



Mary Taylor, CPA
Auditor of State

HILLSBORO CITY SCHOOL DISTRICT PERFORMANCE AUDIT

OCTOBER 11, 2007



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Auditor of State

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

On September 30, 2005, the Ohio Department of Education placed Hillsboro City School District in fiscal caution. Based on a request from the Ohio Department of Education, the Hillsboro City School District (Hillsboro CSD or the District) was selected to receive a comprehensive performance audit.

The six functional areas assessed in the performance audit were financial systems, human resources, facilities, food service, transportation, and technology. These areas were selected because they are important components of school district operations, which support the mission of educating children, and because improvements in these areas can assist Hillsboro CSD in addressing its projected deficits.

The performance audit contains recommendations which identify the potential for cost savings and efficiency improvements. While the recommendations contained in the performance audit are resources intended to assist Hillsboro CSD in improving its financial condition, the District is also encouraged to assess overall operations and develop alternatives independent of the performance audit.

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, and financial implications. This report has been provided to Hillsboro CSD 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 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 "Audit Search" option.

Sincerely,

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

MARY TAYLOR, CPA
Auditor of State

October 11, 2007

Executive Summary

Project History

Section 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. In addition, Ohio Revised Code (ORC) § 3316.042 permits AOS to conduct a performance audit of any school district in a state of fiscal caution, watch, or emergency and review any programs or areas of operation in which it believes greater operational efficiency, effectiveness, and accountability can be achieved.

The Ohio Department of Education placed Hillsboro City School District in fiscal caution on September 30, 2005. Based on a request from the Department of Education, the Hillsboro City School District (Hillsboro CSD or the District) was selected as one of the initial school districts to receive a comprehensive performance audit under HB 66.

The performance audit included reviews of the following operational areas:

- Financial Systems,
- Human Resources,
- Facilities,
- Food Service,
- Transportation, and
- Technology.

The goal of the performance audit process was to assist Hillsboro 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

Hillsboro City School District is located in southwestern Ohio, approximately 60 miles east of Cincinnati. The District is located in Highland County and serves the city of Hillsboro and the Township of Marshall; a rural community. The City and Township have populations of 6,677

and 1,049, respectively. The District provides education to approximately 2,780 students in grade K-12.

The Hillsboro City School District Board of Education (Board) is an elected five-member body, as defined by ORC § 3313.02. The Board serves as the taxing authority, contracting body and policy maker, and ensures that all other general laws of the State of Ohio are followed in the expenditure of District tax dollars.

In FY 2004-05, the District met 7 of 23 academic performance indicators established by the Ohio Department of Education (ODE) and was categorized as a continuous improvement district. As of the beginning of FY 2006-07, Hillsboro CSD operated 5 school buildings: 3 elementary schools (grades K through 5), one middle school (grades 6-8), and one high school (grades 9-12). Based on the information reported to the Educational Management Information System (EMIS), the District reported 342.1 full-time equivalent (FTE) employees comprising 17.6 FTE administrative personnel (1 FTE below the peer average), 187.6 FTE educational staff (14 FTEs below the peer average), 8.8 FTE professional staff, 11.0 FTE technical staff, 50.0 office/clerical staff, and 67.1 FTE other staff.¹

Hillsboro CSD experienced turnover in its top leadership positions in 2005. During the audit period, both the Superintendent and Treasurer had served about one year in the District. Inheriting a financially troubled District, the Superintendent and Treasurer have focused their efforts on ensuring financial recovery. In the fiscal year prior to the audit and throughout the audit period, District management continued to make changes to operations to enhance efficiency and effectiveness. Furthermore, the District worked closely with its ODE fiscal monitor to ensure financial recovery. As a result of its efforts to economize, Hillsboro CSD has been able to maintain spending levels that are in line with high performing, low spending peers. The majority of recommendations contained in this report focus on operational improvements the District could make to strengthen its internal controls and management oversight of business-side operations.

Objectives

This performance audit was conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS). Audit field work took place between June 2006 and February 2007. The goal of the performance audit process was to assist Hillsboro CSD management in identifying cost saving opportunities and improved management practices. The ensuing

¹ It should be noted that EMIS standardizes data for all reporting entities. Therefore, the number of employees within a given category reported to EMIS may not be consistent with an individual's role in day-to-day operations. For example, during the course of the audit the District identified 3.6 FTE administrators (as classified in EMIS) that the District does not consider to be administrators based on their daily job duties. To ensure appropriate comparisons EMIS data was not altered to reflect these perceived discrepancies. However, when necessary, these discrepancies were reviewed in detail prior to making recommendations.

recommendations comprise options that Hillsboro CSD can consider in its continuing efforts to improve and stabilize its long-term financial condition. The performance audit assessed key operations of the District in the areas of financial systems, human resources, facilities, food service, transportation, and technology. Major assessments included the following:

- The District's May 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;
- Food service operational ratios, such as revenues and expenditures per meal equivalent, and meals per labor hour;
- Key transportation operational statistics, such as riders per bus, cost per rider, cost per bus, and cost per mile; and
- The provision and use of technology within the District.

A full description of the objectives within each report section appear as an appendix to the respective audit sections.

Scope and Methodology

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 Hillsboro CSD and other school Districts. Throughout the report, comparisons are made to a 10 peer district average and/or the average of other school districts within Highland County.

For the Governor's Blue Ribbon Task Force performance audits, AOS developed a composite of 10 selected districts which was used for peer comparisons. The selected districts were Celina CSD (Mercer County), Garaway LSD (Tuscarawas County), Indian Valley LSD (Tuscarawas County), Leipsic LSD (Putnam County), New London LSD (Huron County), New Riegel LSD (Seneca County), Ridgewood LSD (Coshocton County), Southeast LSD (Wayne County), Springfield LSD (Mahoning County), and Symmes Valley LSD (Lawrence County). These districts are classified Type 1 rural/agricultural with high poverty rates and low median incomes, low per pupil costs, and an academic designation of excellent. As a group, these districts demonstrate a high level of financial and academic performance and, as a result, benchmarks derived from their operations are typically above average performance. The data obtained from the comparison districts was not tested for reliability, although it was reviewed in detail for reasonableness. Also, external organizations and sources were used to provide comparative information and benchmarks, they included, but were not limited to, the Ohio Department of Education (ODE), the Government Finance Officers Association (GFOA), the State Employment Relations Board (SERB), the American Schools and Universities (AS&U), the National Center

for Education Statistics (NCES), and other related best practices. Information used as criteria (Benchmarks or best practices) was not tested for reliability.

The performance audit process involved significant information sharing with Hillsboro CSD, including preliminary drafts of findings and proposed recommendations related to the identified audit areas. 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 operational efficiency or effectiveness. Throughout the audit process, input from Hillsboro CSD was solicited. Finally, the District was invited to provide written comments in response to the various recommendations. Draft reports were provided for comment at the end of March 2007 but the District declined to provide written comments. Likewise, the District was invited to provide more detailed written comments after the exit conference, held in September 2007, but none were provided. A formal response was submitted after the exit conference and is included in the **district response** section.

The Auditor of State and staff express their appreciation to the Hillsboro CSD for their cooperation and assistance throughout this audit.

Noteworthy Accomplishments

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

Technology

- The District utilizes I/P Telephony technology at Hillsboro Elementary School which will provide access to the planned High School and Middle School. Internet telephony is the routing of voice conversations over the internet that are traditionally carried over the public switched telephone network. Centralizing telephone services on the network can reduce the quantity of expensive primary rate interface lines required and provide a significant reduction in monthly phone and telecommunication charges.
- During the course of this audit, the District finished phasing out inkjet printers in classrooms and computer labs and replaced them with more cost-effective laser printers. Purchasing laser printers represents a greater up-front cost; however, the average cost per page is significantly less than that of an inkjet printer. The cost of a common laser printer will produce 40,000 pages at approximately two cents per page, or one-eighth the cost of an inkjet printer.

Key Recommendations

The performance audit contains several recommendations pertaining to Hillsboro CSD operations. The following are the key recommendations detailed in the report:

In the area of financial systems, Hillsboro CSD should:

- Analyze and use the financial recovery plan outlined in **Table 2-9** to evaluate the effect of recommendations presented in this performance audit on its financial condition. The District should consider implementing the recommendations in this performance audit along with other appropriate actions to help rectify its future financial difficulties.
- Expand the basis for the District's projections in detailed assumptions accompanying the five-year forecast.

During the course of the performance audit, the Treasurer expanded the level of detail in the five-year forecast assumptions.

- Develop formal written guidelines and procedures for preparing the five-year financial forecast which would help to ensure reliability and consistency. In addition, Hillsboro CSD should implement best practice financial management policies in several areas.
- Review and adjust its projections for major line items in the forecast to better capture likely outcomes. These areas include general property tax revenues, unrestricted grants-in-aid, personal services, and retirement and benefits.
- Develop a clearly written, multi-year strategic plan to provide vision and direction for the District. Furthermore, the District should support the strategic plan with a performance measurement system that would allow it to assess progress in meeting goals and objectives.

In the area of human resources, Hillsboro CSD should:

- Develop guidelines and implement procedures to ensure that accurate EMIS reports are prepared and reconciled for submission to ODE. Appropriate District staff should attend training to ensure that they are able to properly and consistently use the EMIS *Definitions, Procedures, and Guidelines* produced annually by ODE.
- Develop a formal staffing plan to address current and future staffing needs and fiscal constraints.

- Consider reducing staffing in several areas to achieve levels comparable to peer districts. These areas and reductions include 8 additional FTE teaching aides, and 3 additional FTE librarians and library aides when buildings are consolidated in FY 2009-10.

During the course of the audit, Hillsboro CSD began operating on a schedule which placed two classes in the school libraries during each class period. As a result, the roles of librarians and library aides may need to be re-evaluated based on the new workload.

- Consider reducing the number of administrative employees for which it pays the employee's share of retirement contributions.
- Implement Bureau of Workers' Compensation (BWC) best practices for work place safety to reduce workers' compensation claims and associated costs. Hillsboro CSD should also formally adopt and implement continuous on the job training to enhance work place safety and reduce associated claims cost.
- Consider implementing separate single and family plans for both dental and vision coverage to better match employee needs and reduce costs. Furthermore, it should actively pursue family vision insurance, assuming this would result in lower premiums.
- Seek to negotiate a change in the certificated agreement language regarding benefits for spouses employed in the District. Married couples working in the District should be required to enroll in only one family medical plan which would eliminate the opt-out incentive to spouses working in the District. The District should also discontinue the dual dental and dual vision coverage for married couples working in the District.
- Strive to reduce the amount of sick leave used by its employees by strengthening the policies to ensure its proper use. In addition, during the next round of collective bargaining, the District should attempt to add a provision to the collective bargaining agreement that requires a physician's statement for sick leave taken in excess of three days and establish policies to discipline employees who abuse sick leave. Hillsboro CSD should also negotiate a reduction in the maximum number of accrued sick days and discontinue the use of its sick leave bank.

In the area of facilities, Hillsboro CSD should:

- Reduce custodial staffing by 2.0 FTEs to bring the square footage maintained per FTE in line with national benchmarks through FY 2008-09. Upon completion of the District's construction projects, it should re-evaluate custodial and maintenance staffing needs in accordance with a staffing plan.

- Seek to improve productivity by implementing the team cleaning approach for custodial duties. If implemented, team cleaning could serve to better manage the increased work load per FTE created by reductions in staff.
- Develop and implement a formal preventive maintenance program that addresses all routine, cyclical, and planned building maintenance functions. The District should then assign staff to perform preventive maintenance tasks and further expand the use of the automated work order system to all buildings.
- Identify the hardware and software needs for expanding the use of Hillsboro elementary's automated work order system to all District buildings. The District should then conduct a cost-benefit analysis to evaluate the feasibility of expanding the program.
- Regularly update the OSFC created facility master plan and develop a capital improvement plan. The plans should be linked to the District's educational programs and academic achievement through the continuous improvement plan (CIP) as well as to short-range capital improvement plans and the District-wide strategic plan.
- Develop ten-year enrollment projections and review enrollment assumptions and update the projections on a yearly basis. The District should use the enrollment projections to help project future state funding allocations and other related items in the financial forecast; determine the number of teachers needed to accommodate any changes in enrollment; and evaluate building use and capacity.
- Either hire an operations manager or promote someone from within who can spend approximately 50 percent of their time managing operations.

In the area of transportation, Hillsboro CSD should:

- Include transportation-specific goals and objectives in an updated, District-wide strategic plan. Included in the plan should be contingencies in the event of continued financial difficulties such as following minimum requirements for student transportation.
- Review and update several transportation policies, particularly the Student Transportation Policy, the Board policy on identified hazards, and the policy on reimbursable non-routine miles.
- Reduce transportation costs by revising the pay scale for bus drivers who begin their employment after June 30, 2008 and discontinue the practice of guaranteeing all bus drivers six hours per day.

- Increase bus utilization by using routing software to optimize its routing practices, increase the use of cluster stops, and periodically recalibrate its bus routes throughout the year.

During the course of the performance audit, the District manually recalibrated its bus routes. The District also purchased routing software to ensure that future routes are recalibrated in a more timely and efficient manner.

- Develop a formal bus replacement plan that considers recent declines in enrollment and ridership, as well as ODE-established age and mileage replacement criteria. This plan should be linked to the District's five-year forecast and District-wide strategic plan, and used to facilitate reductions of at least two active buses and accompanying regular bus drivers.

In the area of technology, Hillsboro CSD should:

- Support the technology plan with a technology budget approved by the Board. The District should set forth goals, strategies, and appropriate measures that integrate both the academic and operational aspects of the Technology Department. Furthermore, the District should implement a formal IT capital planning and acquisition process characterized by a central decision making function within the Technology Department that solicits administrative and instructional staff input.
- Calculate the long-term costs incurred over the lifecycle of an asset in order to make decisions about the purchase and replacement of equipment based on a cost/benefit analysis of ongoing maintenance costs versus capital outlay costs. Furthermore, the District should track technology expenditures through the Uniform School Accounting System (USAS) by using a District-assigned special cost center.
- Develop a formal technical support plan comprised of documented policies and procedures for the regular, systematic, and equitable prioritization of technical support. The District should improve its ability to provide prompt technical support to network users by implementing a more efficient electronic work order system to track and follow-up with technology-related work orders.
- Allocate additional resources to the tech support function. The District should pursue low-cost strategies, such as training and utilizing students to help provide support to faculty and staff. When financially feasible, the District should increase Technology Department staffing by 1.0 FTE.
- Consolidate its network lines in order to achieve cost-effective connectivity. The District should consolidate its network lines by centralizing District buildings on the existing 10

megabyte line. Furthermore, the District should continue to connect the administration building using a ½ T-1 line.

In the area of food service operations, Hillsboro CSD should:

- Ensure that all food service-related expenses are charged to the Food Service Fund. This would allow for additional resources to be used to support classroom and instructional operations that had had previously been spent on food service operation.
- Develop a five-year plan for food service operations tied to operational goals, financial statements, and input from customers, to enable proactive management decision making. Similarly, it should incorporate a five-year financial forecast in the food service strategic plan.
- Develop an expanded set of performance measures in conjunction with a strategic plan and five-year forecast. The performance measures should be linked to the District's overall mission, strategic plan and budget and be used as a basis for making operational decisions.
- Periodically explore the benefits and costs of contracting for food services via a competitive request for proposal (RFP) process.
- Work to lower supply and material costs by implementing cost saving measures, such as expanding the use of USDA commodities and using the consortium to which the District belongs for food service purchases. Additionally, the Food Service Director should work with the Superintendent and Treasurer in developing a purchasing procedures section for the food service manual.
- Limit scheduled salary increases for food service employees to 1.0 percent to slow the rate of growth of hourly wages. In addition, the District should develop a new pay schedule that is similar to the regional school food service salary scale average, for employees beginning their employment with the District after July 1, 2008.
- Incorporate a Point-of-Sale (POS) system in the new high school and Hillsboro Elementary School. By implementing point-of-sale technology, the District will have the means to collect operational and financial data.

During the course of the performance audit, the District began evaluating POS systems. The District plans to implement a POS system before FY 2008-09.

- Implement the direct certification of free and reduced lunch applicants by using Highland County Department of Job and Family Services eligibility rolls.

Issues for Further Study

Auditing Standards require the disclosure of significant issues identified during an audit that were not reviewed in depth. These issues may not be directly related to the audit objectives or may be issues that are outside the scope of the audit.

Human Resources

- **Sick Leave Incentive:** On a quarterly basis the District rewards employees that did not take sick leave. The bonus is \$100 for each of the first three quarters of the year and \$200 for the fourth quarter. This incentive is a proactive practice used to minimize sick leave taken. However, given the District's higher rates of leave usage, it is unclear if this policy is effective in motivating individuals to improve attendance in a manner sufficient to overcome the cost of this incentive for individuals that would have good attendance regardless. However, this incentive is less than the average substitute cost per sick day in FY 2005-06 (see **R3.9**), and therefore, is at least reasonably priced. Determining the effectiveness of this practice was outside the scope of this audit; however, the District should continue to monitor this policy.

Facilities

- **Cafeteria Building:** On the secondary campus, a separate cafeteria building is used by both Hillsboro High and Middle school students. According to staff, the District has not decided what to do with the cafeteria building when the new construction is complete. The District rents the building to private citizens to use for special occasions, such as wedding receptions. However, the District does not track the frequency of usage or the revenue generated from outside use of the building. Therefore, it should conduct a cost benefit analysis to evaluate the benefits of keeping the cafeteria building versus selling the site once the new construction projects are complete in FY 2009-10.
- **Capacity of new buildings:** Based on the District's enrollment and capacity data from the Ohio School Facilities Commission, AOS has determined that the utilization rates may be above the optimal level of 85 percent for the new buildings. However, historical data suggests a declining enrollment trend. Hillsboro CSD will need to evaluate capacity and utilization rates on an ongoing basis when the new buildings are completed. If utilization rates lead to unmanageable conditions within the facilities, then the District will need to investigate other space options, which may include keeping modular units in operation.

Food Service

- **Accounting Practices:** The food service operation is funded through the Food Service Enterprise Fund. According to the Treasurer, supplies and materials that were consumed during FY 2004-05 were accounted for in FY 2005-06. However, as the Food Service Fund is an enterprise fund, expenses should be accounted for on an accrual basis. Confirming these transactions was not within the scope of this engagement; however, a financial audit for FY 2005-06 is scheduled and the District should be aware of the requirements for enterprise funds.
- **Labor Hours:** The National Food Service Management Institute has developed a standard of Meals Per Labor Hour (MPLH) which outlines the number of meal equivalents a food service operation should produce in one labor hour depending on the size of the operation. It is difficult to examine the efficiency of the District because of the changes that continue to take place, including building construction and consolidation, declining enrollment, and fluctuating participation rates. In FY 2005-06 the food service operation had more efficient ratios than the national standard in all but one school. While modest reductions were made, these staffing levels will likely need to be reinstated at current levels after the new school construction project is completed. Therefore, the District should continue to monitor the meal per labor hour performance measure (see **R5.10**). In addition, should the District reduce the hours of food service employees. Subject to negotiation, the District should consider the possibility of having teachers collect lunch money from elementary students as a means of decreasing the food service workload. This appears to be a viable option as teachers already take a count of who will be purchasing meals and the District is not bound by a negotiated agreement for classified staff.

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 which Hillsboro CSD should consider. Some of the recommendations are dependent on labor negotiations or collective bargaining agreements. Detailed information concerning the financial implications, including assumptions, is contained within the individual sections of the performance audit.

Summary of Performance Audit Recommendations

Recommendations	Estimated Annual Savings/(Costs)
Recommendations Not Subject to Negotiation	
Financial Systems: Revised Assumptions ¹	
R2.2 Revise general property tax projections	\$744,787
R2.3 Revise unrestricted grants-in-aid projections	\$419,112
R2.4 Revise personal services projections	(\$268,059)
R2.5 Revise retirement and benefits projections	(\$232,002)
Total Average Impact of Revised Assumptions	\$663,838
R3.1 OAEP staff training	(\$210)
R3.3 Reduce the number of teaching aides by 8.0 FTE	\$194,184
R3.4 Reduce librarian and librarian aides by 3.0 FTE and an additional 2.0 FTE beginning in FY 2009-10	\$91,773
R3.5 Reduce the number of administrative employees for which the District pays the employee's share of retirement contributions	\$89,873
R3.6 Implement a Level 3 DFWP program and the PDP program ²	\$11,000
R3.7 Offer a single coverage plan for dental and vision insurance	\$79,900
R4.1 Reduce facility staff by 2.0 FTE for FY 2007-08 and FY 2008-09	\$72,396
R4.6 Implement energy conservation education programs	\$87,000
R4.11 Decrease the square footage maintained – equating to 0.4 FTE	\$14,479
R5.4 Eliminate four buses out of the District fleet	\$183,969
R5.8 Purchase bus routing software ³	(\$3,500)
R5.11 Reduce two buses ⁴	\$75,900
R5.11 Implement bus replacement plan	\$70,000
R6.3 Implement electronic trouble-ticketing and remote assistance ⁵	(\$2,500)
R6.4 Increase technology staffing by 1 FTE	(\$30,504)
R6.5 Consolidating existing T-1 and broadband lines	\$20,300
R7.1 Ensure food service expenses are charged to the Food Service Enterprise Fund	(\$43,000)
R7.7 Reduce expenditures on supplies and materials through use of consortium	\$51,200
Subtotal Not Subject to Negotiation	\$635,891
Recommendations Subject to Negotiation	
R3.8 Discontinue dual vision and dental coverage for spouses	\$23,900
R3.9 Limit the number of sick leave days per year for certificated staff	\$49,200
Subtotal Subject to Negotiation	\$73,100
Total Net Financial Implications	\$1,372,829

Source: AOS Financial Implications

Note: Reduction in staff savings are for FY 2007-08

¹ Reflects annual average change of revised assumptions over the last four years of the forecasted period. Only the last four years were taken into consideration because the first year for the forecast was FY 2005-06 which was completed during the course of the audit. See Financial Systems recommendations R2.2 through R2.5 for additional information.

² The District is able to save \$11,000 in FY 2007-08 and FY 2008-09; and then \$9,000 in FY 2009-10 and FY 2010-11. Thereafter, annual savings for the District will be \$7,500 annually.

³ Purchasing bus routing software has an estimated one time cost of \$25,000.

⁴ Does not include one-time cost savings of \$120,000.

⁵ Implementing the software would require a one-time cost of \$5,250 and then the annual cost thereafter is \$1,050 for technical support and \$1,495 for an annual site license for its computers. An unlimited site license would cost the District \$1,495 annually. The upfront, one time cost is no included in the annual cost associated in the table.

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, actual cost savings could vary from estimated savings depending on the implementation of the various recommendations.

Financial Systems

Background

This section of the audit focuses on the financial systems in the Hillsboro City School District (Hillsboro CSD or the District). **Appendix 2-A** provides a summary of the audit objectives for the **financial systems** section. The District's operations have been evaluated against best practices and operational standards from several sources. In addition, Type 1 urban and suburban districts¹ with similar demographics, high Ohio Proficiency test scores, and low per-pupil expenditures were used as peer districts.²

On September 30, 2005, the Ohio Department of Education (ODE) placed Hillsboro CSD in fiscal caution based on forecasted deficits. In conjunction with Section 3316.031 of the Ohio Revised Code (ORC), the District submitted a financial recovery plan, which was accepted by ODE on November 16, 2005. The financial recovery plan detailed a variety of steps the District intended to take in order to remove itself from fiscal caution. The key proposals to decrease expenditures included a reduction in force of about 23 positions in FY 2005-06 and 21.5 positions in FY 2006-07³ as well as discontinuing the Board of Education's (Board's) membership in the National School Board Association (\$3,100 annually). Additional revenue was generated through the implementation of additional student fees, including tuition for preschoolers, fees for student workbooks, and fees for extra curricular activities. The District also transferred funds from the Permanent Improvement Fund into the General Fund with the permission of the Highland County Court of Common Pleas. Finally, the plan included the closure of the Washington Elementary school building for the 2006-07 school year. The District has not updated the plan since its original submission.

¹ As categorized by the Ohio Department of Education.

² The ten districts used for peer comparison include: Celina CSD (Mercer County), Garaway LSD (Tuscarawas County), Indian Valley LSD (Tuscarawas County), Leipsic LSD (Putnam County), New London LSD (Huron County), New Riegel LSD (Seneca County), Ridgewood LSD (Coshocton County), Southeast LSD (Wayne County), Springfield LSD (Mahoning County), and Symmes Valley LSD (Lawrence County).

³ Appropriate FTE counts for the District's reduction in force could not be calculated because many of the cuts were made through attrition and reallocation, and some were not full time employees. The reduction of force also included salary costs for individuals that were reallocated from the General Fund to grant funds.

Organizational Structure

The Hillsboro CSD Treasurer's Office consists of 3.5 full-time equivalent employees (FTEs), including the Treasurer, Assistant Treasurer, Assistant to the Treasurer, and a shared Administrative Assistant. The Treasurer is primarily responsible for preparing the budget and appropriation measures in conjunction with the superintendent; processing payroll in accordance with all contractual arrangements approved by the Board; bookkeeping of transactions in all school funds; and rendering monthly statements and reports to the Board showing revenues, receipts, appropriations, expenditures and disbursements. The Assistant Treasurer is responsible for assisting the Treasurer with student activity accounts, processing purchase orders, preparing warrants, and maintaining the District's inventory system. The Assistant to the Treasurer is assigned the task of assisting the Treasurer with payroll processing, accounts receivable, and other related duties. The Administrative Assistant is shared by the Administrative Office and therefore accounts for only 0.5 FTE within the Treasurer's Office.

Financial Condition

The financial forecast in **Table 2-1** presents the Treasurer's projections of present and future financial condition as of June 1, 2006.⁴ The forecast and accompanying assumptions presented in **Table 2-1** and **Appendix 2-B** are the representation of Hillsboro CSD and are presented as submitted to ODE by the Treasurer. The projections reflect the General Fund and are accompanied by three years of comparative historical results and general assumptions. Assumptions for material line items that have a significant impact on Hillsboro CSD's financial status have been reviewed for reasonableness.

⁴ The District's most recent forecast was submitted in May 2007. The updated forecast shows differences from the June 2006 forecast submitted by Hillsboro to ODE.

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

	Actual 2002-03	Actual 2003-04	Actual 2004-05	Forecast 2005-06	Forecast 2006-07	Forecast 2007-08	Forecast 2008-09	Forecast 2009-10
Real Estate Property Tax	\$3,789	\$4,130	\$4,421	\$4,551	\$4,597	\$4,642	\$4,689	\$4,736
Tangible Personal Property Tax	\$802	\$826	\$709	\$738	\$547	\$368	\$133	\$24
Income Tax	\$1,943	\$1,983	\$2,119	\$2,139	\$2,161	\$2,182	\$2,204	\$2,226
Unrestricted Grants-in-Aid	\$9,398	\$9,873	\$9,693	\$11,355	\$11,456	\$11,571	\$11,687	\$11,803
Restricted Grants-in-Aid	\$850	\$1,060	\$1,358	\$215	\$218	\$219	\$222	\$224
Property Tax Allocation	\$475	\$500	\$537	\$329	\$332	\$336	\$339	\$342
Other Revenues	\$220	\$337	\$581	\$595	\$601	\$607	\$613	\$619
Total Operating Revenues	\$17,478	\$18,710	\$19,418	\$19,923	\$19,911	\$19,926	\$19,887	\$19,975
Advances-In	\$119	\$0	\$0	\$530	\$0	\$0	\$0	\$0
Total Other Financing Sources	\$35	\$54	\$68	\$54	\$54	\$54	\$54	\$54
Total Revenue and Other Financing Source	\$17,633	\$18,763	\$19,486	\$20,507	\$19,965	\$19,980	\$19,941	\$20,029
Personal Services	\$11,205	\$11,616	\$11,323	\$12,222	\$11,451	\$11,680	\$11,913	\$12,151
Fringe Benefits	\$3,539	\$3,946	\$4,237	\$4,274	\$4,073	\$4,277	\$4,490	\$4,715
Purchased Services	\$1,437	\$2,014	\$2,607	\$2,735	\$2,762	\$3,038	\$3,342	\$3,376
Supplies, Materials & Textbooks	\$763	\$706	\$760	\$698	\$705	\$712	\$719	\$726
Capital Outlay	\$351	\$169	\$111	\$108	\$50	\$51	\$51	\$52
Other Expenditures	\$315	\$410	\$410	\$420	\$420	\$420	\$420	\$420
Total Operating Expenditures	\$17,610	\$18,861	\$19,448	\$20,456	\$19,461	\$20,177	\$20,936	\$21,440
Total Other Financing Uses	\$200	\$53	\$22	\$22	\$22	\$22	\$22	\$22
Total Expenditures and Other Financing Uses	\$17,810	\$18,914	\$19,470	\$20,478	\$19,483	\$20,199	\$20,958	\$21,462
Result of Operations (Net)	(\$177)	(\$151)	\$16	\$28	\$483	(\$219)	(\$1,017)	(\$1,433)
Beginning Cash Balance	\$626	\$449	\$298	\$314	\$342	\$825	\$606	(\$411)
Ending Cash Balance	\$449	\$298	\$314	\$342	\$825	\$606	(\$411)	(\$1,844)
Outstanding Encumbrances	\$339	\$294	\$279	\$300	\$300	\$300	\$300	\$300
Ending Fund Balance	\$110	\$4	\$35	\$42	\$525	\$306	(\$711)	(\$2,144)
Unreserved Fund Balance	\$110	\$4	\$35	\$42	\$525	\$306	(\$711)	(\$2,144)

Source: Hillsboro CSD Treasurer and ODE

¹ Due to rounding, totals shown in **Table 2-1** may vary from the totals reflected in the five-year forecast submitted to ODE. During the course of the audit, the Hillsboro CSD submitted its 2007 forecast on May 24th, 2007 which was approved by ODE.

The financial forecast in **Table 2-1** presents projected revenues, expenditures, and ending fund balances for the General Fund for each of the fiscal years ending June 30, 2006 through June 30, 2010. According to the five year forecast, the District is projecting a deficit balance of \$711,185 in FY 2008-09 and \$2,144,022 in FY 2009-10. The District's projected year-end deficit as a percentage of the prior year's total operating revenue is 3.6 percent in FY 2008-09 and 10.8 percent in FY 2009-10. This is caused by an accelerating projected operating loss of \$218,789 in FY 2007-08, \$1,017,055 in FY 2008-09, and \$1,432,838 in FY 2009-10. During the course of the performance audit, Hillsboro CSD submitted an updated forecast to ODE. The updated forecast suggested an improved financial situation, as an unreserved fund balance of \$670,589 is projected for FY 2010-11 and no deficits are projected until FY 2010-11.

The assumptions and methodology disclosed for the forecast were developed by the Treasurer and are based on historical trends and information obtained from Hillsboro CSD (see also **Appendix 2-B** for a full description of the Treasurer's assumptions). AOS analyzed the assumptions and methodology and recommended changes as necessary. By its nature, forecasting requires estimates of future events; therefore, differences between projected and actual results are common, as circumstances and conditions assumed in projections frequently do not occur as expected and are based on information existing at the time the projections are prepared. Overall, the District's forecast appeared reasonable, although major line items could benefit from recalculation. Recommended revisions of material line items -- general property taxes, unrestricted grants-in-aid, personal services, and retirement and benefits -- are included in recommendations **R2.2**, **R2.3**, **R2.4**, and **R2.5**. Furthermore, providing more detailed assumptions, including the methodology used to calculate material line items, would benefit District constituents and could be submitted to ODE as an attachment to the forecast for publication on the State web site. (See also **R2.1**)

Financial Operations

The following tables present Hillsboro CSD's operating expenditures in FY 2004-05 and FY 2005-06 for comparison with peer district expenditure levels. District expenditures are compared to the peer districts to determine if resources are allocated in an efficient and effective manner. In some cases, differences in the manner in which a district structures its expenditures may exist.⁴ Where relevant, these discrepancies are disclosed.

Table 2-2 compares Hillsboro CSD's FY 2004-05 expenditures per pupil to the peer averages. Expenditures per pupil are based on ODE's expenditure flow model (EFM), which uses a modified version of a school district's year end financial reports. The purpose of the EFM, as described by ODE, is to categorize and report expenses pertaining to the education of students in a comparable manner among school districts. However, it does not include all the funds used by a school district as it focuses on operating expenditures. For instance, in some cases, the EFM does not capture critical expenditures for items such as debt service, which may have a substantial impact on a district's expenditures. The data in the EFM was not tested for reliability.

⁴ For example, a district with a permanent improvement levy may allocate facilities-related expenditures to its Permanent Improvement Fund, thereby reducing the facilities-related expenditures reflected in the General Fund.

Table 2-2: FY 2004-05 Expenditure Flow Model Comparison

	FY 2004-05 Hillsboro CSD		FY 2005-06 Hillsboro CSD		FY 2004-05 Peer Average	
	Total \$	\$ Per Student	Total \$	\$ Per Student	Total \$	\$ Per Student
Administrative Expenditures	\$2,535,153	\$948	\$2,990,048	\$1,087	\$1,305,208	\$998
Building Operations Expenditures	\$4,026,342	\$1,505	\$4,513,771	\$1,641	\$2,129,672	\$1,608
Staff Support Expenditures	\$333,345	\$125	\$370,098	\$135	\$186,441	\$117
Pupil Support Expenditures	\$2,875,207	\$1,075	\$2,700,328	\$982	\$933,282	\$684
Instructional Expenditures	\$11,881,080	\$4,442	\$12,534,337	\$4,558	\$6,174,094	\$4,485
Total	\$21,651,127	\$8,094	\$23,108,582	\$8,403	\$10,728,697	\$7,891

Source: ODE

As shown in **Table 2-2**, the District's FY 2004-05 expenditures per pupil were higher than the 10 peer district average in 2 of the 5 classifications in the EFM. It should be noted that these expenditures do not reflect significant staffing reductions impacting operating results for FY 2005-06 as illustrated by a year to year comparison. Hillsboro CSD spent more than the peer average during FY 2004-05 in staff support expenditures and pupil support expenditures. See the **human resources** section for a discussion of staffing levels.

Table 2-3 compares Hillsboro's CSD's FY 2004-05 General Fund operating revenues and expenditures per pupil to the peer average.

Table 2-3: General Fund Revenues by Source and Expenditures by Object ¹

	FY 2004-05 Hillsboro CSD		FY 2005-06 Hillsboro CSD		FY 2004-05 Peer Average	
Number of Students (ADM)	2,670		2,686		1,252	
	\$ Per ADM	% of Total	\$ Per ADM	% of Total	\$ Per ADM	% of Total
Property / Income Tax	\$2,715	37.4%	\$2,793	36.8%	\$2,807	36.3%
Intergovernmental Revenues	\$4,356	60.1%	\$4,518	59.6%	\$4,535	58.5%
Other Revenues	\$181	2.5%	\$273	3.6%	\$412	5.2%
Total Revenue Per ADM	\$7,252	100.0%	\$7,584	100.0%	\$7,754	100.0%
Wages	\$4,226	58.1%	\$4,554	58.8%	\$4,295	55.3%
Fringe Benefits	\$1,587	21.8%	\$1,634	21.1%	\$1,741	22.4%
Purchased Services	\$977	13.4%	\$1,012	13.1%	\$952	12.2%
Supplies & Textbooks	\$285	3.9%	\$265	3.4%	\$298	3.8%
Capital Outlay	\$41	0.6%	\$74	1.0%	\$119	1.5%
Debt Service	\$0	0.0%	\$0	0.0%	\$5	0.1%
Miscellaneous	\$154	2.1%	\$174	2.2%	\$198	2.6%
Other Financing Uses	\$8	0.1%	\$29	0.4%	\$178	2.2%
Total Expenditures Per ADM	\$7,278	100.0%	\$7,743	100.0%	\$7,785	100.0%

Source: 2005 Annual Financial Reports (4502's)

¹ Amounts are rounded and may differ slightly from summation totals.

As shown in **Table 2-3**, Hillsboro CSD's revenues and expenditures are both 6.5 percent lower than the respective peer average. Compared to the peers, Hillsboro receives a slightly higher percentage of its revenues from property and income taxes and intergovernmental receipts, indicating that the District is more reliant on the State operating funds than its peers. In contrast, spending per pupil was higher than the peer averages in purchased services. According to the District Treasurer, purchased service amounts were high due to high utility costs and inefficiencies in the older buildings within the District.

In the area of discretionary expenditures, or those expenditures over which the District exerts the most control, Hillsboro CSD's FY 2004-05 spending as a percentage of all General Fund expenditures (11.4 percent) was lower than the peer average (12.6 percent). The largest portion of discretionary spending, property services, accounted for 2.6 percent of the District's total expenditures. In FY 2004-05 and FY 2005-06 repairs and maintenance services accounted for over half of the property service expenditures. A large portion of the repair and maintenance services were attributable to school building repairs.

The discretionary expenditure line-items where Hillsboro CSD was significantly higher than the peer averages include property services, communications, general supplies, and fleet maintenance and repair. The difference in property services can be attributed to the addition of

an elementary building prior to FY 2005-06. These additional costs were not offset by the closure of any other buildings. High communication costs were attributed to five unused phone lines, for which the District ceased payments. The Treasurer believes that general supplies were high in comparison to the peer districts because the District has older buildings that require additional supplies. Fleet maintenance and repair costs were high due maintenance problems with the bus fleet. The District spent approximately \$130,000 in contracted labor to repair its buses after the fleet failed its annual inspection. The Treasurer believes the District spent close to \$200,000 on rehabilitating the bus fleet.

When compared to other districts in the region, Hillsboro CSD collects more local revenue per student because it has a higher valuation per student and because it has higher tax rates. Although Hillsboro CSD collects more than the other District within the county, it receives less funding per student than the comparable 10 peer district average because its valuation is lower per student. However, Hillsboro CSD's tax rate is comparable to the peer average.

Recommendations

Five-Year Forecast

R2.1 In an effort to increase the reliability of financial decision-making information, the Treasurer should seek to improve the assumptions and methodologies presented in the five-year financial forecast and provide an increased level of detail and supporting material in the development of the forecast. The District's five-year forecast and the accompanying assumptions or notes should be expanded to include detailed historical and projected information and explanatory comments. The forecast notes should provide the District's calculation methodology as well as material assumptions made in those calculations. Furthermore, the District should provide the reasoning or basis for any assumptions. A copy of the expanded assumptions should be appended to the District's forecast when submitted to ODE for inclusion on its web site. By providing more detail in the forecast and supporting notes, the Board and public will better understand the financial condition of Hillsboro CSD and have more confidence in the reliability of forecasted figures.

In addition to improving the forecast assumptions, Hillsboro CSD should develop formal written guidelines and procedures for developing the five-year forecast. These procedures should include, but not be limited to, an evaluation of community conditions, a timeline for review and completion, and supporting documentation for assumptions, including the methodology used for each line item. The policies and procedures should also address key forecast factors, including the parties responsible for information, time periods covered, the process for development and evaluation of assumptions, support for assumptions, presentation format, and outside consultation. The District should also continuously update the guidelines to reflect changes in the forecasting process.

During the course of the performance audit, the Treasurer expanded the level of detail in the five-year forecast assumptions.

The Board of Education policy manual contains policies regarding tax budgeting, appropriations, requisitions and purchases, payment procedures, accounting and reporting, and fixed assets; however, it does not contain a policy on the five-year forecast. The forecast is a management tool developed by the Treasurer with the assistance of other managers within the school district. Methodology refers to the manner in which the forecast estimates include or ignore expected driving factors and the relationship between those driving factors. As projections involve estimating future events, they require the use of assumptions regarding those factors. Assumptions are the informed estimates developed by the appropriate managers within each building or at the

district level and communicated to the Board. Since assumptions can change based upon economic conditions, the forecast should be considered a working document that can be altered if results vary significantly as time progresses. Although Hillsboro CSD includes assumptions and notes to its five-year financial forecast, they do not provide adequate disclosure regarding factors that have an impact on the forecast and the rationale for their inclusion.

According to the Treasurer, the Superintendent and Board are included in the forecasting process through discussion and review of the assumptions and forecast amounts. The District forecast is reviewed at Board meetings, finance committee meetings, and with the Superintendent. The District also has a business advisory council that discusses the financial situation of the District along with local concerns. The five-year forecast and assumptions submitted to ODE do not have details for each line item. The assumptions do specify some of the methodology used in generating line item projections, but do not supply detail for the majority of the forecast amounts. The assumptions for select line items are examined below:

- **Property Tax Allocation:** The forecast assumptions do not include any detail concerning how the forecast for property tax allocation was developed. After the initial year of the forecast the District estimates a 1 percent increase each year thereafter without justification. The projections over the course of the forecast are well below the three year average of 9 percent for property tax allocation.
- **Other Revenue:** The District's assumptions do not contain any description regarding the projections of the other revenue line items. In the first year of the forecast the District projects a 0.67 percent increase and projects a 1.00 percent increase each year thereafter. The assumptions do not provide any detail to explain the methodology used to make the projections. According to the Treasurer, the 0.67 percent increase is based on three-year historical figures. The 1 percent thereafter is an estimate. However, over the past three years, other revenue decreased by 30.8 percent from FY 2001-02 to FY 2002-03 and increased 53.3 and 75.4 percent from FY 2002-03 to FY 2003-04 and FY 2003-04 to FY 2004 05, respectively.
- **Supplies and Materials:** The District's assumptions do not contain any information regarding how the forecast for supplies and materials was developed. The District projects an 8.10 percent decrease in the first year of the forecast and then a 1 percent increase each year thereafter. According to the Treasurer, the decrease in the first year of the forecast is due to controlling purchasing costs within the District; however, the assumptions fail to explain this decrease or provide an explanation for the 1 percent increase each year for the rest of the forecast period.

- **Capital Outlay:** The forecast assumptions do not include an explanation of the forecasted amount for capital outlay. The capital outlay amounts vary throughout the forecast period. In the initial year of the forecast, there is a decrease of 2.71 percent. In the second year there is a decrease of 53.55 percent. After the first two years of the forecasting period, capital outlay increases 0.1 percent, 1.9 percent, and 1.0 percent; respectively. The assumptions do not explain the variation or the how these projections were derived. The Treasurer stated that the decrease in capital outlay represented a shift in expenditures from the general fund to the permanent improvement fund as well as higher than usual expenditures in the previous year resulting from problems with the Districts bus fleet.

Assumption detail should provide reasons for the forecast amounts and a description of the specific information used to reach the forecast amount. Most of the District's assumptions state that line items are increased by a specific percentage and do not provide detail concerning how that percentage was reached or what factors were taken into consideration.

General guidelines for forecasting are available from several sources, including GFOA and the American Institute of Certified Public Accountants (AICPA). Best practice guidelines include the following:

- Forecasts should be prepared in good faith using the best information available at the time;
- Forecasts should be prepared with care by qualified personnel using appropriate accounting principles;
- Forecast information should be consistent with the long-range plans of the entity;
- Assumptions should be appropriate and include identified key factors that impact the entity;
- The determination of variations in major assumptions should be included in the forecast;
- Forecasts should include adequate documentation of the financial forecasts and the process used to develop them;
- The forecasting process should include regular reviews of variances, comparing forecasted amounts with actual results; and
- Adequate review and approval of forecasts by the responsible party at the appropriate levels of authority.

Without detailed notes, calculations may appear to be arbitrary or subjective. For the line items mentioned above, the District assumptions do not provide an adequate level of supporting detail. Proper disclosure of significant assumptions is essential to the reader's understanding of the financial forecast. Improving the level of detail for forecast assumptions will assist the Board in understanding the financial forecast presentation and

allow it to make informed decisions. By offering more detailed assumptions for each line item, the District will provide a more complete picture of the District's financial status to the community and District stakeholders.

Recently, ODE added a section to the financial forecasting pages of its web site where districts can submit detailed assumptions in addition to the required forecast. Although ODE's forecast submission tool places character limits on the assumptions that reduces the detail submitted with the forecast, the addition of a repository for detailed notes to the forecast is helpful in improving stakeholders' understanding of the forecast process. Hillsboro CSD could use this additional tool to enhance its notes to the forecast and provide better explanations of underlying assumptions.

In its current state, the financial planning of the District can provide a vision of future financial outlays tied to the District's goals; however, without sufficient explanatory detail, the vision is short-term and can not be carried into future years with precision or confidence. By creating policies and procedures that define the process by which the District forecasts and plans for the future, more insight will be provided into opportunities and problems that may face the District. Policies and procedures regarding the forecasting and review processes would benefit the District by providing consistency when employee turnover occurs and establishing a framework to guide future District administrators.

R2.2 Hillsboro CSD should review and adjust its projections for general property tax revenue. The current projections appear to be overly conservative and may not adequately capture future revenues. General property tax revenue projections should be based on historical trends, adjustments for increases or decreases due to reappraisals and updates, and any additional information provided by the County Auditor.

The general property tax line item 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 22.7 percent of the District's general fund operating revenue in FY 2004-05, and 22.3 percent in FY 2005-06. The District projects general property taxes to increase by 1.0 percent annually during the forecast period. Although the District's projections for FY 2005-06 were based on county auditor estimates, the 1.0 percent increase thereafter is the Treasurer's conservative estimate. While the District's estimate for FY 2005-06 appears reasonable, the Treasurer's assumption of a 1.0 percent increase each year over the forecast period is well below the five-year historical average of 6.9 percent. Historical general property tax collection growth rates only approached the District's 1.0 percent assumption in one fiscal year over the last 10 years (in FY 2002-03). Increases over the past five years have ranged from 7.1 percent to 9.4 percent.

The District's six-year historical general property tax collection amounts were analyzed to determine a more appropriate annual increase. The increase estimates were determined based on historic collections during update/reappraisal years, as well as the years following updates and reappraisals.⁵ Based on historical collections, during a reappraisal or update year, the average percentage increase in general property tax revenue is 2.3 percent, and 8.3 percent in a non-reappraisal or non-update year as the impact of the update or reappraisal on collections lags the actual valuation. The reappraisals and updates also impact two years as collections are conducted on a calendar year basis, while the forecast presents fiscal years.

The historic trends indicate that the forecast assumption of a 1.0 percent annual increase understates probable revenues. For example, the impact of the District's subjective, yet conservative, growth rate estimates if these assumptions had been made in FY 2002-03 for the last three forecasting periods then the District would have underestimated general property tax receipts by an average of 11.4 percent during this time period. Furthermore, during this time, the District's assumptions would have resulted in a cumulative impact of approximately \$1.5 million in underestimated resources. In contrast, the proposed methodology more closely predicted these receipts as it is based on historic growth rates. The District can potentially reduce the variability in the forecast by using a forecasting model that more accurately reflects the current pattern of receipts. Underestimating District revenue provides an inaccurate financial picture to the public and District stakeholders. By continually underestimating tax revenue in each year of the forecast period, the deficit continues to expand. The variability or error of one year will be compounded in the forecast for the following years; therefore, the accuracy of a forecast decreases in the final years of the forecast period. The five-year forecast is an integral part of a district's planning activities, overly conservative assumptions can result in operating decisions that may restrict expenditures to an extent that may affect educational quality more than is warranted. However, it should be noted that this effect is offset by overly optimistic expenditure assumptions in personal services and retirement and benefits (see **R2.4** and **R2.5**).

Table 2-4 shows the impact on general property taxes based on the proposed methodology, using historic growth rates for reappraisal years, update years, and those years not impacted by the county auditor's valuation cycle. It also shows the difference between the revised amounts and the District's projected general property tax revenue.

⁵ Reappraisals occur once every six years with an update taking place in the third year after a reappraisal.

Table 2-4: General Property Tax Projections¹

	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
District Projections	\$4,551,003	\$4,596,513	\$4,642,478	\$4,688,903	\$4,735,792
District Percentage Change	N/A	1.00%	1.00%	1.00%	1.00%
Revised Projections	\$4,551,003	\$4,929,192	\$5,338,807	\$5,460,532	\$5,914,303
Revised Percentage Change ²	N/A	8.3%	8.3%	2.3%	8.3%
Net Impact on Fund Balance	\$0	\$332,679	\$696,329	\$771,629	\$1,178,511

Source: Hillsboro CSD Forecast and AOS Adjustments

¹ The FY 2005-06 amount was taken from the District FY2005-06 4502. Also, calendar year 2006 is a reappraisal year and CY 2009 is an update year.

² The revised percentage change was calculated using the last 6 years of increases from non-reappraisal years and reappraisal/update years. AOS looked at the previous 12 year percentage increases for non-reappraisal years (9.7 percent) and reappraisal/update (2.5 percent), but decided to use the 6 year history for a more conservative estimate.

R2.3 Hillsboro CSD should review and adjust its methodology for estimating revenues in the area of unrestricted grants-in-aid so that they project major “add on” grant funding sources separately from the basic aid funding formula. The District should project large additional grant sources, such as Parity Aid and Formula Aid, separately from the base funding formula amount. The current projections appear to be overly conservative and may not adequately capture future revenues received by the District.

The District is projecting unrestricted grants-in-aid to increase 0.9 percent in FY 2006-07 and 1 percent each year from FY 2007-8 through FY 2009-10. The first two years of the forecast are based on the biennium State budget projections included in the District SF-3 reports. While these two years appear reasonable, a flat line increase of 1.0 percent each year of the forecast is projected thereafter. These projected increases are below the District’s average annual increase of 4.0 percent for the last five years.

State foundation funding is driven by formulas that incorporate factors such as average daily membership (ADM), state foundation amount per ADM, calculations of formula aid or parity aid, and other categorical items included in the calculation of the SF-3 statement amount. When creating the projection for unrestricted grants-in-aid, the District did not account for the historic changes in these funding sources. Between FY 2002-03 and 2005-06, the minor components of unrestricted grants-in-aid generally increased while major drivers such as total formula aid, special education weighted aid, transportation, and parity aid varied. Fluctuations in total unrestricted grants-in-aid are explained primarily by changes in total formula aid and parity aid. Parity aid receipts increased significantly due to the program’s planned funding roll out as ODE funded 40 percent, 58 percent, 76 percent, and 100 percent of total program receipts in FY 2002-03, FY 2003-04, FY 2004-05, and FY 2005-06, respectively. Formula aid was driven by changes in ADM from FY 2003-04 to FY 2004-05, as well as a large increase in adjusted recognized

value⁵ impacting the basic funding formula. The increase in formula aid from FY 2004-05 to FY 2005-06 was due to an increase in ADM along with a Building Blocks grant that the District received.

The performance audit used ODE's Foundation Settlement Report for the FY 2006-07 projection, and then considered historical trends and known factors when projecting unrestricted grants-in-aid for the remainder of the forecast. Parity aid and total formula aid were separated from the other SF-3 factors for individual projection because parity aid accounted for 11.7 percent of total unrestricted aid while total formula aid accounted for 73.8 percent. All other factors within the calculation accounted for a total of 14.5 percent of total unrestricted aid and were projected together. Both parity aid and total formula aid were calculated using trends in ADM as well as the individual calculations in which they are compiled based on the SF-3 line by line report.

Material assumptions that were used to calculate the revised projections include assumptions regarding the Districts average daily membership (ADM), state foundation, and other categorical items. ADM was projected using historical ADM numbers as well as the projected ADM amount. It was assumed that ADM in Hillsboro CSD would decrease by an average of approximately 0.07 percent per year, consistent with the three year average annual rate of change. The State Foundation amount per ADM was projected based upon a historical increase of approximately 2.22 percent, the statutory increase in funding from FY 2005-06 to FY 2006-07 as defined in ORC § 3317.012. In addition, due to House Bill 66, FY 2007-08 is the first year the District will not receive the cost of doing business factor. Therefore, additional adjustments were not made to the State Foundation amounts. The remaining line items that are calculated in the SF-3 were based on historic trends.

A certain degree of error or variability is expected each year of a forecast; however, using fixed percentages for line items compounds the variability or error in a single year. Thus, the District can potentially reduce the variability in the forecast by using a forecasting model that more accurately reflects current patterns.

Table 2-5 shows the adjustment to unrestricted grants-in-aid. The parity aid and total formula aid components of the unrestricted grants-in-aid line item represent approximately 85.5 percent of the total line item. Therefore, these items were forecasted individually. All other components of the unrestricted grants-in-aid line item were combined and forecasted based on historic growth estimates.

⁵ For a small set of districts which have large amounts of exempt property, an adjustment to recognized valuation is made to the State funding formula. Under this adjustment any amount by which a district exempt property value exceeds 25 percent of their total value (including exempt property) is subtracted from recognized valuation.

Table 2-5: Unrestricted Grants-in-Aid Projections¹

	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Revised unrestricted minus formula aid and parity aid	N/A	N/A	1,926,685	2,049,861	2,180,912
Revised total formula aid	N/A	N/A	8,610,582	8,844,411	9,061,309
Revised parity aid	N/A	N/A	1,320,964	1,314,995	1,309,053
Unrestricted Grants-in-Aid Estimate	11,354,982	11,574,579	11,858,231	12,209,267	12,551,274
Hillsboro 5-Year Forecast Unrestricted Grants-in-Aid	11,354,982	11,456,234	11,570,796	11,686,504	11,803,369
Net Impact on Fund Balance	0	118,345	287,435	522,763	747,905
Percentage Difference of Total	0	1.03%	2.48%	4.47%	6.34%

Source: Hillsboro CSD Forecast and AOS Adjustments

¹ The 2007 unrestricted grants-in-aid estimation was taken from the ODE projections for 2007. Years 2008, 2009, and 2010 were calculated based on historic trends and line item component equations.

R2.4 When developing future projections for the personal services line of the District’s five-year forecast, the Treasurer should include estimates for negotiated wage increases based on historical increases. Although the District has not recently granted wage increases, it is unlikely that it will be able to sustain this practice indefinitely, given industry practices. Therefore, likely wage increases should be incorporated into projections of personal service expenditures so that the District can adequately prepare for these expenditures.

The FY 2005-06 salaries and wages are projected using the Treasurer’s estimate of actual wage costs for the year. This estimate was developed using salaries of employees from the prior year as a baseline and making adjustments for staffing changes and expected step adjustments. However, these projections do not incorporate any provisions for a negotiated wage increase because the District was able to negotiate a freeze in its collective bargaining agreement, which is in effect through June 30, 2007, and has not provided wage increases since FY 2004-05.

In FY 2006-07, the District projects a decrease of 6.3 percent in the personal services line item due to anticipated staffing reductions that the District made as part of its financial recovery plan. For the final three years of the forecast, the District projects a flat 2.0 percent increase to account for step increases.

As in the prior forecasted period, the projections do not account for negotiated wage increases. These projections are for periods which exceed the duration of the collective bargaining agreements currently in effect. Based on an analysis of the District’s step schedules, the Treasurer’s assumption that step increases will be approximately 2 percent during the last three years of the forecast appears reasonable. However, the Treasurer’s assumption of no negotiated wage increases for any employee from FY 2007-08 through FY 2009-10 is not consistent with past trends or industry practices. Furthermore, the

collective bargaining unit’s past wage increase concessions decreases the likelihood of continued wage freezes. By assuming the wage freeze will occur for the entire length of the forecast, the Treasurer is likely understating the cost of wages in these years.

Table 2-6 presents the revised projections for salaries and wages, assuming a 1 percent negotiated wage increase for all employees in FY 2007-08 and a 2 percent increase for all employees in FY 2008-09 and FY 2009-10. However, this recommendation is subject to negotiations with the collective bargaining unit in order to specify wage increases for each year of the negotiated agreement.

Table 2-6: Net Effect of Revised Salaries and Wages ¹

	Forecast 2005-06	Forecast 2006-07	Forecast 2007-08	Forecast 2008-09	Forecast 2009-2010
Hillsboro CSD Projections:					
Salaries & Wages	\$12,221,719	\$11,450,629	\$11,679,642	\$11,913,234	\$12,151,499
Revised Projections:					
Salaries & Wages	\$12,221,719	\$11,450,629	\$11,794,148	\$12,265,914	\$12,756,550
Net Impact on Forecast	\$0	\$0	(\$114,506)	(\$352,680)	(\$605,051)

Source: Hillsboro CSD Forecast and AOS Adjustments

¹ Amounts are rounded and may differ slightly from summation totals. The projections assume a 1 percent negotiated wage increase for employees for FY 2007-08 and a 2 percent increase in FY 2008-09 and FY 2009-10. These percentages were used as a conservative estimate based on historical increases.

R2.5 In conjunction with recommendation R2.4, the District should review and revise its five-year forecast projections for retirement and benefits. Current projections do not adequately capture either the amount of retirement and benefits based on salaries or the rising cost of insurance premiums.

The District’s retirement and insurance projections accounted for District staffing reductions and retired employees. The District then had its insurance agent verify that the District had the correct number. For his projections, the Treasurer kept the salary-based benefits separate. He carried forward that amount based on the prior year expenditures and made adjustments based on attrition and salary increases. New insurance cost projections were then added to create his forecasted amount.

The District’s projections for retirement and benefits for FY 2005-06 are based primarily on mid-year actual financial figures. The Treasurer projected insurance costs separate from other retirement or benefits costs. Estimates incorporated staff insurance plan selections on an individual basis and therefore took into account likely premium cost reductions resulting from lower staffing levels. However, the remainder of benefit costs are dependent upon salary levels. Therefore, the Treasurer estimated these costs by using FY 2005-06 estimates as a base year and increasing them by an amount consistent with salary increases. In effect, this approach maintained the benefit to salary cost ratio, which appears reasonable and consistent with the underlying nature of these line items.

From FY 2002-03 to FY 2005-06, all benefit costs (excluding health insurance) as a percent of total salaries; have maintained a generally stable relationship with salary costs from 15.9 percent to 17.9 percent. Likewise, from FY 2002-03 through FY 2005-06 insurance costs, which are a component of fringe benefits, increased on average 10.0 percent each year. Each year, insurance costs increased at least 10.0 percent from the prior year, except in FY 2005-06. This is explained by a reduction in staffing levels during this time period. By projecting those costs dependent upon salary costs separately from those independent of salary costs, the District’s long-term forecast amount will better reflect changes in insurance premiums.

However, after the first two years of the forecast, the District projects a 5 percent annual increase for the entire line item from FY 2007-08 through FY 2009-10. This is explained by the Treasurer’s desire to control benefit costs in the future given the District’s financial condition. This projection methodology does not account for the relationship of expenditures to salaries or the historical trends in this line item. For instance, the State Teachers Retirement System (STRS) requires Ohio school districts to contribute 14 percent of each certificated employee’s salary toward their retirement plan. Similarly, payroll is the basis for workers’ compensation premium payment formulas along with the entity’s risk profile.

Table 2-7 illustrates estimated projections of retirement and benefit costs compared to the District’s five-year forecast projections.

Table 2-7: Hillsboro CSD Fringe Benefit Projections¹

	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Retirement/Benefits as a Percent of Salaries	\$1,937,446	\$1,995,570	\$2,075,392	\$2,158,408
Total Insurance Costs (base year * 1.1003)	\$2,221,899	\$2,444,755	\$2,689,964	\$2,959,768
Total Revised Retirement and Benefits	\$4,159,345	\$4,440,325	\$4,765,356	\$5,118,176
5-Year Forecasted Amount	\$4,073,013	\$4,276,664	\$4,490,497	\$4,715,022
Net Impact on Fund Balance	(\$86,332)	(\$163,661)	(\$274,859)	(\$403,154)

Source: Hillsboro CSD Forecast and AOS Adjustments

¹ Amounts may differ due to rounding.

Table 2-7 calculates the retirement/benefits as a percent of salaries by taking the projected personal services amount in **R2.4** and multiplying by 16.9 percent. Furthermore, total insurance costs were increased each year by 10.0 percent based on historic growth trends.

Strategic Planning

R2.6 The District should develop a clearly written, multi-year, strategic plan to provide vision and direction. The plan should address State and District education goals, including student performance goals, as well as operational goals not captured in the District’s Continuous Improvement Plan (CIP). The Board should identify and formally adopt major financial strategies and instruct staff on how these priorities should be considered in making program and budget decisions. The strategic plan should clearly delineate the following:

- **District’s goals and objectives and the strategies for achieving them;**
- **Priorities assigned by the Board to its goals, objectives and strategies;**
- **Strategies the District intends to employ to reach desired objectives;**
- **Performance measures and standards the District will use to judge progress toward meeting its goals; and**
- **The entities responsible for implementing the strategies in the plan as well as the time frames for implementation.**

Furthermore, the District should support the strategic plan with a performance measurement system that would allow it to assess progress in meeting its goals and objectives. The District should report on the performance and cost-efficiency of its major educational and operational programs to ensure accountability to parents and other taxpayers. (See R2.12 for additional information regarding performance measures.)

The District has created a Continuous Improvement Plan, which is focused primarily on academics. It sets academic goals for upcoming years, identifies funding for the various academic goals and programs, and tracks the District’s academic performance from year to year. Within the Continuous Improvement Plan, the District monitors the status of each goal and the implementation plans. However, many of the goals and plans are incomplete due to the time frame allotted of for creation of the plan.

Hillsboro CSD does not have a strategic plan that establishes goals and objectives and identifies expected results for services and activities. The Continuous Improvement Plan addresses academic goals and objectives but fails to include a component for business operations. Creating a strategic plan for business operations and merging the associated goals and objectives with the Continuous Improvement Plan would provide a more comprehensive planning tool to guide District decision making.

Furthermore, the District’s operations are not supported by a comprehensive and complete performance measurement system. The District does not use performance

measures that enable administrators to assess progress in achieving operational goals and objectives.

According to the Florida Office of Programs, Policy Analysis, and Government Accountability (OPPAGA), districts benefit from creating a multi-year strategic plan with annual goals based on identified needs, projected enrollment, and revenues. Accordingly, the District should take 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 links state and district education goals, including student performance goals;
- Have a strategic plan that clearly delineates more specific district goals and objectives and the strategies for achieving them;
- Identify and formally adopt a limited number of (5 to 10) district priorities to guide the district's strategies, goals, objectives and major financial and program decisions. Delineate the entities responsible for implementing the strategies in the plan and the time frames for implementation;
- Consider issues such as fund balance levels, teacher salary increases, health benefit levels, and class size reductions;
- Instruct district staff on how these priorities should be considered in making program and budgetary decisions;
- Have the plan 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;
- Annually assesses progress the district has made toward achieving its objectives;
- Annually review and, if necessary, amend its priorities and strategic plan to reflect changes in community standards, student needs, or board direction;
- Ensure that the district's goals, objectives, and standards are based on past performance, identified needs, projected enrollment, and revenues; and

- Know when 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.

GFOA more narrowly focuses on performance measures supporting planning, while mirroring OPPAGA standards. Performance measures should:

- Be based on program goals and objectives that tie to a statement of program mission or purpose;
- Measure program results or accomplishments;
- Provide for comparisons over time;
- Measure efficiency and effectiveness;
- Be reliable, verifiable, and understandable;
- Be reported internally and externally; and
- Be monitored and used in decision making processes, and be limited to a number and degree of complexity that can provide an efficient and meaningful way to assess the effectiveness and efficiency of key programs.

As governments gain experience with performance measures, GFOA encourages them to use a variety of measures to report on the achievements, impacts, and outcomes of key programs. These measures should be linked to the objectives of the programs as well as the mission and priorities of the organization.

A clearly written, multi-year strategic plan provides vision and direction for the District. It allows the District to identify specific priorities to guide strategies and major financial and program decisions and instructs staff on how these priorities should be considered in making program and budget decisions. By using performance measures the District would be able to assess its key educational and operational goals and communicate results to stakeholders. A cycle of planning, implementation, measurement, and reassessment is crucial in making incremental improvements over time.

Financial Reporting and Communication

R2.7 As the District financial outlook improves and additional resources become available, Hillsboro CSD should prepare and issue a Comprehensive Annual Financial Report (CAFR) to improve the communication of its financial position and operating results to community members. This expanded report format will provide more information regarding the District's environment, past spending decisions and future commitments, as well as budgetary statements and statistical information. The District should also prepare and distribute a Popular Annual Financial Report (PAFR) in conjunction with the CAFR. The District should also

provide public access to these reports and other important financial information via its website. The District could publish its five-year financial forecast along with its accompanying detailed assumptions (see R2.1) on its website to provide the public with information beyond that required by the Ohio Department of Education.

Hillsboro CSD is required by OAC Section §117-2-01 to issue financial statements prepared in accordance with generally accepted accounting principals (GAAP). The District has an annual independent audit of its financial statements completed by an independent public accounting firm. However, the District does not present its GAAP financial statements in the CAFR or PAFR format. Furthermore, the District does use its website to report financial information to the public. The website includes a link to the ODE website which, in turn, provides District financial information such as the five-year financial forecast, SF3 reports, settlement reports, and foundation statements. However, the District does not post the five-year forecast or assumptions on its website. In addition, the Treasurer's Office web page lists frequently asked questions, but does not list any financial details.

The Government Finance Officers Association (GFOA) encourages every state and local government to issue a comprehensive annual financial report (CAFR) in conformity with GAAP. GFOA also encourages governments to supplement the CAFR with simpler, "popular" reports, designed to assist those who need or desire a less detailed overview of financial activities. Such reporting can take the form of consolidated or aggregated presentations, or a variety of other formats.

In addition, GFOA recommends that every government publish budgetary information and financial reports on its website. The electronic budget document and the electronic CAFR published on the website should be identical to the printed versions of these documents. If a government elects to present the budget documents and CAFRs of prior years, the website should clearly identify these documents as "dated information for historical reference only" and clearly segregate them from current information. A "library" or "archive" section of the website is advisable for this purpose. Additional information regarding GFOA recommended practices can be found at <http://www.gfoa.org>.

The Westerville City School District provides its community with several key financial reports via its website. The website consists of the following four major components:

- **Budget Appropriations:** Current Five-Year Forecast, Understanding the Five-Year Forecast, FY 2005-06 Appropriations, FY 2005-06 Tax Budget, and Historical Year end Analysis;

- **Taxes / Millage / Valuation:** Tax Calculator, Presentation of Governor's Blue Ribbon Task Force on Student Success, Franklin County Area School District Effective Tax Rates (Historical Information), Westerville City School District Tax Rates History, Q&A on Taxes and Millage;
- **Annual Report:** Two years of historical information for both the CAFR and PAFR, and the most recent CAFR; and
- **Miscellaneous:** State Performance Audit, School Finance Terms, State Financial Designations, and Local Report Cards.

Providing the budget/appropriations and CAFR on the website increases the awareness of the existence of these documents, and can aid the user in understanding the financial condition of that particular government. Posting the information on the website also reduces the time needed to respond to public document requests and eliminates any cost associated with providing the information. In addition, the electronic form also provides users with a computerized tool to find, extract, and analyze the data contained in these often lengthy documents.

By expanding the its website to include the five-year financial forecast along with the detailed assumptions, a CAFR, a PAFR, and budget information, the District will demonstrate greater financial accountability and enhanced communication with its stakeholders. This will provide the public with a better understanding of financial issues the District has faced or will be facing in the future. Inclusion of additional details concerning historical events and future expectations would also assist the reader in interpreting the forecast and drawing well-informed conclusions.

Policies and Procedures

R2.8 Hillsboro CSD should develop financial management policies that are in line with best practices. In addition, the District should implement procedures derived from the Board's policies to ensure it operates in accordance with best financial management practices. Implementation of policies and procedures helps promote proper internal controls over the financial reporting process and operations. Furthermore, the District should continually review and update existing fiscal management policies.

The District has adopted financial policies; however the policies do not include some vital elements that are considered best practices. The Board Policy Manual includes financial policies addressing the following activities:

- Tax Budgeting;
- Appropriations;
- Investments;
- Accounting and Reporting;
- Fixed Assets; and
- Fee schedule for use of District property.

These policies could be augmented through the addition of best practice financial policies and procedures. *Recommended Budget Practices: A Framework for Improved State and Local Government Budgeting* (Government Finance Officers Association (GFOA), 1999) notes that financial policies and procedures should be an integral part of the development and implementation of services, operations, capital management, financial plans, and the budget. GFOA recommends policies covering the following items:

- **Stabilization Fund Policy** – to guide the creation, maintenance, and use of resources for financial stabilization purposes.
- **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.
- **Use of One-Time Revenues** – to prohibit the use of one-time revenues for ongoing expenditures because by definition, one-time revenues can not be relied on in future budget periods.
- **Diversity of Revenues Sources** – 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 District will take in the event of emergencies, natural disasters, and other unexpected events.

In addition, *Best Financial Management Practices with their Associated Indicators* (Office of Program Policy Analysis and Government Accountability, 2002) recommends policies for the following items:

- **Risk Management** – to provide for effective risk management of all insurance contracts.

- **Maximum Volume Discounts** – to outline the procedures the business office undergoes in order to maximize volume discounts and obtain special pricing agreements.
- **Payroll Policies** – 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 accounting codes. The payroll process should also be incorporated into the policy so employees know and follow the policies and procedures of appropriate payroll transactions.

Although the District does not have these financial policies in its Board Policy Manual, the District is planning to have the manual reviewed and updated by an outside consultant. The outside consultant will review the policy manual and update it so that it is up to date with current laws and regulations and will periodically update the policies for an ongoing fee. At the time the policies are updated, the addition of best practice financial management policies would strengthen the control environment and financial management practices of the District.

Effective financial policies that are followed by District administrators improve the ability of a school district to take timely action on financial matters and aid in the overall management of the budget. The comprehensive policies based on best practices could help the District better manage its limited resources and ensure consistency in financial practices.

- R2.9 The District should establish procedures to ensure the coordination of the budget process. It should also include general policy guidelines and budget preparation instructions for each budget cycle to ensure that the budget is prepared in a manner consistent with District policies, the ORC and the desires of the Board and other stakeholders. In addition, the District should develop and implement a set of procedures that facilitate the review, discussion, modification, and adoption of a proposed budget.**

Hillsboro CSD does not have adequate policies and procedures in place to guide its budget process. The policies and procedures do not provide District staff with guidelines for budget review, discussion, modification, adoption, or timely preparation and approval. According to GFOA, a government should establish an administrative structure that facilitates the preparation and approval of a budget in a timely manner. Procedures should be established that ensure coordination of the budget process. A process is also needed to develop and communicate the policies and guidelines that will direct budget preparation. In order for the budget to be adopted in a timely manner, processes should be developed to assist stakeholders in understanding tradeoffs and help decision-makers

choose among available options. A series of processes should be developed that permit stakeholders to satisfy themselves as to the appropriateness of the budget proposal and allow the legislative body to achieve consensus and adopt a budget. These processes should be summarized in budget materials. Some examples include: small group meetings, hearings, workshops, independent analysis, specific decision-making techniques and procedures, conflict resolution processes, and methods for presenting portions of the budget.

The Treasurer stated that the District does not have any budget preparation guidelines but will hopefully have them in the future. Due to other time constraints and priorities, the District has not devoted time to developing and reviewing policies and procedures.

Olentangy Local School District has written a set of formal policies that governs the budget process as well as a written Treasurer's Handbook that outlines the Olentangy budget and appropriations requirements. The written policies stipulate that prior to submitting the budget to the Board of Education for approval, each building principal and manager is responsible for preparing a building level budget. In order to eliminate duplication of effort and streamline the budgetary process, during every budget cycle, the Treasurer's Office issues a budget preparation memo. The Olentangy LSD written formal policies also address the areas of budget planning, budget transfer authority, tax budget preparation, annual budget and appropriation measure and modification authority, and funding proposals and applications.

A detailed budget process and timeline ensures that the District involves stakeholders, coordinates the budget, and that the parties involved have adequate time to prepare the necessary forms. By having budget policies and procedures in place, the District can make certain they are followed and that the budgeting process is adhered to.

Direct Deposit

R2.10 The District should expand the use of direct deposit and consider negotiating mandatory direct deposit in future collective bargaining agreements. The District should also include mandatory direct deposit for substitute teachers, and exempt employees.

According to the Treasurer and Assistant to the Treasurer, Hillsboro CSD deposits compensation directly into bank accounts at the employee's option for employees; however, the use of direct deposit is not mandatory. Approximately 62 percent (193 of 310 employees) of employees are enrolled in the direct deposit program. The District encourages employees to enroll in the direct deposit program by educating staff about the process and persuading employees to sign up. Also, when a District employee calls the

main office regarding the issuance of paper checks, payroll employees ask the employee if they want to sign up for direct deposit.

According to electronicpayments.org, school districts should take advantage of direct deposit for the following reasons:

- Companies can save up to \$1.25 per payment by using direct deposit instead of checks;
- Direct deposit eliminates the cost of delivering checks to employees at different locations;
- Direct deposit eliminates the chance of lost or stolen checks and the resulting charges for stopping payment and check replacement;
- Direct deposit makes payroll reconciliation easier and can help streamline tax reporting at the end of the year;
- With direct deposit, there is no need for special check handling when employees are on vacation or out of the office;
- Direct deposit reduces time spent storing and securing un-issued checks because check stock is not required for the payroll earnings record;
- Direct deposit gives many people access to their payments one to four days earlier than a check. There is no waiting for a check to clear; and
- Studies show that some employees spend the equivalent of three workdays each year going to the bank to deposit their paychecks.

The District and its employees could mutually benefit from 100 percent participation in the direct deposit program. If direct deposit became mandatory within the District, 117 additional employees would be enrolled in the process. Employees would benefit from instant availability of funds, a reduction in the time associated with cashing checks, and elimination of the risk associated with lost checks. The District could reduce bank-related fees; labor associated with the traditional processing of print checks; and postage costs.

It should be noted that full implementation of mandatory direct deposit could be done immediately for classified employees, as the District is not bound by a collective bargaining agreement. However, for certificated staff, mandatory direct deposit would be subject to negotiations with the bargaining unit.

Performance Measurement

R2.11 The District should conduct periodic evaluations of its educational and operational programs, functions and activities using performance information and other reasonable criteria. The District may also choose to include efficiency and effectiveness measures in basic budget materials. Performance measures should be

reported using actual data where possible. These measures should be made available to stakeholders to foster an inclusive environment that facilitates an informed partnership to achieve the District's goals.

The District does not conduct evaluations of its educational and operational programs, functions, or activities. The absence of an evaluation process does not allow the District to assess their efficiency or effectiveness. This information would allow the District to identify and prioritize areas for improvement to enhance program performance.

According to GFOA, one of the most frequently used sets of terms divides performance measures into the following four basic types:

- **Input measures:** Input indicators measure the volume of resources, 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.

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 performance in a particular area is acceptable or could be improved.

According to the OPPAGA, at a minimum, a District should examine whether the programs or activities meet their goals and objectives in a cost-effective manner through a formal evaluation process. Moreover, according to GFOA, the information provided from a performance measurement system is useful for many reasons including:

- **Planning:** The measurement development process provides a focus and a discipline to engage in planning. The addition of performance measures adds greater 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 illustrate the benefits that can be achieved if additional resources are made available to a program. Similarly, in cases of sinking resources, performance measures can help governments make the case for budget reductions targeted in particular programs or functional areas rather than effecting reductions with across-the-board cuts.
- **Management and communications:** Performance measurement may also improve and strengthen internal managerial processes. Performance data is essential to the success of several managerial initiatives, such as customer-focused management, strategic planning, and total quality management.

OPPAGA recommends that districts formally evaluate the performance and cost of 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 goals and objectives in a cost-effective manner.
- Evaluate reports that include findings and recommendations to improve the effectiveness.

Performance measurement is most useful as an information source for serving a variety of management processes, rather than a score-keeping and reporting system. Through evaluation of its performance, the District would be able to revise its academic and business operations to better meet the needs of students. Government functions, programs, and activities should be periodically reviewed to determine whether they are making efficient use of resources and accomplishing intended program goals.

R2.12 In conjunction with R2.11, Hillsboro CSD should closely examine its spending patterns and evaluate potential cost reductions for those activities and functions that do not directly support its mission of educating students. The District should reallocate its resources toward those programs and priorities that have the greatest

impact on direct instruction and student contact time. Combined with a close examination of the performance of educational and business activities, the District can tailor its spending patterns to emphasize its core mission.

Hillsboro CSD was designated as a continuous improvement school district during FY 2004-05. During that year, it met 7 of 23, or 30.4 percent, of the Ohio Department of Education (ODE) performance measures. This was 13 fewer than the 10 district peer average of 20 performance measures met. Hillsboro CSD also had a performance index score of 87, approximately 10.6 points lower than the average peer performance index score of 97.6.

Although Hillsboro CSD has improved its performance over the past three years, performance indicators continue to lag behind peer districts. In comparison to the peer districts, Hillsboro CSD allocates a smaller percent of its total expenditures to instruction. The District's funding allocation is evaluated in greater detail below. **Table 2-8** shows the per pupil amount and percent of expenditures posted to the various USAS function codes for Hillsboro CSD and the 10 peer districts.

Table 2-8 Governmental Funds Expenditures by Classification¹

USAS Function Classification	FY 2004-05 Hillsboro CSD		FY 2005-06 Hillsboro CSD		FY 2004-05 Peer Average	
	\$ Per Pupil	% of Exp	\$ Per Pupil	% of Exp	\$ Per Pupil	% of Exp
Instructional Expenditures	\$4,886	58.5%	\$5,109	57.6%	\$5,230	59.8%
Regular Instruction	\$3,439	41.2%	\$3,512	39.6%	\$3,909	44.9%
Special Instruction	\$765	9.2%	\$893	10.1%	\$972	11.0%
Vocational Education	\$251	3.0%	\$270	3.0%	\$219	2.5%
Adult / Continuing Education	\$0	0.0%	\$0	0.0%	\$2	0.0%
Extracurricular Activities	\$0	0.0%	\$0	0.0%	\$0	0.0%
Classroom Materials and Fees	\$0	0.0%	\$0	0.0%	\$0	0.0%
Miscellaneous	\$0	0.0%	\$0	0.0%	\$0	0.0%
Other Instruction	\$431	5.2%	\$435	4.9%	\$128	1.4%
Support Service Expenditures	\$3,217	38.5%	\$3,480	39.2%	\$3,150	36.2%
Pupil Support Services	\$395	4.7%	\$367	4.1%	\$335	3.8%
Instructional Support Services	\$684	8.3%	\$670	7.6%	\$336	3.9%
Board of Education	\$13	0.2%	\$8	0.1%	\$37	0.4%
Administration	\$786	9.4%	\$903	10.2%	\$765	8.9%
Fiscal Services	\$147	1.8%	\$209	2.4%	\$272	3.1%
Business Services	\$0	0.0%	\$0	0.0%	\$13	0.1%
Plant Operation / Maintenance	\$739	8.9%	\$709	8.0%	\$814	9.4%
Pupil Transportation	\$434	5.2%	\$607	6.8%	\$561	6.4%
Central Support Services	\$9	0.1%	\$6	0.1%	\$18	0.2%
Non-Instructional Services Expenditures	\$82	1.0%	\$77	0.9%	\$39	0.4%
Extracurricular Activities Expenditures	\$162	1.9%	\$212	2.4%	\$310	3.6%
Total Governmental Fund Operational Expenditures	\$8,348	100.0%	\$8,877	100.0%	\$8,730	100.0%
Total Governmental Funds Operational Expenditures	\$8,348	92.1%	\$8,877	96.3%	\$8,730	94.4%
Facilities, Acquisition & Construction Expenditures	\$713	7.9%	\$66	0.7%	\$176	1.8%
Debt Service Expenditures	\$0	0.0%	\$274	3.0%	\$354	3.8%
Total Governmental Funds Expenditures	\$9,061	100.0%	\$9,218	100.0%	\$9,259	100.0%

Source: FY 2004-05 Annual Financial Reports (4502's) and District SF-3 Reports

¹ Amounts are rounded and may differ slightly from summation totals.

According to **Table 2-8**, the District spends less per pupil when compared to the peer districts in total governmental funds operational expenditures, and also spends less as a percentage of total expenditures. Specific areas where the District should target cost reductions and efficiency improvements include support service expenditures and non-instructional services expenditures. The District spends less on instructional expenditures than the 10 peer average. Although it spends less on instruction, this spending has the greatest impact on its mission and learning outcomes.

Also, Hillsboro CSD is either significantly above the peer average or had a significant increase from FY 2004-05 to FY 2005-06 in Special Instruction, Vocational Education, Other Instruction, Pupil Support Services, Instructional Support Services, and Pupil Transportation.

The evaluation of programs using performance measures (see **R2.11**) can help guide the District's decision making process in determining if programs need adjustment, should be eliminated, or if new programs should be created. The process of evaluating the effectiveness of District programs could enhance the quality of education students receive through increased resource allocation to instructional activities. Reassessing the allocation of funds in instructional spending may also help the District achieve its mission through enhanced student achievement.

Financial Recovery

R2.13 Hillsboro City School District should analyze and use the proposed recommendations presented within this performance audit and determine the impact of the related cost savings on its financial condition. It should also consider implementing the recommendations in this performance audit to improve current and future financial conditions. In addition, the District should update its forecast on a continuing basis as critical financial issues are addressed.

Table 2-9 demonstrates the effect of the recommendation in this report and includes both the beginning fund balance for each year and the adjusted fund balance reflecting the effect of the recommendations. Recalculated line items are shown in italics.

Table 2-9 Revised Financial Forecast with Adjustments (in 000's)

	Actual 2002-03	Actual 2003-04	Actual 2004-05	Forecast 2005-06	Forecast 2006-07	Forecast 2007-08	Forecast 2008-09	Forecast 2009-10
<i>Revised Real Estate Property Tax</i>	\$3,789	\$4,130	\$4,421	\$4,551	\$4,929	\$5,339	\$5,461	\$5,914
Tangible Personal Property Tax	\$802	\$826	\$709	\$738	\$547	\$368	\$133	\$24
Income Tax	\$1,943	\$1,983	\$2,119	\$2,139	\$2,161	\$2,182	\$2,204	\$2,226
<i>Revised Unrestricted Grants-in-Aid</i>	\$9,398	\$9,873	\$9,693	\$11,355	\$11,575	\$11,858	\$12,209	\$12,551
Restricted Grants-in-Aid	\$850	\$1,060	\$1,358	\$215	\$218	\$219	\$222	\$224
Property Tax Allocation	\$475	\$500	\$537	\$329	\$332	\$336	\$339	\$342
Other Revenues	\$220	\$337	\$581	\$595	\$601	\$607	\$613	\$619
Total Operating Revenues	\$17,478	\$18,710	\$19,418	\$19,923	\$20,363	\$20,909	\$21,181	\$21,900
Advances-In	\$119	\$0	\$0	\$530	\$0	\$0	\$0	\$0
Total Other Financing Sources	\$35	\$54	\$68	\$54	\$54	\$54	\$54	\$54
Total Revenue and Other Financing Source	\$17,633	\$18,763	\$19,486	\$20,507	\$20,417	\$20,963	\$21,235	\$21,954
<i>Revised Personal Services</i>	\$11,205	\$11,616	\$11,323	\$12,222	\$11,451	\$11,794	\$12,266	\$12,757
<i>Revised Fringe Benefits</i>	\$3,539	\$3,946	\$4,237	\$4,274	\$4,159	\$4,440	\$4,765	\$5,118
Purchased Services	\$1,437	\$2,014	\$2,607	\$2,735	\$2,762	\$3,038	\$3,342	\$3,376
Supplies, Materials & Textbooks	\$763	\$706	\$760	\$698	\$705	\$712	\$719	\$726
Capital Outlay	\$351	\$169	\$111	\$108	\$50	\$51	\$51	\$52
Other Expenditures	\$315	\$410	\$410	\$420	\$420	\$420	\$420	\$420
AOS Recommendations Costs				\$0	\$0	(\$862)	(\$917)	(\$1,028)
Total Operating Expenditures	\$17,610	\$18,861	\$19,448	\$20,456	\$19,547	\$19,594	\$20,647	\$21,421
Total Other Financing Uses	\$200	\$53	\$22	\$22	\$22	\$22	\$22	\$22
Total Expenditures and Other Financing Uses	\$17,810	\$18,914	\$19,470	\$20,478	\$19,569	\$19,616	\$20,669	\$21,443
Result of Operations (Net)	(\$177)	(\$151)	\$16	\$28	\$848	\$1,348	\$567	\$513
Beginning Cash Balance	\$626	\$449	\$298	\$314	\$342	\$1,189	\$2,538	\$3,105
Ending Cash Balance	\$449	\$298	\$314	\$342	\$1,190	\$2,538	\$3,105	\$3,618
Outstanding Encumbrances	\$339	\$294	\$279	\$300	\$300	\$300	\$300	\$300
Ending Fund Balance	\$110	\$4	\$35	\$42	\$890	\$2,238	\$2,805	\$3,318

Source: Treasurers Office and AOS Recommendations

Table 2-10 details those performance audit recommendations reflected in the forecast in Table 2-9. The recommendations are divided into two categories – those requiring negotiation, and those that do not.

Table 2-10: Summary of Performance Audit Recommendations¹

Recommendation	FY 2007-08	FY 2008-09	FY 2009-10
Recommendations Subject to Negotiation			
R3.8 Discontinue dual vision and dental coverage for spouses	\$23,900	\$23,900	\$23,900
R3.9 Limit the number of sick leave days per year for certificated staff	\$49,200	\$49,200	\$49,200
Subtotal Recommendations Subject to Negotiation	\$73,100	\$73,100	\$73,100
Recommendations Not Subject to Negotiation			
R3.1 Provide OAEP staff training ²	(\$210)	(\$210)	(\$210)
R3.3 Reduce the number of teaching aides by 8.0 FTE	\$194,184	\$207,609	\$222,139
R3.4 Reduce librarian and librarian aides by 3.0 FTE and an additional 2.0 FTE beginning in FY 2009-10	\$91,773	\$97,565	\$186,798
R3.5 Reduce the number of administrative employees for which the District pays the employee's share of retirement contributions	\$89,873	\$93,468	\$97,206
R3.6 Implement a Level 3 DFWP program and the PDP program	\$11,000	\$11,000	\$9,000
R3.7 Offer a single coverage plan for dental and vision insurance	\$79,900	\$79,900	\$79,900
R4.1 Reduce facility staff by 2.0 FTE for FY 2007-08 and FY 2008-09	\$72,396	\$76,154	\$80,149
R4.6 Implement energy conservation education programs	\$87,000	\$87,000	\$87,000
R4.11 Decrease the square footage maintained – equating to 0.4 FTE	\$14,479	\$15,231	\$16,030
R5.4 Eliminate four buses out of the District fleet	\$183,969	\$185,972	\$188,129
R5.8 Purchase bus routing software	(\$28,500)	(\$3,500)	(\$3,500)
R6.3 Implement electronic trouble-ticketing and remote assistance	(\$5,300)	(\$2,500)	(\$2,500)
R6.4 Increase technology staffing by 1 FTE	(\$30,504)	(\$32,236)	(\$34,087)
R6.5 Consolidating existing T-1 and broadband lines	\$20,300	\$20,300	\$20,300
R7.1 Ensure food service expenses are charged to the Food Service Enterprise Fund	(\$43,000)	(\$43,000)	(\$43,000)
R7.7 Reduce expenditures on supplies and materials through use of consortium	\$51,200	\$51,200	\$51,200
Subtotal Recommendations Not Subject to Negotiation	\$788,559	\$843,954	\$954,555
Total Recommendations Included in Forecast	\$861,659	\$917,054	\$1,027,655

Source: AOS Recommendations

¹ The individual section cost savings were calculated based on FY 2006-07 amounts and were projected forward.

² The cost is based on sending one person from each building, the Assistant to the Treasurer, and the Assistant Treasurer. With the consolidation of buildings, the cost for FY 2007-08 and beyond will depend on the number of staff completing the training.

Appendix 2-A: Summary of Objectives

The following questions were used to evaluate the financial systems performance within Hillsboro CSD:

- What circumstances led to the District being placed in fiscal caution and what steps has the District implemented to remove itself from this designation?
- How does the District ensure its financial services are delivered effectively to the users?
- Is the District's financial planning process sufficient and appropriate when compared to recommended practices?
- Do the recommendations of the performance audit and review of financial systems provide financial recovery for the district?
- Are revenues and expenditures properly controlled, reported and similar to comparable peer districts?
- Does the District formally set performance targets, evaluate the performance and cost of its major educational and operational programs, and use evaluation results to improve program performance and cost-efficiency?
- Has the District developed an integrated educational, business operations, and capital needs strategic plan that meets best practice criteria and the requirements of ODE?
- Does the District produce an annual budget that meets GFOA best practice criteria?
- Has management developed and distributed written procedures for critical accounting processes and does it promote ethical financial management practices? Are these policies in line with best practices?
- Has the District established adequate internal controls?
- Does the District sufficiently monitor, measure, and evaluate financial performance?
- Does the District provide financial reports to the community and stakeholders?

- Does the District actively involve parents and guardians, business partners, and community organizations in the district's decision making and activities?
- Are the District's purchasing practices in line with recommended and best practices?
- Does the District meet best and recommended practices in vendor payment processes?
- Are District payroll processes in line with recommended practices?

Appendix 2-B: District Assumptions

Major assumptions and methodology used by the District Treasurer to develop the five-year forecast are presented below.

Revenues

- **Real estate property tax** revenue includes residential real estate, public utility property tax, and manufactured home tax revenue. The forecasted amount in FY 2005-06 is an estimate based on information provided by the county auditor. According to the County Auditor, the District's reappraisal will occur during CY 2006 and he expects the aggregate impact of the re-evaluation estimate to be approximately 8.0 percent. Thereafter, the Treasurer projected general property taxes to increase at 1.0 percent annually during the forecast period.
- **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. Ohio is in the process of phasing out the tangible personal property tax by reducing the assessed valuation rates of general businesses, telephone and telecommunications companies, and railroads each year. Lost revenue will be replaced by the State. In the first five years, school districts and local governments are reimbursed fully (hold-harmless period) for the lost revenue.⁶ The forecasted amounts for tangible personal property tax were estimated using methodology provided by the Ohio Department of Education (ODE).⁷ This methodology is sufficient and recommended for the calculation of tangible personal property taxes.
- State funding is comprised of **unrestricted and restricted grants-in-aid** received from the State of Ohio. State funding is established by the State legislature and administered by the ODE. The projection for unrestricted grants-in-aid was based on the ODE's biennium projections provided in the District SF-3. After the initial two years of the forecast period, the District projects unrestricted grants-in-aid at an annual 1.0 percent growth rate primarily based upon the Treasurer's estimates and desire to conservatively project this revenue line item.

⁶ In the following seven years, the reimbursement is phased out (phase out period).

⁷ This methodology incorporates District specific information and the impact of the tangible personal property tax phase out.

- **Property tax allocation** is revenue received from the State as a result of homestead exemption legislation, property tax rollback legislation, and personal property tax exemptions. For the original FY 2005-06 projection, the Treasurer used the county auditor estimate. He then adjusted the projection when the forecast was updated and based the new estimate by taking the District's actual property tax allocation amount collected into consideration. The actual amounts were taken from the District's SF-2 in order to predict a more accurate estimation. Thereafter, the Treasurer uses a 1.0 percent annual growth rate assumption for the remainder of the forecasted period.
- **Other revenue** is receipts that are not classified in any other revenue sources, but that still require budgetary control.⁸ The Treasurer based the FY 2005-06 estimate on historical other revenues collected. Future years are projected at a 1.0 percent increase.

Expenditures

- **Personal services expenditures** consist of employee wages, substitute costs, supplemental contracts, severance pay, board member compensation, student workers, and overtime. The decrease in personal services for FY 2006-07 is due to the reduction in force of District staff. The District used prior year staffing costs and adjusted those costs to include expected step increases for a base line figure. The District then adjusted the salary baseline figure for staff that was included in the reduction in force. Wages have been estimated at 2.0 percent increase each year thereafter based on District staff step increases. However, no provisions for Cost of Living Adjustments (COLAs) were incorporated into the District's projections which may be unrealistic.
- **Employee benefits** consist of retirement, life insurance, health insurance, Medicare contributions, workers compensation, and dental insurance. The District projections for retirement and benefits for the first two years of the forecast took into consideration the new health plans the union agreed upon. For the projection, the Treasurer separated the retirement costs and benefit costs based on their relationship with salaries. Estimates incorporated staff insurance plan selections and took into account likely premium cost reductions resulting from lower staffing levels. After the first two years of the forecast the District projects a 5 percent annual increase for the entire line item.
- The **purchased services** line item has experienced historical volatility and large increases. The largest components of this line item are professional and technical services, property services, utilities, and tuition. From FY 2002-03 to FY 2003-04, increases were the result of payments under an open enrollment program. In FY 2003-04 to FY 2004-05. Increases in repairs and maintenance services, as well as increases in

⁸ Other revenue can consist of tuition from other districts, interest on investments, student class book fees, miscellaneous receipts, and donations.

payments under an open enrollment program and payments to community schools, were the primary cost drivers. Each of these items has experienced rapid growth. Furthermore, due to building reconfiguration and the construction phase in period, utility costs and property services costs are extremely difficult to project. Volatility in energy markets further exacerbates forecasting difficulties. The Treasurer used mid year actual figures as the basis for FY 2005-06 projections. Thereafter, the District's projections are based on speculation of growth rates based on building reconfigurations. At the time of this assessment, the District was seeking additional input from project architects.

- **Supplies and materials** are comprised of District purchases such as textbooks, library books, food and other related supplies, maintenance and repairs, and general supplies. This line item experienced two years of decline, and most recently experienced a 7.6 percent increase returning expenditures to prior year levels. The Treasurer prepared FY 2005-06 supply cost estimates based upon mid-year financial figures. He included an 8 percent decrease in the first year of the forecast to reflect controls on supply purchases. Thereafter, the District assumes a modest 1.0 percent increase based on the Treasurer's estimate of inflationary pressures. The District has met its set aside requirements.
- **Capital outlay** expenditures decreased substantially in FY 2003-04, primarily due to a decline in bus replacement costs. Thereafter, historical expenditure levels remained consistent year to year. In FY 2004-05, Capital outlay constituted 0.6 percent of expenditures. The District projects a decrease in FY 2005-06 expenditures and beyond due to a reallocation of expenditures from the General Fund to the Permanent Improvement Fund. The reallocation of General Fund expenditures is included in the forecast while the Permanent Improvement Fund is excluded from the projections. FY 2005-06 figures are based upon mid year actual expenditures. Thereafter, the District has assumed a 1.0 percent annual increase based on the Treasurer's estimate of inflationary pressures.

Human Resources

Background

This section of the performance audit focuses on the Hillsboro City School District (Hillsboro CSD or the District) human resource functions. **Appendix 3-A** provides a summary of the audit objectives for the **human resources** section. Best practices, industry standards and benchmarks were drawn from various sources such as 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 and Function

Hillsboro CSD is governed by a five-member Board which serves as the taxing and contracting authority, and policy maker. The Board is also responsible for ensuring that expenditure of the District's tax dollars is conducted in accordance with all other general laws of the State of Ohio. The Board approves the annual appropriation resolution and tax budget and evaluates the Superintendent and Treasurer. While the Board's statutory responsibilities are formally outlined in Ohio Revised Code (ORC) Chapter 3313, the OSBA indicates that a board's primary function is policy-making. Specifically, a board is responsible for adopting clear and concise policies and administrative procedures and depends on its Superintendent to implement policy goals and objectives.

The District's human resource functions are completed primarily by the Director of Personnel and Professional Development (the Director). The Director reports to the Superintendent and is responsible for recruitment, professional development, and management of employee benefits. Due to the District's small size, the District does not use a stand-alone human resources information system. Rather, it uses the State payroll software and selected activities are performed by the Office of the Treasurer. The Assistant to the Treasurer is responsible for the completion of payroll, Educational Management Information System (EMIS) staff reporting, and making benefit changes.

Educational Programs

In addition to its regular education core curriculum, Hillsboro CSD provides special education for students with disabilities, programs for at-risk and gifted and talented students, and vocational education. Special education services include but are not limited to specialized services to students with multiple disorders, mental retardation, specific learning disabilities, and

autism. Students are evaluated using a multi-factored evaluation that the District reviews annually.

At-risk students as well as limited English speaking students are identified by counselors and teachers using a combination of quarterly assessments, end of year test scores, parent surveys, teacher questionnaires, student surveys, and analysis of progress toward the goals established in the District's continuous improvement plan. For at-risk students, the District supplies additional instruction in the areas of reading and math, as well as after school enrichment programs. The after school program is open to all students; however, the District specifically encourages at-risk students to participate.

Hillsboro CSD offers four areas of vocational education to their students; agriculture, marketing, career based intervention, and family life skills. However, Hillsboro CSD Students are also eligible to attend the Laural Oaks campus of Great Oaks Joint Vocational School (GOJVS) in Wilmington for additional vocational education opportunities. GOJVS offers 17 areas of study which feature more specialization than the programs offered at the District.

Staffing

In January and June of 2006, the District reduced regular teaching, administrative, and clerical staffing levels. **Table 3-1** compares the District's staffing levels by category to the peer districts on a per 1,000 student basis. FTEs for both the District and the peers were obtained from ODE's EMIS staffing report. Staff FTEs are reported directly in the EMIS system from each district. During FY 2005-06, Hillsboro CSD reported a total of 342.1 FTEs.

Table 3-1: Comparison of FY 2005-06 Staff per 1,000 ADM

	Hillsboro CSD	Peer District Average
Average Daily Membership (ADM)	2,779	1,296
Administrators	6.3	6.7
Site Based Administrators	2.5	3.0
Central Administrators	3.8	3.7
Educational Staff	67.5	72.9
Curriculum Specialist	0.4	0.2
Counselors	1.8	1.7
Librarian / Media	1.4	0.9
Regular Teachers	43.8	49.2
Special Education Teachers	3.5	9.1
Vocational Teachers	3.2	2.4
Tutor / Small Group Instructors	0.5	1.7
ESP Teachers	2.2	3.9
Supplemental Special Education Teacher	10.3	1.2
All Other Educational Staff	0.36	0.2
Professional Staff	3.2	1.1
Technical Staff	4.0	4.0
Practical Nurses	0.7	0.2
Library Technicians / Aides	1.8	0.4
All Other Technical Staff	1.4	0.4
Office / Clerical Staff	18.0	10.1
Clerical	6.1	4.9
Teaching Aide	10.8	3.7
All Other Office / Clerical Staff	1.1	1.5
Maintenance Workers	1.1	2.3
Custodians / Groundskeepers	5.5	6.4
Bus Drivers:	7.9	11.1
Food Service Workers	6.8	8.1
All Other Reported Personnel	2.9	1.2
Total FTE Reported	123.1	123.9

Source: Hillsboro CSD EMIS Reports.

As shown in **Table 3-1**, Hillsboro CSD's total FTE's per 1,000 ADM of 123.1 is 0.8 FTE less than the peer average. However, Hillsboro CSD had higher FTEs per 1,000 ADM compared to the peer average in the following classifications:

- **Technical Staff:** In August 2006, the District reduced library aides by 2.0 FTEs. However, the District still employs more library staff per 1,000 students than the peer average (see **R3.4**). This can be attributed to the decision to place a library aide in each building.

- **Vocational Teachers:** Hillsboro CSD employs more vocational education teachers per 1,000 students than the peer districts. However, subsequent to a review of its vocational program, the District eliminated two vocational teaching FTEs.
- **Supplemental Special Education:** The FY 2005-06 EMIS report states the District has 28.7 FTEs for supplemental special education instruction. Of that total, 12 FTEs are incorrectly coded (see **R3.1**) and 0.7 FTEs are employed by the ESC. With these adjustments, Hillsboro CSD employs 16 FTEs for supplemental special education instruction with a per 1,000 ADM ratio of 5.8. The peer average ratio is 1.9 supplemental special education teaching FTEs with a per 1,000 ADM ratio of 1.2.
- **Clerical:** Hillsboro CSD employs 1.2 more clerical FTEs per 1,000 ADM than the peer average. This is partially due to an incorrect coding of staff in EMIS (see **R3.1**). However, when these errors are adjusted, the District's staffing total was 5.4 FTE per 1,000 ADM, approximately 0.5 above the peer average.
- **Teaching Aides:** The District employs 7.1 FTEs per 1,000 ADM more teaching aides than the average peer district ratio (see **R3.3**).
- **All Other:** This category includes one non-bus vehicle operator and seven attendants. Hillsboro CSD operates a van that is used to transport special needs students. The District employs attendants based on special education needs. Although the per 1,000 ADM ratio of 2.9 is higher than the peer average of 1.2, the number of attendants is dependent on the number of special education students at the District (see the **transportation section** for further analysis of transportation staffing levels).

Salaries

The FY 2005-06 average salaries for Hillsboro CSD and the peer districts are outlined in **Table 3-2**.

Table 3-2: FY 2005-06 Staff Salary Summary

	Hillsboro CSD Average Salary ¹	Peer District Average Salary	Percent Difference
Administrators (8 categories, 17.6 FTE) ²	\$56,592	\$62,987	(10.2%)
Administrative Assistant ³	\$70,386	\$28,152	125.2%
Assistant Principal	\$66,476	\$58,701	2.0%
Superintendent	\$99,900	\$83,081	8.3%
Treasurer	\$77,108	\$60,684	15.4%
Coordinator	\$48,693	\$43,230	5.3%
Other Official Administrative	\$50,651	\$40,937	11.5%
Educational Staff (10 categories, 187.57 FTE) ⁴	\$44,492	\$44,959	(1.0%)
Curriculum Specialist	\$63,622	\$45,277	26.6%
Counseling	\$51,048	\$50,022	2.1%
Vocational Education Teaching	\$50,739	\$49,455	2.6%
Tutor	\$46,406	\$39,821	16.5%
Supplemental Service Teacher	\$41,005	\$37,176	10.3%
Permanent Substitute	\$50,807	\$0	100.0%
Professional Staff (8 categories, 8.84 FTE) ⁵	\$38,761	\$47,605	(18.6%)
Social Work	\$35,451	\$0	100.0%
Adapted Physical Education Therapist	\$38,715	\$0	100.0%
Technical Staff (3 categories, 11 FTE) ⁶	\$21,192	\$18,992	11.6%
Office / Clerical Staff (3 categories, 50 FTE) ⁷	\$20,062	\$21,194	(5.3%)
Records Managing	\$38,641	\$21,248	81.9%
Teaching Aide	\$16,699	\$13,603	22.8%
Maintenance Workers (2 categories, 3 FTE) ⁸	\$32,341	\$36,019	(10.2%)
General Maintenance	\$43,425	\$33,605	29.2%
Transportation (2 categories, 23 FTE)	\$18,419	\$14,157	30.1%
Vehicle Operator (other than buses)	\$16,362	\$9,408	73.9%
Vehicle Operator (buses)	\$18,512	\$14,278	29.7%
Service Workers (4 categories, 41.09 FTE)	\$20,399	\$18,860	8.2%
Custodian	\$28,971	\$26,889	7.7%
Food Service	\$15,563	\$13,898	12.0%
Groundskeeper	\$38,482	\$18,317	110.1%
Attendant	\$13,394	\$0	100.0%
Total Average Reported Salary	\$35,893	\$36,830	(2.5%)

Source: Hillsboro CSD EMIS Reports.

¹ Hillsboro CSD average salaries include fringe benefit pick-up.

² Categories below the peer average include principals and supervising.

³ The employees reported in this category include: Director of Personnel, Director of Special Needs, and Title I Coordinator.

⁴ Categories below the peer average include librarian, regular teaching, ESP teaching, and special education teaching.

⁵ Categories below the peer average include psychologist, physical therapist, regular nurse, occupational therapist, speech and language therapist, and education interpreter.

⁶ Categories below the peer average include practical nursing, library technicians, and other technical staff.

⁷ Clerical is not listed as it is below the peer average

⁸ Mechanics are not listed as they are below the peer average.

Years of service, negotiated wage increases, step increases, location, and in some cases, the education level attained by the personnel within a category all directly impact average salaries. Maintaining average salaries above the peer district average can result in higher than necessary expenditures in salaries and benefits. Although the category totals in **Table 3-2** are below the peer averages, some positions have average salaries that are substantially higher than the peer districts. These positions were examined in greater detail and the results can be found in **R3.5**, **R5.7 (transportation section)**, and **R7.10 (food service section)**.

Collective Bargaining Agreements

Certificated personnel in Hillsboro CSD are governed by a negotiated agreement between the Board of Education and the Hillsboro Education Association (affiliated with the Ohio Education Association and National Education Association). The Hillsboro Education Association represents all full-time and regular part-time certified employees including teachers, school psychologists, speech and hearing therapists, librarians, department heads, guidance counselors, regular full-time substitutes under contract, media and program specialists, learning disability tutors, and nurses. The current negotiated agreement took effect on July 1, 2004 and is effective until June 30, 2007. Classified staff are not bound by a collective bargaining agreement. It has been the practice of the District to allow classified staff to use the certificated agreement as a guideline for benefits. Such benefits include ability to borrow sick leave, incentive to opt out of health insurance for married couples employed in the District, and attendance bonus incentives.

During the performance audit, certain contractual and employment issues were analyzed against provisions of the Ohio Revised Code (ORC) and Ohio Administrative Code (OAC). As contractual and employment issues directly impact the District's operating budget, several of the issues have been evaluated to show their financial implications (see **R3.8**, and **R3.9**).

Recommendations

- R3.1 Hillsboro CSD should develop guidelines and procedures that ensure accurate EMIS reports are prepared and reconciled prior to submission to ODE. Appropriate staff should attend training to make certain they are able to appropriately and consistently use the EMIS *Definitions, Procedures, and Guidelines* produced annually by ODE. This would help improve the accuracy of data entered and assist management in ongoing self assessments.**

During a review of various EMIS reports for this performance audit, it was discovered that Hillsboro CSD had classified the Assistant Treasurer and the Assistant to the Treasurer incorrectly when entering information into EMIS. This was due to a lack of training in EMIS coding and the District's frequent shifting of staff duties and positions. Each building has a specified person that is responsible for data entry of student information into EMIS and the EMIS Coordinator reviews the data for errors. The Assistant to the Treasurer inputs EMIS staffing data. However, there is no review process that ensures accuracy of the EMIS staffing data. Only student EMIS data is assessed for errors. Also, these individuals have not received EMIS training.

The Ohio Association of EMIS Professionals (OAEP) is a team of employees from school districts and Information Technology Centers (ITCs). The OAEP conducts annual training sessions on staff and student EMIS reporting. Membership in OAEP is requisite for participation in these trainings and cost \$30 annually. ODE also forwards EMIS changes to school districts on a regular basis. Hillsboro CSD's ITC posts EMIS checklists and updates online.

ODE developed and implemented EMIS to help school districts effectively and efficiently manage student and personnel data. All schools are required to provide specific student, staff, and financial data to ODE for processing. Entering data correctly helps to ensure comparability between school districts. The data entered into EMIS can be used by school districts when making management decisions, such as establishing required staffing levels. Improperly entering employee classifications and FTE counts may cause a district to over- or under-state the actual number of employees and hours worked.

Hillsboro CSD should require that someone independent of the data gathering process review the information and ensure its accuracy as part of the guidelines and procedures developed to guarantee that accurate reports are prepared and reconciled. Furthermore, Hillsboro CSD should consistently use the EMIS *Definitions, Procedures and Guidelines*, which is created annually to assist school districts in entering information into EMIS. The District should also ensure that only individuals who have been properly trained are responsible for the entry and review of EMIS information.

Financial Implication: The cost of OAEP training is \$30.00 per participant. For FY 2006-07 the cost would be \$210 to send one person from each building, along with the Assistant to the Treasurer and the Assistant Treasurer. Because the District is combining buildings, the cost for FY 2007-08 and subsequent years will depend on the number of staff needed to complete EMIS reporting.

Staffing

R3.2 Hillsboro CSD should develop a formal staffing plan that addresses current and future staffing needs and fiscal constraints. The District should establish staffing allocations for administrative, certificated, and classified personnel. This will help ensure the District proactively addresses its staffing needs and complies with state and federal requirements. In addition, the plan should illustrate how staffing and related costs support the District's mission and impact the District's financial condition.

Hillsboro CSD does not have a formal staffing plan. Instead, buildings are staffed at the discretion of the principals (subject to approval by the superintendent). Furthermore, the criteria used by building principals to make staffing decisions are inconsistent from building to building. Without a staffing plan the District does not have a formal method for verifying that it is staffed in accordance with laws and regulations, or determining if staffing levels are appropriate for its enrollment. While no instances of understaffing were identified in this review, management should remain mindful of the potential for overstaffing.

Tulsa Public Schools (TPS) has established a well-designed methodology for developing a staffing plan. The TPS staffing plan incorporates staff allocation factors such as state and federal regulations, workload measures, and industry benchmarks as well as staffing levels determined by its administration. In this plan, TPS benchmarks staffing based on general fund revenues, which helps maintain a focus on a balanced budget when considering school staff levels. The plan is used as a guide to determine staffing levels on a semi-annual basis, to determine if the staffing levels need to be modified based on actual enrollment.

In order to ensure sufficient and effective administrative, certificated and classified staffing levels, the staffing plan should consider state and federal regulations, industry benchmarks, and enrollment to calculate projected staff needs. Student to staff ratios, based on enrollment and State regulations, are used to help the District identify staff overages or shortages in each staffing category, and in some cases, the number of staff needed per building.

By implementing a staffing plan and updating it on a semi-annual basis, Hillsboro CSD would be better equipped to make changes to staffing levels in response to its financial condition. The District's reactive staffing reductions were primarily caused by financial constraints, but also by not having a forward-looking staffing plan. Even after the District's staffing reductions in FY 2005-06, this review noted several additional instances of overstaffing (see **R3.3**, **R3.4**, **R4.1**, the **transportation** section, and the **food service** section).

R3.3 Hillsboro CSD should consider reducing the number of teaching aides by as much as 20 FTEs. The District employs approximately 4.5 more teaching aides per 1,000 ADM than the peer district averages.

During the course of the audit, the District informed AOS that it reduced 12 teaching aide FTEs as part of its reduction in force, retirements, resignations, and reallocating staff to other areas. Therefore, the District could consider reducing another 8 FTEs.

Teaching aide positions are those which assist a teacher with routine activities associated with teaching, such as monitoring, conducting role exercises, operating equipment, and clerking. Unlike some districts, Hillsboro does not use these positions to assist in teaching duties.

At the start of FY 2005-06, Hillsboro CSD had 30.0 FTEs classified as teaching aides, resulting in a ratio of 10.8 FTEs per 1,000 ADM. By comparison, the peer districts averaged 3.7 FTE teaching aides per 1,000 ADM. During the school year, the District reduced 12 teaching aide FTEs, resulting in a revised ratio of 6.5 FTEs per 1,000 ADM. If the District were able to reduce staffing to a level comparable to the peer districts, it would have approximately 10.0 teaching aide FTEs.¹

The District's high level of teaching aide staff is, in part, caused by limited staff planning and a failure to identify optimal staffing allocations (see **R3.2**). As a result of the District's surplus teaching aides, it has not used its funding in the most efficient manner. For instance, in FY 2004-05, the District spent over two times as much per ADM on instructional support services as the peer average.

Financial Implication: Cumulative savings will be dependent on the number of teaching aide positions the District eliminates. However, the District could save approximately \$23,000 annually in salary and benefits per FTE reduced. Therefore, the District would save a minimum of \$184,000 if it were to eliminate an additional 8.0 teaching aide FTEs.

¹ It should be noted that this proposed reduction does not consider the specific needs of the student population or the educational philosophy of the District.

R3.4 The District should consider reducing the number of librarians and library aides by as much as 5.0 FTEs. The District should also re-evaluate the need for library staff in conjunction with the consolidation of buildings that will be completed in FY 2009-10. The District has 1.8 library employees per school building. By reducing library staff by 5.0 FTEs, it would have a library staff per 1,000 ADM ratio of 1.4, which is comparable to the ratio in the peer districts.

During the course of the audit, the District informed AOS that it had eliminated 2.0 FTE library personnel as part of its reduction in force, retirements, and reallocation of staff to other areas. Although an additional 3 FTEs could potentially be eliminated in this category, Hillsboro CSD should review the workload of these employees in relation to recent class schedule changes.

At the start of FY 2005-06, Hillsboro CSD employed four certificated librarians and five classified library aides. The District maintains a ratio of library staff FTEs per 1,000 ADM of 3.2. It staffs each library/building with 1.8 FTEs. These ratios exceed the average of the peers, who maintain 1.4 FTEs per ADM and 0.4 FTEs per building.² If the District maintained comparable ratios, it could reduce 5.0 library staff FTEs, resulting in a total staff of 4 FTEs and 0.8 FTEs per building. As previously noted, the District reduced 2 positions during this audit engagement.

Hillsboro CSD is also in the process of building a new school that will serve both middle and high school students. Once construction is completed in FY 2009-10, the District will have two library/media center facilities. This new configuration offers the District an opportunity to attain greater staffing efficiency, as many tasks are location specific,

Celina CSD is able to maintain less than one full-time library staff member per facility through proactive planning and the use of adult and student volunteers. In contrast, Hillsboro CSD has not assessed its staffing needs or planned for any changes (see **R3.2**). As a result of higher staffing levels, the District spent nearly twice as much on instructional support services (function code 2200) per ADM as the peer districts.

Financial Implication: Based on the entry level salary for library staff, the District could save approximately \$29,000 in salary and benefit costs per position reduction. Therefore, the District could save approximately \$87,000 annually beginning in FY 2006-07 by eliminating 3.0 FTEs. Furthermore, at the conclusion of the District's school construction project, it could eliminate an additional 2.0 FTEs beginning in FY 2009-10 for an additional annual savings of approximately \$58,000.

² As many of the peer districts had smaller student populations, less buildings, and likely shared library facilities among more grades, the analysis also compared library staffing ratios to Celina CSD which has more comparable operations with an ADM of 2,946 and seven building's. However, Celina CSD also maintained more efficient staffing ratios.

Salaries

- R3.5 Hillsboro CSD should reduce the number of administrative employees for which it pays the employee's share of retirement contributions. While paying the employee's share is permissible, it increases costs to the District and inflates the compensation of administrative personnel. The District could decrease the number of employees that receive this benefit or decrease the percentage paid. Considering the District's current financial situation, reducing this benefit, either permanently or temporarily, could provide necessary financial relief.**

Hillsboro CSD provides the entire retirement contribution, at no cost to the employee (including the employee's portion), for 16 district employees. The District began paying the employee portion of the retirement contribution because it felt the administrator's salaries were below the County average. The District spends approximately \$88,000 annually on contributions for the "employees' share" of retirement contributions for administrators, excluding the Superintendent and Treasurer.

School districts in Ohio are required to administer payments into two retirement plans; the State Teachers Retirement System (STRS) for teachers and certificated staff; and the School Employees Retirement System (SERS) for other school employees. These contributions are funded, at least in part, by the District and are usually also partially funded from employees' salary deductions. STRS and SERS mandate the percentage of contribution that is to be made by an employee and employer. Current contribution rates into STRS and SERS are 14 percent by the employer and 10 percent by the employee. Hillsboro CSD picks up the entire employee share of STRS and SERS contributions for selected administrators.

Administrative costs at the District were 2.8 percent greater than the peer average per ADM. In one case, Hillsboro CSD was 11.6 percent higher per ADM than a peer (Celina CSD). With the retirement "pick up", the average salaries for the administrative positions receiving this benefit, with the exception of principals, are higher than the peer districts (see **Table 3-2**). It is common for school districts to pay the Treasurer's and Superintendent's portion of the retirement contribution; therefore, the total salaries for these two positions are considered to be in-line with the peer average. However, the decision to pay this benefit is discretionary and varies from district to district. For instance, Bright LSD picks up the employee portion for the superintendent and the treasurer only, while Fairfield LSD and Celina CSD pay the employee portion for all administrators. Hillsboro CSD should consider the financial impact of paying the entire retirement contribution for other administrative positions receiving the fringe benefit pick-up.

Although this benefit is often given in lieu of salary increases and defined accordingly, Hillsboro CSD should consider reducing this benefit as a means of limiting overall District expenditures. Furthermore, the District should carefully consider giving this benefit in the future as it can have a significant impact on overall salary costs.

Financial Implication: Based on FY 2005-06 data, for each reduction of 1 percent in retirement contributions, for administrators other than the Superintendent and Treasurer, the District would save approximately \$8,000 annually. Therefore, the District could save up to \$88,000 annually if the benefit was eliminated for all positions except the Superintendent and Treasurer.

Health Care Costs

R3.6 The District should use the Bureau of Workers' Compensation's (BWC) best practices for work place safety to reduce workers' compensation claims and costs associated with claims. BWC resources include grant funding, safety training, and support services. Hillsboro CSD should also formally adopt and implement continuous on the job training to help enhance work place safety and reduce associated claim costs. Mandatory job training brings awareness of job safety and keeps employees updated on new practices.

Hillsboro CSD does not actively manage the risk of work place injuries or seek to mitigate its workers compensation premium penalty costs. The primary means by which employers can prevent job injuries is through training and programs that seek to limit common contributing factors to accidents, such as drug use. However, Hillsboro CSD does not seek to modify employee behavior through continuous training. While not all on the job injuries can be prevented, training programs can ensure the District has done everything possible to minimize the risk. During the course of the audit, the District joined a safety council discount program and received a 4 percent discount that resulted in a rebate check of approximately \$8,600 from BWC.

According to OPPAGA, districts should have a safety inspection program that determines the necessary corrective actions based on past workers' compensation claim experience and proactive inspections of known and probable high risk areas and professions. BWC encourages employers to mitigate claims by offering assistance and funding to initiate work place safety programs. Frequently, just having these programs will automatically reduce premium costs regardless of their actual effectiveness in reducing claims. BWC programs reduce premiums by lowering the employer modification rating used in

payment formulas. These programs include the Premium Discount Program (PDP),³ the Drug-Free Workplace Program (DFWP),⁴ and the \$5,000 Medical Only Program (5K Program).⁵ BWC's 10-Step Business Plan is the primary component of the PDP and DFWP. According to BWC, Hillsboro CSD is not enrolled in any premium discount programs, but has completed three of the four years in the PDP program. The third year was completed in 2004.

The \$5,000 Medical-Only Program indirectly impacts the District's experience modifier by reducing the number of claims submitted to the BWC. These claims are incorporated into a multi-variable experience modifier calculation, and therefore, quantifiable savings are difficult to estimate. Employers participating in both the DFWP and Premium Discount Program (PDP) receive a discount for both programs based on the employer's eligibility. In addition, employers can stack their DFWP discount on top of the benefit they receive from participating in group ratings, up to a maximum benefit of 95 percent off of their employer modification rate. However, until the District can remove its penalty rating, it is ineligible for group rating programs.

Because it has not proactively managed work place injuries, the District incurs workers' compensation costs over and above that of other employers with comparable risk profiles. The District's 2005 experience modification rate was 1.13 while its 2006 experience modification rate was 1.19.⁶ This means that Hillsboro CSD incurred more claims costs than BWC estimates for an employer with its profile in prior years, resulting in a penalty rating.

The base rate for Hillsboro is \$1.44 for every hundred dollars of payroll. With the additional 13 percent, the district pays \$1.62 for every hundred dollars of payroll. For Calendar Year 2005, Hillsboro CSD reported \$13.5 million in payroll on the BWC

³ The PDP is an incentive program designed to assist experience-rated employers having a .90 or greater EMR, establish a safer, more cost-effective workplace. Eligible employers can receive a 10 percent discount for the first two years and 5 percent discount for each of the last two years on their workers' compensation premiums for implementing the program in their businesses.

⁴ The DFWP program is designed to help employers deter, detect and take corrective action related to substance use that affects workplace safety. Participants must develop a substance policy that describes their drug-free program. The policy should describe annual employee education and supervisor training, drug and alcohol testing, and employee assistance, which along with the written policy comprise the key components of any effective drug-free workplace program.

⁵ The \$5,000 Medical-Only Program (5K Program) allows employers to pay up to the first \$5,000 of medical cost injured workers. Once an employer enrolls in the 5K Program, the employer is responsible for the bills in all medical-only claims with injury dates after the enrollment effective date. This program is similar to "deductibles" common in other insurance plans.

⁶ BWC reviews actual claims cost incurred as a result of injuries that happen while at work. The actual claims costs are compared to an estimation of costs that BWC calculates. For each Ohio employer, the BWC calculates an employer modification rate (EMR) based on four years of claims history. The EMR is then used to determine if the employer is above or below a base percentage.

premium report, which equated to a premium payment of approximately \$218,000. The BWC offered all public employers a one-time 55 percent discount, which reduced the premium payment to approximately \$98,000. It should be noted that the District's penalty rating increased to 19 percent for CY 2006.

Using BWC programs will curb the District's current claims costs through cost discounts and potentially reduce future work related injuries, which will lessen the District's experience modifier in future year premium calculations. A claim affects the District's experience modification rate for four years. Most of the BWC resources are free to employers and Hillsboro CSD should take advantage of all that BWC has to offer.

Financial Implication: If the District were able to implement a Level 3 DFWP program and the PDP program, it could save \$11,000 in FY 2007-08 and FY 2008-09; and \$9,000 in FY 2009-10 and FY 2010-11. Thereafter, the District could save \$7,500 annually.

R3.7 The District should explore the prospect of implementing separate single and family plans for both dental and vision coverage to better match employee needs and reduce costs. Furthermore, it should actively pursue family vision insurance, assuming this would result in lower premiums.

Hillsboro CSD offers both dental and vision insurance to its staff. The District offers only family coverage for all employees regardless of their need for family dental and vision coverage. The monthly dental premium is divided between the District and the employee, with the District paying \$55 and the employee paying \$20 per month. The District pays 100 percent of the monthly vision premium for its staff (\$16.54 per month per employee). The District does not have single and family tiers for dental or vision insurance.

According to the State Employment Relations Board's (SERB) Research and Training Section (2005), dental coverage premiums among Ohio's public employers averaged \$33 per month per employee for single coverage and \$70 per month per employee for family coverage in CY 2005. Furthermore, vision insurance premiums for public employers averaged \$4 per month per employee for single coverage and \$9 per month per employee for family coverage. The statewide benefit statistics from SERB indicate the District has modest potential for a reduction in family coverage plan premiums by offering a two tier plan. The District pays 7.1 percent more per person for family dental coverage and 45.6 percent more for vision coverage. Furthermore the District pays 127.1 percent more for family dental coverage of single employees than the state average for single dental coverage. Likewise, the District pays 313.5 percent more for family vision coverage of single employees than the state average for single vision coverage. In short, a coverage option for single employees is needed.

As a result of the District's practices, employees who only need single coverage are receiving additional unused coverage. Assuming the employees who select single health insurance coverage will also choose single dental and vision coverage, 73 employees would choose single coverage options based on FY 2005-06 data. The difference between the District's monthly family dental premium of \$75 and the SERB monthly single dental coverage premium of \$33 is \$42 per employee per month. By allowing those selecting single coverage to opt for a single coverage dental plan, Hillsboro CSD would save \$37,000 per year. Likewise, the difference between the District's current monthly family vision insurance premium of \$16.54 and the SERB average monthly single vision coverage premium of \$4 is \$12.54 per employee per month. Therefore, based on the number of employees selecting single coverage health insurance, the District could potentially save \$11,000 per year.

Finally, the District is not making the most efficient use of resources in purchasing family coverage for those employees who require family coverage. In FY 2005-06, the District paid \$5 and \$7.54, more per month per employee for family dental and vision insurance; respectively. Assuming those employees receiving family coverage for health insurance, would also choose family coverage for dental and vision insurance, the District paid coverage for 179 employees at a higher premium than the SERB average for public employees. In effect, the District spent approximately \$26,900 more in premiums than average for family coverage.

Financial Implication: The District could save approximately \$48,000 per year by offering a single coverage plan for dental and vision insurance. Furthermore, the District could save approximately \$26,900 per year by competitively purchasing dental and vision insurance for family coverage plans. In total, these changes to the Districts dental and vision insurance could save approximately \$79,900 per year.

Negotiated Agreements

R3.8 During future negotiations, Hillsboro CSD should seek to change the language in the certificated agreement regarding benefits for spouses that are employed in the District. Married couples working in the District should be required to enroll in only one family medical plan. This would eliminate the opt-out incentive to spouses working in the District. The District should also discontinue the dual dental and dual vision coverage for married couples working in the District.

Spouses who are both employed by Hillsboro CSD have separate family dental and vision plans despite the fact that both employees could be covered under one plan. According to the Treasurer, the District is aware that it duplicates dental and vision services for spouses employed by the District, however, the past administration allowed the duplication so that married staff would receive coverage from a secondary policy when the benefits from the

primary policy are exhausted. District administrators indicated this practice did not cost the District any more than the amount paid for employees without spouses on a per employee basis, as the District only offers family coverage for all employees regardless of their need (see **R3.7**).

There are nine married couples working in the District. For those couples, Hillsboro CSD pays 100 percent of the family medical premium. If one spouse declines coverage, the District pays \$100 a month to the spouse that opts out of medical insurance. Furthermore, the District provides dual dental coverage and dual vision coverage for spouses. During the course of the audit the District increased the opt-out incentive to \$150 per month.

The District's duplication of coverage for spouses both employed by the District, in effect, offers these individuals coverage that exceeds that of other employees. According to the Celina CSD certificated agreement, "if more than one family member is employed by Celina CSD only one family benefit plan may be selected". This additional coverage increases the District's healthcare costs. Based on FY 2005-06 health care costs, the District is paying approximately \$29,000 a year in additional benefits for each husband and wife couple working in the District.

Financial Implication: If the District discontinued dual vision and dental coverage and eliminate the opt-out incentive for spouses employed in the District, the District could realize a savings of approximately \$23,900 annually.

R3.9 Hillsboro CSD should strive to reduce the amount of sick leave used by its employees by strengthening the policies regarding its use. More specifically, in future negotiations, the District should seek to add a provision to the collective bargaining agreement that requires a physician's statement for sick leave taken in excess of three days and establish policies to discipline employees who abuse sick leave. Hillsboro CSD should also negotiate a reduction in the maximum number of accrued sick days and discontinue the use of its sick leave bank.

According to Hillsboro CSD's certificated negotiated agreement, staff accrues 1.25 days of sick leave each month, or up to 15 days a school year. Employees are also eligible for an advancement of up to five sick leave days. In addition to the advancement, the District allows employees to borrow sick leave days from a sick leave bank. A provision in the certificated agreement permits employees to donate up to three days of their sick leave to a sick leave bank. Individuals that contribute to the sick leave bank may borrow up to 10 percent of the bank balance. It has been the practice of the District to allow employees to borrow sick leave without repaying the sick leave bank.

Sick leave benefits carry a high risk of abuse without strong policy controls. The current bargaining unit agreement does not include language which promotes the appropriate use of sick leave.

The District has experienced significant abuse of sick leave, but does not require employees to submit a physician's excuse for sick leave. In FY 2005-06 190 certificated staff used over 1,900 sick days and 115 classified staff used over 1,000 sick leave days. Certificated staff at Hillsboro CSD used 16.0 more sick leave hours than the state average and 12.3 hours more per employee than SCOPE/OEA benchmarks. However, the classified staff used 6.0 fewer hours per employee than the state average and 10.6 fewer than AFSCME benchmarks.

ORC § 3319.141 states that "a board of education shall require a teacher or non-teaching school employee to furnish a written, signed statement on forms to justify the use of sick leave". It also states that "if medical attention is required, the employee's statement shall list the name and address of the attending physician and the dates when they were consulted. Falsification of a statement is grounds for suspension or termination of employment. Unused sick leave shall be cumulative up to 120 days." An examination of the policies in place at other districts revealed that Bright Local Schools requires a written physician statement after five days of sick leave, while Celina City Schools require a written statement after three days. Other area school Districts such as Fairfield LSD and Bright LSD limit sick leave accrual to 150 days and 182 days, respectively. Both of these are substantially lower than Hillsboro CSD's maximum accrual of 245 days.

As a result of the District's lax policies in ensuring that sick leave is used for designated purposes and generous contractual provisions allowing accumulation and borrowing of leave days, the District has incurred additional leave and substitute costs. The negotiated agreement does not mention discipline for sick leave abuse or situations in which sick leave is not permitted such as before and after holidays. In FY 2005-06, the District employed four long-term substitutes that received a regular teaching salary and benefits as well as short-term certificated substitutes that received an average of \$80 a day.

Financial Implication: Hillsboro CSD could realize a potential cost savings of approximately \$49,200 if each certificated staff member used three fewer sick leave days per year, thus placing the District inline with the state average.

Human Resource Management

R3.10 Hillsboro CSD should begin to track employee turnover for all classes of employees and provide exit interviews to employees that voluntarily leave the District. Additionally, the District should implement a survey to measure employee satisfaction on such factors as work environment, quality of supervision, safety, district-wide support, and opportunities for professional development.

The District does not conduct exit interviews or employee surveys. These items could supply the District with information regarding changes or improvements that would enhance employee satisfaction. Data does not exist for employee turnover and employee morale; therefore, this audit could not adequately assess employee satisfaction. As part of the review AOS attempted to survey employees and was not permitted to do so.

According to The Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), best practices suggest that “at a minimum, the district should conduct exit interviews with employees who terminate employment, and compile the results of these interviews. Districts can demonstrate through climate surveys, exit interview results, collective bargaining negotiations and/or other appropriate methods that it has created a working environment for its employees that enhances worker satisfaction, and minimizes employee turnover.”

Since the District does not conduct staff satisfaction surveys or exit interviews, any changes or improvements may not be based on employee feedback and may not be received well among employees. In addition, changes may impact employee morale in a negative manner or prevent the District from retaining qualified staff.

R3.11 Hillsboro CSD should seek to expand its recruiting process to encompass recommended and best practices. Expanding the District’s formal recruitment procedures would help to ensure it has clear and effective methods to attract and retain qualified staff.

According to the District’s certificated negotiated agreement and the Board of Education Policy Manual, the Superintendent posts vacancies internally for a minimum of eight days. The vacancies are to be posted on employee bulletin boards, the telephone job line, the Hillsboro CSD website, and at the Administrative Offices. The posting is to list the date when the vacancy was announced. If the vacancy occurs during the summer, a notice should be included in the summer paychecks notifying staff of the opening. The selection of certificated candidates is the responsibility of the Superintendent. The Superintendent, along with building principals, selects candidates for classified positions.

To identify staffing needs, the Director of Personnel and Professional Development meets with the building principals periodically throughout the year. When new positions must be added or when existing positions become available, the District communicates the openings to potential candidates using its website, local newspapers, building postings, and the ODE website. Although the District has multiple methods for posting positions, the methods used for each position varies based on the requirements of the job.

According to the National Education Association (NEA), *“Meeting the Challenges of Recruitment and Retention”* (2003), best practices for teacher recruitment are:

- Develop a comprehensive recruitment plan;
- Develop a strong marketing and outreach campaign;
- Improve the hiring process;
- Provide nontraditional routes into the profession; and
- Provide financial incentives.

The NEA report also states that school districts with shortages of qualified teachers are often found to use ineffective strategies to recruit qualified teachers. A school district can be more effective in its recruitment by first developing a comprehensive recruitment plan.

While the District has a policy requiring it to post vacancies internally, it does not have formal procedures describing employee recruitment practices for those positions not governed by a negotiated agreement. Without formal recruitment procedures, it is difficult for the District to know if standard processes are being followed consistently. In addition, the District cannot evaluate its practices to determine if they are an effective means to attract and retaining qualified staff. By expanding the recruiting process to include the NEA practices, administrative staff will be assured the District has done its due diligence to attract the most qualified and capable staff possible.

R3.12 Hillsboro CSD should update job descriptions to reflect changes in duties and should continue to reflect relevant knowledge, skills, and abilities required to perform the job functions. Accurate and current job descriptions should then serve as criteria for evaluating employee performance. New job descriptions should be maintained in an electronic format so that they can be updated easily.

All available employment opportunities should be posted on the District’s website and intranet. When posting available positions online, the District should include the qualifications, responsibilities, job status, general terms, required skills, and required certifications.

Job descriptions are updated and distributed from the Director. The majority of the District's job descriptions were last updated in 1997. As a result, it is unlikely that these descriptions match actual duties. The lack of updated job descriptions also prevents the District from exercising effective employee recruitment.

When the district has positions available, they post the openings in the school buildings, the ODE website, and on the District website. Applications are submitted to the Director of Personnel. The Director reviews the applications and sets up interviews with appropriate persons. The positions listed on the website did not consistently list qualifications and none of the positions listed online included detailed responsibilities.

According to the Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), districts should 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 positions, and for each district level administrative position.

According to Ohio School Boards Association, job descriptions clarify responsibility, define relationships among individuals/departments, and facilitate communication. Accurate job descriptions are used during the employment process, from job posting to recruiting and screening to hiring and placement. Job descriptions vary in length and content. Failure to specify the essential functions leaves the door open for lawsuits. The following information is typically included in all job descriptions:

- Job title, code, department and building;
- Status (exempt or nonexempt);
- General terms of employment (full-time, part-time, regular or temporary);
- Purpose and function of the job;
- Job Duties;
- Educational or vocational requirements;
- Required skills, knowledge, and abilities;
- Required certification/license;
- Supervisory responsibilities, if applicable;
- Placement in the chain of command and how the job relates to others;
- Physical and/or mental demands; and
- Equipment and/or machines used.

Maintaining up-to-date job descriptions is important because they facilitate effective human resource management. Outdated job descriptions challenge the human resource department to fill vacant positions with qualified individuals. Qualified individuals ultimately lead to better education for students.

Financial Implications Summary

The following tables are summaries of estimated annual cost savings. The financial implications are divided into two groups: those that are, and those that are not subject to negotiation. Implementation of those recommendations subject to negotiation would require agreement of the affected bargaining units.

Recommendations Not Subject to Negotiation

Recommendations	Estimated Annual Cost Savings (Implementation Costs)
R3.1 OAEP Training FY 2006-07	(\$210)
R3.3 Reduce 8.0 FTE Teaching Aides	\$184,000
R3.4 Reduce 3.0 FTE Library Staff in FY 2007-08	\$87,000
R3.4 Reduce 2.0 FTE Library Staff in FY 2009-10	\$58,000
R3.5 Reducte Fringe Pick-up	\$88,000
R3.6 BWC Discount Programs	\$10,000 ¹
Total ²	\$427,000

¹ Average cost savings for FY 2007-08 through FY 2010-11. Cost savings vary from year to year.

² Savings reflect differences year to year, therefore, total savings reflects an average of those time periods.

Recommendations Subject to Negotiation

Recommendations	Estimated Annual Cost Savings
R3.7 Implement separate single and family dental and vision plans	\$79,900
R3.8 Discontinue incentive to opt out, dual dental, and dual vision insurance for married couples	\$23,900
R3.9 Reduce sick leave days	\$49,200
Total	\$153,000

Appendix 3-A: Summary of Objectives for Human Resources

The following questions were used to evaluate the human resources performance within Hillsboro CSD:

- Is the district's current allocation of personnel efficient and effective?
- Is the district's compensation package in line with other high performing districts, state averages, and industry practices?
- How does the cost of benefits offered by the district compare with state averages and industry benchmarks?
- Are the District's negotiated agreements in line with peers and best practices?
- Does the District effectively address human resource management and has it created a working environment that enhances its workforce?
- Does the District use HRIS technology to manage its human resources?
- Does the Board operate in an effective manner?
- Does the District provide special education programs for students with disabilities that maximizes resources and are compliant with state and federal regulations?
- Does the district provide effective and efficient programs to meet the needs of at-risk students [including English for Speakers of Other Languages (ESOL), Title I, and alternative education]?
- Does the district provide an appropriate range of accelerated programs?
- Does the district provide effective and efficient workforce development programs (such as vocational-technical education) that need the needs and expectations of the community?

Facilities

Background

The facilities section focuses on custodial, maintenance, and grounds operations in the Hillsboro City School District (Hillsboro CSD or the District). **Appendix 4-A** provides a summary of the audit objectives for the **facilities** section. Hillsboro CSD's facility operations are evaluated against best practices and operational standards from the American Schools and University (AS&U) *Maintenance & Operations Cost Study*, the National Center for Education Statistics (NCES) *Planning Guide for Maintaining School Facilities*, the Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), the Government Finance Officer's Association (GFOA), and other recognized best practices. In addition, Type 1 rural districts¹ with similar demographics (low median income and high poverty rates), high Ohio Proficiency test scores, and low per pupil expenditures were used as peer districts.²

Organizational Structure and Operational Overview

At the beginning of FY 2006-07, Hillsboro CSD had three elementary schools (Hillsboro Elementary, Main Street Primary, and Webster Elementary) for kindergarten through grade five, one Middle school (Hillsboro Middle) for grades six through eight, and one High school (Hillsboro High School) for grades nine through twelve. Each building is located on its own campus with the exception of the Middle School and High School facilities, which are located on the same grounds and are connected to one another. For the purpose of this audit, this location will be referred to as the secondary campus. The District is also responsible for several smaller auxiliary buildings located on the secondary campus. These buildings include the following:

- Administration building;
- Cafeteria building;
- Modular units; and
- Vocational education building.

¹ As categorized by the Ohio Department of Education.

² The ten districts used for peer comparisons include Celina Local School District (Mercer County), Garaway Local School District (Tuscarawas County); Indian Valley Local School District (Tuscarawas County), Leipsic Local School District (Putnam County); New London Local School District (Huron County), New Riegel Local School District (Seneca County); Ridgewood Local School District (Coshocton County), Southeast Local School District (Wayne County), Springfield Local School District (Mahoning County); and Symmes Valley Local School District (Lawrence County).

The District has four full-time head custodians, one for each school building. The head custodians, who report directly to the building principals, are responsible for the day-to-day management of the custodial staff in their respective buildings. Head custodians are also responsible for preparing their respective buildings for the school day by unlocking the doors and making sure the building is clean. The custodial staff is responsible for providing a clean and safe environment for the students, staff, and public who use the District's facilities. Finally, according to the District, custodians also perform light maintenance duties in addition to custodial responsibilities.

Custodial staffing for the District's facilities is shown in **Table 4-1**.

Table 4-1: Hillsboro CSD Custodial Staffing

Building	Positions	FTE
Hillsboro Elementary	3.0	3.0
Main Street Elementary	2.0	2.0
Webster Elementary	2.0	2.0
Secondary Campus ¹	7.0	6.6
Total	14.0	13.6

Source: EMIS Reports, Hillsboro CSD

¹ Includes the administration building, cafeteria building, modular buildings, and vocational education building

In addition to the custodial staffing shown in **Table 4-1**, Hillsboro CSD also employs 2.0 maintenance FTEs (one supervisor and one staff member). These employees are not assigned to specific buildings; but rather, provide services to all of the District's facilities. The maintenance staff maintains the heating, ventilating, air conditioning, and plumbing systems within the various buildings. They also perform general painting, carpentry, and electrical duties for the District.

Grounds keeping activities include performing lawn maintenance tasks throughout the District, including mowing, trimming, and chemical application. In the past, the District has employed a full-time grounds keeper to mow lawns and apply chemicals as needed. However, in FY 2005-06 the grounds keeper was promoted to transportation supervisor and the District did not fill the vacant grounds keeper position. Instead, the transportation supervisor performs select grounds keeping duties, such as the application of all lawn chemicals, in addition to his other duties. The transportation supervisor estimates that approximately 10 percent of his time is dedicated to grounds keeping activities. The District also employs a temporary seasonal employee who works 8 hours per day, 32 weeks per year, usually starting in April and ending in October, to perform lawn mowing duties.

Key Operating Statistics

The 34th Annual AS&U Maintenance and Operations Cost Study, published in April 2005, surveyed business officials at school districts across the nation. The survey collected information

regarding staffing levels, workloads, facility expenditures, and salaries for maintenance and operations departments. The National Center for Education Statistics (NCES) *Planning Guide for Maintaining School Facilities* (2003) was also used for custodial staffing analyses. Key statistics related to facility maintenance and operations at Hillsboro CSD are presented in **Table 4-2**.

Table 4-2: FY 2006-07 Key Facilities Statistics and Indicators

District Buildings	
Number of School Buildings	5
Elementary Schools (including the Kindergarten Center)	3
Middle School	1
High School	1
Total Square Feet Maintained	321,065
Elementary Schools	153,148
Middle School	71,530
High School ¹	96,387
Custodial Operations	
Square Feet per Custodial (13.6 FTE)	23,573
Elementary Schools (7.0 FTE)	21,878
Middle and High School ² (6.6 FTE)	25,365
NCES <i>Planning Guide</i> Recommended Square Feet per Custodian	28,000
Maintenance Operations	
Square Feet per Maintenance FTE (2.0 FTE)	160,532
AS&U 34th Annual Cost Survey < 3,500 Students Median Sq. Ft.	100,000
Grounds Keeping Operations	
Acres per Groundskeeper FTE (0.7 FTEs, 28 acres)	39
AS&U 34th Annual Cost Survey < 3,500 Students Median Acreage	48

Source: Hillsboro CSD.

¹ Includes the following auxiliary facilities located on the high school grounds: Administration Building, Vocational Education Building, Cafeteria Building, and modular units

² The high school and middle school are located on the same campus and therefore custodians perform work at both facilities.

As shown in **Table 4-2**, Hillsboro CSD custodians maintain approximately 23,600 square feet per FTE, approximately 16 percent less than the 28,000 square feet per FTE that NCES recommends (see **R4.1**). In contrast, Hillsboro CSD maintenance staff maintains approximately 160,500 square feet, approximately 161 percent more than the benchmark of 100,000 square feet set by AS&U. Grounds keeping duties, calculated based on a District-reported percent of time allotment, are allocated to 0.7 FTE who maintains 28 acres. This results in a ratio of 39 acres per FTE, approximately 19 percent less than the AS& U benchmark of 48 acres per FTE.

Hillsboro CSD is involved in two major construction projects that will significantly affect the square footage and acreage maintained by the District. In 2004, the District completed the first phase of construction on Hillsboro Elementary school. Shortly after opening Hillsboro Elementary, the District began construction on two additions to the building. The end result will consolidate the District elementary schools into a single facility that will house kindergarten through fifth grade. The District anticipates this project will be completed by the fall of 2007.

Once finished, the District plans to close both Webster Elementary and Main Street Primary schools.

The second major construction project will result in a new secondary campus for both middle and high school students. The project is currently in the planning phase, with a tentative completion date set for fall 2009. In anticipation of this project, the District started redistributing students to ensure a more efficient use of its facilities. During 2006, Washington Middle School closed and the sixth grade moved to Hillsboro Middle School for the 2006-07 school year. **Table 4-3** shows the District's proposed building configurations for FY 2006-07 through FY 2009-10. However, it should be noted, that these proposals are subject to change prior to the completion of the project.

Table 4-3: Proposed Building Configurations, FY 2006-07 through FY 2009-10

	FY 2006-07	FY 2007-08 and FY 2008-09	FY 2009-10
Number of Buildings	5	3	2
- Elementary	3	1	1
- Middle School	1	1	0
- High School	1	1	1 ¹
Total Square Footage	321,065	314,151	347,556
- Elementary	153,148	146,234	146,234
- Middle	71,530	71,530	0 ¹
- High School	96,387	96,387	201,322
Total Acreage	28	28	N/A²

Source: Hillsboro CSD Master Facility Plan and Building Blueprints.

¹ Middle and High School Facilities will be consolidated

² Acreage is unknown as this phase is still being planned.

Financial Data

Table 4-4 compares the District's FY 2004-05 expenditures per square foot to the peer district average, as well as AS&U National Median standards.

Table 4-4: FY 2005-06 M&O Expenditures per Square Foot Comparison

Cost Area	Hillsboro CSD FY 2004-05	AS&U Median 1,000 – 3,499 Students 2005	% Difference	Similar District Averages FY 2004-05	% Difference
Salaries/Benefits	\$2.37	\$2.05	15.7%	\$2.47	(4.0%)
Purchased Services ¹	\$1.14	\$0.17	570.0%	\$0.68	68.7%
Utilities	\$1.47	\$1.36	8.0%	\$1.30	13.7%
Supplies/Materials	\$0.27	\$0.25	6.2%	\$0.41	(34.1%)
Capital Outlay	\$0.03	N/A ¹	0.0%	\$0.13	(76.9%)
Other	\$0.00	\$0.11	(100%)	\$0.00	(0.0%)
Total General Fund Expenditures	\$5.28	\$3.94	34.0%	\$4.98	6.0%

Source: FY 2004-05 Hillsboro CSD 4502 Statements P and Q, AS&U 2005 Annual Cost Survey and Type 1 Peer Districts 4502 Statements P and Q.

¹ Does not include utilities

² AS&U does not report a national median.

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. In contrast, Hillsboro CSD's salaries and benefits are 4 percent lower when compared to similar districts. The custodial staff does not maintain square footage per FTE comparable to national benchmarks, indicating that the District could further reduce expenditures within this category (see **R4.1**). In addition, Hillsboro CSD's purchased services are significantly higher than both the AS&U median and the similar district average. This is due primarily to expenditures associated with the District's new construction projects. Finally, utilities expenditures per square foot also exceed the AS&U median and the similar district average. According to the District, this variance is primarily the result of the District's older buildings, which lack modern, energy efficient features. While the District is working to replace these buildings, it could potentially reduce expenditures in this category through improved energy management practices (see **R4.5** and **R4.6**). Overall, total General Fund expenditures are approximately 6 percent higher than the similar district average. However it should be noted that Hillsboro CSD has effectively maintained comparable or lower expenditures in the categories of supplies and materials, capital outlay, and other expenditures, when compared to both the AS&U benchmark and the similar district average.

Table 4-5 illustrates the expenditures incurred to maintain and operate Hillsboro CSD facilities for FY 2002-03 through FY 2005-06. Included in **Table 4-5** are maintenance and operating costs from the General Fund and other funds recorded in the Uniform School Accounting System (USAS) function code³ for operation and maintenance of plant services.

³ Function code 2700

**Table 4-5: Hillsboro City School District
Maintenance and Operation Historical Expenditures**

Object Code	FY 2003-04	FY 2004-05	Year to Year % Change	FY 2005-06	Year to Year % Change	Three Year % Change
100 - Salaries/Wages	\$587,547	\$603,977	2.8%	\$606,724	0.5%	3.3%
200 - Retirement/Insurance	\$197,468	\$230,743	16.9%	\$263,221	14.1%	33.3%
400 - Purchased Services	\$626,826	\$917,946	46.4%	\$837,424	(8.8%)	33.6%
500 - Supplies/ Materials	\$91,482	\$93,458	2.2%	\$101,725	8.8%	11.2%
600 - Capital Outlay	\$0	\$0	0.0%	\$0	0.0%	0.0%
700 - Capital Outlay	\$3,586	\$12,229	241.0%	\$8,954	(26.8%)	149.7%
800 - Other	\$573	\$391	(31.8%)	\$858	119.4%	49.7%
Total	\$1,507,482	\$1,858,744	23.3%	\$1,818,906	(2.1%)	20.7%

Source: Hillsboro CSD 4502 Financial Reports for FY 2003-04, FY 2004-05, and FY 2005-06.

Overall, expenditures have increased 20.7 percent over the past three years. However, much of this increase occurred between FY 2003-04 and FY 2004-05 when expenditures increased by 23.3 percent. The significant variances shown in **Table 4-5** are explained below:

- **Salaries and wages** increased 2.8 percent from FY 2003-04 to FY 2004-05 and 0.5 percent due to longevity (step) increases.
- **Retirement and insurance** expenditures increased 17 percent from FY 2003-04 to FY 2004-05 and 14 percent from FY 2004-05 to FY 2005-06. The increases in retirement and insurance expenditures can be attributed to increased health insurance premiums that went into effect for FY 2004-05.
- **Purchased services** expenditure increases are attributed to the new construction projects and the increase in utility costs. These expenditures reflect the costs utilities costs associated with maintaining older buildings concurrent with new construction. Purchased services increased 46 percent from FY 2003-04 to FY 2004-05 due to increased utility costs incurred for the new Hillsboro Elementary school (see **R4.5**). Opening a new building typically increases energy expenditures due to additional system controls, updated technology networks, air conditioning systems, and fire/safety systems. Within the District's FY 2005-06 purchased service expenditures, the most significant items were repair costs of \$136,301 and property insurance costs of \$98,962. Repair costs can largely be attributed to the age and condition of the District buildings. It should be noted that once the new Hillsboro Elementary was complete in FY 2005-06, purchased services decreased 9 percent. Property insurance increased from \$69,761 for FY 2003-04 to \$106,541 for FY 2004-05, a 53 percent increase; because the District must pay liability insurance on all District-owned property, including new construction sites and closed buildings (see **R4.9** for discussion).

- **Supplies and materials** increased 2.2 percent from FY 2003-04 to FY 2004-05 and 8.8 percent from FY 2004-05 to FY 2005-06. The FY 2004-05 increase can be attributed to the one-time purchase of a lift for use by maintenance and custodial staff as shown in the District's financial statements.
- **Capital outlay and other** expenditures also increased by significant percentages. However, in terms of total expenditures, these increases involved relatively small dollar amounts. Capital Outlay increased by \$8,643 from FY 2003-04 to FY 2004-05 (or 241 percent). Meanwhile, other expenditures increased by \$467 in FY 2005-06. Due to the small dollar amounts, the variances in these categories were not considered material and no further analysis was conducted.

Recommendations

- R4.1 Hillsboro CSD should reduce custodial staff by 2.0 FTEs to bring the square footage maintained per FTE in line with national benchmarks through FY 2008-09. Upon completion of its construction projects, the District should re-evaluate custodial and maintenance staffing needs in accordance with the staffing plan as recommended in the human resources section, R3.2.**

The District does not have a policy or formal benchmark to guide the assignment of custodians to facilities. As shown in **Table 4-1**, custodial staffing levels ranged from 2.0 FTEs at Main Street Primary and Washington Elementary to 7.0 FTEs at the secondary school site. Assigned custodians clean portions of both buildings on the middle/high school campus. For the remaining buildings, the District assigns custodians at the discretion of the Superintendent. The District does not formally conduct periodic evaluations of each building's staffing needs. Essentially, the District attempts to maintain existing staffing levels as long as the budget permits. Consequently, custodians are responsible for cleaning approximately 23,600 square feet per FTE, or 16 percent less than the standard recommended by NCES (See **Table 4-2**).

According to the NCES *Planning Guide for Maintaining School Facilities* (2003), there are five levels of cleanliness. Level three cleaning is the norm for most school facilities and is acceptable to most stakeholders while not posing any health risks. According to level three standards, a custodian can clean approximately 28,000 to 31,000 square feet in eight hours, consistent with the benchmark shown in **Table 4-2**. In **Table 4-6**, the custodial staffing levels are illustrated by building for FY 2006-07. For the staffing analyses, the benchmark of 28,000 square feet per FTE is used.

During the course of the performance audit, the District indicated that custodians are required to perform minor maintenance in addition to their custodial duties. Therefore, **Table 4-6** shows the analysis with staff re-allocated to maintenance based on the workload time estimates provided by the District. However, it should be noted that the workload time estimates provided by the District could not be substantiated.

Table 4-6: FY 2006-07 Custodial Staffing by Building

Staffing by Building	Custodians	Sq. Footage maintained	Sq. Footage per FTE	Recommended Staffing Based on Benchmark	Difference
Revised Custodial Staffing¹					
Main St. Primary	1.5	23,432	15,621	0.8	0.7
Hillsboro Elementary	2.5	93,948	37,579	3.4	(0.9)
Webster Elementary	1.6	35,768	22,355	1.3	0.3
Secondary Campus ²	5.1	167,917	32,925	6.0	(0.9)
Total	10.7	321,065	27,713	11.5	(0.8)
Revised Maintenance Staffing¹					
Hillsboro CSD	4.9	321,065	65,523	3.2	1.7

Source: Hillsboro CSD and Master Facility Plan.

¹ Based on the percent of time estimates provided by the District.

² The square footage listed includes the Scott House, cafeteria building, vocational education building, and modular units.

Based on the staffing numbers obtained from EMIS, Hillsboro CSD custodians maintain approximately 23,600 square feet per FTE. This is approximately 16 percent less than the benchmark of 28,000 square feet. Each building except Hillsboro Elementary maintains a square footage per FTE ratio less than the benchmark. This is largely due to Hillsboro Elementary being much larger than the other elementary schools. However, it should be noted that in the case of Main Street Primary, the building itself is smaller than the benchmark. Based on this analysis, custodians are over-staffed by 2.1 FTE.

However, based on the reallocated staffing submitted by the District, Hillsboro custodians maintain approximately 27,700 square feet per FTE. Based on these calculations, custodial staffing is slightly below the national benchmark. However, it should be noted that the revised custodial staffing submitted by the District results in a significant reallocation of custodians to the maintenance function. As a result, maintenance staffing levels are higher than the benchmark levels.

As shown in **Table 4-2**, AS&U has established a benchmark of 100,000 square feet per maintenance FTE. Based on the maintenance staffing reported through EMIS, the District's maintenance staff is responsible for approximately 160,500 square feet per FTE, approximately 61 percent more than the AS&U benchmark. However, when considering the reallocated custodial staffing reported by the District, maintenance employees only maintain approximately 65,500 square feet per FTE, 35 percent less than the benchmark. As shown in **Table 4-6**, when considering this reallocation the District is overstaffed in maintenance by 1.7 FTE.

Based on the benchmarks established by AS&U and NCES and the current building configuration, the District should employ 11.5 custodial FTEs and 3.2 maintenance FTEs. However, it is important to note that upon completion of the building projects, the District square footage will change significantly, as will the recommended staffing.

Table 4-7 shows the District's estimated square footage and recommended staffing through FY 2009-10.

Table 4-7: Proposed Staffing FY 2006-07 through FY 2009-10

	FY 2006-07	FY 2007-08 and FY 2008-09	FY 2009-10
Number of Buildings	5	3	2
Total Square Footage	321,065	314,151	347,556
Recommended Custodial FTE	11.5	11.2	12.4
Recommended Maintenance FTE	3.2	3.1	3.5
Total Recommended Custodial and Maintenance FTEs	14.7	14.3	15.9
Total Actual Custodial and Maintenance FTEs	15.6	15.6	15.6
Difference	0.9	1.3	(0.3)

Source: AOS recommendations for Hillsboro CSD.

As shown in **Table 4-7**, when compared to the AS&U benchmark, the District is currently overstaffed by approximately 1.0 FTE. However, **Table 4-7** does not consider buildings that are currently operating at higher levels of efficiency than the benchmark. Assuming the District's percent of time estimates are accurate, Hillsboro elementary and the secondary campus are performing with 0.9 FTE less than the benchmark (as shown in **Table 4-6**). In contrast, Main Street Primary and Webster elementary are staffed well over the benchmark. If possible, the District intends to close Main Street Primary and Webster Elementary permanently, beginning in FY 2007-08. Once these closures take place, the District will have the opportunity to reduce or redistribute up to 3.1 FTEs. Assuming the District reassigned 1.0 FTE each to Hillsboro Elementary and the Secondary campus, it would still be able to reduce custodial staff by 1.1 custodial FTEs.

Table 4-7 also does not consider that maintenance FTEs are not assigned to specific buildings; but rather, provide services to the entire District. Therefore, as shown in **Table 4-6**, the District could eliminate 1.7 maintenance FTEs and still be in line with the proposed benchmark. However, it should be noted that the District employs only 2.0 maintenance FTEs. Therefore, any maintenance reductions would likely come in the form of custodians who dedicate a portion of their time to maintenance activities. While this may result in a greater workload for existing staff, the District should also consider that new buildings generally require less maintenance. Therefore the completion of new buildings presents an opportunity to reevaluate staffing levels.

Financial Implication: Based on the analysis presented above, the District could eliminate 2.0 custodial FTEs, resulting in annual savings of \$69,400.

R4.2 The District should seek to improve productivity by implementing the team cleaning approach for custodial duties. Team cleaning will serve to improve efficiency by increasing the square footage maintained per FTE, thereby, allowing the District to decrease the number of staff needed at each site. If implemented, team cleaning could serve to better manage the increased work load per FTE created by the reductions in staff recommended in R4.1.

Custodians currently use a “zone cleaning” philosophy in all of the District’s buildings. Zone cleaning involves assigning workers to complete all cleaning tasks in one area of the building. According to AS&U, this approach requires more staff and results in the maintenance of fewer square feet per FTE. As illustrated in **Table 4-2**, the District’s custodians maintain less square footage per FTE than the recommended 28,000 square feet per FTE, indicating inefficient operations. When interviewed, District staff were not familiar with any other cleaning methods.

Working as a Team (AS&U, 2004), discusses the uses of a team cleaning approach. Team cleaning focuses on efficiency and effectiveness, work simplification, work redistribution, workflow, and worker self direction. Team cleaning consists of dividing duties among four specialists:

- **Starter** duties include removing surface dust, emptying trash, and spot cleaning.
- **Restroom specialist** duties include cleaning and sanitizing restrooms.
- **Closer** duties include vacuuming and checking for obvious cleaning deficiencies. This worker closes down the cleaning operation each night.
- **Utility specialist** duties include collecting trash and removing it from the facility, lobby assignments, various floor care responsibilities and other tasks as needed.

Under a team cleaning approach, each assigned space is divided into quadrants then routine, detail, and project activities are assigned to staff. Routine duties should be performed daily while detail cleaning should be done weekly. Non-routine or “project” tasks should be completed monthly or as needed. Adjusting work schedules is a critical component of team cleaning. The “starter” should arrive and begin cleaning before the rest of the team, while the “closer” should begin later than the rest of the team. In addition, one quadrant each day is designated for detail cleaning while the other four are having routine cleaning performed. Theoretically, a school can maximize productivity and improve quality by simplifying tasks and disciplining staff to follow the system. According to AS&U, team cleaning should result in 10,000-12,000 square feet per hour for each worker performing routine cleaning duties, thereby decreasing the number of staff needed for each site. Overall, with the inclusion of non-routine work, team cleaning should result in a team average of 5,000-6,000 square feet per hour. Due to building staffing levels, the District may wish to modify this concept for each building. However,

as the District already uses custodians to serve several buildings, this approach may be implemented without significant modifications to assignments.

According to *Team Work* (AS&U, 1999), the advantages of using team cleaning methods include:

- **Supervision and work quality:** Supervising team cleaning is less time-consuming because the supervisor can spot-check classrooms and restrooms for completion of specific tasks rather than inspecting every area assigned to a worker.
- **Training:** Training workers in team-cleaning functions is less complex and time-consuming because the focus is on standard tasks that are performed in specific ways with specific tools and materials.
- **Double-check system:** Because the closer function follows the utility function, the person who vacuums enters an office or classroom and immediately goes to the trash can, empties it if necessary, and begins vacuuming from that point. This person can inspect the area for obvious cleaning deficiencies.
- **Energy savings:** Team cleaning saves electricity. When the utility and closer functions are completed, the person who vacuums turns out the lights. However, if the utility worker finds an area that does not require any cleaning, then the room is closed and lights are turned off to signal that the room is clean.
- **Scheduling and productivity:** Team scheduling is based on a building's size, the layout and its needs, thereby focusing and sequencing the workers on a narrow but complementary range of tasks that allows much faster production at much higher quality.
- **Morale:** Team cleaning succeeds because well-defined goals are shared, custodians are knowledgeable, and input and clear communication are encouraged.

Prior to the recent consolidation of buildings, team cleaning may not have been an optimal solution for the District as most of the buildings were assigned only two or three custodians. However, once the construction projects are complete, custodians will likely perform their duties in larger groups. Team cleaning can result in staffing reductions through more efficient operations (see **R4.1** for discussion on reducing custodial staff). In addition, increased productivity is vital to controlling costs associated with new buildings. The District has an opportunity to try a different approach to maintaining the new buildings while increasing the efficiency of its custodial staffing. Implementing team

cleaning would not require additional resources but would necessitate schedule rearrangement and training on the new approach.

R4.3 Hillsboro CSD should create a custodial and maintenance staff handbook to formalize the Department's operations and expected performance standards. The District should also develop and implement formal procedures to address the following:

- **Equipment selection and replacement;**
- **Purchasing;**
- **Supplies and materials;**
- **Maintenance and operations budget criteria;**
- **Facilities standards; and**
- **Personnel hiring and staffing.**

Furthermore, the District should review its custodial and maintenance policies and procedures annually and update them as needed. Policies should include a revision date to help ensure that users have the most up-to-date information.

Hillsboro CSD has not adopted specific policies or procedures for the maintenance and custodial functions. Instead, operations are dictated by a number of informal, undocumented practices that are communicated to custodial staff and maintenance workers by their respective supervisors during the course of day-to-day operations.

Best practices in Facilities Management (OPPAGA, 2002), recommends that districts establish standards for commonly repeated tasks to ensure employees are familiar with the assigned work. In addition, formal standards may serve as the basis for conducting performance appraisals. OPPAGA also recommends these procedures provide for the replacement and selection of equipment; purchase of equipment, supplies and materials; maintenance and operations budget criteria; facilities standards; personnel staffing and hiring policies; and use of facilities and equipment.

The Brevard County School District in Florida provides an example of a clear, concise custodial standards handbook. The Brevard County handbook explains each custodian's responsibilities, standards for each area maintained, and staff certification requirements. It also includes log sheets for maintenance, a description of equipment and supplies, and forms for assessments and evaluations. The handbook details what tasks are to be completed in each specified area, how the task should be completed, and the frequency expected.

Due to the District's small size and low employee turnover, developing standard operating policies and procedures has not been a priority. However, without policies and procedures to guide employee decision-making, processes used in these areas may be inconsistently applied. Furthermore, inconsistent operating practices can result in increased numbers of work-related injuries, inefficient use of supplies, and duplication of supply purchases.

- R4.4 The District should develop a new employee training program that is based on best practices and require all new custodial, maintenance and grounds staff. The District should also formalize the on the job training it provides to new staff by formally documenting new employee training. By implementing a continuous training program, the District will help ensure that all staff use the most appropriate, up to date procedures. In addition, the District should routinely provide training to all affected employees when standards are changed because of new equipment, technology, or procedures.**

Hillsboro CSD does not provide formal new employee training for maintenance, custodial, or grounds duties. Initial training for new employees is conducted through observation of veteran employees. The District relies on experienced staff to provide new employees with information regarding topics such as biohazard precautions and safety measures. However, custodial and maintenance staff indicated that from time to time, vendors provide training, such as when the District purchases a new cleaning chemical or piece of equipment. For example, the District bought a lift that allows staff to clean and maintain very high areas (the gym ceiling). To ensure staff was properly trained, the vendor sent a representative to train them on the safe and proper use of the lift. It should be noted that although District management designates these trainings as mandatory, attendance and participation is not documented. As a result, the District has no process for identifying future training needs and cannot ensure that staff are using chemicals and equipment in a manner compliant with manufacturer recommendations.

According to the District, there has been little historical turnover of custodial, maintenance, and grounds staff. In addition, custodial and maintenance staff usually work with direct supervision. Therefore, the District has perceived minimal need for an extensive, formalized training program. However, the assertion of low staff turnover could not be verified because, as discussed in the **human resources section**, data on employee turnover is not tracked. Due to its financial condition, the District did not allocate money for training in FY 2005-06 or 2006-07.

According to *Planning Guide for Maintaining School Facilities* (NCES, 2003) providing staff training can ensure the safety of staff, teach staff how to deal with changing needs, improve morale and retention rates, and prepare staff for future promotions. NCES recommends new employees receive the following training:

- Tour of the facilities;
- Tour of the person's work area;
- Equipment instructions;
- Task-oriented lessons on how to best perform the person's work;
- Expectations concerning what must be done to meet the requirements of the job; and
- Evaluation information, including criteria for evaluating the task.

NCES also states that existing employees should also have training, particularly in skills that are not part of their normal routine. Possible topics include:

- OSHA safety training;
- Asbestos awareness;
- Energy systems;
- Building knowledge;
- First aid;
- Emergency response;
- Biohazard disposal;
- Technology use; and
- Universal precautions.

NCES recommends using experienced staff who have demonstrated expertise with the equipment or the task to teach other staff. Managers or other supervisors can also train staff in the proper technique for the task. District trainers in large organizations can be useful for training new and existing staff. Product vendors and equipment manufacturers sometimes offer training to client staff to demonstrate how to use new products. Vocational education staff can also be used to help train staff. All training should be documented for future reference.

Training is an important tool to ensure that policies are communicated and that operational practices are consistently applied. Without a formal training program, the District is prone to inconsistent implementation of policies. Furthermore, training is an important component for ensuring worker safety and, considering the District's higher Worker's Compensation expenses, a critical facet of prudent management.

R4.5 Hillsboro CSD should secure grants or low-interest loans to finance the implementation of an alternative energy system, such as geothermal heating in its new building project. In addition, the District should perform a formal evaluation of geothermal energy options. This evaluation should include both short and long term cost-benefit analyses, consideration of energy management goals, and an understanding of potential funding sources such as the State Energy Loan Program.

In addition, the District should identify future resource requirements such as the availability of training, maintenance contracts, and replacement parts.

During the course of the audit, the District underwent a feasibility study for geothermal energy and determined that the cost was prohibitive.

During the course of the performance audit the District expressed an interest in the potential to install geothermal heat pumps⁴ at the secondary campus. This interest was based on a cost savings study performed by a private engineering firm on behalf of Washington Courthouse Local School District. This report estimated that for a 108,000 square foot building, the total monthly utility costs would be approximately \$0.94 per square foot. In comparison, the District's utility costs were approximately \$1.66 per square foot in FY 2005-06.

According to *Geothermal Heat Pumps Score High Marks in Schools* (United States Department of Energy's Office of Geothermal Technologies, 1999), recognized benefits of geothermal technology are as follows:

- **Building Design and Planning:** Geothermal heat pumps can be installed anywhere, thereby, allowing for more flexibility in building design since there is no HVAC equipment to store. Geothermal heat pumps also eliminate the need for boilers and cooling towers thus reducing the need for mechanical space.
- **Local Temperature Adjustment:** Geothermal heat pumps have the ability to heat and cool individual classrooms and areas as needed, instead of heating or cooling an entire building.
- **Reduced Electricity Consumption:** Geothermal heat pumps reduce electricity consumption by 25-50 percent compared to traditional heating and cooling systems.
- **Life Cycle:** The life cycle of a geothermal unit is approximately 20-30 years since the equipment is housed indoors thus protecting it from vandalism and harsh outdoor weather conditions. Geothermal systems can be used in most areas of the country because they rely on the stable temperature of the earth to heat and cool. The greatest economic benefits are realized when the geothermal systems are installed during the building construction rather than being retro-fitted to an existing structure.

⁴ Geothermal heat pumps use underground piping loops to move heat from the water source (like a well) to the building. This serves to heat during the winter and cool during the summer because the ground temperature is more constant than the air temperature.

Another benefit of a geothermal system is that the District may be able to procure low-interest loan funding for its initial installation from an outside source. For example, state loan programs such as the Energy Loan Fund can be used to help finance energy management programs in schools. Specifically, the Energy Loan Fund can be used for a variety of projects that reduce energy costs, manage energy use, or install renewable energy technologies. Geothermal heat pumps qualify as a renewable energy technology. The Loan Fund also stipulates that entities using loan money must obtain service from a participating provider. American Electric Power, one of the electric companies the District uses, is a participating provider. In addition to low interest loan programs, grant funding is frequently available for energy management projects. However, during the course of the performance audit, no grant programs could be identified to cover the cost of installing geothermal heat pumps in schools.

In addition to the benefits of reduced utility expenditures, a geothermal energy program would also carry a number of risks that the District should consider before implementing a geothermal system. The United States' Environmental Protection Agency has identified the following risks associated with geothermal systems.

- **Availability:** Although geothermal energy exists throughout the United States it can be difficult to extract depending on the depth of the area's ground water.
- **Water Contamination:** When drilling the wells for geothermal heat extraction, there is a possibility of ground water contamination. However, with proper installation management, contamination risks can be mitigated.
- **Sinking Land:** Because geothermal systems extract water from underground, surface ground can experience sinking due to the loss of pressure. To prevent the sinking, the used water can be re-injected into the ground supply.

In addition to the general risks noted above, a risk specific to Ohio was also identified. The United States Department of Energy has released a study evaluating the effects of hard water on geothermal heat pump systems. Hard water can decrease the performance of the heat pump over time, thereby increasing energy costs. In the study, Ohio was identified as having significant levels of hard water.

Ultimately, the risks associated with a geothermal heating system appear to be manageable with proper installation and a well-developed long-term preventive maintenance program. However, Hillsboro CSD has not fully investigated geothermal options beyond the information contained in the study conducted on behalf of Washington Court House Local School District. The District should be aware of and analyze issues such as these before installing a geothermal system. This would require the development of short-term and long-term cost and benefit analysis as well as an

evaluation of costs which may be incurred after the initial installation. These potential costs include items such as training for existing employees, the availability and cost of an outside service contract, and the availability and cost of replacement parts. This should be done in conjunction with the development of a comprehensive energy management program for the District (as recommended in **R4.6**).

Financial Implications: The District spent \$1.66 per square foot on utilities in FY 2005-06. The planned secondary campus is estimated at approximately 201,300 square feet. Based on the utilities costs of \$1.66 per square foot, utilities for the new building are expected to cost approximately \$334,200 per year.

By comparison, if the District were to achieve the \$0.94 per square foot estimation cited in the Washington Court House LSD study, then its estimated utilities costs would be approximately \$189,200 per year. This would result in a net savings of approximately \$81,400 annually beginning in FY 2009-10. According to the District, OSFC estimated that installing geothermal heat pumps would require an initial investment of approximately \$500,000 above that incurred by installing a standard HVAC system. The District also indicated that OSFC would not subsidize the additional investment. The District could finance this project without increasing its operating budget if it procured financing at an interest rate of 7.0 percent or less over a minimum term of 8 years. However, this estimate assumes that savings would be consistent with those estimated for Washington Courthouse (43 percent per square foot). **Table 4-8** shows that the District would see a total savings of \$900,000 during the first ten years after the building is in full operation. This would be offset by total costs of approximately \$654,000.

Table 4-8: Ten Year Cash Flow Analysis

Year	Savings	Cost	Annual Cash Flow	Cumulative Cash Flow
0	\$81,847	(\$81,802)	\$45	\$45
1	\$81,847	(\$81,802)	\$45	\$90
2	\$81,847	(\$81,802)	\$45	\$134
3	\$81,847	(\$81,802)	\$45	\$179
4	\$81,847	(\$81,802)	\$45	\$224
5	\$81,847	(\$81,802)	\$45	\$269
6	\$81,847	(\$81,802)	\$45	\$313
7	\$81,847	(\$81,802)	\$45	\$358
8	\$81,847	\$0	\$81,847	\$82,205
9	\$81,847	\$0	\$81,847	\$164,052
10	\$81,847	\$0	\$81,847	\$245,899
Total	\$900,317	\$654,416		

Source: AOS projections

During the course of the performance audit the District indicated that it was not willing to pursue financing independent of the OSFC in order to install geothermal heat pumps.

Therefore, the financial implications detailed above were not incorporated in the revised five-year financial forecast in the **financial systems** section.

R4.6 Hillsboro CSD should implement an energy management and conservation program to reduce utility costs. The program should include energy tracking and accountability, voluntary energy awareness programs, and identification of “quick fix, low cost” areas.

As shown in **Table 4-4**, in FY 2004-05 the District spent \$1.47 per square foot on utilities, 13 percent more than the peer district average of \$1.30 per square foot. In FY 2005-06, the District’s utility expenditures increased to \$1.66 per square foot. The District attributed much of this increase to ongoing construction and rising natural gas and petroleum costs. As the District transitions out of old buildings into new buildings, it must pay the utility costs at each location still under its ownership. The District also cited the age of its buildings as a reason for higher costs. The District’s older buildings were not constructed with modern energy management features such as an automated temperature control system, thermally insulated windows, and high efficiency fluorescent ballasts. The original construction dates for the District’s buildings that were operational in FY 2005-06 were as follows:

- Main Street Primary Elementary - 1890
- Washington Elementary - 1890
- Webster Elementary - 1890
- Hillsboro Middle - 1935
- Hillsboro High School - 1963
- Hillsboro Elementary - 2004

The District does not have a formal energy management program. However, it is aware of the issue and is currently looking for ways to address it, such as temperature control measures. Hillsboro CSD has enacted several informal practices aimed at reducing energy costs, such as banning non-essential appliances (refrigerators) from the classrooms and placing emphasis on practices such as turning out the lights in classrooms when not in use.

Further, the District has not taken advantage of funding for energy management projects available through House Bill 264⁵ in the last 10 years. However, according to the former Treasurer, the District conducted the following projects under HB 264:

⁵ The Energy Conservation Program, known as HB 264, is an innovative loan program that gives school districts an opportunity to make energy efficiency improvements to their buildings by issuing notes without having to pass a ballot issue for the authority and using the cost savings to pay the debt service.

- Light fixture replacement;
- Window replacement; and
- Computerized boiler controls to monitor energy usage.

Considering the District's plan to consolidate buildings, the use of HB 264 funds for building improvement is no longer a viable option for reducing energy costs in the near future. However, when creating an energy management plan for new facilities, the District should consider the use of potential funding sources, such as HB 264.

According to *Energy Management: Meeting Demands* (AS&U, 2001) the increasing need for advanced technology is in competition with the existing infrastructure. Older buildings are often outdated, inefficient, and costly to operate. Schools are also struggling with limited budgets and must choose between capacity expansions versus infrastructure updates. AS&U suggests that the only practical solution for rising energy costs is comprehensive energy management planning that can include the following elements:

- Reducing use by installing operating improvements (e.g. control devices on lights);
- Carrying out easy demand reductions; such as reducing lighting costs by retrofitting lights fixtures with energy efficient lamps or decreasing HVAC costs by shortening the building's operating hours;
- Improving system reliability and efficiency through the use of existing backup generators during peak hours to reduce overall electricity costs;
- Reducing utility costs by negotiating rates for total expected power use than on a per meter basis; and
- Using alternative energy sources and installing more energy efficient equipment (solar power and energy efficient roofing and windows, etc.).

Princeton Energy Resources International suggests various best practices and programs for controlling energy costs in *School Operations and Maintenance: Best Practices for Controlling Energy Costs* (2004), which include the following:

- **Energy Tracking and Accounting:** includes collecting, recording and tracking monthly energy costs for analysis;
- **Voluntary Energy Awareness:** includes educating the faculty, staff and students to be aware of energy costs and do their part to control costs such as "turn off the lights" stickers in the bathrooms;
- **Performance Contracting:** includes a contractual agreement with a performance contractor to provide energy services in exchange for a percentage of the savings; and

- **Quick Fix and Low Cost:** includes identifying and repairing simple building problems such as weather-stripping around doors and windows.

Once a District has decided which program(s) to use, it must define a district-wide energy policy and implement it. For the energy savings program to work, the District must be aware of the following critical factors:

- *Program Visibility and Progress Reporting*, which sustains the interest of the local school board, staff and the community by communicating energy savings and information; and
- *Detailed Procedure Manual*, which informs/reminds staff of the new procedures and tells them how to go about certain functions like lighting controls for shutdown.

Union Elementary in Lakota LSD is an example of a school that has implemented a comprehensive energy management program. The school has decreased utility costs by \$0.23 per square foot through staff and student education and energy awareness activities. Throughout the building, short lists of recommended energy conservation practices are placed near equipment which faculty and administrative staff routinely use. According to the Principal at Union Elementary, these lists serve as constant reminders for staff to reduce energy consumption. Union Elementary also sends out newsletters, which contain reminders to community members, parents, and students that restate the energy conservation practices that are promoted within the District.

Hillsboro CSD officials state that the District is sufficiently controlling its energy costs. After cost ratio comparisons were conducted as a part of this audit, it was evident that cost-controlling efforts could be more successful. Decisions concerning energy management appear to be based on the opinions of the treasurer and/or superintendent and are not supported by formal analysis of utility cost data. For example, the District recently let its participation in a heating and cooling consortium lapse because it felt no cost savings were achieved. However, the District stopped tracking energy costs by building in 2004 at the discretion of the new treasurer and did not have an empirical basis for the conclusions about the heating and cooling consortium.

Financial Implication: Heating, cooling and lighting usually represent the largest opportunities for savings because the District can help reduce those costs. If Hillsboro CSD implemented a program similar to that at Union Elementary and reduced its utilities expenditures by \$0.23 per square foot, it could reduce the cost per square foot to \$1.24. This would result in savings of \$81,700 annually.

R4.7 Hillsboro CSD should develop and implement a formal preventive maintenance program that addresses all routine, cyclical, and planned building maintenance

functions. The District should begin a preventive maintenance program by updating the facility audit performed by the OSFC. It should then assign staff to perform preventive maintenance tasks and further expand the use of the automated work order system to all buildings (R4.8).

Hillsboro CSD does not have a formal preventive maintenance program; however, at Hillsboro Elementary, the District has a preventive maintenance software program, which automatically generates preventive maintenance work orders for that building. For all other buildings, the District relies on maintenance staff to use their own discretion and perform the preventive tasks they feel are needed. Once the new construction projects are complete the District plans to implement the preventative maintenance software for all the new buildings. However, it has not considered the development of a comprehensive program that addresses issues beyond those included in the software program.

Maintenance entails much more than just fixing broken equipment. In fact, NCES suggests 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 Office of the Legislative Auditor of the State of Minnesota published guidelines for preventive maintenance for government buildings. The guidelines suggest the following 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.

Preventive maintenance is widely thought to reduce long-term costs by maximizing the operating capacity of equipment, minimizing downtime, and avoiding breakdowns that would otherwise lead to higher repair costs. Neglecting the completion of preventive and predictive maintenance repairs can lead to increased equipment repair and replacement costs. These practices depend upon systematic assessments of infrastructure and equipment maintenance needs.

The District has largely been unsuccessful in creating a preventive maintenance program at the Hillsboro Elementary building due to insufficient training and supporting procedures, such as a fixed asset inventory and an inspection program. Yet, the periodic evaluation of District facilities and equipment by knowledgeable staff can ensure proper preventive and predictive maintenance measures are executed effectively. As a result, the

District will be able to extend the life cycle of its equipment and facilities while at the same time improving its understanding of future facility related costs. The District already owns the software, has the network in place, and has computers in every building. It could send one person from the Maintenance Department for training who could then teach the rest of the workers. As a result, costs for training would be negligible.

R4.8 In conjunction with R4.7, the maintenance staff should work with the technology staff to identify the hardware and software needs for expanding the use of Hillsboro elementary's automated work order system to all District buildings. Then, the District should conduct a cost-benefit analysis to evaluate the feasibility of expanding the program.

Hillsboro Elementary has an automated work order system into which building staff can enter work requests. This computerized maintenance management system (CMMS) is new and the maintenance staff has not received comprehensive training on how to use the technology (see **R4.7** for discussion). In the older buildings, paper work orders are still in use. District staff are required to fill out paper work orders and turn them in to the head custodian of the building. If the request is simple, the head custodian completes the task. If it is more complex, the head custodian turns in the work order to the main administrative office where the maintenance supervisor picks them up and prioritizes them based on safety concerns, relative necessity, and supply availability.

As noted in **R4.1**, the District only employs 2.0 maintenance FTEs. Therefore, under normal circumstances, prioritization and assignment of work orders should be a relatively simple process. Since the work order process is paper driven, it may be difficult for custodial staff, who perform some maintenance functions, to access work orders and determine when an order has been completed.

While a paper work order system can be effective, using a CMMS at all of the District's buildings could increase productivity by providing the maintenance supervisor a direct line of contact with all staff that perform maintenance functions. The CMMS program will ensure that a consistent level of service is provided to all buildings by providing the following:

- Acknowledging receipt of a work order;
- Allowing the maintenance department to establish work priorities;
- Allowing the requesting party to track work order progress through completion;
- Allowing the requesting party to provide feedback on the quality and timeliness of the work;
- Allowing preventive maintenance work orders to be included; and
- Allowing labor and parts costs to be captured on a per-building basis (or, even better, on a per-task basis).

At a minimum, work order systems should account for:

- The date the request was received;
- The date the request was approved;
- A job tracking number;
- Job status (received, assigned, ongoing, or completed);
- Job priority (emergency, routine, or preventive);
- Job location (where, specifically, is the work to be performed);
- Entry user (the person requesting the work);
- Supervisor and craftsperson assigned to the job;
- Supply and labor costs for the job; and
- Job completion date/time.

During the course of the performance audit, District staff indicated that the use of the automated work order system had not been expanded to the other district buildings, largely because these buildings will not be in operation when the new secondary campus is constructed in three years. In the meantime, the District could realize a significant benefit by implementing the automated program at its older buildings. For example, using a computerized system for completing work order forms and daily work order logs online could significantly reduce the time spent on paper work, allowing more time for maintenance-related activities. In addition, audit staff inquired about the specific capabilities of the automated system but the District could not provide any information (see **R4.7** for discussion). It should also be noted that since the District already owns the software as well as the necessary computer equipment, the cost of implementing this program at other buildings would be negligible.

R4.9 Hillsboro CSD should regularly update the OSFC facility master plan and develop a capital improvement plan. The plans should be linked to the educational programs and academic achievement through the District's continuous improvement plan (CIP). The facility master plan should also be linked to short-range capital improvement plans and the District-wide strategic plan (see financial systems section).

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

The District has not updated its OSFC comprehensive master plan or any of its corresponding elements, nor has it historically put an emphasis on facilities management. This is illustrated by the District's failure to track the completion of preventive and predictive maintenance tasks (see **R4.7**). The District's financial situation and declining student enrollment have been factors that cause it to neglect the development of future plans regarding facility additions and modifications.

For example, the District did not develop an alternate use or transition plan for Washington Middle School prior to closure in the event charter schools failed to lease the facility. The District's current plan is for Main Street Primary and Webster Elementary to close at the end of FY 2006-07, but the District has no plans for the sites after closure. In addition, the District has not evaluated options for the existing Middle and High school and additional properties such as the cafeteria building, Kasner Building, and Scott House once the new secondary complex is complete. Planning for building closures is important because the District still incurs costs for the sites even though the building is not fully operational. These costs include liability insurance, grounds care, and winterization. These costs continue until the sites are no longer in the District's possession.

In *Creating a Successful Facility Master Plan* (School Planning and Management, July 2001), DeJong & Associates, Inc., one of the nation's leading experts in educational facilities planning, identifies several essential components of a facilities master plan, including:

- Historical and projected student enrollment figures;
- Demographic profiles of the community/school district;
- Facility inventory;
- Facility assessment (condition and educational adequacy of buildings);
- Capacity analysis;
- Descriptions of educational programs;
- Academic achievement; and
- Financial and tax information.

In addition, a capital improvement plan serves as a guide for any facility renovations, additions, and closings. According to *Management of Public Works* (Municipal Management Series, 1986), capital improvement planning is the multiyear (typically five or six years) scheduling of public physical improvements, based on studies of fiscal resources, and the choice of specific improvements to be built. The important fiscal planning principle underlying this definition is that capital improvements should include only those expenditures for facilities with relatively long-term usefulness and permanence. Capital improvements should not include expenditures for equipment or services that prudent management defines as operating budget items and that should be financed out of current revenues.

According to *The Visionary Master Plan* (AS&U, 2003), well-crafted plans will establish priorities, set a framework from which decisions flow, and specify funding parameters so that building development is advanced in a thoughtful, comprehensive, and cohesive manner. A master plan can organize and analyze future construction projects while addressing and prioritizing deferred-maintenance issues. Planning does not end when the planning document is delivered; effective planning is a continuous process. Formulating strategies for the future also allows schools to function responsibly.

To date, Hillsboro CSD has not formally defined priorities nor formulated strategies for the future of the District's facilities. Without a comprehensive facilities master plan, the District's understanding of its facility needs and means to attain future facility-related goals is impaired. In addition, the absence of formal enrollment projections further hinders the District's ability to develop an accurate plan for its facilities (see **R4.10**). The lack of a capital improvement plan means the District does not have a formal route by which to communicate its capital needs.

R4.10 Hillsboro CSD should develop ten-year enrollment projections and review and update them on a yearly basis. The District should use the enrollment projections to help project future state funding allocations and other related items in the financial forecast; determine the number of teachers needed to accommodate any changes in enrollment; and evaluate building use and capacity.

In FY 2004-05, DeJong & Associates, Inc. developed Hillsboro CSD's enrollment projection as part of the OSFC Facilities Assessment Report. The District does not use enrollment projections, capacity analysis, or facility utilization assessments beyond those prepared for the OSFC project. It should also be noted that the District has not updated the initial enrollment projections since they were created. According to the superintendent, this is primarily because the District does not have a full understanding of the methodology used.

When reviewing historical enrollment data it was determined that the District displayed distinctly different enrollment patterns for grades K-5 and 6-12. According to the Treasurer, this trend occurs because many grade school age children in the District attend local charter schools but then return to the public school system for middle and high school. In an attempt to capture the future enrollment based on student trends in the community, auditors used two different methods. The method of least squares regression was used for forecasting kindergarten through fifth grade and the cohort-survival method for sixth through twelfth grade. **Table 4-9** compares the AOS and DeJong enrollment projections.

Table 4-9: Comparison of Enrollment Projections

Fiscal Year	DeJong & Associates	AOS	Difference
2006-07	2776	2760	(16)
2007-08	2781	2719	(62)
2008-09	2770	2669	(101)
2009-10	2757	2625	(132)
2010-11	2760	2572	(188)

Source: AOS and DeJong & Associates

Table 4-9 demonstrates that DeJong & Associates project stable enrollment through the forecast period, with a slight decrease of 0.05 percent. In comparison, the AOS method suggests a significant decline in enrollment. Overall, the AOS method suggests a 6.8 percent decrease in enrollment during the forecast period. AOS projections reflect a steady loss of enrollment of approximately 40 to 55 students annually, while DeJong and Associates forecasts moderate gains and losses in enrollment. As a result, the two methodologies continue to diverge in later years until there is a difference of 188 students in FY 2010-11. It should be noted that from FY 2000-01 through FY 2005-06, the District's actual enrollment decreased by approximately 6 students per year.

Enrollment projections are a valuable planning tool that can assist the District in evaluating building use and capacity, as well as predicting state funding allocations, completing financial forecasts, and determining appropriate staffing levels for certified and classified staff. During the course of the performance audit, District administrators communicated that even though a formal analysis has not been performed they feel the District has excess capacity but is using space efficiently. However, based on an analysis of capacity and utilization, this was not the case for all buildings in operation for FY 2006-07.

Based on the capacity analysis for FY 2006-07, Main Street Primary and the secondary campus are over-utilized. However, the District plans to close Main Street Primary and Webster Elementary in FY 2007-08, upon the completion of the additions at Hillsboro Elementary. In FY 2009-10, the new secondary campus will be complete, allowing the District to close the existing secondary campus. However, it should be noted that the new secondary campus is only estimated to increase capacity by 34 students⁶. Therefore, this new building is not likely to significantly improve the District's capacity utilization.

AOS uses a standard methodology that is often employed by educational planners when calculating building capacity. The capacity for elementary school buildings is calculated by multiplying the number of regular classrooms by 25 students; the number of kindergarten and preschool rooms by 25 students for all day programs (by 50 for half-day programs); and the number of special education classrooms by 10 students. The

⁶ Capacity for the new secondary campus was estimated based on unfinished plans dated August 2006.

capacities for each (elementary, kindergarten/preschool, and special education) are then totaled to arrive at the capacity for the building. Classrooms used for gym, music, art, library, and computer labs are set-asides and excluded from the number of rooms used in the calculation. The capacity for middle schools and high schools is calculated by multiplying the number of regular classrooms by 25 students and special education classrooms by 10 students, and then multiplying the result by an 85 percent utilization factor. The 85 percent utilization rate benchmark is used to determine if the buildings are over or under-utilized. The utilization rate is then calculated by dividing the head count by the building capacity.

In FY 2009-10, the new secondary campus will be complete and the estimated capacity and utilization rates are illustrated in **Table 4-10**.

Table 4-10: Estimated FY 2009-10 Capacity and Building Utilization

	Hillsboro Elementary	Hillsboro Secondary Complex	Total
Number of Rooms	83	82	165
Kindergarten Classrooms	10	0	10
Self-Contained Special Ed	6	2	8
Set-Asides	5	13	18
# of Regular Classrooms	69	67	136
AOS Method Capacity	1,265	1,693	2,958
2005-06 Count	1,238	1,319	2,557
Building Utilization Rate 85 %	98%	78%	86%
Over or Under 85 %	Over	Under	Over
AOS Projected Enrollment	1,086	1,539	2,625
Building Utilization Rate 85%	86%	91%	89%

Source: Hillsboro CSD future building plans.

Based on estimates from the future building plans, the consolidated buildings will be over the benchmark capacity at 89 percent. For this analysis, the FY 2005-06 student head count was used to illustrate building capacity if the new buildings were open now. The AOS projected enrollment figures were also used for comparison. Based on the projected enrollment, the new elementary will be slightly over the goal of 85 percent at 86 percent but the Secondary complex will be 91 percent utilized, if enrollment remains steady at the FY 2005-06 levels. This may not occur if enrollment declines. The District will need to monitor building capacity and utilization rates as the new buildings open and adjust usage where appropriate.

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 enable the District to more accurately forecast expenses related to capacity issues and determine the

best use of facility space. Capacity and utilization analyses work in conjunction with enrollment projections to help school districts plan for future needs.

Projecting enrollment and capacity utilization can help school districts with planning as part of an overall Master Facilities Plan (R4.9). Enrollment projections can help the District analyze trends, thus allowing it to better plan for upcoming changes in State funding, which is especially important in times of financial distress. According to District staff, the reliance on State funding for over half of its operating revenue has negatively impacted its ability to plan. Uncertainty surrounding future State funding, has lead the District to adopt a short-term outlook to managing operations rather than placing an emphasis on long-term planning. However, by using enrollment projections along with capacity and utilization analyses to guide planning, the District will able to better gauge state funding trends.

R4.11 Hillsboro CSD should discontinue cleaning auxiliary facilities for non-essential purposes. These areas include the Kasner weight room building and the press box area. In addition, the District should discontinue providing non-contractual custodial services at the alternative school site or charge a fee to cover the associated costs.

The District cleans and maintains areas every day that they are not contractually obligated to clean or that receive minimal use. By cleaning the non-essential spaces, the District decreases the amount of time custodians can spend on cleaning classrooms and adds 10,165 square feet to the area maintained.

- **Alternative School site:** During a previous administration, the District agreed informally to supply a custodian to clean the alternative school. Given the financial condition of the District, it would be prudent to reevaluate the informal agreement with the alternative school. By eliminating the obligation to clean the alternative school, custodians could focus more time on District buildings, thereby increasing productivity.
- **Kasner weight room building:** According to the District, the weight room area must be cleaned everyday, all year because students use the area for conditioning. A part-time custodian is assigned to the weight room building four hours per day. Once the new Secondary complex is complete, this building should no longer be used since the new structure will accommodate the District's needs.
- **Press Box area:** According to the District, High and Middle school students use the press box area during gym class, resulting in the need to have custodians clean the area every day. However, if the District eliminated student use of the press

box area, custodians could focus their efforts on maintaining the other buildings located on the secondary campus.

When determining the total square footage maintained, AOS did not include the weight room, press box, or alternative school because when the new secondary complex is complete, these areas should not be maintained. If the extra square footage amounts are included, then the total square footage increases by 10,165 to 331,230 square feet. The square footage per FTE would therefore increase to 24,355 from 23,608. These areas are non-essential and no plans exist for their use once the new construction is complete; therefore, the District should eliminate custodial service in these areas.

Financial Implication: The extra areas maintained add 10,165 square feet to the total, which equates to 0.4 FTE, based on the benchmark of 28,000 square feet per FTE. The average annual salary and benefits of Hillsboro custodians is \$34,700 so the average salary and benefits costs associated with cleaning the extra areas would be \$13,900 for 0.4 FTE.

R4.12 Hillsboro CSD should either hire an operations manager or promote someone from within who can spend approximately 50 percent of their time managing operations. The position description should resemble the example from Chardon Local School District while being tailored to meet the District's situation. Initially, this position should focus on improving the coordination of day-to-day maintenance and custodial activities while attempting to address long-term issues such as capital planning, preventive maintenance planning and organizing training programs.

The District's organizational structure does not include a facilities operations manager or a business manager to supervise custodial and maintenance functions. Hillsboro CSD does have a clear line of authority for custodial and maintenance activities as head custodians report to building principals and the maintenance supervisor reports to the superintendent. While this is sufficient for day-to-day operations, the building principals have a significant amount of responsibility unrelated to facilities and have not been extensively trained in the nuances of facilities management. As a result, the District has not been able to perform a number of activities necessary for quality long-term facilities management. These activities include:

- Creating a capital improvement plan (R4.9);
- Implementing a preventative maintenance plan (R4.7);
- Developing a formalized training program (R4.4); and
- Identifying and adjusting each buildings staffing needs as changes occur throughout the District (R4.1).

In comparison, Chardon LSD, like many districts, has created the position of Manager of Operations, responsible for the supervision of custodians, maintenance, food service, and transportation. The operations manager works cooperatively with the superintendent, treasurer, and building principals to provide oversight for custodians in the District. Additional responsibilities for the operations manager include the following:

- Coordinating work assignments for all classified employees;
- Developing and revising job descriptions of classified positions to most effectively meet the needs of the school system in non-instructional areas;
- Planning and implementing a continuous buildings and grounds maintenance and repair program;
- Overseeing the development of bus routing and serving as liaison for non-public busing;
- Developing specifications for non-instructional services and materials for bidding purposes and making recommendations to the superintendent on such matters;
- Developing budgets and fiscal controls for functions of the manager of operation's office.
- Serving as district purchasing agent in the event that the superintendent and assistant superintendent are simultaneously absent;
- Overseeing the maintenance of computer equipment and operations;
- Coordinating activities related to the free and reduced price lunch program;
- Filling requisitions for supplies from building custodians on a weekly basis; and
- Supervising and documenting the implementation of the district-wide preventive maintenance plan.

By create an additional position to serve as the coordinator of maintenance and custodial activities and the champion of Department initiatives, Hillsboro CSD could improve the coordination and effectiveness of its facilities maintenance and management processes.

Financial Implication: Based on supervisors' salaries within Hillsboro CSD, this position would cost the District approximately \$59,600 annually in salary and benefits. However, should the District decide to promote from within, the costs would not be as significant and the District would still be in-line with the operational ratios outlined in **R4.1**.

Financial Implications Summary

The following table represents a summary of estimated annual cost savings. For the purpose of this table, only recommendations with quantifiable impacts are listed.

Summary of Financial Implications

Recommendation	Annual Cost Savings	Annual Cost
R4.1 Reducing facility staff for FY 2007-08 and FY 2008-09	\$57,600	
R4.6 Implement energy conservation education programs	\$81,700	
R4.11 Decreasing the square footage maintained	\$13,900	
R4.12 Create and fill an operations manager position		\$59,600
Total	\$153,200	\$59,600

Appendix 4-A: Summary of Facilities Objectives

The following questions were used to assess the performance of the facilities function in Hillsboro CSD:

- Do the facility maintenance operations use appropriate performance and cost-efficiency measures and interpretive benchmarks to evaluate each function and does the District use these in management decision making?
- Has the district established procedures and staff performance standards to ensure efficient operations?
- Is the District's custodial and maintenance staffing comparable to best practices?
- Does the district provide a staff development program that includes appropriate training for maintenance and operations staff to enhance worker job satisfaction, efficiency, and safety?
- Are District energy management practices comparable to best practices?
- Are the district's facility management and planning practices comparable to best practices?
- Does the maintenance and operations department have a system for prioritizing maintenance needs uniformly throughout the district?

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Transportation

Background

This section of the performance audit focuses on Hillsboro City School District's (Hillsboro CSD, or the District) transportation operations. **Appendix 5-A** provides a summary of the audit objectives for the **transportation** section. Comparisons are made to 10 similar school districts¹ which have been selected based on demographic data obtained from the Ohio Department of Education (ODE), and to other industry benchmarks, such as the American Association of School Administrators (AASA) and the Government Finance Officers Association (GFOA). The District was also compared to other districts in Highland County² in instances where regional factors appeared to significantly impact the District's reported outcomes.

Ohio Revised Code (ORC) § 3327.01 requires that, at a minimum, school districts provide transportation to and from school for 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 school students on the same basis as is 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. Many school districts, such as Hillsboro CSD, transport high school students as well as students who live closer than two miles from their school but these services are optional and at the discretion of the District.

Transportation Policy

As stipulated by the Hillsboro CSD Board of Education (the Board), it is the District's policy to provide transportation services for resident elementary students (kindergarten through eighth grade) who live more than two miles from school and for those with physical or mental disabilities that make walking impossible or unsafe. According to District policy, transportation of high school students is made optional. As of FY 2006-07, Hillsboro CSD provided transportation services to all students who live more than one quarter mile from their respective school buildings (see **R5.1**). According to the District, this practice was established by previous administrations due to perceived hazardous walking conditions.

¹ The ten districts used for peer comparison include: Celina CSD, Garaway LSD, Indian Valley LSD, Leipsic LSD, New London LSD, New Riegel LSD, Ridgewood LSD, Southeast LSD, Springfield LSD, and Symmes Valley LSD.

² Highland County school Districts used for comparisons include Bright LSD and Fairfield LSD

Demographic Comparisons

Table 5-1 presents the overall size and demographics of the District's pupil transportation operation relative to total District spending and provides comparisons to the average of the peer districts.

Table 5-1: Demographic and Expenditure Comparison

	Hillsboro CSD FY 2004-05	Peer Average FY 2004-05	Percent Difference	Hillsboro CSD FY 2005-06
District Square Miles	152	106	43.5%	152
Number of Students	2,784	1,390	100.3%	2,795
• Per District Square Mile	18	13	39.5%	18
• Population Density	104	93	11.8%	104
Total General Fund Expenditures	\$19,429,685	\$9,849,449	97.3%	\$20,798,709
• Per Student	\$6,979	\$7,085	(1.5%)	\$7,441
Pupil Transportation Support Services Expenditures (General fund)	\$1,074,673	\$652,131	64.8%	\$1,531,730
• As a Percentage of Total	5.5%	6.6%	(16.5%)	7.4%
• Per Student	\$386	\$469	(17.7%)	\$548
% Reimbursed by ODE	64.9%	54.3%	19.5%	45.0%

Source: Ohio Department of Education, Ohio Department of Taxation

As **Table 5-1** illustrates, Hillsboro CSD encompasses approximately 15 square miles and has a population density 12 percent greater than the peer district average. As a result, the District's transportation operation, as it pertains to enrollment, is roughly twice the size of the peer average. Consistent with its demographics, the District's total General Fund expenditures were approximately twice the peer average. On a per student basis, total expenditures are consistent with the peer average; however, transportation expenditures were approximately 18 percent less per student, indicating that Hillsboro CSD's transportation operation is generally more efficient. However, in FY 2005-06, the District experienced a 43 percent increase in pupil transportation expenditures due to a significant increase in maintenance and purchased services expenditures. These expenditures were the result of 13 buses not passing inspection by the Ohio Highway Patrol. Indirectly, these expenditures also caused a significant drop in the percent of transportation expenditures for which the District received reimbursement from the Ohio Department of Education (ODE). ODE reimbursements as a percent of total expenditures decreased from 64.9 percent to 45.0 percent while the District's total reimbursement from ODE decreased by only \$8,290.

Operating Statistics

In FY 2004-05, Hillsboro CSD provided transportation to 2,205 Type I riders. Type I services³ pertain to students transported on Board-owned yellow buses and typically comprise the majority of transportation-related costs for which school districts are reimbursed by ODE. **Table 5-2** compares the District's transportation statistics to the peer average and also highlights changes that took place in FY 2005-06.

Table 5-2: Pupil Transportation Operating Statistics

	Hillsboro CSD FY 2004-05	Peer Districts' Average FY 2004-05	Percent Difference	Hillsboro CSD FY 2005-06
Riders	2,205	996	121.4%	1,995
Type I Regular Needs	2,205	978	125.6%	1,982
Type I Special Needs	0	25	(100.0%)	13
Type IA	0	0	0%	0
Type II	0	8	(100.0%)	0
Buses¹	26	22	20.9%	26
Active	20	15	35.1%	20
Spare	6	7	(10.4%)	6
Spare Buses % of Fleet	23.1%	29.7%	(22.4%)	23.1%
Special Needs Buses	0	1.3	(100.0%)	0
Special Needs Buses % of Active Buses	0.0%	8.2%	(100.0%)	0.0%
Riders Per Active Bus	110	67	62.6%	99
Students per Regular Bus	110	70	58.0%	99
Students per Special Needs Bus	0	4	(100.0%)	0
Annual Routine Miles²	451,800	207,648	117.6%	462,060
Per Bus	17,377	9,492	83.1%	17,772
Total Type I Expenditures	\$1,184,884	\$584,322	102.8%	\$1,492,959
Per Type I Rider	\$544	\$592	(8.1%)	\$753
Grand Total Expenditures Types I-II³	\$1,184,884	\$587,626	101.6%	\$1,492,959
Per Rider	\$544	\$594	(8.5%)	\$748

Source: Hillsboro CSD and Peer District's T-1 and T-2 reports.

¹ Includes spare buses because these contribute to overall operating expenditures.

² Excludes non-routine miles because related expenditures are non-reimbursable.

³ ODE classifies pupil transportation ridership by the following types: Type I (riders on Board-owned yellow buses), IA (riders on another district(s) buses), II (riders on outsourced/leased, contractor-owned buses), III (riders on public utilities such as taxis), IV (payment in lieu), V (riders on Board-owned vehicles other than buses), VI (riders on privately-owned vehicles), and VII (community school riders).

As shown in **Table 5-2**, Hillsboro CSD's total ridership decreased by nearly 200 students (9.5 percent) in FY 2005-06. This decrease occurred despite the fact that the District's total enrollment increased by 0.4 percent and the District made no reductions in service levels. A portion of this decrease in ridership can be attributed to an increase in high school enrollment at the 10th, 11th, and 12th grade levels. While the District provides transportation to high school students, students in these grade levels are the least likely to take advantage of this option.

The remaining decrease in ridership could not be attributed to a specific cause. However, during the course of the audit the District acknowledged having had significant problems with its T-form reporting prior to FY 2005-06 (See **R5.9**). Therefore, it is possible that the FY 2004-05 ridership was overstated. Following consultation with ODE, the District believes that its T-form reporting issues were resolved in FY 2005-06.

Based on the information submitted in FY 2004-05, Hillsboro CSD reported \$1,184,884 in pupil transportation-related expenditures. On a per student basis, the District spent \$544 on transportation compared to the peer average of \$594. However, the District experienced a significant increase in FY 2005-06 as pupil transportation expenditures rose by 26 percent. This increase is attributable, in part, to an increase in personnel expenditures, as well as one time maintenance expenditures required for 13 buses to pass their FY 2005-06 inspections. **Table 5-2** shows that Districts buses logged significantly more miles per bus than the peers in FY 2004-05. Since the District contains 44 percent more square miles than the peer average, a higher mileage per bus is expected, but the 83 percent higher mileage per bus reflected in **Table 5-2** exceeds expected variances.

Expenditures

Table 5-3 compares the Districts pupil transportation-related total expenditures by type and compares them with the peer district average. Because the District has a significantly larger student population and square mileage than the peer average, comparisons are also made on a per rider, per bus, and per routine mile basis to ensure a fair representation of performance.

Table 5-3: FY 2004-05 Comparison of Expenditures by Type

	Hillsboro CSD 2004-05	Similar District Average	Percent Above (Below)	Hillsboro CSD 2005-06
Personnel ¹	\$776,512.00	\$451,413.30	72.0%	\$879,235.00
• Per Rider	\$352.16	\$450.52	(21.8%)	\$440.72
• Per Bus	\$29,865.85	\$20,170.33	48.1%	\$33,816.73
• Per Routine Mile	\$1.72	\$2.11	(18.5%)	\$1.90
Maintenance & Repairs ²	\$108,007.00	\$44,381.60	143.4%	\$290,192.00
• Per Rider	\$48.98	\$48.14	1.8%	\$145.46
• Per Bus	\$4,154.12	\$2,180.66	90.5%	\$11,161.23
• Per Routine Mile	\$0.24	\$0.22	8.0%	\$0.63
Fuel	\$146,488.00	\$63,630.10	130.2%	\$177,815.00
• Per Rider	\$66.43	\$67.12	(1.0%)	\$89.13
• Per Bus	\$5,634.15	\$2,918.24	93.1%	\$6,839.04
• Per Routine Mile	\$0.32	\$0.31	4.8%	\$0.38
Bus Insurance	\$43,819.00	\$19,002.30	130.6%	\$40,025.00
• Per Rider	\$19.87	\$20.02	(0.7%)	\$20.06
• Per Bus	\$1,685.35	\$884.58	90.5%	\$1,539.42
• Per Routine Mile	\$0.10	\$0.10	0.7%	\$0.09
Total Expenditures ³	\$1,184,884.00	\$587,626.00	50.4%	\$1,492,959.00
• Per Rider	\$537.36	\$594.16	(9.6%)	\$748.35
• Per Bus	\$45,572.46	\$26,574.73	71.5%	\$57,421.50
• Per Routine Mile	\$2.62	\$2.78	(5.5%)	\$3.23
Total Special Needs Expenditures	\$74,439.00	\$42,821.80	73.8%	\$155,797.00
• Per Rider	N/A ⁴	\$2,913.64	N/A	\$11,984.38

Source: Ohio Department of Education.

Note: Figures include both regular and special needs-related expenditures and are rounded to nearest \$1

¹ Includes salaries and wages, as well as retirement, employee insurance, physical exams, drug tests, certification/licensing, and training.

² Includes maintenance, repairs, maintenance supplies, tires, and tubes.

³ Includes additional miscellaneous expenditures (not assessed) for utilities, facility rent, bus leases, and other, as well as Type IA and Type II.

⁴ Hillsboro CSD did not report any special needs riders in FY 2004-05.

The District reports expenditures significantly in excess of the peer district average in each expenditure category. On a per rider basis, the District compares favorably to the peers in the categories of personnel, fuel, insurance, and total expenditures. In the remaining category, maintenance and repairs, the variance is not significant and therefore is not regarded as an indicator of poor performance. When compared on a per bus basis, however, the District's expenditures exceeded the peer average significantly within each category. These discrepancies can be linked directly to the higher mileage logged by district buses -- nearly twice as many annual miles as the peers (as shown in **Table 5-2**). The variance in mileage per bus also has a significant impact on the cost per routine mile comparisons. As a result, these comparisons revealed mixed results. The District was below the peer average in the category of personnel expenditures, explained by the fact that personnel expenditures are tied more directly to the number of buses in use than mileage driven by each bus. Personnel expenditures accounted for approximately 66 percent of total transportation expenditures and as result, total transportation expenditures were also lower than the peer average. However, in the categories of maintenance, fuel, and bus insurance the District's expenditures exceeded the peer average and did not improve significantly in FY 2005-06.

Recommendations

Transportation Policy

R5.1 The Transportation Supervisor should work with the administration and Board to include transportation-specific goals and objectives in an updated, District-wide strategic plan (see Financial Systems R2.6). At minimum, these operational goals and objectives should focus on reviewing the District's transportation policy (R5.2), reducing fuel and insurance costs (see R5.10), formalizing the District's bus replacement planning process (R5.11), and reducing personnel costs (see R5.6 and R5.7).

As noted in the financial systems section (R2.6), the District does not have a comprehensive multi-year strategic plan. The District's previous strategic (or continuous improvement) planning efforts have been limited to academic programs and do not contain pupil transportation-specific goals or objectives. Although its goals are broad (e.g., refine transportation efficiency), Dublin City School District in Franklin County incorporates instructional and operational action steps in its district-wide strategic plan. This helps ensure that both instructional and business-side goals are communicated.

Without an updated, District-wide strategic plan that includes specific operational goals and objectives, transportation needs and achievements cannot be effectively communicated to all stakeholders, including the Board, District employees, and community members. For example, the District has indicated a need to replace buses, but there is no formal plan in place that links this particular goal to necessary resources (see R5.11). Furthermore, performance measures in Table 5-2 and 5-3 suggest the Transportation Department could improve its management of personnel, fuel, and maintenance costs.

R5.2 Hillsboro CSD should regularly review and update the District's Pupil Transportation policy. When updating this policy, the District should consider trends in both the demographic and geographic composition of the District. In addition, Hillsboro CSD should solicit community input during the development and review of transportation policies and appoint a policy review committee to identify issues and situations that face the District annually. These issues may include evaluating the impact of the District's construction projects, providing transportation to students with unique needs, or assessing options such as payment-in-lieu of transportation agreements. The review committee should encompass board members and at least one principal and one central office administrator as permanent members.

Hillsboro CSD's transportation policy meets the minimum requirements established by ORC § 3327.01 but does not reflect the Districts current transportation practices. The District provides transportation to students who live more than one quarter mile from the respective school building, including high school students.

As noted in the Board policy manual, the transportation policy was last updated in 1999. The District has not made any formal efforts to solicit community input on the transportation policy since 1999, aside from making the policy available for viewing by staff and to the public upon request.

According to *Key Legal Issues for Schools* (the 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 experience. ASBO further recommends that school boards consider establishing a policy review committee to identify issues and situations that should be considered for annual policy review. The committee should include board members, at least one principal, and one central office administrator such as a business manager. The District does not have a business manager; however, because a number of policies in the manual deal directly with activities under the Treasurer's responsibility, the Treasurer would be the position most in line with the roles defined by ASBO.

ASBO recommends that the committee carefully analyze the circumstances that created the need for a new or amended policy before forwarding any recommendations to the board for final approval. This analysis should be broad enough to include stakeholders in the community such as parents, students, and staff. Once the need for a policy change is confirmed, committee members should isolate key issues and collect as much data as possible from the following sources:

- Federal, state, and local laws;
- State department of education mandates;
- Negotiated agreements (if applicable);
- Job descriptions; and
- Current practices.

The committee should also consider the actions of other area school boards, establish possible alternatives, and seek consensus on an approach. ASBO also recommends that a board member be designated to keep the policy manual up to date by controlling access to and safeguarding electronic and print files, updating electronic and print versions of the manual as soon as they are approved, and ensuring that policies are not modified through the use of memos or other correspondence.

The inconsistencies between District policies and practices are due, in part, to the extended time period that has lapsed since the District last revised its policies. According to the Transportation Supervisor, the Board of Education approves and amends the District's transportation policy as needed based upon recommendations from the Transportation Department and Superintendent. However, a number of changes have been made to transportation services since the last revision, including the construction of new facilities, closing and subsequent realignment of buildings, and the decision to transport high school students. It should be noted that the current Superintendent and Transportation Supervisor were not in their respective positions when the policy was last revised and have had only limited time to conduct a review of the District's transportation policy and its effectiveness.

According to ASBO, well developed policies are often indicators of the attitude and commitment of school boards towards following effective management practices. Clear policies provide school boards with a plan to operate and help themselves remain focused on achieving the goals they have set. On the other hand, poorly developed policies frequently lead boards down the wrong paths and can result in long-range problems that damage the board's ability to influence achievement levels within a district. In many cases the development of board policies takes place in response to local issues. In this way, policies are fundamentally public decisions that take shape through procedures, programs and services. By reviewing and amending policies, the District can ensure that it has committed itself to a level of service consistent with the needs of the community and the resources it has available. This will have increased importance as the District completes construction of its new secondary campus and must make decisions, such as when to close older buildings, how to redesign bus routes, and how many buses will be necessary.

- R5.3 The District should revise Board policy 7.04 to include a list of identified hazards consistent with those listed in Ohio Administrative Code (OAC) § 3301-83-20(I). The policy should clearly explain that, as a result of these hazards (and other exceptions), transportation services may exceed State minimum standards for high school students and those pupils who reside less than two miles from their schools. This will help ensure that all stakeholders are aware of the District's transportation practices.**

The District transports approximately 84 students that live within two miles but more than one quarter mile away from their assigned schools through the use of courtesy stops. According to the Transportation Supervisor, these services were implemented by the District's previous Transportation Supervisor due to perceived hazardous walking conditions.

The District's transportation policies are not specific in defining hazards and how these might impact the transportation policy. Board policy 7.04 stipulates that transportation service level exceptions to established areas may be made by the Board when, "in the judgment of the Board, walking conditions to the student's school are extremely hazardous and/or because of overcrowding and the necessity to assign students to another building, the Board deems transportation necessary." Despite policy, the Board does not routinely designate specific areas where walking may be hazardous. Instead, this is left to the determination of the Transportation Supervisor. While it is not uncommon for a board to refrain from actively identifying and designating areas where walking may be hazardous, the District's policy does not provide the Transportation Supervisor with proper guidance by identifying specific conditions as hazardous.

According to the Ohio Department of Education (ODE), pupil transportation plans are designed and implemented by each district. The district plan should include the designation of walk-in areas to school, identification of hazardous areas, the locations of the bus stops, and the actual routing and planning of routes. Furthermore, Ohio Administrative Code (OAC) 3301-83-20(I) requires that boards grant exceptions to general policy where certain hazardous conditions exist. According to OAC these hazards include but are not limited to:

- Construction sites;
- Heavy traffic volume;
- Posted speed limits in excess of 35 miles per hour;
- Lack of sidewalks;
- Overpasses and underpasses;
- Areas of poor visibility;
- Restricted sight distances;
- On street parking areas; and
- Railroad tracks.

According to the Transportation Supervisor, those students transported through courtesy stops will fall outside of the two mile radius defined by District policy, once construction is completed on Hillsboro elementary school in FY 2006-07. However, the District will continue to maintain existing service levels for middle school and high school students until the completion of the new secondary campus in FY 2009-10. The Transportation Supervisor indicated that highways, railroad tracks, and other hazards make it unsafe for some students to walk to school. However, by not formalizing these hazards in policy, the District cannot effectively reconcile its transportation services with Board policy. This could be problematic as the District attempts to communicate changes to transportation service-related practices to the community once new buildings are completed. Specifically, without detailed policies, the District may not be in the best position to fully explain service exceptions.

R5.4 If the District continues to encounter financial difficulties, it should consider following the minimum requirements for student transportation. More specifically, it could choose to transport only riders in grades K-8 who live more than two miles from school. However, prior to reducing transportation services, the Board and administrators should review strategies to improve efficiency and reduce costs without changing service levels, and carefully review the walking conditions throughout the District to ensure the safety of students who would be required to walk to school (R5.3). The District should also work with ODE to determine any potential changes in State reimbursement that would occur after FY 2007-08.

In FY 2005-06, the District provided transportation to 1,922 students. According to the Transportation Supervisor, the District expects ridership to increase once construction is completed on Hillsboro Elementary School and the District closes Main Street and Webster Elementary Schools. Based on historical ridership levels, AOS estimates ridership to increase by approximately 170 students. This would require two additional buses to maintain the District's current service levels. Based on the 2004-05 cost per bus (\$45,572),⁴ this will increase the District's costs by approximately \$91,144 annually. As noted in the financial systems section, the District is anticipating a \$2,144,000 General Fund deficit in the final year of the forecast, FY 2009-10. Therefore, incurring additional costs is not a feasible option without offsetting reductions in service levels.

According to ORC § 3327.01, transportation for high school students is optional. This is reflected in Hillsboro CSD's Board policies. However, in practice the District provides transportation to all high school students, resulting in service levels that exceed State minimum standards. It is estimated that in FY 2005-06, Hillsboro CSD provided transportation to approximately 620 high school students. Based on the 99 riders per bus reported by the District, transporting high school students requires approximately six buses.

If the District were to reduce service to high school students and remove these buses from service, it would have no effect on the transportation reimbursement that the District receives due to recent changes in the State funding formula. Until 2008, funding is now set at 102 percent of the amount that the District received in the prior year, regardless of changes to service. In 2008 the formula will change again and at that time the District will need to perform additional analysis to determine the most appropriate level of service. For example, one such analysis would be to determine if the reimbursement for transporting high school students exceeds the cost.

⁴ FY 2004-05 cost per bus was used as FY 2005-06 cost data included significant capital outlay and purchased service expense due to a failed bus inspection. These expenditures are not representative of a typical year; therefore, the FY 2004-05 data was determined to be a more accurate representation of the likely cost per bus.

Financial Implication: Based on the benchmark of 99 students per bus, the District could eliminate six buses if it eliminated high school routes. The increased ridership attributed to the consolidation of elementary schools would require two of these buses to remain in service, limiting total reductions to four buses. If Hillsboro CSD were to eliminate four buses from its fleet, it would save on driver salaries, insurance, fuel, and maintenance and parts. Based on the FY 2004-05 cost per bus of \$45,572, this would save the District approximately \$182,288 for FY 2007-08.

R5.5 Hillsboro CSD should expand board policy 7.10 to ensure accurate compensation for all reimbursable non-routine miles. The policy should explicitly state that when District buses or vehicles are used for purposes beyond District academic or co-curricular activities the District may assess a fee to cover the following operational costs:

- **Driver salaries and benefits;**
- **Fuel;**
- **Maintenance;**
- **Service;**
- **Supervision; and**
- **Insurance.**

In addition, the District should revise its accounting practices to charge the transportation expenses related to athletic events directly to the Athletic Fund rather than the General Fund.

Hillsboro CSD board policy 7.10 states that the use of District buses or vans for purposes other than academic or co-curricular activities may be assessed a fee based upon operating costs. The policy does not explicitly state those costs included in the calculation of operating costs or note any board approved exceptions. According to the Transportation Supervisor, groups wishing to use District owned buses and vans for purposes other than academic or co-curricular activities are assessed fees for driver salaries, benefits, and fuel costs while the bus is in service. The District does not, however, seek reimbursement for vehicle maintenance costs, service costs, supervision costs, and insurance costs. In addition, the District has granted an exception to the policy for trips related to athletics. The District pays for trips to and from athletic events through the General Fund without seeking reimbursement from the Athletic Fund.

OAC §3301-83-16 states that except for field trips on regular school days, Boards of Education are required to recover the operational costs of the non-routine use of school buses. These costs include the following (as reported on a district's T-2 form):

- Driver salary and benefits;
- Fuel;
- Maintenance;
- Service;
- Supervision; and
- Insurance.

According to the Transportation Supervisor, the District does not charge back maintenance, service, supervision, department supervisor, and insurance costs due to the small amount of funds these charges would generate. Since the District does not seek reimbursement from the Athletic Fund for athletic trips, it had only one non-routine trip for which these charges could have been assessed in FY 2005-06. The Transportation Supervisor also noted that in the past, the District assessed charges to the Athletic Fund for athletics trips; however, due to deficits, the Athletic Fund could no longer support the cost. The District absorbed these costs in the General Fund and offset the increased costs by reducing the number of field trips and other non-routine uses paid for from the General Fund.

Based on FY 2005-06 cost information, the District's bus insurance, maintenance, and supervisory costs were approximately \$0.81 per mile. Due to inaccurate and unreliable T-form reporting (See **R5.9**), the number of miles to which this additional charge could have been applied could not be determined.

Salary and Benefit Expenditures

R5.6 Hillsboro CSD should attempt to reduce salary expenditures for bus driver positions. The Board of Education should consider revising pay scales for bus drivers who begin their employment after June 30, 2008. The new pay scale should reduce current hourly rates by at least \$1.50 per hour to bring salary levels in line with other districts in the county. For current employees to reach salary levels comparable to other County districts, the District would have to hold salary increases (negotiated wage increases and step increases combined) to no more than 1 percent in each year from FY 2008-09 through 2010-11.

Table 5-4 compares Transportation Department costs of operations and salaries for Hillsboro CSD and the peers.

Table 5-4: Transportation Department Operations and Salary Costs

	Hillsboro CSD FY 2004-05	Peer Average FY 2004-05	Above (Below) Peer Average	Hillsboro CSD FY 2005-06
District Square Miles	152	106	43.9%	152
Total Active Buses	20	15	35.1%	20
Total Transportation Expenditures	\$1,184,884	\$587,626	50.4%	\$1,492,959
Bus Driver Salaries ¹	\$407,045	\$213,807	90.4%	\$515,876
Bus Driver Salaries per Active Bus	\$20,352	\$14,254	42.8%	\$25,793

Source: District T-forms

¹ Includes full-time and substitute drivers

As shown in **Table 5-4**, Hillsboro CSD's total transportation costs were approximately 50 percent greater than the peer average. The District's higher transportation costs are due, in part, to the District's high salary expenditures when compared to the peers. The additional 5 active buses operated by Hillsboro CSD contributes to the higher total salary costs when compared to the peers. However, the District's salary costs per bus are also significantly higher. As shown in **Table 5-4**, the District's bus driver salaries per active bus were approximately 33 percent higher than the peer average. This variance exists because Hillsboro CSD bus drivers earn higher rates of pay and are guaranteed pay for six hours per day, regardless of whether it correlates with the actual time required to complete the drivers' routes (See **R5.7**).

Table 5-5 compares Hillsboro CSD's board approved salary schedule to the salary schedules contained in the negotiated agreements of the peers and three districts located within the same county as Hillsboro CSD (Highland).

Table 5-5: FY 2005-06 Salary Schedule Comparison

Step Level	Hillsboro CSD	Peer Average	Above (Below) Peer Average	County District Average ¹	Above (Below) County Average
1	\$12.89	\$14.23	(\$1.34)	\$11.97	\$0.92
2	\$13.65	\$14.50	(\$0.85)	\$12.52	\$1.13
3	\$14.41	\$14.66	(\$0.25)	\$13.07	\$1.34
4	\$15.40	\$14.82	\$0.58	\$13.61	\$1.79
5	\$15.91	\$15.08	\$0.83	\$14.16	\$1.75
6	\$16.66	\$15.20	\$1.46	\$14.64	\$2.02
10	\$17.29	\$15.67	\$1.62	\$16.03	\$1.26
12	\$17.91	\$15.76	\$2.16	\$16.72	\$1.19
16	\$18.52	\$16.09	\$2.43	\$17.05	\$1.47
20	\$19.11	\$16.25	\$2.86	\$17.64	\$1.47
25	\$19.68	\$16.30	\$3.38	\$18.08	\$1.60

Source: Hillsboro CSD Salary Schedule, Peer Negotiated Agreements

¹ Average includes Bright Local School District, Fairfield Local School District, and Greenfield Exempted Village School District

In light of the District’s financial situation, the Board of education has not approved negotiated wage increases for classified staff since FY 2003-04. However, as shown in **Table 5-4**, the District’s FY 2005-06 hourly rate of pay for bus drivers is still higher at each salary step when compared to the county average. The District salaries also exceed the peer average beginning in step four. Only five of the District’s twenty drivers are at or below this point in the step schedule. In comparison to the peers, Hillsboro CSD’s salary schedule in the first six years of service includes significantly greater increases than the salaries offered by the peers and county districts. However, it should be noted that the pay scales at Hillsboro CSD, the peers, and the county districts vary in structure with employees achieving salary increases at different times (primarily after the employee has reached 10 years of service). This is important as 65 percent of the District’s regular drivers have more than 10 years of experience. **Table 5-6** compares the annual step increases to the peers and the county districts.

Table 5-6: FY 2005-06 Step Increase Comparison

Step Level	Hillsboro CSD	Peer Average	Difference	County District Average	Difference
1	6.2%	0.0%	6.2%	5.0%	1.2%
2	5.9%	1.9%	4.0%	4.6%	1.3%
3	5.6%	1.1%	4.5%	4.4%	1.2%
4	6.9%	1.1%	5.8%	4.2%	2.7%
5	3.3%	1.8%	1.5%	4.0%	(0.7%)
6	4.7%	0.8%	4.0%	3.4%	1.3%
7-15 ¹	0.8%	0.6%	0.2%	1.7%	(0.9%)
16-25 ¹	1.0%	0.1%	0.9%	0.6%	0.4%

Source: Hillsboro CSD Salary Schedule, Peer Negotiated Agreements

¹ Average annual increase, salary schedules do not include increases each year

The District’s classified staff are not governed by a negotiated agreement. Therefore, the Board could implement a revised salary schedule for new bus drivers without negotiation. The District could eventually achieve salary levels comparable with the peer districts by implementing a salary schedule for new employees that reduces steps 4 through 10 in the current pay schedule by \$1.50 and reduces the maximum achievable rate of pay by \$3.38 per hour. Similarly, the District could achieve salary levels consistent with other districts in the same county by reducing each step in the salary schedule by \$1.50. As the recommended pay schedule would only impact new employees, the District should recognize that salary expenditure levels would not immediately lower to levels comparable with the peers, but rather, the District’s yearly cost avoidance would be dependent on the number of current bus drivers who chose to leave their positions, as well as the number of new bus drivers hired.

Since the District is not bound by a negotiated agreement, salary schedules are determined on a yearly basis by the Board of Education. While the Board could establish a new salary schedule, it should be sensitive to the impact that such a change might have

on future relations with its bus drivers. Through communication with bus drivers, the Board should ensure that existing employees understand that a revised pay scale would only be instituted for all employees who begin their employment with the District after June 30, 2007, thereby leaving existing rates of pay unaffected.

Ultimately, Hillsboro CSD should attempt to achieve salary levels which are comparable to the other districts in the County. The District should also communicate to bus drivers the desired result of additional actions which might be taken to lower the District's transportation costs (particularly salary expenditures for employees who were employed by the District prior to that date). To reduce salaries to levels commensurate with other districts in the County, alternatives for reducing expenditures for current drivers include (as stated in **R5.7**), attempting to reduce the number of hours bus drivers are required to work and limiting bus driver salary increases (negotiated wage increases and step increases combined) to no more than 1 percent per year through the end of the forecast period. Assuming the peers continue scheduled step increases and grant negotiated increases of at least 2 percent, the District could achieve salary levels comparable to the peers by the end of the forecast period.

- R5.7 Hillsboro CSD should discontinue the practice of guaranteeing all bus drivers six hours per day. Bus drivers should only be paid for those hours necessary to complete their assigned routes and perform necessary activities such as bus cleaning and completing required documentation. The District should reduce the guaranteed number of paid work hours for bus drivers to no more than two. Reducing the number of guaranteed hours will help limit personnel expenditures to those needed to carry out transportation functions, thereby helping to bring cost ratios in line with the similar district averages.**

The Hillsboro CSD policy manual does not specify a guaranteed minimum number of daily work hours for transportation employees or bus drivers. However, in practice the District guarantees all bus drivers six hours per day regardless of whether they corresponds to the actual time required to complete the route. According to the Transportation Supervisor, if a route does not require six hours to complete he will personally assign additional work in other areas of the Transportation Department to ensure that bus drivers work the entire six hour work day.

As shown in **Table 5-3**, the District's personnel expenditures per bus are approximately 48 percent higher than the peer average. This is due, in part, to the District's practice of guaranteeing bus drivers six hours per day. While Hillsboro CSD does not have a negotiated agreement, several peer districts (e.g., Garaway LSD and Symmes Valley LSD) do not guarantee a minimum number of paid hours per day in their collective bargaining agreements. Garaway LSD specifically stipulates in its collective bargaining agreement that bus driver salaries will be determined by multiplying the employees'

hourly rate by the number of minutes actually driven on morning and evening runs plus one-half hour each day for warm-up, cleaning, pre-trip inspections and maintenance. Others area Districts, such as Bright Local School District, guarantee a minimum of four hours per day where actual work beyond four hours per day will be paid at scheduled rate for time in excess of four hours.

According to the Transportation Supervisor, most of the District's bus routes require six hours per day because elementary bus routes are designed to include a stop at each elementary school. These stops are necessary to help minimize the mileage on District buses as each building contains different grade levels. The Transportation Supervisor estimates that stopping at each elementary school increases route times by approximately thirty-five minutes both in the morning and afternoon (including time for the loading and unloading of students at each building). In FY 2007-08 the District will discontinue this practice, as construction will be completed on Hillsboro Elementary and the District's elementary buildings will be consolidated into a single location. As a result, the District should be able to reduce the total time bus drivers are required to work by at least one hour per day without any decrease in service levels. It should be noted that additional reductions may be possible through improvements in routing practices (See **R5.8**).

Financial Implication: By eliminating the six hour per day requirement and only paying bus drivers for those hours actually worked, the District could reduce salary expenditures by \$3,200 annually for each route reduced by one hour. In addition, should the District be able to reduce all routes by one hour when construction is completed on Hillsboro elementary, the District would save a total of \$64,000 annually.

Routing

R5.8 Hillsboro CSD should optimize its routing practices by using routing software to increase bus utilization and ensure the efficient use of resources, ultimately reducing its costs per mile and per bus. The District should continue to monitor ridership trends on a bi-weekly basis and use the routing software to periodically optimize its bus routes throughout the year. In addition, the District should seek to increase the use of cluster stops (where rider safety permits) as a means to reduce total miles per bus.

During the course of the performance audit, the District manually recalibrated its bus routes. The District also purchased routing software to ensure that future routes can be recalibrated in a more timely and efficient manner.

The District does not use routing software to design its bus routes. Instead, routes are designed using maps and then driven by the Transportation Supervisor to ensure they can be completed within the allotted time. Once completed, route stops are documented on a

route sheet with estimated times. Ridership is monitored on a bi-weekly basis and periodic route adjustments are made to better meet the needs of district riders. Each driver is responsible for recording ridership information and submitting the appropriate documentation to the Transportation Supervisor. Once the documents are submitted, the Transportation Supervisor evaluates the reports and makes adjustments to existing routes as needed. However, in FY 2005-06 the District experienced a 210 student decrease in ridership but did not decrease the number of active buses.

As shown in **Table 5-2**, Hillsboro CSD buses logged 83 percent more miles per bus than the peers in FY 2004-05. This is contrary to normal mileage patterns as the District has a significantly greater population density (shown in **Table 5-1**) than the peers. In FY 2005-06 the District experienced a decrease in ridership but its buses accrued 395 miles more on average than the previous year. These trends indicate inefficiencies in the District's routing practices. **Table 5-7** affirms this assertion by comparing the District's FY 2004-05 annual routine miles on a per district square mile and per rider basis to peer districts.

Table 5-7: Annual Routine Miles Comparison

	Hillsboro CSD FY 2004-05	Peer Average	Hillsboro CSD FY 2005-06
District Square Miles	152	106	152
Annual Routine Miles ¹	451,800	207,648	462,060
Routine Miles per Square Mile	2,972	2,137	3,040
Riders	2,205	996	1,995
Riders per Square Mile	14.5	10.9	13.1

Source: Hillsboro CSD, Celina CSD, and Southeast LSD T-1 and T-2 reports.

¹ Excludes Celina and Southeast as they do not use multi-tier routing

² Excludes non-routine miles because related expenditures are non-reimbursable.

Table 5-7 shows that the District's routing practices have resulted in District buses logging significantly more mileage per square mile than the peers in order to service the area, despite its significantly greater density. In FY 2004-05, District buses drove 2,972 routine miles per District square mile compared to 2,132 by the peers who also used multi-tier routing. The District's routing efficiency did not improve in FY 2005-06, as routine miles per square mile increased to 3,040. This lack of efficiency is a result of the District's routing practices.

Because the District does not use routing software, it has not been able to update bus routes in a timely manner to reflect significant changes in operations. For example, shortly before the start of the 2005-06 school year, the District terminated the employment of the Transportation Supervisor. Upon hiring a new Transportation Supervisor, the District did not have sufficient time prior to the start of the school year to update the bus routes from the previous year. As a result, the District did not properly account for the 210 student decrease in ridership that took place that year. Based on the FY 2004-05 bus utilization rate of 110 riders per bus, the District may have been able to

eliminate two buses had it properly accounted for the decrease in ridership. This would have saved the District approximately \$114,800. Instead, the District attempted to revise routes incrementally throughout the school year.

During the course of the audit, the Transportation Supervisor indicated the District does not sufficiently use cluster stops. Cluster stops are designated locations that serve various areas throughout the district and allow for the pick up and drop off of riders in groups, thereby shortening route time. Establishing additional cluster stops may allow buses to maintain a higher average speed by reducing frequent stops. Although Hillsboro CSD is rural and does not have extensive walking areas, establishing cluster stops wherever possible may have a substantial impact on bus route times. The Transportation Supervisor indicated that as the District continues to revise bus route, it is attempting to include more cluster stops; however, this is taking an extensive amount of time using the District's current method of route design. In addition, implementing cluster stops has been difficult as the District attempts to anticipate what its needs will be once it finishes construction on the Hillsboro Elementary and the new middle school and high school facility. The use of routing software would give the District the ability to simulate future operating conditions, thereby expediting the inclusion of cluster stops in the District routes and improving the efficiency of the District's bus routes.

Financial Implication: Based on estimates obtained by the District, routing software would represent a one-time cost of \$25,000 and an annual cost of approximately \$4,200. However, these costs could be offset by savings resulting from gains in efficiency. If the District were to improve its routing and achieve routine miles per District square mile comparable to the peers, it would reduce the total mileage traveled by approximately 18,100 miles. Based on the FY 2004-05 cost per mile, this would save the District approximately \$47,300 annually, assuming no reductions in the number of active buses.

T-form Reporting

R5.9 Hillsboro CSD should establish formal procedures for filling out T-forms. This will help to ensure that reports are accurate, comply with ODE instructions, and are completed in a timely manner. Moreover, formal procedures will help to ensure that the District receives all State reimbursements for which it is eligible. Furthermore, a representative from the Treasurer's Office should consider attending one of the free ODE training sessions on completing transportation forms.

The District does not have formal written procedures for completing T-forms. Rather, an informal process exists whereby the Transportation Supervisor works collaboratively with the Treasurer's Office 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 to complete the T-forms. However, there were errors on the District's

T-forms, which were not corrected before submission because Hillsboro CSD has no formal procedures, and the individuals tasked with completing the forms did not have a clear understanding of how to complete those forms. Reporting errors discovered during a review of the FY 2004-05 and FY 2005-06 T-forms are detailed below:

- **Square Mileage:** The District's FY 2004-05 T-forms reported the size of the District as 136 square miles. The Ohio Department of Taxations official square mileage for the District is 152. The District corrected this information on its FY 2005-06 T-2 report.
- **Drivers:** The FY 2005-06 T-forms reported 27 regular bus drivers and 14 substitute bus drivers. This information conflicts with information reported to the Educational Management Information System (EMIS). Information obtained from EMIS reported 20 regular bus drivers and 3 substitute drivers.
- **Total Expenditures:** In FY 2004-05 and FY 2005-06 the T-2 forms reported transportation expenditures different from those reported on the District's annual financial report. In FY 2004-05 the T-forms reported total expenditures of \$1,184,884 while the annual report claimed total expenditures of \$1,074,673, a variance of 10.3 percent. Similarly, in FY 2005-06 the T-2 form reported total expenditures of \$1,497,433. This total varied by 2.2 percent from the FY 2005-06 Annual Financial reports total of \$1,531,730.
- **Board Owned, Other Vehicles:** The District's FY 2005-06 T-1 form reports 13 special education students who are transported on board owned vehicles (Type V services). However, on this same report the District reports no active vehicles within this category despite having two vans, which are used to transport these students. In addition, on the T-2 reports the District reports no expenditures for Type V services.
- **Non-Routine Mileage:** On the FY 2005-06 T-2 form, the District reported no non-routine mileage for buses. According to the Transportation Supervisor, the District did not report this mileage because it receives no reimbursement for these miles.

This District is aware of its past T-form reporting problems and has taken several steps to improve the reporting process. The new Transportation Supervisor, the Treasurer, and the Assistant Treasurer have attended several trainings on T-form reporting and have worked extensively with a consultant from ODE when completing T-forms. In addition, the District has initiated a process whereby T-form expenditure data is reviewed by the Treasurer's Office prior to submission to ODE.

While the District has improved its process, not all aspects of the T-forms are subjected to a formal review. This presents a significant risk once the District no longer has the benefit of working directly with an ODE consultant. Without formal policies and procedures that define the process for completing T-forms and reviewing for accuracy and completeness, Hillsboro CSD risks submitting incorrect information. This could, in turn, result in improper reimbursement for transportation services and could lead to management decisions based on faulty data.

R5.10 Hillsboro CSD should use competitive bids or requests for proposals (RFPs) when purchasing fuel and insurance to ensure accountability for District funds and reduce transportation costs. Doing so would enable the District to use consortia or the State contract offered by the Ohio Department of Administrative Services (ODAS) to purchase fuel at a reduced cost. In addition, the Transportation Supervisor should work with the Treasurer to make certain fuel costs are charged to proper District users.

Table 5-3 shows that in FY 2004-05, Hillsboro CSD's fuel costs were greater than the peer average on a per bus basis. This is largely due to the District's higher mileage per bus. However, when viewed on a per mile basis, the District's fuels costs were slightly higher than the peers and increased significantly in FY 2005-06, indicating that the District has the potential to improve its management of fuel resources. In addition, **Table 5-3** also reveals the District's insurance costs per bus were higher than the peers. On a per bus basis, the District paid \$1,685 for insurance while the peers paid an average of \$885.

Table 5-8 compares the District's FY 2004-05 fuel expenditures to the peer district and state averages. **Table 5-8** also shows the District's FY 2005-06 expenditures in an effort to highlight areas where it may have improved its operations.

Table 5-8: Fuel and Insurance Costs Comparison

	Hillsboro FY 2004-05	Percent Above (Below)	State Average	Hillsboro FY 2005-06
Fuel	\$146,488.00	130.2%	\$49,547,315	\$177,815.00
• Per Rider	\$66.43	-1.0%	\$46.31	\$89.13
• Per Bus	\$5,634.15	93.1%	\$3,569.95	\$6,839.04
• Per Routine Mile	\$0.32	4.8%	\$0.30	\$0.38
Bus Insurance	\$43,819.00	130.6%	\$15,623,020.00	\$40,025.00
• Per Rider	\$19.87	-0.7%	\$14.60	\$20.06
• Per Bus	\$1,685.35	90.5%	\$1,125.66	\$1,539.42
• Per Routine Mile	\$0.10	0.7%	\$0.10	\$0.09

Source: T-forms, ODE

According to the Transportation Supervisor, the District does not use controls such as requests for proposals (RFPs) or requests for quotations (RFQs) to ensure that they receive the best prices on insurance and fuel. Instead, the District has relied on local vendors to supply these items. During the course of the performance audit, the District acknowledged that it may be paying higher prices for fuel than its peers. In addition, the District indicated that it intends to begin performing more pricing comparisons prior to purchasing. However, it has not implemented a formal process for obtaining price quotes, evaluating vendor qualifications, or defining the necessary minimum service requirements.

According to the Voinovich Center for Leadership and Public Affairs at Ohio University, effective contract management assures the community that taxpayer dollars are spent strategically and wisely. Contract management includes control over what is to be purchased, by whom, for what purpose, with what results, and at what price. The purchasing authority must be able to demonstrate consistent, fair, and objective practices, and not be subject to charges of favoritism or bias in the selection, compensation, or evaluation of service providers. Professionally developed policies and consistently applied contract administration procedures provide these assurances.

The Voinovich Center for Leadership has also identified several selection criteria that may be encompassed within bids, RFP's, and RFQ's:

- Establish qualifications as the basis for selection (e.g. number of years experience, licensed and certified);
- Specify criteria for judgment of qualification (e.g. references that resulted in positive feedback, licensed, bonded and insured);
- Provide for the publication of available work;
- Develop procedures for screening proposals;
- Require that a comprehensive agreed-upon scope of services be the basis for vendor compensation and the contract;
- Identify departmental responsibility for administering the process;
- Specify who makes recommendations and who makes final decisions; and
- Assign responsibility for contract negotiations and present to the Board for final decision.

The District is presently eligible to purchase fuel using the State contracted rate available through The Ohio Department of Administrative Services (ODAS). The ODAS Office of State Purchasing has established a formal bidding process for the purchase of fuel. In accordance with ORC § 125.04, the ODAS Director may permit a county, township, municipal corporation, or school district to participate in the contract that ODAS has negotiated for the purchase of certain supplies, services, materials, and equipment. The State negotiated rate for diesel fuel fluctuates weekly based on the wholesale rate

published in the *Oil Price Information Service*. The formula for fuel purchases offered by ODAS is based on the weekly rate plus regional delivery cost differentials and applicable taxes. The pricing for diesel fuel can be found on the general services - procurement section of the ODAS website (www.das.ohio.gov).

By monitoring local fuel prices and comparing them to the ODAS contract price, the District could avoid significant increases in cost due to fuel pricing fluctuations and help ensure fuel procurement remains cost effective. If the District chooses to use the State consortium, there will be additional cost of approximately \$110 annually. Because the District has an onsite storage tank, it should be able to meet the ODAS contract requirement for tank deliveries of 250 gallons and avoid shipping charges.

Although every bid, RFP, or RFQ will be different, depending on the product, service specifications, and scope of services, the District should work with its legal counsel to develop template language for contracts and to develop policies that address the specific elements of the selection process as outlined by Voinovich Center for Leadership and Public Affairs. By establishing and documenting specific procedures for vendor selection, the District will provide a clearer understanding of the level of responsibility in determining the best purchased service, ensure proper accountability and internal controls, and may reduce the appearance of improprieties in the purchasing process.

Financial Implication: By taking advantage of the fuel purchasing consortium available through ODAS, the District may be able to reduce its fuel expenditures to be more in line with the peer district average. Achieving fuel expenditures comparable to the peer average would result in an annual savings of approximately \$34,600.

If the District were to lower its bus insurance costs through the increased use of RFQ's or RFP's, the District may be able to reduce its insurance costs per bus (**Table 5-9**) to be more in line with the peer districts' average. Achieving insurances costs per bus similar to the peer average would result in an annual savings of \$17,400.

Operational Planning

R5.11 The District should develop a formal bus replacement plan that considers recent declines in enrollment and ridership, as well as ODE-established age and mileage replacement criteria. Furthermore, this plan should be linked to the District's five-year forecast and used to facilitate the elimination of at least two active buses and accompanying regular bus driver positions. This will better reflect Hillsboro CSD's decrease in ridership and bring its capacity ratios in line with FY 2004-05 performance.

Hillsboro CSD has not developed a formal bus replacement plan that can be linked to enrollment or ridership projections and is reflected in the five-year forecast. The District has developed an informal bus replacement schedule, but it is basic and does not formally consider the age, mileage, and cost to maintain each bus. In FY 2004-05, the District purchased six new buses and plans to purchase two additional buses each year until the fleet meets acceptable operational standards. This schedule does not specify which buses are to be replaced, does not consider enrollment/ridership fluctuations, and fails to set a formal definition of acceptable operating standards.

According to ODE, buses typically cost \$60,000 to replace and should be replaced either after 250,000 miles or 15 years of service. Furthermore, the American Public Works Association (APWA) suggests that replacement policies should consider the total cost of maintenance/depreciation, operating environment (e.g., roads, weather, etc.), fuel costs, as well as replacement funding sources. **Table 5-9** illustrates a potential replacement schedule for Hillsboro CSD, based on ODE guidelines, using the District's inventory of active buses.

**Table 5-9: Proposed Hillsboro CSD
Ten-Year Active Bus Fleet Replacement Schedule**

	Number of Buses Projected for Replacement (Age)	Number of Buses Projected for Replacement (Mileage)	Average	AOS Projected Replacement
FY 2006-07	4	0	2.0	2.0
FY 2007-08	1	2	1.5	1.0
FY 2008-09	1	0	0.5	1.0
FY 2009-10	0	2	1.0	1.0
FY 2010-11	1	0	0.5	1.0
FY 2011-12	4	3	3.5	2.0
FY 2012-13	1	2	1.5	2.0
FY 2013-14	3	2	2.5	2.0
FY 2014-15	0	0	0.0	1.0
FY 2015-16	0	5	2.5	2.0
Total	15	16	15.5	15

Source: Hillsboro LSD

Note: Schedule does not include buses purchased during the last fiscal year or the District bus which had the odometer replaced.

As indicated in **Table 5-9**, the District will need to consider replacing up to four buses during FY 2006-07 based on mileage. In order to improve routing efficiency and increase ridership capacity, however, the District should eliminate at least two active buses from the fleet immediately (**R5.8**). Buses 14 and 17 are logical choices because they substantially exceed the fleet average in both age and mileage. By maintaining a larger fleet (two active buses) than is necessary to accommodate current Type I ridership levels, Hillsboro CSD could incur approximately \$120,000 in replacement costs. Assuming this capital outlay cost and accompanying personnel costs (regular bus drivers) are included

in the five-year forecast; the District may be projecting an inflated level of expenditures, which could negatively impact its overall financial outlook.

Financial Implication: Assuming Hillsboro CSD eliminates buses 14 and 17 from the fleet, it will achieve a one-time replacement cost avoidance of approximately \$120,000. The District will also avoid about \$8,300⁵ in costs associated with maintaining and repairing these buses. Finally, reducing staffing levels by two regular bus drivers will result in annual financial savings of approximately \$67,600.

Based on the AOS replacement schedule shown in **Table 5-9**, by replacing 1 to 2 buses per year the District should be able maintain a fleet in which all buses meet ODE’s standards for both age and mileage. **Table 5-10** below illustrates the estimated annual cost to implement the replacement schedule.

Table 5-10: Projected Annual Costs of AOS Recommended Bus Replacement

	AOS Projected Replacement	Projected Annual Costs ¹
FY 2006-07	2.0	\$120,000
FY 2007-08	1.0	\$62,000
FY 2008-09	1.0	\$64,000
FY 2009-10	1.0	\$66,000
FY 2010-11	1.0	\$68,000
FY 2011-12	2.0	\$140,000
FY 2012-13	2.0	\$143,000
FY 2013-14	2.0	\$148,000
FY 2014-15	1.0	\$76,000
FY 2015-16	2.0	\$157,000
Total	15	\$1,044,000

Source: AOS Projection

¹ Assumes the cost of a bus will appreciate 3 percent annually.

⁵ Based on FY 2004-05 cost per bus. FY 2005-06 was not used as expenditures for that year included a significant number of one-time expenditures.

Financial Implication Summary

The following table lists annual and one time cost savings and implementation costs assuming the recommendations are implemented for FY 2007-08. For the purpose of this table, only recommendations with quantifiable impacts are listed.

Summary of Financial Implications for Transportation

Recommendation	Estimated One-Time Cost Avoidance	Estimated Annual Cost Savings	Estimated One Time Implementation Costs	Estimated Annual Implementation Costs
R5.4 Eliminate High School Busing		\$182,288		
R5.7 Eliminate mandatory six hour workday		\$64,000		
R5.8 Route Planning Software		\$47,300	\$25,000	\$4,200
R5.10 Improve Fuel Purchasing Practices		\$34,600	\$110	
R5.10 Improve Insurance Purchasing Practices		\$17,400		
R5.11 Eliminate Two Bus Routes	\$120,000	\$75,900		
R5.11 Replace approximately 1-2 buses per year				\$70,000
Total Annual Financial Implications	\$120,000	\$421,488	\$25,110	\$74,200

Source: AOS Recommendations

Appendix 5-A: Summary of Objectives for the Transportation Section

The following questions were used to evaluate the transportation operation in Hillsboro CSD:

- Do the District’s transportation policy and procedures lead to the effective and efficient provision of services that meet the needs of the community?
- How does the District’s “yellow bus” service compare with peer districts and industry benchmarks?
- How do the District’s expenditures and cost ratios compare with peer districts?
- Does the District have adequate controls over reporting transportation data, securing physical assets and procuring transportation-related items?
- Is the District effectively and efficiently maintaining and managing its fleet?
- Is the District providing special needs transportation in an effective and efficient manner?

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Technology

Background

This section focuses on information technology (IT) functions in the Hillsboro City School District (Hillsboro CSD or the District). **Appendix 6-A** provides a summary of the audit objectives for the **technology** section. The District's operations have been evaluated against best practices and operational standards from the International Society for Technology Education (ISTE) and the Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), as well as other recognized best practices. In addition, Type 1 rural districts¹ with similar demographics, high Ohio Proficiency test scores, and low per-pupil expenditures were used as peer districts for comparison purposes.²

Organizational Function

The Hillsboro CSD Technology Department supports the District's instructional and administrative technology needs by implementing the Technology Plan, arranging technology-related professional development opportunities, providing technical support, implementing and planning for hardware and software, and providing maintenance and support for hardware, software, and network resources, including faculty, administrators, and students.

Hillsboro CSD developed a three-year Technology Plan for FY 2003-04 through FY 2006-07 based on eTech requirements. The plan includes District educational and operational goals and strategies, and addresses areas such as software, professional development, staffing, network infrastructure, and curriculum standards for technology. A committee comprised of the Technology Coordinator, administrators, and teachers developed the Technology Plan. It should be noted that the Technology Plan was not subject to approval by the Board of Education (Board) [See **R6.1**].

Organizational Staffing

In FY 2005-06, the District's Technology Department consisted of a Technology Coordinator, who reports to the Superintendent, two technicians, and a technology aide, all of whom report to the Technology Coordinator. The Technology Aide resigned in October of 2005 and was not

¹ As categorized by the Ohio Department of Education.

² The ten districts used for peer comparisons include Celina Local School District (Mercer County), Garaway Local School District (Tuscarawas County); Indian Valley Local School District (Tuscarawas County), Leipsic Local School District (Putnam County); New London Local School District (Huron County), New Riegel Local School District (Seneca County); Ridgewood Local School District (Coshocton County), Southeast Local School District (Wayne County), Springfield Local School District (Mahoning County); and Symmes Valley Local School District (Lawrence County).

replaced due to budgetary constraints. In addition to technology staff, each school building designates a contact who provides minimal technology support and on-site assistance at the Technology Department's direction. According to the Technology Coordinator, the building contacts perform very little technology-related work, but provide a quick response to assist users in resolving high-level problems with hardware or software.

Summary of Operations

Hillsboro CSD has an appropriate overall allocation of computer hardware throughout the District. The District has over 2,700 users accessing the network, including students as well as instructional, administrative, and most support staff. The District maintains a student to computer ratio of 4:1 which exceeds the recommended average of 5 students per computer. The one exception is Main Street Primary, (which houses kindergarten and part of the first grade) which has a student to computer ratio of 7:1.

The Technology Department receives software and technical support from the Miami Valley Educational Computer Association (MVECA), the District's Information Technology Center (ITC). The software and support functions accessed through MVECA include the following:

- Electronic grade book and other student-support software programs;
- Internet connectivity, maintenance and network support;
- Library automation through the INFOhio system; and
- Support software for human resources and fiscal reporting (EMIS³, USAS⁴, and USPS⁵).

The District uses email, intranet sites, and the internet to assist with communication. Building principals use email as a means of communication with staff and teachers and encourage teachers to do the same. The intranet provides a portal for faculty, students, and parents to access an electronic grade book in which teachers post grades and parents have the ability to review their child's progress. Moreover, the Technology Coordinator is responsible for updating information on the District's website, which contains a school calendar, a directory of phone numbers, and information concerning Board members and administrators.

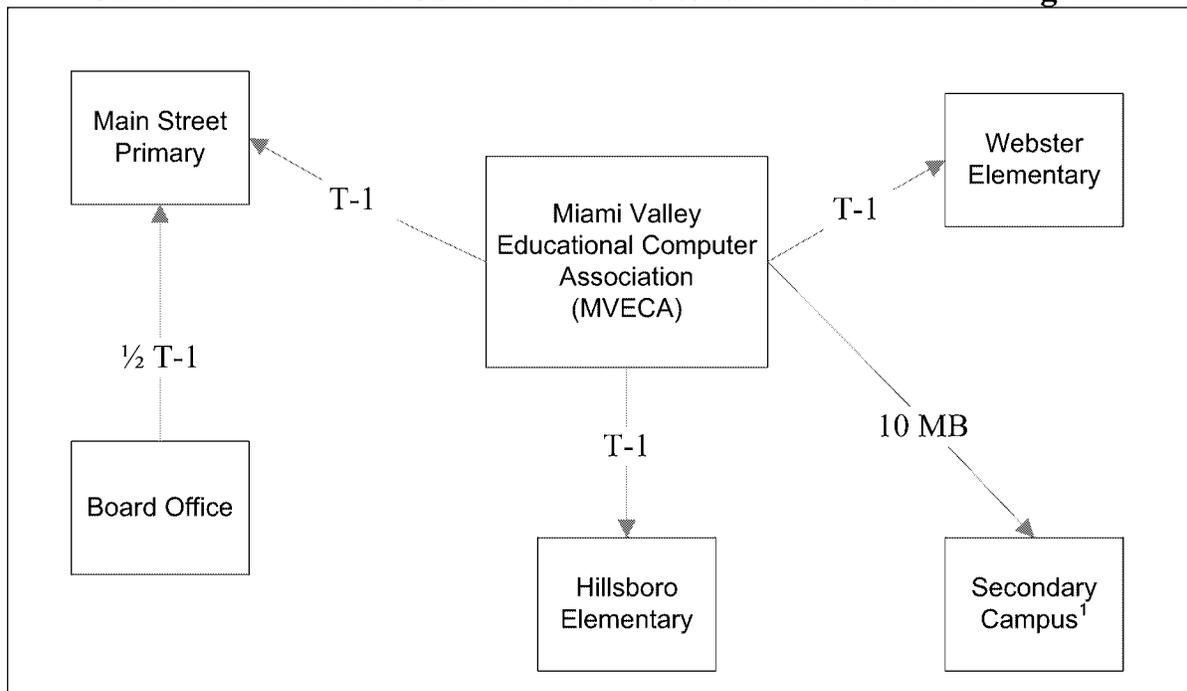
³ EMIS, the Educational Management Information System, is a statewide data collection system for Ohio's primary and secondary education that captures information about demographics, attendance, course information, financial data and test results

⁴ USAS, the Uniform School Accounting System, is used to process and track the accounting activity within a school district.

⁵ USPS, the Uniform School Payroll System, is used to perform three primary functions, including payroll processing, internal reporting (including things such as generating personnel records used by Human Resources, attendance records, and setting up new employees), and EMIS report generation.

Hillsboro CSD's Wide Area Network (WAN) diagram is shown in **Chart 6-1**.

Chart 6-1: Hillsboro CSD FY 2006-07 Wide Area Network Diagram



Source: Hillsboro CSD Technology Coordinator

¹ The secondary campus consists of Hillsboro Middle School and Hillsboro High School

In FY 2005-06, Hillsboro CSD connected its five school buildings⁶ and the Board Office to MVECA using T-1 lines. During FY 2005-06 the District upgraded the T-1 line at the High School/Middle School to a 10 MB line. The Board Office is not connected to MVECA. Rather, it is connected with a 0.5 T-1 line⁷ to Main Street Primary (that is then connected to the District's technology support site). Due to the closing of Washington Middle School, the District maintained only three individual T-1 lines and one 10 MB line for FY 2006-07. Throughout the school construction project, connectivity will not be interrupted because lines supporting new buildings will be put in place before the District dismantles T-1 line connectivity and replaces it with higher bandwidth lines (see **R6.5**). According to the Technology Coordinator, the only interruption may occur when switches are connected.

⁶ Due to their close proximity, Hillsboro High School and Hillsboro Middle School are shown as a single location in **Chart 6-1**.

⁷ A 1/2 of a T-1 line has the ability to communicate half as much information per second as a T-1 line. Where a t-1 line communicates 1.4 Mbps/second, a 1/2 of a t-1 line communicates 750 Kb/second.

Recommendations

R6.1 Hillsboro CSD's Technology Plan should be supported with a technology budget and should be approved by the Board to ensure that it is fully implemented. The District should set forth goals, strategies, and appropriate measures to integrate both the academic and operational aspects of the Technology Department. During this process, the District should develop a formal policy that limits reliance on the use of one-time or unpredictable revenues in order to meet on-going Departmental needs (see R2.8).

In FY 2004-05, the District developed an IT plan. However, the District's goals have not been implemented according to its own planning methodology.

The IT plan was developed by the Technology Coordinator in accordance with standards established by eTech, a national leader in educational technology access and integration, whose mission is to improve education and accelerate the learning of Ohioans through technology. eTech standards were designed to assist school districts in planning for current and future technology purchases. The District's plan included input from a select group of teachers and administrators but was not subjected to Board approval. Moreover, the Technology Coordinator did not seek input from external stakeholders.

The Technology Plan includes general goals and strategies that are common among school districts. In the plan, the District sets forth the following six goals:

1. Technology should be used to support standards-based learning.
2. Develop 21st Century Skills,⁸ which include proficiency in science, technology, culture, as well as increased knowledge of core subjects.
3. Technology should assist with educational systems improvements.
4. By 2005-06, all students will be taught by instructional staff that meet Ohio's definition of 'highly qualified.'
5. By 2005-06, student, parent, and community stakeholders will be satisfied with the education of students in the District.

⁸ 21st Century Skills are defined as the skills necessary to allow a student to thrive in the Digital Age and are derived from the work of the 21st Century Workforce Commission. Within the classroom, 21st Century Skills are interdisciplinary and fall under the broad scope of digital age literacy, effective communication, inventive thinking, and high productivity.

6. To increase the use of research-based strategies in instruction to help all students reach high expectations so that by 2013-14, all students will reach high standards, at a minimum attaining proficiency or better in reading/language arts, mathematics, and science.

The existing goals focus on the integration of technology in the classroom. The District plans on achieving these goals by aligning curriculum with both State content standards and technology standards. Furthermore, the District will use scientific research assessment tools to track individual student progress, including an online grade book and professional development for administrators, teachers, and other instructional staff. The implementation of a District-wide Data Team will allow the District to centralize data collection and monitor progress toward achieving its goals. The IT plan is broken into the following six phases:

- I. **Initiate Planning:** Addresses the current climate of the District and communicates the mission and vision statement of the Technology Department.
- II. **Assess the Current Status of Educational Technology:** Discusses the skill level of students and staff, suggest ways to close the technology gap, and map the integration of technology in the curriculum. Moreover, this phase considers the technology inventory of the district and reports its network capabilities.
- III. **Develop Goals and Identify Strategies:** Aligns technology skills with six implementation strategies: aligned curriculum, assessment, data collection and analysis, professional development, online grade book, and by using technology to impact the quality, content, and structure of teaching and learning.
- IV. **Develop Action Plans and Identify Support and Staffing:** Develops action steps and benchmarks to guide the District and set forth a time frame for implementation of goals and performance indicators.
- V. **Develop a Budget and Identify Funding Sources:** Sets forth an itemized three-year budget and identifies funding sources for technology initiatives.
- VI. **Develop a Monitoring, Evaluation, and Revision Process:** Establishes steps to monitor the action plan, evaluate the impact of the plan, and assess staff implementation of the plan.

In practice, the District has not fully enacted each phase of its IT plan. For example, phase V of the IT Plan requires the District to determine a budget and identify funding sources. The Technology Coordinator indicated that the budget was developed at the direction of the previous administration and reflects, in her judgment, the amount of

revenue needed to allow the District to upgrade and replace its existing computer systems. However, the Technology Coordinator feels the \$1,236,000 technology budget in the FY 2004-05 to FY 2006-07 IT plan is unrealistic. The Coordinator believes the amount spent on technology during this time period will be significantly less because the District lacks a formal technology budget and does not track technology related expenditures. Consequently, the District is unlikely to achieve the goals outlined in the IT plan. Similarly, the District has not developed performance measures to monitor progress in achieving its goals. For instance, it is unable to track expenditures for technology-related activities because it has not organized the USAS accounting categories for this purpose (see **R6.2**). Historical expenditure data is also necessary for creating realistic future budgets.

The District's goals are not supported by specific action steps and do not include resource allocations to achieve IT-related goals. Therefore, the Technology Plan may not be fully funded and implemented. Moreover, the Technology Plan does not take into consideration operational goals aimed at calculating the total cost of ownership, creating an equipment disposal or donation policy, or replacing computers on a regular basis. These are important factors the existing Technology Plan fails to consider.

According to OPPAGA, a district should have a board-approved technology plan that provides direction for administrative and instructional technology decision making by addressing individual school technology needs, resource allocations, funding, professional development for users, technical support, infrastructure and network communication, and information management and delivery. Moreover, OPPAGA suggests districts solicit and employ broad stakeholder input in developing the technology plan. The plan must have goals and objectives that are measurable and operational.

While eTech requires each district to create a plan, it does not require Board approval. In addition, due to the District's current financial status, the administration has placed a low priority on achieving the goals and objectives outlined in the IT plan. As a result, implementation of the plan has been inconsistent and lacks key components such as dedicated financial resources, community participation, and staff support. Without a firm commitment of resources, the Technology Coordinator does not have any financial parameters to guide spending on software and peripherals.

During the audit period, District administration has worked to more fully implement the plan by instructing the Technology Coordinator to replace ink jet printers with more efficient laser jet printers, deciding to set forth a technology budget for the upcoming year, and setting aside technology grant funding for technology purchases.

In order to build a successful Technology Plan, the District needs to implement a strategic planning framework that includes resource allocation as a part of its action steps and is supported by the administration, board, and all levels of stakeholders. Subjecting the IT plan to Board approval will encourage the District to fully enact the plan. By not including broad stakeholder involvement, the District overlooks an opportunity to engage the public and users in the discussion. The vision of the Technology Plan must be shared with the Hillsboro CSD community and the Board to ensure it receives the full support of District decision-makers and taxpayers. Collaborative input from the Board, administration, teachers, community, and business leaders with expertise in the field will provide the community greater ownership in the District's Technology Plan.

R6.2 Hillsboro CSD should calculate the long-term costs incurred over the life of an asset in order to make decisions about the purchase and replacement of equipment. This should be based on a cost/benefit analysis of ongoing maintenance costs versus capital outlay costs. Furthermore, the District should track technology expenditures through the Uniform School Accounting System (USAS) by using a District-assigned special cost center.

The District's technology planning process fails to account for the total cost of ownership (TCO), which is the direct and indirect cost incurred throughout the life cycle of an asset. After the initial purchase, the Technology Coordinator attempts to track on-going costs by comparing costs incurred during one school year (from requisitions) with those of previous years. The Technology Coordinator then tries to predict technology expenditures for the upcoming year. As a result, the calculation of ownership costs does not include factors such as procurement costs (bids and contracts), original equipment costs, and support service costs. Further, available cost calculations cannot be used for specific purchasing decisions as they do not reflect the cost of upgrades or repair. For example, in 2004 the District implemented an I/P telephony system at the new elementary school. Without a complete understanding of costs, the past administration refused a maintenance contract on the state-of-the-art telephone system. Subsequent system failure left the District without service for days, resulting in significant costs related to lost productivity.

Finally, the District does not track costs on a per machine or purchase year basis, or by hardware and software type. Further complications arise from the lack of a formal computer replacement policy (see **R6.10**). According to several district staff, technology expenditures were not available from the District because there is not a dedicated Uniform School Accounting System (USAS) function code for technology expenditures. During the course of the performance audit, the District was unable to produce financial reports that isolate technology expenditures.

According to *Twelve Steps to Trimming Your TCO* (2001), the single biggest mistake most schools make is not planning ahead and budgeting adequately for the replacement of obsolete equipment. It costs more over time to use older and ailing machines than it would to replace them at regular intervals, once the cost of replacement parts, labor, and the loss of instructional time are factored in. Likewise, a district can use the total cost of ownership (TCO) to account for the costs of professional development, maintenance, operations and administration, hardware, software, replacements, upgrades, and retrofitting. Simply looking at the initial cost of hardware, software, and peripherals considers only about 30 percent of the total cost of ownership.

By tracking expenditure information, District officials could have an accurate understanding of all technology costs. While there is not a specific function code, USAS can be used to track similar expenditures that do not have a dedicated code through the creation of a special cost center (SCC). According to the USAS User Manual, a special cost center tracks receipts and expenditures associated with individual activities that are part of a multi-purpose program and are time or event dependent. The assignment of special cost centers is the responsibility of each district.

This information could be used to create a technology budget (see **R6.1**) and track technology expenditures. Since the District cannot calculate TCO, purchasing decisions are made without adequate consideration of long-term costs. Moreover, the District is unable to budget effectively because it cannot track past costs. Without a budget, the District is unable to forecast future technology expenses, which are necessary for a strategic plan to proactively allocate resources and achieve District goals.

R6.3 Hillsboro CSD should develop a formal technical support plan comprised of documented policies and procedures for regular, systematic, and equitable prioritization of technical support. The District should also implement a more efficient electronic work order system to track and follow-up with work orders. Moreover, the electronic work order system should allow the Technology Department administer automated customer satisfaction surveys on an ongoing basis to District staff.

A primary function of the Technology Department is to offer users on-going technical support. The District has been unable to solve problems within a time frame that meets client expectations. This is largely due to its maintaining a high computer to technician ratio. Based on information obtained from the District's BETA survey, Hillsboro CSD maintains a technology personnel to computer ratio of 1:385. The District does not have an electronic centralized work order system, which complicates the tracking of trouble tickets, nor does it have a help desk to provide immediate technical support. Instead, the District uses a time-intensive, paper-driven work order system to track technology-related issues. A District staff member needing technical support can call the Technology

Coordinator, report a work requisition via email, or use inter-school mail to submit a paper work requisition. Once submitted, a triplicate carbon copy form is filled out by the Technology Coordinator for tracking purposes. In addition to submitting a problem directly to the Technology Coordinator, the Technology Coordinator indicated that teachers frequently stop technicians and informally ask them for support. Technicians typically provide teachers with a work requisition form. If the technicians do not have blank forms, they write down necessary information on a notepad. However, some faculty and staff insist upon immediate assistance. When this happens, the technician bypasses the work order system and provides on the spot assistance.

The paper work order system hinders the Technology Department's ability to respond in a timely manner, due to the time delay that occurs after the work order is submitted and before it is picked up by technology staff. Furthermore, a paper driven system lacks the functionality common to many current electronic systems. **Table 6-1** details the number of days it takes a teacher to receive technical support:

Table 6-1: Number of Days to Receive Technical Support

	Hillsboro CSD	Similar Districts	State Average
Same day	19%	22%	26%
Next day	19%	25%	23%
Two to three working days	38%	28%	25%
Four to five working days	11%	10%	9%
More than five working days	10%	13%	13%
Does not apply	3%	2%	3%

Source: 2006 Teacher BETA Survey

As shown in **Table 6-1**, 19 percent of District teachers receive same day technical support, compared to 22 percent of comparable districts and the state average of 26 percent. Moreover, 59 percent of District teachers receive service in two or more working days, compared to the comparable district and state averages of 51 and 47 percent, respectively. As a result of the high computer to technology personnel ratio, teachers are likely to wait longer than one day for problems to be resolved.

The Beta survey is the primary means by which the Technology Coordinator receives feedback on customer satisfaction and technology support effectiveness. The BETA Survey is comprised of three parts - district, building, and teacher surveys - that collect school district self-reported data regarding technology accessibility and use. The teacher survey explores teacher and student use of technology through professional development, leadership contributions to technology, technology use in instruction, technology to manage classes, and technology support. The building survey reports technology resources available at each building. Topics covered in this section include building contacts, building statistics, building technology, access to technology, and computer inventory. However, because this survey is conducted on a biennial basis, it does not

provide feedback in a sufficient, timely manner to make incremental operating improvements. Moreover, the work order system fails to provide timely feedback.

Electronic work order systems are often capable of automating task prioritization, maintaining an on-going and accessible machine problem history, and summarizing problem resolution staff time or timeliness. This data can typically be presented in various formats. Furthermore, some systems incorporate a customer satisfaction survey feature after a problem has reached resolution. The *Technology Support Index* (International Society for Technology in Education 2006) notes that quality assurance should be measured by a random and automatic system, which tracks customer satisfaction and closed work tickets. Data should be collected throughout the year based on questions specific to technical support and information gathered can be used to make adjustments. The Technology Department could measure the satisfaction of its clients by sending an automated email survey after technical assistance is provided to staff and teachers.

An electronic trouble-ticketing system would allow the District to conduct quality assurance checks through a random and automatic system that measures the performance of its technicians, the reliability of its system, and feedback from clients. This, in turn, would allow the Technology Department to make incremental operating improvements over time.

The Department could potentially respond more effectively to the needs of teachers and administrators by measuring performance more frequently than bi-annual BETA Surveys. The Technology Department's inadequate technology support is, in part, caused by its inability to effectively allocate its financial and staffing resources, due to inadequate operational feedback mechanisms. Insufficient technology support can result in administrative or instructional operating disruptions and productivity losses. Furthermore, if teaching staff perceive unreliable access, technology may not be fully incorporated into the curriculum; and may, therefore, impact the quality of education.

Most electronic-trouble ticketing programs also include asset management components. This would allow the District to maintain an inventory of all software programs loaded on each computer. Moreover, this software would allow the Technology Coordinator to load new software, or software patches, on one computer that would then be distributed to other computer nodes.

Financial Implication: Implementing an electronic trouble ticketing system would result in a one-time cost of \$1,750 per technical staff, for a total cost of \$5,250. The technical support required with this purchase is 20 percent of the one-time fee, or \$1,050 annually. The technical support fee provides technicians live support via telephone, unlimited service requests, remote diagnosis and annual maintenance and version upgrades.

Moreover, the District would be required to purchase annual site licenses for its computers; an unlimited site license would cost the District \$1,495 annually.

R6.4 Hillsboro CSD should allocate additional resources to the technology support function. The District should pursue low-cost strategies, such as training and utilizing students to help provide support to faculty and staff. When financially feasible, the District should increase Technology Department staffing by 1.0 FTE.

The District has not allocated sufficient resources to the technology support function. District technology staff must provide technical support for 769 computers. In effect, the District maintains a ratio of 385 computers per technical staff FTE. In contrast, the ISTE Technology Support Index recommends a technician staff to computer ratio of 1:75. The District's technology staff maintains almost five times as many computers per FTE. As a result, the Technology Department has been unable to provide adequate service levels.

Furthermore, the District has reduced technology staffing levels. Prior to October 2005, the District employed a technology aide who answered the telephone and provided the initial point of contact for staff needing technical support. Since the elimination of that position, the Technology Coordinator has assumed some of the Technology Aide's responsibilities including; acting as the District's initial point of contact when administrators, teachers, and support staff phone in work orders, becoming responsible for creating and maintaining an annual inventory of the District's hardware, and entering information regarding work orders onto a spreadsheet. While the District's fiscal condition limits its ability to allocate resources to technology support, it has not used low cost strategies to improve technical support staffing, such as employing student aides to supplement technology staff.

Table 6-2 illustrates the individuals who provide teachers with formal and informal technical support.

Table 6-2: Individuals who Provide Teachers with Technical Support

	Hillsboro	Comparable Districts	State Average
Technology Coordinator or Technician	89%	93%	91%
Student	19%	26%	19%
Another teacher	41%	52%	52%
Myself	36%	47%	43%
Other, or does not apply to me	5%	4%	5%

Source: 2006 BETA Survey

Table 6-2 indicates 89 percent of teachers receive technology support from the Technology Coordinator or technician compared to 93 percent of teachers in comparable districts or 91 percent of the state average. In contrast, just 19 percent of Hillsboro

teachers rely on students, compared to 26 percent of teachers in comparable districts. However, these figures are misleading as a lower percentage of Hillsboro teachers rely on student support because software is not integrated into the classroom on a regular basis (see **R6.11**). Consequently, students are providing ad-hoc support without professional guidance.

According to the *Technology Support Index* (International Society for Technology in Education, 2006), school districts should design curricular programs to train students in technical support by allowing them to provide peripheral support. In a FY 2002 National School Boards Foundation survey, more than half of school leaders reported that students are providing technical support in their districts by performing technical maintenance, setting up equipment and wiring, and troubleshooting problems. These leaders also reported that they provide formal support training to students.

Training students in technical support provides a mutually beneficial program for the District and its students. It prepares students for careers in technology and educates them in technology support and deployment. Furthermore, it allows the District to use low-cost resources for some of its technology support needs while creating an opportunity for the District and students to work toward mutual goals in the venue of technology use and support activities. Over time, a student technical support program would make Hillsboro LSD students more marketable after graduation by providing experience and technical training that they would not receive through the core curriculum. E-Tech Ohio developed an online database containing field-proven technology support models using students from 30 school districts. Stow-Munroe City School District, Tallmadge City School District, and Woodridge Local School District were early implementers of the All Student Systems Interns Supporting Technology (ASSIST) program. From the District's perspective, a student-based technical support program would serve to provide competent technical support while allowing it to reduce labor costs.

Fewer technicians results in teachers seeking assistance outside the Technology Department. One of the dangers associated with an individual providing ad hoc support is that they may not be proficient with the technology. This could compound the problem and make the job of technical staff more difficult and time consuming.

An additional technical employee could absorb some paperwork and assist existing technology staff with technical support. The addition of technology support staff would allow the Technology Coordinator to focus attention on the overall management of the Department, rather than answering phones and assisting with minor technical questions. Currently, larger administrative tasks with a long-term focus are subjugated to the priorities of the moment. For instance, the spreadsheet that tracks work orders is not up-to-date and the annual inventory was not completed this summer. While these tasks may

not be urgent, they are important for the administration of an effective and efficient operation.

Financial implication: Based on the analysis presented above, the District should increase staffing by 1.0 FTE. Hiring an additional technician or technology aide would cost the District approximately \$29,100 per year in salary and benefits.

However, the District could avoid these costs while still improving service levels by creating a student technical support program. If the District were to pursue a student technical support program, students could provide technical support for no cost and training could be integrated into the District's educational curriculum. The District might incur costs for training materials, but these costs would vary based on the program the District chooses to implement.

R6.5 Hillsboro CSD should consolidate its network lines in order to achieve cost-effective connectivity. The District should strongly consider redirecting its resources by considering the short and long-term costs associated with implementing different connectivity scenarios. When the District's building projects are complete in FY 2009-10, it should consolidate its network lines by centralizing Hillsboro Elementary School and the future secondary campus on the District's existing 10 megabyte line. Furthermore, the District should continue to connect the Board Office using a 0.5 T-1 line.

The District's wide area network uses a combination of T1 lines and 10 MB lines. Each building is directly connected to the District's Technology Center, MVECA, and all school buildings, except the High School and Middle School, are connected to MVECA with T-1 lines (see **Chart 6-1**). During the FY 2005-06, the District discovered it lacked sufficient bandwidth at the High School and Middle School when the Distance Learning system⁹ caused the entire building to lose internet connectivity. Subsequently, the District replaced a T-1 line (1.5 MB) with a 10 MB line, which has nearly seven times the capacity.

Table 6-3 illustrates the internet connectivity fees incurred by the District in FY 2005-06.

⁹ A distance learning system is a formalized teaching and learning system designed to be carried out remotely using electronic communication including voice-centered technology, video technology, or computer-centered technology.

Table 6-3: Hillsboro Connection Costs

Type of Line	Number of Lines	Actual Monthly Cost per Line	Monthly Cost per Line Incurred by District ¹	Annual Cost of Lines Incurred by District
Board Office Line	1	\$282	\$282	\$3,384
IP Connection T-1 Line	3	\$919	\$349	\$12,564
ATM Connection T-1 Line	2	\$848	\$322	\$7,728
10 Megabyte Line	1	\$1339	\$509	\$6,108
Total	6.5	\$3,388	\$1,462	\$29,784

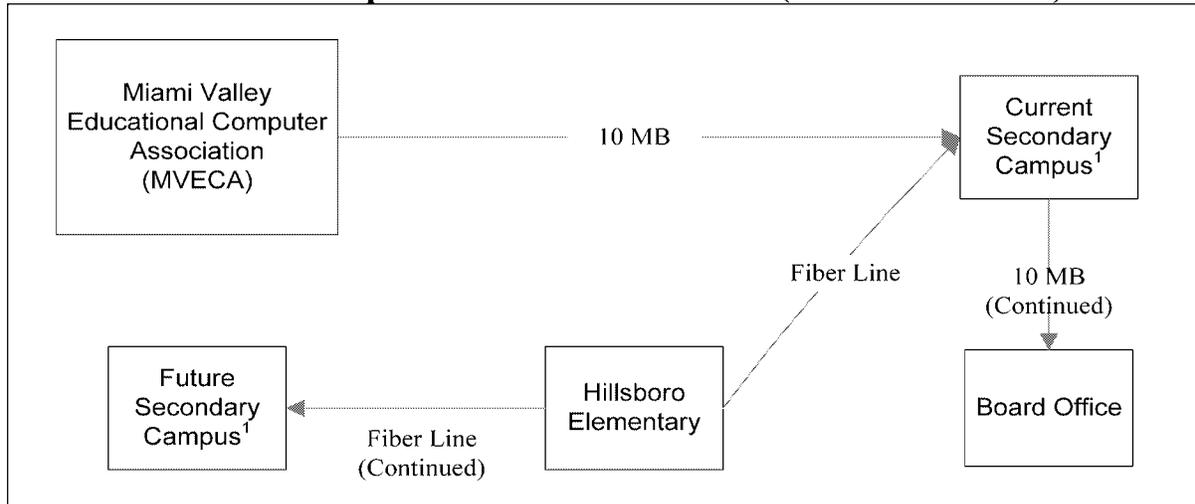
Source: MVECA Director of Operations

¹The cost of internet connectivity for educational buildings is discounted 62 percent by eRate; the cost of the T-1 line at the Board Office is not discounted.

As illustrated in **Table 6-3**, the District spent \$29,784 in FY 2005-06 on internet connectivity fees. However, both the Technology Coordinator and the Director of Operations at MVECA believe the District could centralize operations on the 10 MB line. This would enable the District to save approximately \$23,600 annually from direct building access to MVECA by not paying the reoccurring fees associated with each T-1 line. However, the District has not chosen the final network configuration it will use as construction is still in the planning phases.

Chart 6-2 depicts the District’s proposed Wide Area Network, beginning in FY 2007-08. This configuration will remain in effect until the District finishes construction of the new secondary campus in FY 2009-10.

Chart 6-2: Proposed Wide Area Network (As of FY 2007-08)



Source: Derived by AOS

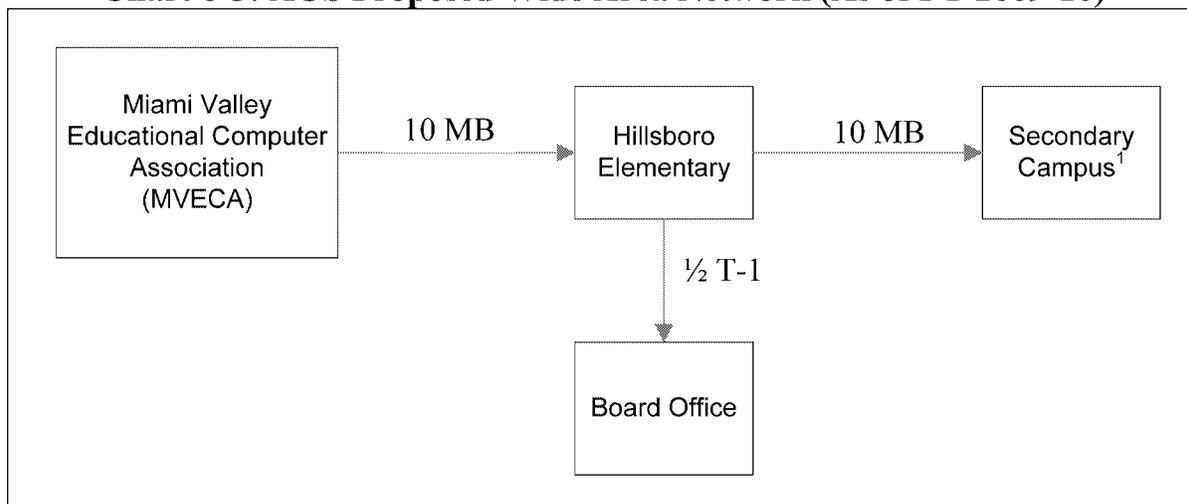
¹ The Current Secondary Campus refers to the existing high school and middle school buildings.

As **Chart 6-2** illustrates, the District could support internet connectivity through its existing 10 MB line. A fiber line, which has greater bandwidth than the 10 MB line, would connect Hillsboro Elementary School and the planned High School and Middle School campus. According to *Taking TCO to the Classroom* (the Consortium of School Networking, 2001), a TCO-savvy district ensures its network provides enough bandwidth to manage current and future needs. According to the Technology Coordinator, the 10 MB line would supply the District with ample bandwidth. However, the District's network plans involve significant capital outlays for fiber lines to a facility that will be closed beginning in FY 2009-10.

The Technology Coordinator received several quotes detailing costs associated with a fiber optic line. The least costly estimate of approximately \$34,700 took into account the one-time cost associated with laying the line and probable annual upkeep fees.

T-1 and 10 MB lines have no upfront costs and require no long-term commitment as they are "rented" from third parties. **Chart 6-3** presents an alternative network configuration beginning in FY 2009-10 based on this premise.

Chart 6-3: AOS Proposed Wide Area Network (As of FY 2009-10)



Source: Derived by AOS

Chart 6-3 illustrates that the District could connect the new high school and middle school building to the existing elementary school building and then to MVECA. Furthermore, as there is still uncertainty as to the location of the Board Office in FY 2009-10, the District can maintain current connectivity or relocate its offices to new facilities.

Table 6-4 illustrates the costs associated with the District's planned network configuration and the proposed configuration:

Table 6-4: Cost Analysis of Proposed Network Configurations

	One-time Costs	Annual Costs	Total Costs
Hillsboro Proposed Configuration			
10 MB Line		\$6,100	\$6,100
<i>Fiber Line</i>	<i>\$34,700</i>		<i>34,700</i>
Total			\$40,800
AOS Proposed Configuration			
10 MB Line		\$6,100	\$6,100
<i>½ T-1 Line</i>		<i>\$3,400</i>	<i>\$3,400</i>
Total			\$9,500

Source: MVECA Director of Operations, AOS

The District's proposed configuration involves a higher upfront investment for the installation of a fiber line. A net present value comparison, assuming a 6 percent cost of capital and a five year period, indicates that the District's proposed configuration has a net present value cost of \$60,396 while the proposed configuration has a net present value cost of \$40,018. Over a 10 year period, the net present value comparison holds true. Perhaps more importantly, the proposed configuration does not rely on facilities expected to be closed and allows greater flexibility in future operations. The District should take into consideration long-term assumptions about technology that do not necessarily hold true.

R6.6 As part of a capital improvement plan (see R4.9 in the facilities section) Hillsboro CSD should implement a formal IT capital planning and acquisition process. This process should be characterized by a central decision making function within the Technology Department that solicits administrative and instructional staff input. Furthermore, technology capabilities and compatibility should be communicated to staff so they can make requests for administrative or instructional software that is in line with existing technology. Finally, the IT capital planning process should be fully incorporated into a District-wide technology budget (see R6.1).

The District does not have formal policies pertaining to Technology Department purchases. For example, it does not have a purchasing policy that governs hardware and software purchases and the IT capital purchasing practices are not coordinated and do not ensure the communication of needs between staff and decision-makers. Beginning in FY 2006-07, Hillsboro CSD revised its purchasing procedures for staff-initiated requests. Teachers were given the option of filling out electronic requisitions or submitting paper requisitions to the building principal. In the past, the District required that teachers fill out a form if they wanted to have instructional software purchased or installed on computers. The request for software required teachers to state why the software was needed and to

justify the integration of the software with curriculum standards. Subsequently, the Technology Coordinator and Curriculum Director were required to sign the form, indicating that the software would work with the system and align with curriculum standards. The past Treasurer flagged requisitions that were technology-related and did not already have the approval of the Technology Coordinator, thus making the Coordinator an integral part of the technology purchasing process. This revised purchasing process does not require the Technology Coordinator to be notified of any technology related requisitions. In the past, some teachers have bypassed the Technology Coordinator and purchased unnecessary duplicates of educational hardware. For instance, a teacher ordered a single copy of an educational software program when the District had already purchased multiple copies.

Not only do staff-initiated requests fail to solicit the comprehensive viewpoint of the Technology Department, but centralized District-wide purchasing decisions fail to adequately solicit end-user input. When purchasing hardware, the Technology Coordinator searches for the best price using internet technology consortiums and manufacturers' websites. Prior to making large technology investments the Technology Coordinator does not consult with community experts, excluding their input and advice. By comparison, the Olentangy Local School District created a Technology Acquisition Subcommittee comprised of community members with expertise in different areas of technology (network design and engineering, video, voice, data consulting, software design, and general IT) to help examine the District's processes and improve technology implementation. The Subcommittee offers a sounding board for questions, helps with development and implementation, and studies processes to look for areas of improvement. The Technology Coordinator indicated that individuals at the nearby community college possess this type of expertise and could provide a sounding board.

According to *Annual Technology Purchasing Forecast* (Quality Education Data, FY 2004-05), districts are generally moving to more centralized purchasing. Less than 20 percent of nationally surveyed school districts reported that buildings purchase technology autonomously. Moreover, *Thirteen Tech Support Strategies* (Henderson, 2005) suggests school districts assign a point-person to examine every purchase order for equipment and software before it leaves the district in order to enforce hardware standards and ensure all purchased software will run properly. Furthermore, *Best Practices for School District Technology* (OPPAGA, 2002) recommends major purchasing decisions reflect the consideration of numerous resources including the strategic technology plan, the results of research, evaluation of previous decisions, opportunities for district personnel to preview, evaluation and recommendations of technology personnel, and the establishment of standards for acquiring technology.

Seven Cost-Saving Strategies for the IT Funding Crunch (Natsu, 2005) asserts that schools with standardized computer systems can save money and resources by cutting

down on IT support and computer training costs. When everyone is working with the same software, it increases productivity between users, simplifies licensing, and makes training easier. Moreover, OPPAGA suggests that districts provide opportunities for school personnel to preview, evaluate, and recommend acquisition of technology strategies, instructional materials, and software piloting. Another component necessary to maintain standardized computer systems is the development of computer donation and disposal policies (see **R6.10**).

Without appropriate planning and oversight, the District risks implementation problems that could increase costs, delay the intended technological situation, and adversely impact other users of the network. For example, Olentangy Local School District had significant bandwidth issues for nearly a year because it failed to conduct research such as piloting software before implementing it district-wide.

The centralization of purchasing functions will allow the District to function in a more efficient manner by avoiding the purchase of duplicate software and software that is not supported by hardware. Furthermore, soliciting end user input will allow IT purchases to be more effective as user needs are better incorporated into purchasing decisions.

R6.7 Hillsboro CSD should align hiring qualifications with those set forth for technical employees by the U.S. Department of Labor. The District's technology staff should attend professional development programs on a regular basis to stay current with ever-changing technology. In particular, the District should provide funding for technology staff to attend training on the use of a remote network management program, which the District has already purchased.

The District does not require Technology Department staff to participate in professional development programs. According to the Technology Coordinator, the District seeks external professional development opportunities on a limited basis due to budget constraints. For example, in 2005 Technology Department employees received professional development through Southwestern Ohio Instructional Technology Association (SOITA). Additionally, the Technology Coordinator has attended professional development programs on internet safety.

The Technology Coordinator is A+ Certified¹⁰. In addition, the coordinator indicated that she encouraged District Technicians to become A+ Certified during FY 2006-07. However, the District did not mandate certification. Moreover, the Technology Department staff lacks common certifications. While some are pursuing associates degrees, no estimated time frame has been developed for their completion. Of the two Technicians, neither is A+ certified. While they have completed training for specific

¹⁰ A+ Certification validates a service professional's competency to support microcomputers. Certification is based on an exam that covers installation, configuration, diagnosing, preventative maintenance, and basic networking.

applications and digital media, the Technicians do not have certification for hardware and software programs with broad applicability.

The U.S. Department of Labor, Bureau of Labor Statistics has identified the following common hiring qualifications and job tasks for technical employees:

- Many employers prefer to hire persons with some formal college education (bachelor's degree in computer science or information or a computer-related associate degree).
- Certification and practical experience demonstrating these skills is essential for applicants without a degree.
- Completion of a certification training program, offered by a variety of vendors and product makers, may help some people to qualify for entry-level positions.
- Persons must have strong problem-solving, analytical, and communication skills.
- Beginning computer support specialists usually work for organizations that deal directly with customers or in-house users.
- Advances positions may use what technicians have learned from customers to improve the design and efficiency of future products.
- Some computer support specialists become applications developers, designing products rather than assisting users.
- Entry-level network and computer systems administrators are involved in routine maintenance and monitoring of computer systems.

According to the *Technology Support Index* (International Society for Technology in Education, 2006), certification of technical staff is outstanding if most technical staff receive ample training as a normal part of their employment. Technical staff should receive consistent training around emerging issues and have district-sponsored opportunities for advanced training. Furthermore, *Best Practices for School District Technology* (OPPAGA, 2002) states a district should have a process to assess the effectiveness of the professional development training it provides to ensure competency in the skills targeted.

Regardless of the IT staff's qualifications, ongoing training is required to maintain proficiency with current technologies. This may also be a mitigating strategy to address current gaps in skill sets. District personnel have sought training to become proficient

with specific programs and applications. However, the technology staff has not received training on advanced subject matter such as industry trends, programming certification, and remote management. For instance, the District does not employ network management technologies, which reduce the need for technicians to load and manage software on individual computers. The Technology Coordinator purchased software that would allow the Technology Department to take advantage of remote management;¹¹ however, staff have not received the training necessary to support its implementation.

This increased efficiency attained through remote management would benefit the District by allowing technicians to be more accessible to District users and enabling the Technology Department to manage its computers in a more efficient manner (see **R6.3**).

Low expertise and qualifications may result in lost productivity as technicians learn skills on-the-job. Furthermore, hiring qualifications from the late 1990's and a lower pay scale may prevent the District from requiring employees to have the most current job qualifications. By increasing the required skill sets for its technicians, the District could increase its productivity and expertise, thereby potentially improving the level of customer service to District employees and students. Moreover, mandating ongoing professional development within the Technology Department ensures technology employees are better able to meet the needs of the District, service users and students, and be more knowledgeable about ongoing technology advancements.

Financial Implication: The District could ensure its Technicians are qualified to provide IT support by requiring its technical staff be A+ Certified. The A+ Certification test costs \$160 per person. The cost to certify the two Technology Department staff not certified would be \$320. While the District should support additional technology training opportunities beyond certification, those costs cannot be quantified.

R6.8 Hillsboro CSD should develop written operating standards and procedures for the IT management function. This manual should include procedures as they relate to systems operations, systems development, maintenance standards, documentation standards, operations policies, replacement plans, and access security policies. As part of the standards manual, the District should also articulate a disaster recovery plan that details steps of escalation in order to prepare the District for possible disasters (see R6.9).

The District does not have a formal manual containing IT policies and procedures. In particular, the District does not have a formal equipment replacement schedule or policy.

¹¹ According to the *Technology Support Index* (International Society for Technology In Education, 2006), remote management may allow district technicians to be more productive by reducing the need to load and manage software on individual computers, thus leaving technicians with additional time to concentrate on resolving user issues and network support.

According to the Technology Coordinator, the District uses equipment until it is outdated and can no longer support software applications or until the equipment is beyond repair. In making technology-related decisions, the District relies on the expertise of the Technology Coordinator.

According to *Best Practices for School District Technology* (OPPAGA, 2002), districts should maintain a written procedures and standards manual. This manual should include procedures as they relate to the following:

- Systems operations;
- Systems development and maintenance standards;
- Documentation standards;
- Operations policies; and
- Access security policies.

The North Thurston Public Schools in Lacey, Washington developed a comprehensive technology standards manual. This manual enumerates a number of policies and standards including hardware and software standards, formal procedures for purchasing software, the district's equipment donation policy, responsibilities of support staff personnel, data backup and retention, and user responsibilities pertaining to security, internet usage, and email.

Furthermore, *Thirteen Tech Support Strategies* (Henderson, 2005) recommends that districts develop a database that stores information about every computer, software title, printer, digital camera/camcorder, scanner, PDA, TV, VCR, DVD player, network drop, and static IP address on campus. Keeping track of hardware and software is important for copyright enforcement, report generation, and most importantly, decision making (regarding purchasing).

Historically, the District has operated with informal practices that are not typically written and implemented. A lack of technology policies and procedures prevents the Department from implementing universal standards. Policies can assist the District in creating a technology budget that supports the Technology Plan. More importantly, written operating standards and procedures would mitigate the loss of "organizational knowledge" if key staff members leave the District.

R6.9 The District should develop a multi-step information technology disaster recovery plan that describes steps to take in case of a disaster. Such a plan would facilitate an effective response to information technology emergencies and reduce potential operational disruptions and data loss.

The District does not have a disaster recovery plan for its information technology function. Disaster recovery requires a systematic and methodical tracking of hardware, software, and key organizational functions.

According to *Best Practices* (Auditor of State, Winter 2007), disaster recovery planning is the process an organization uses to prepare for events that disrupt normal operations. A disaster recovery plan, also called a business resumption plan, incorporates the actions an organization anticipates taking when normal operations are disrupted. The main objective of such planning is to help an organization survive disaster and guide it in resuming normal business operations.

While there are countless disaster scenarios, the *Best Practices* newsletter suggests all disasters can be generalized into one of three categories: loss of information or data, loss of access, or loss of personnel.

Table 6-5 presents key elements of a disaster recovery plan.

Table 6-5: 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"> Do not 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)

Within its business plan, the City of Hillsboro has a comprehensive disaster recovery plan that includes a well-defined scope with goals, objectives, and specific steps that must be taken following a disaster. The plan enumerates a formal channel of communication and is focused on enabling the City to resume business in a minimal amount of time.

Reflective of the District's reactive stance, the District maintains its backup tapes on location, further exposing it to risk associated with the equipment's physical location. While the District has not experienced a catastrophic failure of its information technology capabilities, the potential for operational disruptions requires sufficient proactive planning (see **R6.3**). Furthermore, it requires an evaluation of the importance of certain technologies in daily operations. For instance, while instructional activities are the central purpose for the District, information technology may be more critical in administrative activities.

Without a written policy regarding disaster recovery, the District does not have an established plan in place that details the restart or replacement of the IT system. A written disaster recovery plan would allow the District to be more organized and efficient in reacting to potential disasters. The District needs to plan ahead for possible problems and know what steps to take if an issue arises.

R6.10 Hillsboro CSD should develop a formal donation policy that specifies when and what technical equipment the District will accept in the event that a community member or local business wishes to donate. The District should also develop an equipment disposal policy that describes when and how technical equipment should be disposed of in the event that a provider does not dispose of the equipment it is replacing.

The District does not have a formal donation policy to stipulate the types of hardware and peripherals that interface with existing equipment.

According to *Seven Cost-Saving Strategies for the IT Funding Crunch* (Natsu, 2005), the District should consider a donation policy that requires compatibility with the existing hardware and network, allows it to run core instructional programs, and enables access to the Internet at an acceptable speed. Furthermore, the *Technology Support Index* (International Society for Technology In Education, 2006) recommends a district only accept donated equipment if it meets specific brand, model, performance, and system requirements. Donated equipment should be less than two years old, and the district should encourage cash donations. Accepting equipment donations is a valuable tool for obtaining needed equipment in school districts with minimal funding. Therefore, an equipment donation policy is essential to ensure that donated equipment meets the needs of students and teachers and does not result in any additional software or maintenance costs to the district.

Further, the *Guide to Computer & Electronics Waste Reduction and Recycling* (Ohio EPA, 2005) recommends that facilities should consider computers and monitors hazardous unless tested and proven otherwise. According to *Disposal of Old Computer Equipment* (The CPA Journal, 2004), even a small organization may fall under the

federal requirement to document the proper recycling of all computers. The CPA Journal recommends that organizations obtain and keep written documentation verifying disposal. While computer monitors are a hazardous waste, the District should also include circuit boards and keyboards as hazardous waste and disposal of these in accordance with EPA directives.

The District is reluctant to create a donation policy because it does not want the community to perceive it to be funded at excessive levels. However, the District may benefit from such a policy for reference in conversations with community members. Without a written policy to govern computer donations, the District risks acquiring hardware that is not compatible with existing equipment. Moreover, additional systems require technicians to maintain proficiency on a number of platforms, rather than allowing them to become experts on a select number of systems.

Furthermore, without a written policy to govern computer disposal, the District fails to consider an important element of TCO -- the costs associated with the disposal of old equipment. In the past, the Technology Coordinator has avoided those costs by selling old machines in a gymnasium sale. However, the District should still develop a policy outlining the legal disposal of such equipment.

Because computer assets involve hazardous waste issues and data security risks in addition to traditional inventory control issues, a computer disposal policy should be developed that incorporates detailed accountability and specific documentation procedures for disposal of these fixed assets.

R6.11 Hillsboro CSD should facilitate information technology integration into its curriculum through ongoing teacher staff training and development of technology skills. The District should continually assess the functionality and integration of instructional software in the curriculum. It could use BETA Survey information to determine the extent to which technology is implemented in the classroom and design measurable goals to help teachers benefit from technological tools. In addition, it might develop its own measures that can be evaluated more frequently.

According to the District's 2006 Beta Teacher Survey, teachers are not integrating instructional software in the curriculum at a level commensurate with comparable districts. **Table 6-6** illustrates responses from question 11 of the 2006 Beta Teacher Survey, which indicates how often teachers use the computer to examine student performance trends in order to plan instruction.

Table 6-6: Use of Technology to Examine Student Performance Trends

	Hillsboro CSD	Comparable Districts' Average	State Average
I do not have access	7%	2%	5%
Never	23%	20%	18%
At least once per year	11%	9%	10%
At least once per month	14%	20%	22%
At least once per week	22%	26%	26%
Daily	22%	23%	19%

Source: 2006 BETA Teacher Survey

As seen in **Table 6-6**, the District uses technology to examine performance trends less frequently than both the comparable districts and the State average. Twenty-three percent of Hillsboro teachers “never” use technology to evaluate performance trends, compared to 20 percent of comparable districts and the State average of 18 percent. Furthermore, only 58 percent of Hillsboro CSD teachers use technology for this purpose at least once per month or more frequently, compared to the comparable district and State averages of 69 and 67 percent, respectively.

The figures in **Table 6-7** represent teacher responses to question 16 of the Beta Teacher Survey that asked how frequently technology is used to support standards based instruction.

Table 6-7: The Use of Technology to Support Standards Based Instruction

	Hillsboro CSD	Comparable Districts' Average	State Average
I do not have access	6%	3%	4%
Never	24%	13%	13%
At least once per year	17%	16%	16%
At least once per month	22%	27%	28%
At least once per week	18%	23%	24%
Daily	14%	17%	15%

Source: 2006 BETA Teacher Survey

Table 6-7 shows the District uses technology slightly less frequently than do comparable districts and the state average. Fifty-four percent of the District’s teachers use technology to support standards based instruction monthly or more frequently, compared to the comparable district and State average of 67 percent.

Poor integration of software in the classroom does not allow these resources to be used in an optimally efficient or effective manner. If software is purchased for classroom purposes, but is not implemented by all of the teachers, then allocated resources are not being used. In addition, teachers could improve their instructional techniques with these

tools. Appropriate use of IT would help the District accomplish achievement standards, including those set forth in conjunction with the No Child Left Behind (NCLB) Act, State proficiency goals, and adequate yearly progress (AYP). Finally, teachers using technology in the classroom on a regular basis provide positive role models for students.

Training directly impacts the ability of teaching staff to use information technology in the classroom. Without mandatory or regular training, teachers will not be able to maintain a mastery of the technological tools available to them. The District does not provide teachers with the opportunity to attend technology training outside the District. The Technology Coordinator provides teachers with a professional development program that focuses attention on technology integration and basic software applications. In 2006, 19 of 160 teachers took advantage of this program (compared to 16 teachers in 2005 and 60 teachers in 2004). Almost 41 percent of the teaching staff has not received technology training in the last three years.

According to the 2000 U.S. Department of Education Survey on Teacher Technology Professional Development, conducted by the National Center for Educational Statistics, over a three-year period, 10 percent of teachers did not participate in technology professional development; 43 percent participated for 1 to 8 hours; 34 percent participated for 9 to 32 hours; and 12 percent participated for more than 32 hours. Moreover, the survey reported that teachers' feelings about classroom technology preparedness dramatically increased with each category of training. Even with one hour of training, only 19 percent of teachers felt unprepared compared to 32 percent for those who reported no training at all.

According to *Taking TCO to the Classroom* (Consortium for School Networking, 2001), a TCO-Savvy district devotes 15-30 percent of its technology budget to staff development. According to *Weaving a Secure Web Around Education: A Guide to Technology Standards and Security* (National Center for Education Statistics, 2003), professional development in an education agency should include all staff and student users, not just developers and programmers. All district users need basic technical skills and need to be updated on the rapidly changing technology environment. Budget allocations should address training and technology-related professional development as a necessary component of the agency's overall program.

According to *Professional Development for Teachers* (North Central Regional Educational Laboratory, 2004), professional development goes beyond the term 'training' with its implications of learning skills, and encompasses a definition that includes formal and informal means of helping teachers not only learn new skills, but also develop new insights into pedagogy and their own practice, and explore new or advanced understandings of content and resources. This definition of professional development includes support for teachers as they encounter the challenges that come with putting into

practice their evolving understandings about the use of technology to support inquiry-based learning. Current technologies offer resources to meet these challenges and provide teachers with a cluster of supports that help them continue to grow in their professional skills, understandings, and interests.

By offering technology-related professional development for its educators, a district will empower teachers to be the first line of defense against minor technology problems. This allows technicians to concentrate on larger issues within the District. Furthermore, teachers must have confidence and enthusiasm to put technology to work. This goal can only be attained through ongoing technology training and development programs that are properly funded. If technology training is not made a high priority with appropriate funding, districts will not receive a maximum return on their technology investment.

The District's lack of information technology training and the resulting lower rates of inclusion of IT resources in instructional activities are ultimately caused by budgetary constraints. According to the Technology Coordinator, the sole source of funding for technology-related professional development is Title IID professional development funds. The District should therefore prioritize its staff instruction for training in a manner that will have the largest impact on student performance. As the District becomes more financially stable, it can continue to expand its instructional staff IT training program. Without a technology budget, it is difficult to estimate the cost of training activities.

Financial Implications Summary

The following table summarizes the estimated annual cost savings, one time implementation costs, and annual implementation costs identified in recommendations presented in this section of this report.

Summary of Financial Implications

Recommendation	Estimated Annual Cost Savings	One Time Implementation Costs	Estimated Annual Implementation Costs
R6.3 Electronic trouble-ticketing and remote assistance		\$5,300	\$2,500
R6.4 Increase Staffing by 1 FTE			\$29,100
R6.5 Consolidating existing T-1 and broadband lines	\$20,300		
R6.7 A+ Certification		\$320	
Total	\$20,300	\$5,620	\$31,600

Source: AOS Recommendations

Appendix 6-A: Summary of Objectives for the Technology Section

The following questions were used to evaluate the Technology Department at Hillsboro CSD:

- Is the District effectively planning and budgeting for its technology implementation?
- Does the District have policies and procedures in place to ensure the cost-effective resolution of technology issues?
- Are technology support staff effectively and efficiently deployed?
- Is the District's technology infrastructure efficiently and effectively deployed?
- Is District hardware effectively and efficiently deployed?
- Is the District effectively and efficiently deploying software?
- Does the District adequately plan and budget for technology professional development for users?
- Does the District have effective network and physical asset security?
- Does the District use technology to improve communication?

Food Service

Background

This section focuses on the food service operations in the Hillsboro City School District (Hillsboro CSD or District). **Appendix 7-A** provides a summary of the audit objectives for the **food service** section. The District's operations have been evaluated against best practices and operational standards from several sources. In addition, Type 1 urban and suburban districts¹ with similar demographics, high Ohio Proficiency test scores and low per-pupil expenditures were used for comparison purposes.² These districts are referred to as the peer districts. Recommended practices and standards from applicable sources, including the National Food Service Management Institute (NFSMI), the Florida Office of Program Policy Analysis and Government Accountability (OPPAGA), and the Government Finance Officers Association (GFOA), were also used for comparison purposes.

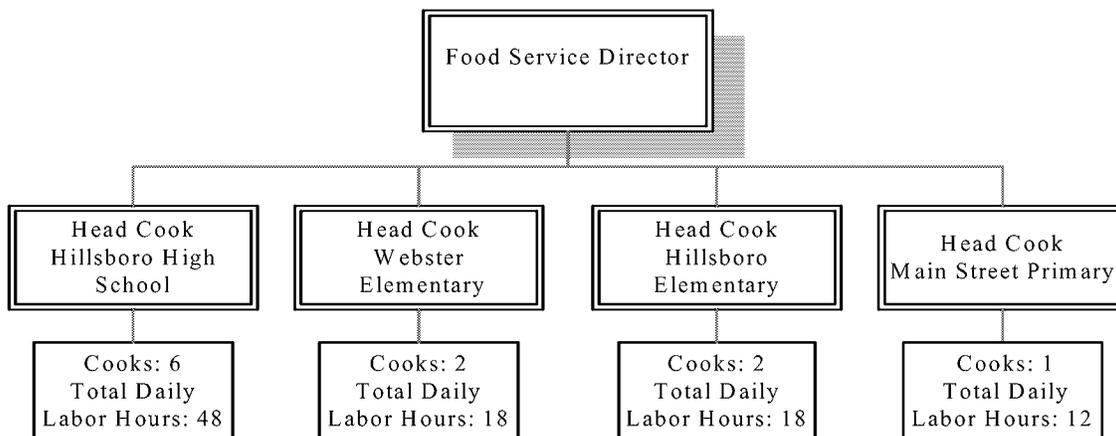
Hillsboro CSD's Food Service Department consists of 17 employees, including the Food Service Director, 4 head cooks, and 12 line cooks. Select cooks also serve as cashiers at each building. The Food Service Director is responsible for oversight of the food service program, including menu development, purchasing, and record keeping as required by the Ohio Department of Education (ODE).

The Food Service Department prepares and serves breakfast and lunch at the District's four school buildings. Food preparation is localized, meaning that all food is prepared at the building in which it will be served. As **Chart 7-1** indicates, each cafeteria is staffed with one head cook and between one and six line cooks, based generally on the population served at each building. All food service employees work 6 hours per day, the minimum hours required to receive benefits, with the exception of the Director, who works 7 hours per day.

¹ As categorized by the Ohio Department of Education.

² The ten districts used for peer comparison include: Celina CSD (Mercer County), Garaway LSD (Tuscarawas County), Indian Valley LSD (Tuscarawas County), Leipsic LSD (Putnam County), New London LSD (Huron County), New Riegel LSD (Seneca County), Ridgewood LSD (Coshocton County), Southeast LSD (Wayne County), Springfield LSD (Mahoning County), and Symmes Valley LSD (Lawrence County).

Chart 7-1: Hillsboro Food Service Organizational Chart



Source: Derived by AOS based on information provided by the Hillsboro CSD Food Service Director

Hillsboro High School and Hillsboro Middle School are located on the same campus and share a cafeteria, located in a detached building adjacent to the schools. This cafeteria has two serving lines which offer a traditional school lunch as well as two stations which offer specialty items. At Webster Elementary, Hillsboro Elementary, and Main Street Primary, the cafeteria has one line, which serves students Type A³ meals. These three schools also serve breakfast to students. While in prior fiscal years, the High School/Middle School Cafeteria did not serve breakfast, beginning in FY 2005-06, all students in the district are able to purchase breakfast and students in grades 6-12 are also able to purchase al la carte items.

As noted in the **facilities section**, the District is in the process of consolidating school facilities, eventually resulting in the operation of only one elementary school and one high school. The District will reach this configuration by FY 2009-10. To date, the District has not determined the food service staffing for these buildings.

The District’s food service operation is organized as an enterprise operation. The operation is intended to function in a manner similar to a private sector business, relying on charges for services to support the costs of operation. As a result, the District made several operational changes in FY 2005-06 in an effort to reduce expenditures and increase revenue. By closing Washington Middle School, the District was able to reduce the number of labor hours used by consolidating and reorganizing food service employees. This reorganization eliminated one position and the District reduced its food service staff to 6 hours per day from 6.5 or 7 hours per day. These changes resulted in a total reduction of 15 labor hours per day.

³ Type A meals refer to the standard meal provided by the school district that meets federal requirements and is reimbursable under the National School Lunch Program.

In addition to reducing expenditures, in FY 2005-06, the District took steps to increase revenues, by increasing meal prices for student breakfasts and lunches by \$0.25. According to the Treasurer, it was determined, based on the number of meals served each year, that an increase of \$0.25 per meal would eliminate the food service deficit in two years. Using the peer average as a comparison, the District's meal prices were in line with the peers for breakfast, and 12.4 percent higher than the peers for lunch.

However, the District did not evaluate what other school districts were charging for meals as the primary concern was to eliminate the operating deficit. The result of this meal price increase was a \$31,102 increase in student charges. Yet, the total number of meal equivalents served decreased by a total of 8,459, which can be attributed, in part, to the increase in meal prices.

Table 7-1 illustrates Hillsboro CSD's financial performance as derived from the District's 4502 reports for FY 2003-04 through FY 2005-06.

Table 7-1: Hillsboro CSD Food Service Fund, FY 2003-04 through FY 2005-06

	FY 2003-04	FY 2004-05	FY 2004-05 % Change	FY 2005-06	FY 2005-06 % Change
Operating Revenue					
Student Charges	\$522,918	\$478,314	(8.5)	\$509,416	6.5%
Non-Operating Revenue					
State Grants-in-Aid	\$17,362	\$17,291	(0.4%)	\$37,839	118.8%
Federal Grants-in-Aid	\$323,349	\$364,966	12.9%	\$335,238	(8.1%)
Total Revenue	\$863,629	\$860,571	(0.4%)	\$882,493	2.5%
Operating Expenditures					
Personal Services - Salaries	\$296,032	\$322,288	8.9%	\$342,810	6.4%
Retirement and Insurance	\$163,418	\$169,846	3.9%	\$166,417	(2.0%)
Purchased Services	\$13,049	\$7,625	(41.6%)	\$3,195	(58.1%)
Supplies and Materials	\$389,519	\$381,653	(2.0%)	\$465,343	21.9%
Capital Outlay	\$7,695	\$1,333	(82.7%)	\$300	(77.5%)
Total Expenditures	\$869,712	\$882,745	1.5%	\$978,065	10.8%
Revenues Over (Under) Expenses	(\$6,083)	(\$22,174)	264.5%	(\$95,572)	331.0%
Net Transfers/Advances	\$0	\$0	0%	\$65,609	100%
Revenues Over (Under) Expenses (Including Transfers)	(\$6,083)	(\$22,174)	264.5%	(\$29,963)	35.1%
Beginning Fund Balance	\$58,220	\$52,137	(10.4%)	\$29,963	(42.5%)
Ending Fund Balance	\$52,137	\$29,963	(42.5%)	\$0	(100.0%)

Source: Hillsboro CSD FY 2003-04 through 2005-06 4502 reports

Note: Items reflected in the financial statements with a zero balance have been omitted from the table.

As shown in **Table 7-1**, the Food Service Fund's expenditures have exceeded revenues in each year at an increasing rate. This has resulted in a depletion of cash reserves in the Food Service Fund. As a result, the District has subsidized food service operations by transferring and advancing money from the General Fund. In FY 2005-06, these transfers and advances resulted in a subsidy of \$65,609.

Explanations for significant variances from **Table 7-1** include the following:

- **Student Charges:** Revenue from student charges decreased 8.5 percent in FY 2004-05. This can be attributed to a decrease in al la carte sales, as well as an increase in the number of students who received free and reduced price lunches. Additionally, revenues from student charges increased in FY 2005-06 by 6.5 percent. This can be attributed to the \$0.25 increase in lunch prices as well as an increase in al la carte sales.
- **State Grants-in-Aid:** The District placed \$22,000 in the food service fund during FY 2005-06 that was the remainder of parity aid designated for summer lunch programs. These programs were, according to the Treasurer, over 10 years old, and were transferred from the General Fund upon the instruction of the District's contact at ODE.
- **Federal Grants-In-Aid:** The level of support the District received from the Federal Government is directly related to the number of reimbursable meals that are reported. In FY 2003-04, the District had an average daily reimbursable meal rate of 65.0 percent and a rate of 73.0 percent in FY 2004-05. This increase in meals and participation lead to the increase in federal grants-in-aid. Finally, in FY 2005-06, average daily participation fell to 67.5 percent. This resulted in the decrease in the level of federal grants-in-aid.
- **Personal Services and Benefits:** As noted in the **human resources section**, District employees did not receive negotiated wage increases in FY 2004-05 or FY 2005-06. Therefore, increases in salary expenditures are attributed to experience-based (step) increases (**R5.10**) as well as changes in variable cost drivers such as labor hours used.
- **Purchased Services and Capital Outlay:** According to the Food Service Director, purchased services and capital outlay line items decreased in FY 2004-05 and FY 2005-06 due to the suspension of new equipment purchases and because the Department has not experienced any major equipment failures in the past three years.
- **Supplies and Materials:** The Treasurer came to the school district in July of 2005. Upon arrival, he paid several significant outstanding liabilities; such as Nichols Bakery and Trauth Dairy. These expenses, which totaled \$30,506, were incurred during FY 2004-05 and were not paid until FY 2005-06.

Recommendations

- R7.1 The District should ensure that all food service expenses are charged to the Food Service Fund. By correctly recording all food service expenses, a complete financial picture will be available that allows for revenue and program adjustments as needed. In addition, this would allow additional resources to be used to support classroom and instructional operations that had had previously been spent on food service operations.**

In FY 2005-06, the District attributed only \$3,195 of its expenditures to the purchased services line item in the Food Service Fund. According to the Treasurer, utilities, such as electricity and natural gas, are being paid from the General Fund. The practice of charging utilities and other purchased services used by the food service operation to the Food Service Fund is a recommended practice, but not widely employed in school district food service programs. However, considering the current state of the General Fund, the District should attempt to minimize General Fund expenditures whenever possible, especially when the expense should be paid from the Food Service Fund, which is designed to be a self-supporting fund. Information provided by the District indicates its food service operations account for 7.1 percent of the total square footage of the school facilities. This percentage was arrived at by comparing the total square footage to the cafeteria and kitchen square footage occupied by the food service operation.

The potential purchased service expenditure for FY 2005-06 should have been at least \$43,000. This figure includes the portion that food service operations should pay for electricity, water and sewer, heating, trash removal, and custodian supplies on a per square foot basis. However, with only \$3,195 of expenditures charged to purchased services in FY 2005-06, it is clear the District is not allocating all expenses incurred by the food service operation to the Food Service Fund. While the District does not charge back all costs, it recognizes that the food service operation is a significant user of these purchased services. As a result, the financial position of the food service fund is not accurately depicted on the District's financial reports due to under-reported expenditures in purchased services.

The Government Finance Officers Association (GFOA) suggests that governments measure the full costs of their services, which can be helpful in performance measurement and benchmarking; setting user fees and charges; privatization; and competition initiatives or "managed competition." The full cost of a service encompasses all direct and indirect costs pertaining to that service. Direct costs include the salaries, wages, and benefits of employees while they are working exclusively on the delivery of the service, as well as the materials and supplies, and other associated operating costs such as utilities and rent, training and travel. Indirect costs include shared administrative expenses within the work unit and in one or more support functions outside the work unit.

In addition, the Ohio Revised Code (ORC) 3313.81 states that all receipts and disbursements related to the operation of food service for school food service purposes and the maintenance, improvement, and purchase of equipment for school food services shall be paid directly into and disbursed from the food service fund, which shall be kept in a legally designated depository of the board.

Since the District is not capturing all costs associated with food service operations, it is unable to identify and properly allocate the total cost of the program. This can create misperceptions when planning changes, such as increases in menu prices, which will hamper the District's ability to make incremental improvements. By capturing all expenses incurred by the food service operation, the District can better evaluate the efficiency and performance of the food service operation and have more information when developing a five-year strategic plan (see **R7.2**).

Financial Implication: By including all expenses attributable to the food service operation, approximately \$43,000 would be charged back to the Food Service Fund. However, this may not result in a savings to the General Fund as the Food Service Fund may require transfers to cover this additional cost.

R7.2 The District should develop a five-year plan for food service operations that is tied to operational goals, financial statements (see R7.3), and input from the customers (see R7.4), to enable proactive management decision making.

The plan should include:

- **A Food Service strategic plan with missions and goals;**
- **Facility plans as they pertain to kitchens and cafeterias including preventative maintenance schedules and capital improvement plans;**
- **An organizational chart that establishes clear lines of authority.**
- **Budget planning documents including: budgeted costs, actual costs, and revenues for the last three years;**
- **Student and staff meal prices;**
- **Free and reduced price meal participation rates for the last three years;**
- **Standard operating and management reports for the last two years, including profit and loss statements, budget variance reports and other financial reports used regularly for financial management;**
- **Any recent Food Service Department customer survey instruments and results; and**
- **Student, parent, teacher and staff survey results as they pertain to food service.**

This plan should be updated annually by the Food Service Director with input from the Treasurer and Superintendent. The Superintendent and the Board should approve the plan and any subsequent revisions.

Hillsboro CSD has not developed a comprehensive plan or an annual report of its food service operations. Food service operations are guided by a section in the Board approved policy manual, which addresses the following issues:

- General purpose and function of the food service operation,
- Sale of food on school grounds, and
- Free and reduced-price lunch guidelines.

The policy manual reiterates State and federal requirements and serves as a formal purpose statement for its food service operation. However, this is not translated into measurable goals or standards.

According to GFOA *Best Practices in Public Budgeting* (2000), a government should prepare policies and plans to guide the design of programs and services. Service and program policies and plans translate broad goals into strategies for their achievement and provide the basis for designing specific programs and services. Program and service policies and plans may address items such as: groups or populations to be served, service delivery issues, examples of possible programs, standards of performance (including level of service standards or other measures to gauge success), expected costs, time frames for achievement of goals, issues pertaining to the organizational structure, and priorities for service provision. Policies and plans should be adopted by the governing body and made available to the public. While these broad long-range plans guide operations, they must be supplemented and integrated with short-term operational planning to implement the broader purposes.

The Texas School Performance Review suggests several documents that will assist management in effectively guiding the operation of the Food Service Department. These include:

- Food Service strategic plan, mission and goals;
- Facility plans as they pertain to kitchens and cafeterias;
- Department preventative maintenance schedule or plan;
- Cafeteria capital improvement plans;
- Budget planning documents;
- Budgets for food service for the last five years;
- List of student and staff meal prices;
- Paid and reduced price meal participation rates for the last three years;

- Standard operating and management reports for the last two years, including profit and loss statements, budget variance reports and other financial reports used regularly for financial management;
- Annual budgets and financial records showing budgeted and actual costs and revenues for food service for the last three years and showing the fund balance;
- Any recent Food Service Department customer survey instruments and results;
- Student, parent, teacher and staff survey results as they pertain to food service.

The creation of a strategic plan would help the District address the food service operating deficit, and may help it plan for future changes to operations. By compiling all of the necessary documents for the food service strategic plan, the District will have a more complete picture of the financial and operational condition of the food service program. Especially during the building construction and subsequent reallocation of staff, a strategic plan will guide the District in making informed decisions. By not operating under a long-term plan, the fiscal solvency and future of the operation is less certain. The lack of planning by the District results in a limited ability to foresee operational needs, required resource allocations, and responsibility for operational results. Because benchmarks have not been identified, quantifiable goals have not been established and progress toward achievement has not been tracked, the District food service operations have required support from the General Fund.

R7.3 The District should incorporate a five-year financial forecast in the food service operation's strategic plan (see R7.2). This will enable proactive management decision making and provide a long-range planning tool to help integrate the food service operational goals and objectives.

Perhaps the most important operational planning document is the budget, as it is the tangible representation of the District's planning priorities. However, the District uses an incremental budgeting approach that does not seek to evaluate future operating realities and does not seek to alter those conditions. When preparing the food service budget, the Treasurer uses historical financial figures; however, other factors impact the food service operation, such as changes in enrollment and increasing costs. With an incremental budgeting approach, these factors may not be given adequate consideration.

Since FY 2003-04 food service fund expenditures have exceeded revenues. Moreover, in their June 21, 2006 meeting, the Board approved an advance-in of \$59,000 from the General Fund to move the Food Service Fund to a zero balance for FY 2006-07. The Treasurer expects continued subsidy of food service operations and therefore, is forecasting a transfer from the General Fund of \$22,000 annually. By not taking into account operating changes in the budgeting practice, the District has not been able to make proactive changes to avoid operating deficits. Rather, it retroactively advances

funds that might have otherwise been used for operations not capable of generating revenue.

The budget is an important component of the strategic plan for the food service operation. *School Foodservice Management for the 21st Century* (Fifth Edition, 1999) considers a budget as a plan for financial management. It helps a manager or director to forecast revenue and expenses based on prior year's data and estimates and planned changes. The budget is an important management tool for the following reasons:

- Identifies potential problems by contrasting actual financial activity with projected activity and provides a basis for comparison (if estimated income is not being generated monthly, then expenditures may need to be reduced, or a deficit may result);
- Sets performance standards for management;
- Controls erratic expenditures; and
- Helps a manager determine if a program can afford to make an expenditure (e.g., purchase a piece of equipment or attend a national convention).

Along with the yearly budget, forecasting revenue and expenditures over a five-year period is recommended for long-term planning. This can give the administration sufficient notice of emerging issues so action can be taken to correct them. With increases in labor costs and the rising costs of fringe benefits, lunch price increases and cost saving measures need to be evaluated annually.

School Foodservice Management for the 21st Century (Fifth Edition, 1999) states some of the factors to be considered in making revenue projections and expenditure estimates are:

- Historical data;
- Goals and plans;
- Economic indicators;
- Demographic changes;
- Projected enrollment;
- Effects of menu changes;
- Changes in operating procedures;
- Changes in food and labor costs;
- Meal price changes; and
- Operational changes.

Efforts to create a five-year forecast specific to the food service operation are hampered by the lack of supporting operational information for proactive budgeting. Without the necessary budgeting, revenue, and expenditure forecasting information, the food service operation may continue to experience the difficulties that result in General Fund transfers. A five-year financial forecast for food services can increase awareness of the issues and challenges facing the department and allow District administrators to proactively address them. To date, this has not been the District's approach, primarily due to higher priorities such as addressing potential General Fund deficits. In addition, the Food Service Fund has historically maintained a positive balance, with the exception of the most recent fiscal year.

By having historical trends and projections of revenues and expenditures, the District may be better equipped to evaluate the need to increase lunch prices or evaluate staff wages and benefits. It would also allow a comparison of actual to planned results and permit an evaluation of progress in achieving goals. Ideally, better long-term management of the food service program could also allow the return of transferred funds to the General Fund. This would have a positive impact on the District's five-year forecast and financial condition.

R7.4 The District should develop formal methods for periodically soliciting input from students and other relevant stakeholders. One method to solicit input is to develop an online survey on the District's website. As the Food Service Department administers subsequent surveys, it should track progress in addressing the issues identified in them and incorporate survey results in its strategic plan (see R7.2).

The District does not have a formal method to obtain and address stakeholder concerns and feedback. Rather, food service personnel monitor the popularity of menu items informally by evaluating if items are consumed or thrown away. The barriers to higher meal participation rates, such as the time it takes to purchase a meal, the friendliness of the food service employees, and the affordability of meals are not being evaluated. Moreover, general feedback and ideas to improve the quality and types of meals served, as well as the cafeteria environment, are not solicited.

The National Food Service Management Institute (NFSMI), states that school food service programs should seek customer feedback from students and parents. Surveys are one method for gathering information from a large group of people in a short period of time and at a moderate cost. Valid and reliable data gathered from students must be the basis for developing enhancements in school food service and nutrition programs. By evaluating customer feedback and working to continually improve operations, the school food service and nutrition program will ensure a sound customer base and financial stability.

According to *School Foodservice Management for the 21st Century* (Fifth Edition, 1999), in addition to formal questionnaires and surveys, there are four techniques for communicating with customers (students and parents) regarding their likes and dislikes, including (1) informal interviewing of students and parents, (2) small-group discussions, (3) suggestion boxes, and (4) taste parties or sampling.

As a component of strategic planning, customer satisfaction is a necessary element in evaluating the effectiveness of the food service operation (see **R7.2**). It should be noted that while this practice is not a standard practice in many schools, surveying students to improve services and increase participation is recognized as a best practice.

By not evaluating service alternatives and menu options, the Food Service Department limits its ability to address customer concerns and increase program participation. Moreover, as the food service operation contains a fixed cost component, it is important for the District to maintain a high participation rate in the school breakfast and lunch program. This will help ensure less costly meals. By garnering stakeholder input, the food service operations will be in a better position to prevent deficits in the Food Service Fund caused by declining program participation.

R7.5 The District should develop an expanded set of performance measures in conjunction with a strategic plan (R7.2) and five-year financial forecast (R7.3). The performance measures should be linked to the District's overall mission, strategic plan and budget, and be used as a basis for making operational decisions. The Treasurer, Superintendent, and Food Service Director should regularly evaluate these measures and compare them to past performances. For example, participation should be used to provide an indicator of performance; not just to fulfill federal requirements. The Food Service Director should maintain school level participation records of free, reduced price, and paid lunches sold, and use this information when planning menus, purchasing food, and anticipating preparation of meals. Participation can be tracked through the use of a POS system (R7.11).

The Food Service Department does not use performance measures to track and evaluate the food service program. However, the Food Service Director keeps a daily record of how many students purchase free, reduced price, paid, and a la carte lunches. This information is collected to fulfill State reporting requirements and is not aggregated into a report of general performance, nor is it considered when making operational decisions.

According to OPPAGA (2004), school districts should employ performance measures that allow managers at both the district and program level to evaluate performance and make informed decisions regarding the use of limited resources. A comprehensive set of program measures should include input, output, outcome, and cost-efficiency measures. Districts need to periodically verify that their performance information is reliable by

testing its accuracy and should assure its validity by assessing whether it is useful. Managers also need to occasionally review performance benchmarks and efficiency standards for appropriateness. OPPAGA sites four indicators of effective performance management systems:

- Program management has developed *program-level* performance and cost-efficiency measures such as net income margin, food cost margins, salary plus benefits margin, and participation rates (free and reduced as percentage of eligible and overall participation).
- Program management has performance and cost-efficiency measures in-place to assist in managing *school-level* operations, such as meals per labor hour, salaries plus benefits margin (lunch and breakfast) and food cost margin (lunch and breakfast).
- Program management uses sound methodology to develop performance and cost-efficiency benchmarks, such as historical performance, comparison with peers, and then integrated planned program changes.
- Program and district management periodically review performance and cost-efficiency measures and benchmarks to ensure reliability and relevance.

Some examples of food service performance measures, proposed by OPPAGA, to help districts increase efficiency and reduce costs include:

- Gross margin (revenue less expenses);
- Participation rates (regular and free and reduced price lunch);
- Labor margin (percentage of total expenses comprising labor and benefits);
- Food margin (percentage of total expenses comprising food and materials); and
- Average meals served per labor hour.

Table 7-2 provides an example of one performance indicator that can be used by the District in evaluating the food service operation, calculated through ODE's online reporting system.

Table 7-2: Participation Rate Comparison

	Total Meals Served	Average Daily Participation	% Free of Total	% Reduced Price of Total	Avg. Daily Participation of Avg. Daily Attendance	% Total Participation
Peer Average FY 2004-05	153,812	877	27.5%	10.4%	65.6%	78.4%
Hillsboro CSD FY2004-05	266,407	1,549	39.5%	8.1%	73.0%	81.5%
Hillsboro CSD FY2005-06	248,373	1,444	43.9%	7.0%	67.5%	75.5%

Source: Hillsboro CSD and peer district MR Reports

Table 7-2 compares the participation rates of the ten-peer average from FY 2004-05 to the performance of the District in FY2004-05 and FY 2005-06. The table examines several participation rates, including the percent of students who purchases free and reduced price lunches. Additionally, average daily participation of average daily attendance provides an indicator of the percent of students who are purchasing reimbursable meals. Total participation is calculated by including non-reimbursable meals, such as a la carte items. As the table indicates, the District experienced a drop in the average daily participation of average daily attendance participation rates from FY 2004-05 to FY 2005-06. While the table indicates that the District has remained in line with the peers, information such as this is not used when making decisions regarding the food service operation.

The Food Service Director spends a significant amount of time preparing the necessary documents for claims reporting. However, this data is used only to receive reimbursements through the on-line reporting system. Using the information submitted, the District can extract measures of performance and use these indicators to improve operations and efficiency. By developing and monitoring performance, data will be readily available for program records and reports required for State reporting. An automated point of sale system (**R7.11**) would also assist the District in setting goals and performance standards. Program management could use this information to maintain a timely and comprehensive performance measurement system that allows for a comparison of actual performance with District standards.

The lack of performance measurements can be attributed to management's focus on immediate operations and the newness of performance measurements in many aspects of school operations. This awareness of performance measures is common in entities that are fiscally proactive. Finally, this may also be caused by recent turnover, as the Superintendent, Treasurer, and Food Service Director are all new in their positions.

R7.6 The District should include the preventative maintenance of food service equipment in its preventive maintenance program (see R4.7). Additionally, the District should develop an equipment replacement plan for food service.

The District does not have a preventive maintenance program that addresses the equipment and facilities used by the food service operation. Hillsboro Elementary, constructed in 2004, is the only building in the District that has a preventive maintenance component in the automated work order system. However, this system generates generic preventive maintenance tasks for custodians and maintenance personnel that are not specific to the facilities or equipment in the food service operation. Such a system has not been installed District-wide.

Outside the system at Hillsboro Elementary, the maintenance department does not perform preventive maintenance. Instead, equipment is only attended to by the maintenance department in a reactive manner. The building custodians perform major cleaning in the summer and during extended breaks in the spring and winter. This involves cleaning out grease traps and thoroughly cleaning all of the food service equipment. Additionally, the food service employees only perform minor upkeep of the food service equipment, such as cleaning out the refrigerator, as needed.

If food service equipment is in need of repair, the Food Service Director contacts the maintenance department, which does perform general maintenance. The maintenance department is typically able to perform basic tasks, which encompass the majority of repairs needed. However, if the repair is beyond the capabilities of the department, the Food Service Director then calls an outside company to make the repair. It should be noted that the District does not have a procedure in place to ensure it obtains the best price for repairs. According to the Food Service Director, the District has not experienced any significant food service equipment failures in the past two years.

More importantly, there is no plan to replace equipment and new equipment is purchased only when the District's equipment fails and cannot be repaired. According to the District's physical inventory of the food service operation, some of the equipment dates back to 1956. However, the District purchased all new food service equipment with the construction of Hillsboro Elementary School and plans to do the same with the construction of the new high school. While outdated equipment will not longer be an immediate problem, the need for preventive maintenance becomes more important, as the District will be operating with all new equipment.

According to *Best Financial Management Practices for Food Service* (OPPAGA, 2002), at least annually, the program should inspect and evaluate its operational components and the system as a whole, and take action to initiate needed changes. Furthermore, OPPAGA states that an indicator of best practice implementation is that program

management has a viable preventive maintenance and long-range equipment replacement program in-place.

School Foodservice Management for the 21st Century (Fifth Edition, 1999) suggests that preventive maintenance includes exhaust systems, cooking equipment, hot water inspection, grease removal, refrigeration, and sanitation equipment. A record should be kept on each piece of equipment that tracks the service calls, cost of the maintenance and the overall condition. Sometimes the cost of maintenance for an individual piece of equipment is greater than the remaining value of the equipment, indicating it should be replaced. Any replacement of equipment should be anticipated through a long-range equipment replacement plan. Additionally, regular preventive maintenance schedules can make emergency calls rare and save money for the District in the long run. Without such a plan, the District is vulnerable to equipment failures and costly replacements.

The Food Service Department only purchases food service equipment when the current equipment is no longer functional, as a means to save money. The absence of a preventative maintenance policy can be attributed to the lack of management oversight and prioritization, and the fact that the Superintendent, Treasurer, and Food Service Director are all new in their positions. Because some of the equipment is more than 50 years old, a plan to replace outdated equipment and maintain the physical inventory would help to avoid costly emergency equipment repair or replacement.

As recommended in the **facilities section (R4.7)**, the District should use the automated preventive maintenance system software at Hillsboro Elementary School to develop a formal preventive maintenance program District-wide. This will help ensure that food service equipment purchased as a part of the new building construction will be properly maintained.

R7.7 The District should periodically explore the benefits and costs of contracting for food services via a competitive request for proposal (RFP) process. Once multiple proposals are obtained from providers, the District should analyze them to determine whether contracting for food services would reduce costs and improve, or at least maintain, the current service quality.

The Food Service Department does not receive competitive proposals from outside food service providers to evaluate the benefits of food service privatization. According to GFOA *Best Practices in Public Budgeting* (2000), entities should evaluate alternative delivery mechanisms to ensure the best approach for delivering a service is selected. A government should institute a process to review existing service delivery methods in the context of how well they meet programmatic and operating policies and plans. The process should include an examination of how a government traditionally provides the service versus whether the service could be delivered more effectively or more efficiently

if provided in a different way, either by the government itself or by entities outside the government. Considerations in evaluating service delivery mechanisms, whether provided directly by a government or contracted out, include:

- **Cost of service**, including short and long-term direct costs, costs to administer and oversee the service, impact on rates and charges, and impact on costs of other government services.
- **Service quality and control**, including safety and reliability, ability to control service levels and who receives the service, ability of the government to make internal changes to improve its own performance, ability to change the delivery mechanism in the future, and risk of contractual nonperformance and default.
- **Management issues**, including the quality of monitoring, reporting, and performance evaluation systems, public access to information, and ability to generate or sustain competition in service delivery.
- **Financial issues**, including the impact on outstanding debt and grant eligibility.
- **Impact on stakeholders**, including government employees, customers, and taxpayers.
- **Statutory and regulatory issues**, including the impact on federal and state legal and regulatory requirements, and liability.

An RFP will typically include general information, functional or general specifications, a statement of work, proposal instructions, and evaluation and ranking criteria. Issuing an RFP every two years will allow the District to evaluate the cost-effectiveness of continuing to operate food services in-house. Other Ohio school Districts, such as Dublin City School District, have contracted out the food service operation. According to *The Privatization Decision* (Donahue, 1991), the success of privatization rests on the entity's ability to foster a competitive atmosphere, to encourage accountability of meaningful specifications (or performance measures), and define task quality and standards in line with District goals. Privatization is not always the solution for improved efficiency. As indicated above, measuring performance may also impact the efficiency of an organization (see **R7.3**) by allowing the organization to make improvements in areas of lower efficiency or effectiveness. However, continued evaluation and creation of competition, both among contractors and internally with staff, can reduce cost increases in food service operations by compelling internal service providers to achieve greater levels of efficiency.

R7.8 The District should develop a comprehensive food service procedures manual in accordance with Board approved policies to include food handling, procurement and inventory, and financial record keeping. The manual should be updated annually and used as a training tool for food service employees.

The Food Service Department does not have a comprehensive policy and procedures manual specific to the food service operation. The District policy manual only contains a small section that addresses the operations of the Food Service Department and outlines its purpose, collection procedures for school lunches, and free and reduced price lunches. Additionally, the District does not have a formal training process in place for food service employees. While the Health Department provides annual training to food service employees, all other training for the Department is done through on the job training and has been passed down orally.

According to *Best Financial Management Practices for Food Service* (OPPAGA, 2002), program management should develop and maintain comprehensive procedure manuals for cafeteria managers that cover essential areas of responsibility and communicate management intent. The manual should explain the following:

- Cash control,
- Receipt of goods,
- Inventory procedures,
- Ordering of food and supplies,
- Production record keeping,
- Sanitation and food safety, employee safety,
- Procedures for emergencies or in case of injury, and
- Ordering food and supplies.

Additionally, according to the United States Department of Agriculture (USDA) standard operating procedures (SOP's) should be developed for all food service operations. These should include procedures for the following:

- Cleaning and sanitizing food contact surfaces;
- Controlling time and temperature during preparation;
- Cooking potentially hazardous foods;
- Cooling potentially hazardous foods;
- Date marking ready-to-eat, potentially hazardous foods;
- Handling a food recall;
- Holding hot and cold foods;
- Personal hygiene;
- Preventing contamination at food bars;

- Receiving deliveries;
- Reheating foods;
- Serving foods;
- Storing and using poisonous or toxic chemicals;
- Transporting food to remote sites (satellite kitchens);
- Using and calibrating thermometers;
- Using suitable utensils when handling ready-to-eat foods;
- Washing fruits and vegetables;
- Washing hands; and
- Record keeping logs for food safety.

The development of a detailed procedures manual ensures that staff consistently perform their duties in accordance with established standards. While the operations manual becomes a standard, protocols are easily accessible tools and their effectiveness can be enhanced by training staff in their application. OPPAGA recommends that training materials be written (handbook or training manual) and contain the essential functions of the food service program. This will help ensure that employees are properly informed and have the appropriate resources to understand their responsibilities and a specific guide indicating how tasks should be performed. Such functions of the food service program include:

- Food safety;
- Portion control;
- Production control, special diets;
- Inventory;
- Meal count procedures;
- Receipt and storage of food and supplies;
- Emergency procedures; and
- Customer service.

The District has not established formal policies and training programs because there is not an immediate need for such tools, because it employs an experienced staff. Most of the food service employees that are hired have experience as a substitute cook for the district and are familiar with the processes and responsibilities of the full-time staff. The low turnover rate and relatively small size of the Food Service Department also contribute to the limited need for formal training. The creation of a food service operations manual was not a priority of District management.

Nevertheless, personnel changes are frequently unexpected and, if unprepared, could result in a disruption of operations. Without written procedures, the Department does not have consistent guidance in essential areas such as personnel scheduling, maintenance,

purchasing, food handling and storage, sanitation, and employee safety. Additionally, administrators are not able to easily communicate their intentions for the food service operation to employees. As a result, District food service employees may not have the information needed to effectively carry out their jobs. The creation of a food service operations manual would help the District ensure that its workers have sufficient knowledge about all critical aspects of their job function.

The creation of policies and procedures and a training program would help to solidify the roles and responsibilities of food service employees and what is expected of them. Moreover, the creation of a manual that specifies operating procedures would provide objective standards for staff evaluations. Finally, a manual would be an easily accessible means for communicating with employees about how tasks should be completed.

- R7.9 The District should work to lower supply and material costs by implementing cost saving measures, such as expanding the use of USDA commodities and using the consortium to which the District for food service purchases. Additionally, the Food Service Director should work with the Superintendent and Treasurer to develop a purchasing procedures section for the food service manual (see R7.8). This section of the manual should be a comprehensive explanation of the department's procurement practices, including the bidding process, tracking the receipt of food and supplies, storage procedures, and reconciling the balances of blanket purchase orders.**

The supplies and materials line item in the Food Service Fund includes all of the food purchases used in meal production. A comparison to the peer district average reveals the District is serving 85.5 percent more meals annually. Although Hillsboro CSD should be able to achieve a greater economy of scale with the level of meal equivalents served, it is spending more than the peer districts on both a per student and per meal basis for supplies and materials. In FY 2005-06 the District spent \$1.28 per meal on supplies and materials while the peer districts averaged only \$0.92 per meal.

In September 2005, the District joined the Southwest Ohio Educational Purchasing Council (EPC). As a member, the District receives the group rates that EPC has negotiated. The District can order directly through the vendor at the EPC rate; however, it is not taking full advantage of consortium pricing. By simply using the consortium for purchases, the District could save an average of 13.3 percent on bakery purchases and 9.0 percent on dairy purchases.

The Food Service Department uses the same Board approved purchasing policies as other District departments. In the past, purchase orders were approved for small dollar amounts, so new purchase orders were required to be made out every few months. However, the Treasurer has worked to reduce administrative costs by approving semi-

annual blanket purchase orders for major vendors. According to the Treasurer, the amount of the purchase order is based on previous year expenditures. The Treasurer uses the previous year's expenditures as a base and increases the purchase order limit by an allowance for increases in the cost of food. When shipments are delivered, they are unloaded in the building store rooms and available food service employees check the delivery against the order to ensure that all ordered items are received. If the deliveries come when lunch is being served, the order is checked for accuracy after lunch is served.

Because the purchasing process is not well-documented, a purchasing section in the food service procedures manual, with examples of purchasing forms and completion instructions, would better communicate efficient and effective purchasing practices for the Food Service Department. Currently, other District employees such as the high school Head Cook, Treasurer, or Assistant Treasurer would not have sufficient information to continue the food service purchasing function in a timely manner if the Food Service Director was unable to complete the task.

Moreover, the District should be cautious about using blanket purchase orders. While there are clear benefits to the use of blanket purchase orders, such as reduced administrative costs, these benefits should be weighed against concerns for management oversight and internal control.

The District is attempting to control the cost of food service items by using the following practices:

- Minimizing waste by obtaining a count of the number of students purchasing meals at the elementary schools and preparing meals for only the children that want to purchase lunch;
- Monitoring menu items not consumed by students on an informal basis and working to craft menus around the preferences of the students;
- Utilizing government commodities;
- Using disposable items like styrofoam trays, plates and bowls to help minimize the labor cost of dishwashing; and
- Maintaining a twice weekly inventory for all items purchased outside of government commodities.

According to *School Foodservice Management for the 21st Century*, food costs can be reduced in a number of ways, including the following:

- Obtaining competitive food prices;
- Reducing waste;
- Utilizing leftovers;
- Purchasing a less expensive product;
- Ordering only what is needed;
- Checking in orders and storing properly; and
- Eliminating theft by employees, distributors, and customers by locking storerooms during the day and placing ala carte items behind the serving counter.

The failure to find the lowest price for food products results in the inefficient expenditure of funds. This results in the District subsidizing the food service operation from the General Fund. The use of volume purchasing may help alleviate the food service operational deficit, thereby eliminating the need to receive transfers from the General Fund. The first step the District should take in controlling the cost of food is to take full advantage of the consortium the District belongs to and the prices they offer.

Financial Implication: The District could save approximately \$131,000 annually if the level of spending on supplies and materials is reduced to fall in line with the peer average. One method for reducing supplies and materials expenditures would be to reduce food costs. A comparison of District prices to consortium prices indicated an average potential savings of 11.0 percent. If this level of savings can be attained for all \$465,341 spent in FY 2005-06, the District could save approximately \$51,200 thereby moving the District's supplies and materials expenditures closer to the levels reported by the peers.

R7.10 The District should limit scheduled salary increases for food service employees to 1.0 percent to slow the rate of growth of hourly wages. In addition, the District should develop a new pay schedule that is similar to the regional school food service salary scale average, for employees beginning their employment after July 1, 2008.

The District's food service employees have a higher pay scale than both the peer average and the regional average of three comparable Districts located in close proximity to Hillsboro CSD. The higher pay scale is a primary cause of increases in the cost of providing meals. **Table 7-3** compares the salary schedule for the District with the peer and regional district averages.

Table 7-3: Pay Scale Comparison for Cooks and Food Service Workers

Step	Hillsboro CSD	Peer Average	Above (Below) Peer Average	Regional Average	Above (Below) Regional Average
Beginning Step	\$12.58	\$10.53	\$2.05	\$8.17	\$4.42
Median Step	\$14.39	\$11.17	\$3.22	\$9.97	\$4.43
Final Step	\$17.08	\$11.98	\$5.10	\$12.51	\$4.58
Avg. Step Increase	2.8%	1.8%	1%	4.4%	(1.8%)
Total Steps	12	8	4	12.5	(0.5)

Source: Hillsboro Classified Handbook, Peer District Contracts

Note: Peer districts include Celina CSD, Ridgewood LSD, and Symmes Valley LSD. Regional districts include Bright LSD and Fairfield LSD.

As **Table 7-3** indicates, the District is paying a much higher hourly wage for food service employees than both the peer and regional averages. As a result, the salary schedule for the District has a beginning hourly rate that exceeds the peer average by 19.5 percent and the regional average by 54.1 percent. Additionally, the District has an ending step that exceeds the peer average by 42.5 percent, as it has more steps in its pay scale with larger step increases than the peer average. Similarly, the District's ending step exceeds the regional average by 36.6 percent.

The District spends \$0.94 per meal on salaries, compared to the peer District average of \$0.85. Because the classified employees do not have a collective bargaining agreement, it was customary for them to receive the same percentage pay increases as those received by the certified employees when they negotiate new bargaining agreements. Over time, this has resulted in the inflation of the cafeteria employee salary schedules. While these employees have been subject to the same negotiated wage freezes as other District employees, their pay rates are still higher than both the peer and regional pay scales.

For food service employees who begin their employment on or after July 1, 2008, Hillsboro CSD should implement a new salary schedule. As the District is not bound by a collective bargaining agreement for classified employees, this action could be executed with board approval. However, the District must be sensitive to the concerns of employees in this classification and should ensure their agreement prior to instituting a secondary pay scale. By implementing this two-tier salary schedule that reduces each step in the current pay schedule for new employees by at least \$4.00 and reduces the number of steps, the District could eventually achieve salary levels comparable with regional food service operations. As the recommended pay schedule would only impact new employees, the District should recognize that salary expenditure levels would not immediately decrease. Rather, the yearly cost avoidance would be dependent on the number of food service employees who choose to leave their positions, as well as the number of new food service employees hired by the District. With this recommendation, the cost savings to the District is dependent on the rate at which new employees are hired under the revised salary schedule. Assuming the revised schedule is in line with the peer

regional average pay, shown in **Table 7-3**; a new employee who replaces a current employee would save the District approximately \$6.22 an hour. Assuming a work day of 6 hours per day 187 days per year, the District would realize annual savings of \$6,979 per new employee. Using the School Employees Retirement System's (SERS) retirement eligibility requirements based on age and service credit, there are at least six employees eligible for retirement in the next 5 years. If these individuals did retire, the District could avoid costs of about \$42,000 annually.

In order to bring the current salary schedule in line with surrounding food service operations, food service employees would have to forgo negotiated wage increases for approximately 13 years. Withholding wage increases for current employees for such an extended period of time is not a reasonable option. Therefore, the District should evaluate other options such providing more modest wage increases than other employee groups. Alternatively, the District could evaluate the feasibility of outsourcing operations to private companies better able to contract services from individuals at lower rates.

These measures will help to reduce personnel costs in the food service operation. While the exact savings realized by the District cannot be calculated, there is a significant opportunity for cost reductions. Clearly, the inflated wages of the District food service employees is a contributing factor to the operating deficit that exists in the Food Service Fund.

R7.11 The District should incorporate a Point-of-Sale (POS) system in the new high school and Hillsboro Elementary School. The process of collecting and verifying data for reimbursement submission should also be formalized and incorporated in the new operations manual (R7.8). By implementing POS technology, the District will have the means to collect operational and financial data that can be used both for developing a 5-Year Food Service Fund financial forecast and performance measures (See R7.3 and R7.5). In addition, the District may be able to reduce the impact of social stigmas associated with the free and reduced price lunch program.

During the course of the performance audit, the District began evaluating POS systems. The District plans to implement a POS system prior to FY 2008-09.

The District is not tracking food service data electronically with POS technology. In order to maintain records for reporting and reimbursement, the District uses a manual data collection method to record the number of students who purchase reimbursable meals and a la carte items. Information is gathered at the end of each day by tabulating the tape on the cash register. The Food Service Director compiles this information into a spreadsheet for both breakfast and lunch sales. The spreadsheets contain the number of paid, free, and reduced price students served each day, as well as milk and a la carte sales.

At the close of each month, the Food Service Director compiles the data by tabulating the daily totals. Before submission to ODE's online reporting system, the Treasurer's Office Secretary compares all of the records maintained by the Food Service Director to the money that is deposited daily by each of the schools. This process helps assure that data submitted to ODE is accurate and works to provide verification and internal control. The major disadvantage of the District's system of data collection is the time required to calculate the daily totals and participation statistics. Additionally, the practice of maintaining records for reporting is not documented as part of a policy or procedure manual.

According to *School Foodservice Management for the 21st Century* (Fifth Edition, 1999), food service departments require computerization that meets strict standards of accountability and produces various types of reports and detailed technical analyses for efficient management. The information needed to run a successful school food service program is extensive and varied. Some of the benefits of a well-thought-out computerized system with "checks and balances" and accurate data entry are:

- Increased efficiency and greater speed of data handling;
- More reliable, accurate information;
- More timely report processing;
- Improved inventory control;
- Comprehensive management reports and analyses;
- Nutritional analysis of meals served;
- Reduced food and labor costs; and
- Improved standardization.

An ideal POS system tracks history, customer count by day and by menu, the number of customers served by each station (line or server), and sales by lunch period. Speed, accuracy, and the computer memory space required are three important features to be considered when purchasing a food service POS system. Additional features of computerization include:

- Speed in getting students through the line – speed of looking up a student's account, accepting a transaction;
- Accuracy in maintaining data;
- Small footprint – not requiring much space;
- Touch screens with icons;
- Online-photo IDs;
- Wireless remote;
- Biometric or bar code readers;
- Multi-tasking computing;

- Minimum number of key strokes to do the task; and
- Keypads and personal information numbers (PINs).

The Marion City School District saved money by developing its own system in-house, rather than purchasing a POS system through a vendor. The POS system included the following functions:

- Tracks free, reduced price, full price, adult, or others;
- Charges second, adult meal, and grade sensitive price;
- Itemizes federally reimbursable meals;
- Supports unlimited eligibility categories and classes;
- Displays messages, notes, and dietetic information;
- Allows an unlimited number of menu items to be added; and
- Allows students to be transferred between schools centrally.

Hillsboro CSD could consider this option, rather than purchasing a POS system. However, the District should carefully evaluate its capacity to develop such a program prior to initiating the effort. Building a program in-house could serve to improve the food service program without increasing the food service fund deficit.

By implementing a POS system, the District will be better equipped to track its food service operational data. In turn, that data can be used as a tool for menu planning, bulk purchasing, and meal preparation figures. This will allow for a better flow of financial information between the Food Service Director and the Treasurer. Moreover, the system will collect and sort information by student, building, or meal type. Should the need arise, a POS system would allow the District to quickly provide parents with specific data concerning their child's spending habits.

Additionally, under the POS system, the manual data collection process would be eliminated. Without such a system, the Food Service Director must tabulate and maintain daily records of the meals sold. When purchased, a POS system will significantly shorten the time required to prepare, check, and submit data to ODE's online reporting system. Further, by keeping accurate records, the District will ensure that it receives the full reimbursement amount to which it is entitled through the National School Lunch Program. With nearly half of its revenue coming from state and federal reimbursements, the impact of reporting errors and omissions could have large effect on the level of funding the District receives.

It is important to note that the District is in favor of installing a POS system and will likely perform this task with the construction of the new high school in FY 2009-10.

R7.12 The District should implement direct certification of free lunch applicants by using eligibility rolls provided by ODE. Using direct certification will improve participation rates and reduce the labor required to determine eligibility.

Hillsboro CSD has achieved above average levels of students participation in the free and reduced price lunch programs, compared to the peer districts. When adjusting for median income levels, only Leipsic LSD and New London LSD had higher combined penetration rates. Hillsboro CSD has effectively identified those eligible for free lunches, but has identified a smaller portion of students eligible for reduced price lunches. This may be attributed to the fact that the District does not use direct certification. Rather, parents submit eligibility applications to the school their child attends. The secretaries at the elementary schools approve the applications submitted to their respective buildings, and the Food Service Director approves the applications at the middle school and high school. Of the applications submitted, 3.0 percent of the approved students are required to show proof of eligibility. This constituted 37 applications that the Food Service Director verified last year. While this meets eligibility verification standards, it does not use all the resources available to the District for completing this process.

The U.S. Department of Agriculture (USDA) introduced the policy of direct certification for free meals in the late 1980s. Under direct certification, information from the state food stamp or welfare agency is used to directly certify children receiving the above benefits without requiring them to complete applications.

Direct certification was designed primarily to improve program access and administrative efficiency. If existing data from state food stamp or welfare offices was used to directly certify children, a greater number of eligible children may become eligible for free meals. Promoting program access among this group could increase the proportion of students eligible for benefits because public welfare recipients are, by definition, eligible for free meals. If the number of applications processed by District officials was reduced, administrative costs would also be reduced.

The Food Service Director was not aware of direct certification as an available alternative to the traditional certification. The use of direct certification will simplify the process of certifying eligible students and reduce the likelihood that any eligible student will fail to become certified. The failure to use direct certification when verifying eligibility for free meals results in unnecessary paperwork, a cumbersome manual process. Further, it prevents the District from identifying all students qualifying for free priced meals.

Financial Implications Summary

The following table is a summary of estimated annual cost savings and annual costs. The financial implications are for the implementation of recommendations.

Financial Implications

Recommendation	Estimated Annual Cost Savings	Estimated Annual Implementation Costs
R7.1 Use cost allocation to account for all expenses of the food service operation.		\$43,000
R7.9 Reduce supply and material expenditures through use of consortium purchases.	\$51,200	
Total	\$51,200	\$43,000

Appendix 7-A: Summary of Objectives for Food Service

The following questions were used to evaluate the food service operation in the Hillsboro CSD:

- Is the current financial status of the Districts food service operation positive?
- Has the program developed strategic or operational plans that are consistent with district plans, the program budget, and approved by the Board, and are these supported by the operation's policies and procedures?
- Does the District have effective purchasing practices and are these practices sufficiently followed?
- Are the District's staffing and management processes comparable to recommended practices and benchmarks?
- Are the Districts food service information systems adequate and properly used?
- Does the District effectively monitor participation in free and reduced price lunch program?

**DISTRICT RESPONSE &
DISTRICT RESPONSE
LETTER**

District Response

The letter that follows is Hillsboro CSD's official response to the performance audit. Throughout the audit process, staff attempted to meet with District officials to ensure substantial agreement on the factual information presented in the report. Hillsboro CSD administrators were invited to provide detailed written comments in March 2007 and again in September 2007 but declined to provide commentary, corrections, or supplemental documentation.

As noted in the response, Hillsboro CSD does not agree with every conclusion drawn in the audit report. However, a review of the District response revealed no unresolved factual matters. The peer selection process and peer districts were discussed, in depth, with Hillsboro CSD administrators and the methodology and purpose of the peer group was explained. The peers that were selected comprise districts classified by the Ohio Department of Education as being of a similar demographic group (or type) that perform at a high level, both financially and academically. Therefore, the benchmarks derived from these districts signify opportunities to aspire to higher levels of performance rather than average or typical levels of attainment. Since there were no unresolved factual issues, no additional report revisions were necessary.

Hillsboro City Schools

338 WEST MAIN STREET • HILLSBORO, OHIO 45133 • (937) 393-3475 • FAX (937) 393-5841

ARTHUR H. REIBER
Superintendent

JEFFREY ANDERSON
Treasurer

September 21, 2007

To Whom It May Concern,

This is the follow-up letter to our recent performance audit conducted by the State of Ohio, Office of the Auditor.

Hillsboro City Schools was selected for this audit due to a financial crisis, which resulted in several staff and some programs being eliminated. As a superintendent new to the position in 2005-06, I discovered we were projected to be \$ 1,500,000 in the red. We also discovered that our bus fleet was in terrible shape, which required an enormous amount of expense my first year at Hillsboro.

We have pulled out of the financial crisis, due to many cuts, and now are back on some solid financial ground. During this recovery process, your audit was performed to give us some ideas on cost savings and suggestions and recommendations about more effective processes and procedures.

I felt the auditors were very professional and worked well with us as far as scheduling and trying to understand our problems. The audit gave us many ideas and suggestions to help us maintain a positive financial situation and we plan to utilize many of the suggestions.

One of the main concerns that I had with the audit was the selection of schools for peer comparison. I do not feel it was a valid comparison for several reasons:

- > Only 1 out of 10 was a small city district.
- > Only 1 out of 10 was near our size. (Average of the other 9 was 1018 students)
- > Only 1 out of 10 was in our area of the state. (Others were north of I-70)
- > Only 1 out of 10 was a county seat.
- > Nine out of 10 districts were rural local districts.

It seems that better comparisons would be districts like Wilmington, Miami Trace L., Washington C. H., Greenfield, Waverly, etc. County seat districts tend to get more lower income students because of the proximity to the human service department. Therefore I don't feel the comparison was valid.

In the area of Human Resources, we have made many staff reductions and we continue to monitor this area. You must also realize that we may have unique situations that prevent us from matching up with other districts. Demographics and student needs will affect personnel needs.

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In the area of Financial Systems, Mr. Anderson, our treasurer, has made many changes in our policies and procedures to maintain financial stability. I am sure he will continue to fine-tune our policies and procedures.

In the area of facilities, we have some new facilities and the rest will be new in two years. As we move into these larger buildings, we are evaluating our personnel needs. It would seem that we could cut some staff. However that has not been the case due to the size, building design, and number of students in the building. We will continue to monitor this area.

In the area of Transportation, we have really improved the effectiveness and efficiency in this department. Our fleet is now well maintained and we have a schedule for bus purchases. We also have a new automated routing system, which seems to be helping to prevent over loading and consistent route times. We also are in the process of building a new bus facility.

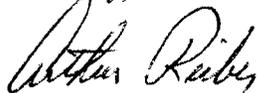
The area of Technology is an on going challenge for all schools, Hillsboro being one of them. We have added one person and now our staff is made up of 3 full time specialists.

In the area of Food Service, we are in the process of evaluating a new automated system, either swipe card or finger print reading. Personnel costs have increased due to the requirement to provide breakfast.

Mr. Anderson and I have only been in the Hillsboro district a little over two years and we totally agree that we must implement better policies and procedures. We are working on this, but there were so many, it is taking us longer than we anticipated completing this task.

I want to thank the Audit Department for all their help and for all their suggestions and recommendations. I am sure that some will be implemented while others will not. Some recommendations require union approval and in my experience, unions do not reduce benefits easily. If you have any further questions, please call me.

Sincerely,



Arthur Reiber