1 Year	38	4%	\$35,588
Totals	1017	100%	\$893,698

Source: District's Inventory Listing

Table 6-1 shows that approximately one quarter of the Districts' computers are over five years of age, although, based on COSN and Electronic School.com in *Technology's Real Costs*, (Fitzgerald, 1999), the maximum recommended computer life cycle is five years. This would require the District to replace about one quarter of its computers each year for the next five years. TCO calculations have proven that using older machines is more costly than replacing them at regular intervals.

While the data illustrates the District is facing significant replacement costs, it also shows that the inventory purchases have been staggered. This will allow the District to maintain a relatively stable annual hardware budget for replacement purposes. Yet, school districts must plan for and fund the replacement of the computers now being installed or in a few years, the equipment will be obsolete. Chillicothe CSD can develop a replacement cycle in conjunction with its updated Technology Plan and incorporate the replacement costs into its forecasting and budgeting process.

Financial Implication: Annual costs for a five-year replacement cycle are estimated and shown in **Table 6-1**. Over the next five years, the District would need to replace computers at a cumulative cost of approximately \$900,000.

R6.4 Chillicothe CSD should seek additional traditional and nontraditional technology grants, particularly local grants. The District should provide sufficient staff resources, establish a restructured grant-seeking process and ensure that grant purposes be linked to the Technology plan. The Technology Coordinator should become more involved in grant-seeking and writing and devote a portion of time to these responsibilities, using publications and web sites such as techlearning.com and eschoolnews.com as resources.

The Assistant Superintendent is responsible for seeking, managing, and writing technology grants. A third party grant administrator is contracted to manage eRate reimbursements. The Technology Coordinator is involved in grant writing but his involvement has been limited to the technical matters required for some grant applications.

Table 6-2 shows District technology grants, their purpose, and the dollar amount for the past two fiscal years.

Table 6-2: Technology Grant Funding

Grant	Purpose of Grant	FY 2004-05	FY 2005-06 ²
SchoolNet - Professional Development	To provide the District with professional development training and tools for learning technology.	\$4,140	\$3,925
OneNet/Data Communications	Provided to account for money appropriated for Ohio Educational Computer Network Connections	\$18,000	\$18,000
SchoolNet Plus	To add and replace computers in the classroom.	\$28,875	\$0
E-Rate Reimbursements¹	Provides all public & private schools and libraries with access to affordable telecommunications and advanced technologies through discounts.	\$34,517	\$19,224
Management Information System (MIS)³	Funds for hardware and software development, or other costs associated with the requirements of MIS	\$10,182	\$10,251
State Grants Subtotals		\$95,714	\$51,400
Title II-D Technology	Section of Misc. Federal Funds that are available for technology	\$31,705	\$14,333
Federal Grant Subtotals		\$31,705	\$14,333
Totals		\$127,419	\$65,733

Source: eTech Ohio web site, District REVWRK Report and Ohio Department of Education 4502 reports

¹Cash reimbursements only; does not include credits towards SCOCA service fees.

²FY 2005-06 are expected amounts.

³ Grant funds for EMIS.

Table 6-2 shows that in FY 2004-05 the District received \$127,419 in technology related grants. In FY 2005-06 it received \$65,733, which was a 48 percent decrease from the prior year. The drop reflects an overall trend of decreasing grant monies available to districts. All grant monies shown in **Table 6-2** are from State or federal sources. The District does not receive any local grant money for technology.

GFOA Best Practices recommends districts adopt a policy that encourages a diversity of revenue sources in order to improve the ability to handle fluctuations in individual sources. As an example, the District has a Permanent Improvement levy which provided approximately \$100,000 for technology expenditures in FY 2005-06. However, because grant revenues continue to decline, the District will have to find other revenue sources or reduce spending.

Policies and Procedures

R6.5 Chillicothe CSD should devise a methodology and set up its accounting system to track all technology and technology related expenditures. Specifically, the District should expand its use of the Operational Unit (OPU) within the Uniform School

Accounting System (USAS) to track all technology expenditures. By tracking expenditure information, District officials will have a more accurate understanding of all technology related costs.

Although the USAS identifies each financial transaction through the use of a set of codes, Chillicothe CSD does not use this system to identify all of its technology-related expenditures. According to the *USAS Manual*, an Operational Unit is the dimension which is used to identify a permanent operational entity, such as a school, administration building, warehouse, department, office, etc. This dimension can be used to identify costs by unit or facility. The District uses the OPU to track budgets controlled by particular personnel.

GFOA recommends that as a part of the expenditure policy, entities should incorporate an operating/capital expenditure accountability component. This will require comparing actual expenditures to the budget periodically (quarterly) and deciding on actions to bring the budget into balance.

By officially recognizing technology operations as a department or operational unit (see **R6.6**), and tracking all related expenditures for that department, Chillicothe CSD will be able to ascertain the total cost of implementing all technology applications throughout the District. The compilation of technology expenditures in this way will enhance the ability to perform TCO calculations and better plan future technology purchases (see **R6.2**). In addition, the District will be able to quickly and easily generate reports that track technology expenditures and provide information for budget planning purposes.

R6.6 Chillicothe CSD should develop a detailed technical support strategy, document support policies and procedures in a written manual, and post appropriate documentation online. Without procedures for the regular, systematic, and equitable prioritization of technical support, District technicians will experience continual interruptions and have no “big picture” of technical support issues.

The District does not have a detailed technical support strategy. The technology staff is a tightly knit group working in a barrier-free, one room environment. This environment enhances verbal and visual communication. As a result, the District has not made it a priority to develop a formal support strategy. However, as the District's technology operations grow more sophisticated, a technical support manual would provide an important tool in honing the support operations.

According to ISTE and OPPAGA, a technical support strategy should include the following:

- A well-defined escalation process with three or more steps of escalation and a clear path for resolution;
- Online knowledge bases which serve as a resource for staff who regularly use it to seek initial technology assistance;
- A list of supported software with clear differentiated support processes for each set of software that are consistently used;
- Additional help (internal or contracted) for all deployment functions to eliminate delays or disruptions in regular technical service;
- Documentation for most technical tasks used by most user groups; and
- Delegation, tracking, and evaluation of all technical issues through an electronic trouble ticketing system.

It is crucial that school districts effectively coordinate the delivery of technical support services, evaluate support provided, and share the resolution of support issues among technical support staff. Without such strategies, Chillicothe CSD may encounter systemic support problems. A support strategy could be developed in-house and implemented using existing resources.

Staffing and Organization

R6.7 Chillicothe CSD should establish a formal technology department with a clear chain of command that allows for the efficient deployment of technology throughout the District. The District should designate the Technology Coordinator, or an individual with similar experience, as Chillicothe CSD’s Chief Information Officer (CIO). The CIO should report directly to the Superintendent and be responsible for all technology-related issues within the District.

While Chillicothe CSD is striving to be a state-of-the-art district, it does not have a formal technology department. The technology staff consists of employees and contracted individuals who report directly to the Assistant Superintendent. The District was apprehensive about the legality of organization structure design that could involve contractors having authority over employees of the District. During the course of the audit, the contractor serving as the District Technology Coordinator resigned. The District plans to clarify the lines of authority and may create a new position to oversee technology and implement the updated technology plan.

According to the *Technology Support Index*, (ISTE, 2005) a technology department's organizational structure is considered exemplary if all of the technology functions report through the same unit in the organization, providing for a logical chain of command and communication structures. Furthermore, according to *Computing the Grade*, (Douglas, 2005), more forward-thinking districts are viewing technology like the private sector and consider the head of the technology operations to be at a very senior strategic level. These districts see technology as a strategic asset, embedded in all facets of operations.

In order to achieve the desired state-of-the-art status, Chillicothe CSD should have a technology department organizational structure consistent with that goal. The staffing structure should be based on the District's Technology Plan, and the overall goals and objectives of the District.

R6.8 Chillicothe CSD should consider implementation or adaptation of a curricular, student-as-support-staff program to train students in technical support. These students could support District technology in a peripheral manner as part of their instructional program.

Chillicothe CSD does not formally use high school students to supplement the technology support staff. By using students to supplement the technical staff, the ratio of computers to technicians would improve while addressing the concerns of survey respondents regarding support (see **R6.9** and **Appendix 6-1**).

In the 2006 BETA Teacher survey, teachers were asked who provided them with technical support when their classroom computers did not work. **Table 6-3** contains the results of this question.

Table 6-3: Technology Support Providers

Support Providers	Chillicothe	Peer Districts	State
Technology Coordinator or Technician	87%	90%	91%
Student	16%	21%	19%
Another teacher	58%	53%	52%
Myself	41%	43%	43%
Other, or does not apply to me	6%	5%	5%

Source: 2006 BETA Surveys

The *Technology Support Index*, (ISTE, 2005) recommends that school districts design curricular programs to train students in technical support and enable them provide peripheral support. According to a National School Boards Foundation survey, more than half of school leaders reported that students are providing technical support in their districts. Key duties included troubleshooting problems, setting up equipment/wiring,

and technical maintenance. Nearly half of these leaders reported that they provide formal support training to students.

Further, eTech Ohio has developed an online database at www.osn.state.oh.us/misc/assist that contains field-proven technology support models using students from 30 school districts. In particular, districts such as Stow-Munroe Falls City School District, Tallmadge City School District and Woodridge Local School District were early implementers of this program and several districts in the Northeast Ohio Network for Educational Technology were early implementers of the Technology Workforce Employment (TWE) program.

The development of a student program gives students an opportunity to receive professional guidance, build a résumé, learn responsibility and perform a valuable service for the schools. Students are capable of performing many routine tasks including installing software, setting-up new computers, cleaning and de-fragmenting drives, performing scans, maintaining printers, installing network cables and connectors, and assisting with basic user support questions.

Training students in technical support functions represents a win-win situation for the District. First, it helps the District prepare students for careers in technology and educates them in technology support and deployment. Also, it allows the District to use low-cost resources for some of its technology support needs. Finally, it creates an opportunity for the District and students to work toward mutual goals within the venue of technology use and support activities. The program can be flexible and designed so that students' educational opportunities always take precedence over providing technology support. eTech Ohio's *Guide to Student Technology Intern Program*, (2004) could be used as a tool for developing the District's own program.

Financial Implication: Districts that are taking part in these types of programs stated the costs for implementing student technical support projects were minimal, and virtually all districts stated a "positive economic aspect" due to the projects mitigating the costs of full-time staff. While costs will vary depending on the complexity of the program and whether students are paid, the District should expect, at minimum, a \$5,000 annual cost encompassing advisor stipends as well as training and material costs. Many districts provide students class credit in lieu of an hourly wage.

R6.9 Chillicothe CSD should develop standards outlining the desired levels of technology support and then measure its performance against those standards. To accomplish this goal, the District should strengthen its data tracking for feedback and evaluation purposes. Trouble tickets should be issued for all help requests and delegated to the appropriate technician.

Chillicothe CSD provides end user technical support at a computer to technician ratio of 278:1 within a closely managed network environment.⁴ It does not have documented technology support standards and, while the District employs a trouble ticket system, it does not use the system to generate reliable data for evaluation and analysis.

According to the COSN, exemplary districts perform technical support at a minimum of 500:1 in a closely managed network. However, the *Technology Support Index*, (ISTE, 2005) describes a highly efficient district as one with a computer to technician ratio of less than 75:1. The conflicting criteria demonstrate that each school district has unique needs and must determine its own standards for technology staffing.

Table 6-4 shows the District's technology response times according to the 2006 BETA Teacher Survey.

Table 6-4: Response Time for District Technology Problems

Response Time	Chillicothe	Peer Districts	State
Same day	10%	28%	26%
Next day	24%	25%	23%
2-3 Working days	31%	24%	25%
4-5 Working days	20%	9%	9%
More that 5 working days	14%	12%	13%
Does not apply to me	1%	3%	3%

Source: 2006 BETA Teacher Surveys

The BETA Survey results indicate the District's technology staff falls below benchmark comparison data for response times to technology problems. Of the District's teachers, only 10 percent responded that they receive technical support the same day. Twenty percent of the District's teachers responding said it took four to five working days for a response, as opposed to 9 percent for both peer districts and the State.

Thirty percent of those responding to the AOS survey did not feel satisfied with the District's technical assistance and 30 percent also felt that technical issues were not resolved in a timely manner (see **Appendix 6-A**).

Both the BETA Survey and Employee Survey responses are based on opinions which are directly influenced by the District's culture of expectations. In addition, the District lacks accurate reliable data that can quantitatively describe technology support performance. The District issues trouble tickets for most, but not all, requests for

⁴ According to *Taking TCO to the Classroom*, (COSN, 2001) a closely managed network is defined as one in which only very sophisticated users have administrative control, a centralized help desk exists, software is deployed remotely, and imaging software is used.

technology support and much of the data entered into the system appears incomplete or inaccurate.⁵

According to the *Technology Support Index*, (ISTE, 2005) a high efficiency organization records all technical issues which are delegated to appropriate resources through an electronic trouble ticketing system. All technical issues are tracked and evaluated through this system.

The growing integration of technology in education requires that the District's technical problems are resolved in a timely manner. Increasing the responsiveness of technical support personnel will increase user satisfaction with the technical support provided. Likewise, accurately gathering data related to technical support will enable the District to better measure the performance of support staff. The District may be able to resolve some of the concerns surrounding response times through the use of a student technology support program (see **R6.8**) and/or through teacher supplemental contracts.

Hardware

R6.10 Chillicothe CSD should implement and then regularly update formal policies for hardware standardization, purchase, and disposal. Written policies provide the District with a means to monitor processes while providing guidelines for staff.

Chillicothe CSD does not have formal policies that articulate its processes for equipment acquisition and disposal. While the District has a hardware standardization policy, it is not regularly updated.

According to the *Texas School Performance Review*, (2003) unwritten rules are simply no substitute for clearly outlined procedures. Chillicothe CSD should have a written requirement that all equipment providers remove and properly dispose of the computers that they are replacing. A policy will help the District avoid improper disposal of potentially hazardous materials.

Illinois Central College has established and posted a fixed assets disposal policy that specifically addresses computer equipment. The guidelines identify potential reasons for seeking computer equipment to be moved from a department. Responsibility for the disposal or redistribution of computer equipment is assigned to the Technology Department. Technology Services is the agency responsible for assessing the condition of

⁵ For example, trouble tickets were provided by the District in order to further analyze the technology staff's support response time. More than 48 percent of the trouble tickets were assigned after the closed date. As a result, reports indicated that trouble tickets were resolved almost a day before being assigned.

the equipment at the departmental location and determining the means of disposal as described above.

Based on Technology Services' assessment of the equipment, transfer to the Technology Services area or redistribution to another location at the college will be made. If redeployment is not possible, the computer equipment can be recycled or disassembled for parts and supplies for reuse. In the event disposal is necessary, it should be done in compliance with state and federal laws for environmentally responsible disposition and in accord with college computer disposal procedures.

According to *Seven Cost Saving Strategies for the IT Funding Crunch*, (Nastu, 2005), schools that standardize computer systems can reduce technology support and computer training costs. When everyone is working with the same software, it increases productivity between users, simplifies licensing, and makes training easier. When a district uses one computer model, it pays less per unit, does not need to stock as many parts, and does not need to support a variety of models. Also, according to *Twelve Steps to Trimming Your TCO*, (Moskowitz, 2001), hardware should be standardized as much as possible to reduce complexity. Hardware repairs can be simplified by reducing the number of equipment providers. Schools can also stock spare computers that are interchangeable so that end users can have replacement machines quickly.

By issuing and maintaining documented policies and procedures, the District will streamline and standardize staff efforts while reducing the likelihood of potentially costly errors.

Software

R6.11 As part of Chillicothe CSD's strategy to become a state-of-the-art district, it should continue to assess the functionality and integration of instructional software in the curriculum. The District should use this assessment information to determine training needs and measurable goals to help teachers benefit from the technological tools available to them.

The District uses instructional software to assist in the learning process such as Renaissance Learning, a reading program, and SuccessMaker, a math program. According to the District's 2006 BETA Survey, the figures in **Table 6-5** represent teacher's responses to the question that asked how often they use technology to support standards-based instruction.

Table 6-5: Technology Used to Support Standards Based Instruction

Frequency	Chillicothe	Peer Districts	State
I do not have access	3%	3%	4%
Never	16%	12%	13%
At least once per year	14%	16%	16%
At least once per month	29%	28%	28%
At least once per week	23%	26%	24%
Daily	14%	15%	15%

Source: 2006 BETA Teacher Surveys

Table 6-5 shows that Chillicothe CSD teachers use technology slightly less frequently on a daily and weekly basis to support standards-based instruction than the peer districts or the State average. Teachers at Chillicothe CSD use technology slightly more on a monthly basis than the comparison data. However, 16 percent of the teachers reported never using technology to support instruction, compared to 12 percent for peer districts and 13 percent for the State average.

Poor integration of software into the classroom can mean wasted time and money. If software is purchased for classroom purposes but is not implemented by the teacher population, then resources are being wasted. In addition, teachers could be wasting time and opportunities by not using the tools available to them.

Access to training for teachers directly impacts the utilization capabilities of staff in the classroom. Without mandatory or regular training, teachers will not be able to maintain a mastery of the technological tools available to them (see **R6.12**).

Based on responses to the 2006 BETA Survey, the functionality of instructional software in the District is not fully used and integrated into the curriculum. The District should seek to support its education personnel through instructional software and appropriate training.

Professional Development

R6.12 Chillicothe CSD should develop technological competency expectations for all staff. The achievement of these competency expectations should be accomplished through ongoing professional development programs. The District should strive to spend at least 15 percent of the technology budget on these programs. Also, the District should encourage staff to expand their technical capabilities beyond the District's competency levels.

The District does not have specified competency levels for various technical skills. It does not require or offer a formal ongoing professional development program for its staff. Although certified and classified staff have received some training in basic office software and high school staff have received training on the new equipment in the building, the District does not document or track the technology-related training received by employees. It primarily uses in-house, just-in-time training and free or low-cost educational opportunities offered by SCOCA and the eTech Ohio program. Chillicothe CSD is currently spending less than 1 percent of its technology budget on professional development. Funding is limited to restricted grant monies received for this purpose.

According to the Technology Plan for FY 2003-04 to 2005-06, \$138,528 was budgeted for professional development over the three fiscal years. However, according to financial information provided by the Treasurer's Office, actual professional development expenditures were approximately \$11,629. The Technology Plan for FY 2006-07 to 2008-09 budgets \$48,000 per annum for professional development and \$144,000 over three years. This amount represents 10 percent of the three-year total Plan budget.

According to the *Technology Support Index*, (ISTE, 2005), highly efficient technical staff receive ample training as a normal part of their employment, including training towards certification. The *Index* also states that staff training is satisfactory if technical staff members receive consistent training around emergent issues and have limited district-sponsored opportunities for advanced training. Further, OPPAGA best practices suggest that districts should have a process to assess the effectiveness of professional development training to ensure competency in the skills targeted.

According to the *Technology Support Index*, an outstanding organization meets the following standards:

- A comprehensive staff development program is in place that impacts all staff. The program is progressive in nature and balances incentive, accountability, and diverse learning opportunities.
- Basic troubleshooting is built into the professional development program, and is used as a first line of defense in conjunction with technical support.
- Online training opportunities are provided for staff both onsite and remotely, and represent a diversity of skill sets.
- A process and delivery system has been established for just-in-time training organization-wide and is used consistently.

- Expectations for all staff are clearly articulated and broad in scope. Performance expectations are built into the work functions and are part of the organizational culture.

Weaving a Secure Web Around Education, (the National Center for Education Statistics, 2003), recommends that professional development include all staff and student users, not just developers and programmers. All district users need to have basic technical skills and be updated occasionally on the rapidly changing environment. Budget allocations should address training and technology-related professional development as a necessary component of the agency's overall program. *Technology in Schools*, (NCES, 2002), states that the Elementary and Secondary Education Act (ESEA, No Child Left Behind Act of 2001) has included its support for a requirement that 25 percent of the funds be devoted to professional development. Also, according to the Consortium for School Networking, *Taking TCO to the Classroom*, (2001), a TCO-Savvy district devotes 15-30 percent of its budget to staff development.

By offering and requiring formal technology professional development, for its employees, teachers and classified staff will be more self-reliant, thus reducing the support burden on the technology staff. Furthermore, teachers will have confidence and enthusiasm to put technology to work on behalf of their students. Training for the technology staff will help them stay current on changes in technology and make solid decisions regarding technology upgrades, while increasing technical skill sets that will enhance technology operations and job satisfaction. Further, obtaining and maintaining specialized certifications is crucial to the development of a qualified technology staff. If the District does not give high priority to staff technology training, it will not be able to maximize the return on its technology investment and will be unable to achieve the desired state-of-the-art status.

R6.13 Chillicothe CSD should upgrade its controls to be more aligned with best practices in the areas of physical security and documentation. Physical security should be upgraded to provide a secure and protected environment for computer equipment that is accessible to only authorized personnel. In addition, the District should develop a manual that includes policies and procedures as they relate to systems operations, development, maintenance, documentation, and security.

The District employs several best practice procedures that include established network controls in the areas of access and maintenance. Specifically, internal controls for its technology systems include anti-virus protection, a firewall, and spyware protection. In addition, an Internet filtering tool is employed by SCOCA and is updated on a nightly basis. The District's antivirus and spyware protection software are automated to receive regular updates. Further, to help safeguard sensitive information, the system is password protected. Each network user is issued a personal password and username and limited

network access after signing an On-line Computer Services Agreement. Special access can be provided on an individual basis. Only the technology coordinator and the Technology Specialist have the ability and permission to view and access all network files. Finally, individual machines are protected through the use of a Group Policy Function which prohibits unauthorized software from being loaded.

A physical inventory of all technology hardware is taken bi-annually to compile the ODE required BETA Survey information. As new hardware is received, a tag number is assigned and entered in to the technology data base along with other important data about the equipment. Tags are then forwarded to the Treasurer's office for accounting purposes. However, the District does not maintain a software inventory.

OPPAGA recommends several additional controls to ensure system controls. These include the following:

- Districts have written procedures and a standards manual. This manual should include procedures as they relate to systems operations, systems development and maintenance standards, documentation standards, operations policies, and access security policies.
- The district protects systems from unauthorized users by using room locks.
- Segregation of duties based on district size exists within the data processing function. In smaller districts with limited opportunities for segregation of duties, compensating controls exist, such as managerial or user review of work performed.
- If the district engages a service organization to process transactions on its behalf, the district has executed appropriate agreements with providers and appropriate controls have been established.

Weaving a Secure Web Around Education, (NCES, 2003), also recommends incorporating a security assessment to determine improvement measures and the use of standardized protocols, various encryption technologies, and digital signatures to minimize security risks caused by the transmission of data from one agency to another.

Thirteen Tech Support Strategies, (Henderson, 2005), recommends that, in addition to a comprehensive equipment inventory, a district should maintain a database of software for copyright enforcement, report generation, and most importantly, decision making (regarding purchasing). Furthermore, according to *How to Manage Your Technology Assets Effectively*, (Punderson, 2001), the inventory tracking system must be easy to update and be able to be updated by many people so that data entry does not become an information bottleneck. Staff members need to reconcile information in the system with a

physical inventory on a regular basis. This will help remind all employees that they need to keep information up to date, and it will uncover problems while there is still time to solve them.

Maintaining tight controls on the network and physical assets safeguards the District from misuse, a breach of sensitive data, sabotage and theft. In addition, proper documentation in the form of a manual that includes written procedures will help ensure consistency and be a valuable reference tool to the technology staff. Costs for basic additional security will be minimal and include appropriately locked computer housing facilities and authorized personnel access to these computers.

R6.14 Chillicothe CSD should continue its efforts to complete the creation and testing of a written multi-step disaster recovery plan to prepare the District's systems in case of a catastrophic loss of data or system access. The District should also take steps to ensure the security of its off-site back-up tapes.

The District performs a full back-up to tape daily. These tapes are stored offsite at the Chillicothe High School in an unlocked file cabinet. The back-up process is managed by the technology coordinator who verifies the back-ups by reviewing the activity logs for nightly backups. However, Chillicothe CSD does not have a disaster recovery plan that describes the steps the District will take in case of a disaster that affects its systems. During the course of this audit, the District began the initial stages of developing such a plan.

The District does not have a disaster recovery plan because stabilization and technological standardization efforts have been the priority. The District relies upon a few personnel with in-house knowledge to manage its technology systems. Because only a couple staff members know the systems and procedures, the District's vulnerability is increased.

According to NCES, school districts should establish disaster recovery plans to safeguard data and minimize down time. NCES developed the elements found in **Table 6-6** that should be included in such a plan. NCES believes that districts should establish a team to develop and test the plan regularly.

Table 6-6: Key Elements of a Disaster Recovery Plan

Build Disaster Recovery Team	<ul style="list-style-type: none"> Identify a disaster recovery team that includes key policy makers, building management, end-users, key outside contractors and technical staff.
Obtain and/or approximate key information	<ul style="list-style-type: none"> Develop an exhaustive list of critical activities performed within the district. Develop an estimate of the minimum space and equipment necessary for restoring essential operations. Develop a time frame for starting initial operations after a security incident. Develop a key list of personnel and their responsibilities.
Perform and/or delegate duties	<ul style="list-style-type: none"> Create an inventory of all assets, including data, software, hardware, documentation and supplies. Set up reciprocal agreements with comparable organizations to share each other's equipment in an event of an emergency at one site. Make plans to procure hardware, software, and other equipment to ensure mission-critical activities are resumed with minimal delay. Establish contractual agreements with backup sites. Identify alternative meeting and start-up locations to be in used in case regular facilities are damaged or destroyed. Prepare directions to all off-site locations. Establish procedures for obtaining off-site backup records. Gather and safeguard contact information and procedures. Arrange with manufacturers to provide priority delivery of emergency orders. Locate support resources that might be needed (i.e. trucking and cleaning companies). Establish emergency agreements with data recovery specialists.
Specify details within the plan	<ul style="list-style-type: none"> Identify the roles and responsibilities by name and job title so everyone knows exactly what needs to be done. Define actions in advance of a disaster. Define actions to be taken at the onset of a disaster to limit damage, loss and compromised integrity. Identify actions to be taken to restore critical functions. Define actions to be taken to re-establish normal operations.
Test the plan	<ul style="list-style-type: none"> Test the plan frequently and completely. Analyze test results to determine further needs.
Deal with the damage appropriately.	<ul style="list-style-type: none"> If a disaster occurs, document all costs and videotape the damage. Be prepared to overcome downtime, insurance settlements can take time to resolve.
Give consideration to other significant issues.	<ul style="list-style-type: none"> Don't make the plan unnecessarily complicated. Make one individual responsible for maintaining the plan, but have it structured so that others are authorized and prepared to implement if it is necessary. Update the plan regularly and whenever changes are made to the system.

Source: National Center for Education Statistics, Safeguarding your Technology, modified by Texas School Performance Review, Eagle Pass School District audit. (1998)

Chillicothe CSD should use the elements in **Table 6-6** to guide the development of its disaster recovery plan. It should include key elements like a disaster recovery team, assigned duties, specific details, scheduled frequent plan tests, and updates. Without testing, the District will be unable to ensure a comprehensive, problem-solving, action

plan that adapts to changing technology. The District should be able to develop a formal plan, distribute the information, and train for its use with existing resources. The District should also continue to perform regular back-ups of its data while increasing the physical storage security of the tapes. However, the back-up process alone does not assure the District will be able to recover data rapidly and cost-effectively. With a disaster recovery plan in place, the District will know the procedures necessary to protect sensitive data and recover technology information in the event of a system disaster.

R6.15 Chillicothe CSD should consider expanding the use of its web site to provide the public, students, and teachers with more information. For example, the District could include its Continuous Improvement Plan (CIP), teacher and staff weblogs, additional downloadable forms, and Board policy information. It should also consider adding information about specific classes and clubs, up-to-date schedules, and newsletters.

Chillicothe CSD is using web technologies such as the Internet and system email to enhance communications. The District uses its Internet site to provide parents, students, and staff information about the District. The general public can obtain some Board policies, schedules, lunch menus, District news items, and building reports. In addition, some District forms are available on the web site.

The District's web site was created and is maintained by the Technology Coordinator. Although current information is provided on the web site, there are some items that are not up-to-date. For example, the most recent technology newsletter is from the winter of 2004. Also, teachers and principals are not optimizing communication capabilities on the District's web site. For example, upon examination of the web site, a link to an elementary school newsletter file was empty.

OPPAGA recommends districts use web technologies, such as the Internet and intranet sites, and email to improve and enhance communication between groups such as schools, districts, the state, parents, and the community. It also recommends district administrators use email to supplement communications of policies and information to its schools. Finally, OPPAGA noted that using email to circumvent costly meetings whenever feasible and to increase the frequency and speed of communications to parents and teachers is a recognized best practice.

Effectively using technology as a means of communication will keep employees informed and help the District inform, educate, and develop buy-in with various stakeholders. Web technologies also provide more opportunities for interaction with the community while avoiding costly postage. Web sites should be consistent and easy to navigate. By maintaining a professional appearing web site that includes important information, communication with the general public and within the District will be enhanced. In addition, web sites can create a good impression of the District to those who view it, thus providing a valuable marketing tool.

Financial Implications Summary

The following table summarizes estimated annual implementation costs for the recommendations discussed in this section. Unless the District’s financial condition improves, allowing it to increase funding for technology, Chillicothe CSD may not be able to implement all of the recommendations with financial implications.

Summary of Financial Implications for Technology

Recommendation	Annual Implementation Costs
R6.3 Implement a five-year computer replacement plan.	\$356,697 ¹
R6.8 Implement a student-as-support-staff program.	\$5,000
Total	\$361,697

Source: AOS Recommendations

¹ Annual implementation costs will be less each year (see Table 6-1).

Appendix 6-A: Employee Survey Responses

An employee survey was distributed to all Chillicothe CSD employees. The purpose of the survey was to obtain employee feedback and perceptions of customer service and related issues. A section of the survey solicited responses to statements concerning technology and support issues. Survey responses were based on a scale of 5 to 1: where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree. **Table 6-7** illustrates the survey results.

Table 6-7: Auditor of State Client Survey

Survey Questions	Client Results
Administrative Software Users	
1) Users know all major software functions used in their department.	
1) Strongly Disagree	2%
2) Disagree	17%
3) Neutral/Not Sure	6%
4) Agree	19%
5) Strongly Agree	7%
2) Software meets the needs of the users.	
1) Strongly Disagree	3%
2) Disagree	9%
3) Neutral/Not Sure	9%
4) Agree	25%
5) Strongly Agree	7%
3) Software is used effectively and efficiently.	
1) Strongly Disagree	4%
2) Disagree	10%
3) Neutral/Not Sure	9%
4) Agree	22%
5) Strongly Agree	5%
4) Users can get help when needed.	
1) Strongly Disagree	4%
2) Disagree	9%
3) Neutral/Not Sure	7%
4) Agree	22%
5) Strongly Agree	11%
Instructional Software Users	
5) Users know all major software functions used in their department.	
1) Strongly Disagree	2%
2) Disagree	18%
3) Neutral/Not Sure	15%
4) Agree	22%
5) Strongly Agree	5%

Survey Questions	Client Results
6) Software meets the needs of the users.	
1) Strongly Disagree	5%
2) Disagree	11%
3) Neutral/Not Sure	17%
4) Agree	26%
5) Strongly Agree	4%
7) Software is used effectively and efficiently.	
1) Strongly Disagree	4%
2) Disagree	14%
3) Neutral/Not Sure	17%
4) Agree	25%
5) Strongly Agree	4%
8) Users can get help when needed.	
1) Strongly Disagree	6%
2) Disagree	19%
3) Neutral/Not Sure	12%
4) Agree	21%
5) Strongly Agree	5%
All Users – Software Training	
9) Administrative/office software training meets user needs.	
1) Strongly Disagree	5%
2) Disagree	13%
3) Neutral/Not Sure	17%
4) Agree	26%
5) Strongly Agree	4%
10) Instructional / Classroom software training meets user needs.	
1) Strongly Disagree	6%
2) Disagree	18%
3) Neutral/Not Sure	23%
4) Agree	28%
5) Strongly Agree	3%
11) Training facilities meet user needs.	
1) Strongly Disagree	7%
2) Disagree	25%
3) Neutral/Not Sure	21%
4) Agree	28%
5) Strongly Agree	3%
12) Training programs are useful.	
1) Strongly Disagree	5%
2) Disagree	10%
3) Neutral/Not Sure	18%
4) Agree	45%
5) Strongly Agree	6%
13) Users feel more training is needed.	
1) Strongly Disagree	1%
2) Disagree	5%
3) Neutral/Not Sure	16%
4) Agree	40%
5) Strongly Agree	22%

Survey Questions	Client Results
General Computer Operation/Data – All Users	
14) Computer systems are reliable.	
1) Strongly Disagree	14%
2) Disagree	28%
3) Neutral/Not Sure	21%
4) Agree	32%
5) Strongly Agree	4%
15) Speed of data processing is satisfactory.	
1) Strongly Disagree	18%
2) Disagree	24%
3) Neutral/Not Sure	17%
4) Agree	35%
5) Strongly Agree	4%
16) Access to a printer is adequate.	
1) Strongly Disagree	14%
2) Disagree	18%
3) Neutral/Not Sure	9%
4) Agree	50%
5) Strongly Agree	8%
17) Systems contain accurate and complete data.	
1) Strongly Disagree	4%
2) Disagree	11%
3) Neutral/Not Sure	28%
4) Agree	47%
5) Strongly Agree	5%
18) Data from computer systems is useful for decision making or monitoring.	
1) Strongly Disagree	1%
2) Disagree	11%
3) Neutral/Not Sure	23%
4) Agree	55%
5) Strongly Agree	4%
Technical Assistance – All Users	
19) Technical assistance department is easily accessible.	
1) Strongly Disagree	6%
2) Disagree	31%
3) Neutral/Not Sure	20%
4) Agree	34%
5) Strongly Agree	4%
20) Requests for assistance are answered in a timely manner.	
1) Strongly Disagree	6%
2) Disagree	23%
3) Neutral/Not Sure	28%
4) Agree	33%
5) Strongly Agree	6%

Survey Questions	Client Results
21) Computer repair services are easily accessible. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	8% 26% 23% 31% 4%
22) Computer repair requests are answered in a timely manner. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	7% 23% 25% 32% 4%
23) Technology staff is able to solve hardware problems. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	2% 8% 21% 55% 8%
24) Number of technology personnel is adequate to provide support. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	9% 27% 23% 23% 7%
25) I am satisfied with the technical assistance provided by the District. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	9% 21% 27% 34% 6%
26) Electronic mail is widely used. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	3% 23% 15% 41% 13%
27) The internet is used to access information. 1) Strongly Disagree 2) Disagree 3) Neutral/Not Sure 4) Agree 5) Strongly Agree	1% 5% 11% 56% 23%

District Response

The letter that follows is Chillicothe CSD's official response to the performance audit. Throughout the audit process, staff met with District officials to ensure substantial agreement on the factual information presented in the report. When Chillicothe CSD administrators or officials disagreed with information contained in the report and provided supporting documentation, revisions were made to the audit report.

As noted in the response, Chillicothe CSD does not agree with every conclusion drawn in the audit report. However, a review of the District's response, the audit report, and supporting documentation revealed no unresolved factual matters. As a result, no additional report revisions were necessitated by the District's comments.

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Chillicothe City Schools

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April 23, 2007

Mary Taylor
Auditor of State
88 E. Broad St.
Columbus, OH 43215

Dear Auditor Taylor,

The Chillicothe City Schools Board of Education and administrative team appreciate receiving the performance audit. Although an audit was not initially performed when the District was placed in fiscal caution, the District did request this performance audit as a tool to aid the District in making future decisions.

The audit verified a path the District was already on in terms of closing one building once the Junior/Senior High Complex was completed. The District has been reviewing this option for over a year and the performance audit reinforced the District's plan.

The Transportation Department purchased bus routing software which will help the District implement the recommendation to eliminate 3 bus routes.

The District implemented a staffing plan in July 2006 based on preliminary meetings with the Performance Audit Staff.

The audit made recommendations in several areas for staff reductions. While the District does not necessarily agree with all of those recommendations, the District has used the recommendation as a tool along with an ODE Staffing analysis to help the District operate as efficiently as possible. An important point to understand is that a recommendation to eliminate remedial specialists does not necessarily improve the District's bottom line. These specialists are paid from either federal funds or restricted state funds. So while elimination of these positions would reduce expenditures, the District would subsequently lose the corresponding funding.

The Board of Education and administrative team will continue to evaluate the results of this audit and the feasibility of its recommendations. We would like to thank the Auditor of State for their efforts in the completion of this performance audit.

Sincerely,

Roger W. Crago
Superintendent

RWC/bem

Quality Schools