



**Auditor of State
Betty Montgomery**

OLENTANGY LOCAL SCHOOL DISTRICT PERFORMANCE AUDIT

MARCH 1, 2005



Auditor of State Betty Montgomery

To the Residents and Board of Education of the Olentangy Local School District:

In January of 2004, Olentangy Local School District (Olentangy LSD) contacted the Auditor of State's Office to initiate a performance audit. The District and Board of Education selected four functional areas to be assessed in the performance audit: financial systems, human resources, facilities, and technology utilization. These areas were selected because they are important components of District operations which support its mission of educating children, and because improvements in these areas can assist Olentangy LSD in balancing its financial condition over the next five years.

The performance audit contains recommendations for enhancing District operations and generating cost savings. Generally, Olentangy LSD performs at a high level of efficiency in the areas that were assessed. Financial management is sound and provides the administration, Board, and citizens of the school district with reliable, up-to-date information. Facilities, to a large extent, are effectively managed and few operational issues were identified within the District. Its human resources and technology operations presented the greatest opportunities for cost savings, as the District's rapid rate of growth presents several challenges over and above those faced by other area Districts. Human resources yielded recommendations on staffing levels and employee benefits while technology recommendations focused on planning for future infrastructure needs. Historically the District has been proactive in seeking independent assessments of its programs and services and, while the recommendations contained within the performance audit are resources intended to assist Olentangy LSD in refining operations, District officials are encouraged to continue their ongoing evaluations of operations and develop alternative recommendations 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 Olentangy LSD and its contents discussed with the appropriate officials and District management.

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 black ink that reads "Betty Montgomery".

BETTY MONTGOMERY
Auditor of State

March 1, 2005

Executive Summary

Project History

In January of 2004, the Olentangy Local School District (Olentangy LSD or the District) contacted the Auditor of State's Office (AOS) to request a performance audit. Consistent with the District's commitment to its students and residents, the administration requested an independent assessment of District operations to identify efficient and effective practices and determine areas for improvement. Furthermore, the desire to optimally serve a rapid and continuously growing student population gave cause for an independent assessment to determine opportunities for enhancement of educational services commensurate with the District's educational philosophy.

Pursuant to discussions with the District's administration, the following assessment areas were identified for inclusion in the performance audit:

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

Originally, the District asked for a review of student transportation services. At the commencement of fieldwork Olentangy LSD submitted a modification to the Letter of Arrangement whereby the project would no longer include a review of that part of the District's operation. The District opted to receive consultation from the Ohio Department of Education regarding pupil transportation. Results of that review were not available prior to the release of this report.

The performance audit is designed to develop recommendations that provide cost savings, revenue enhancements, and efficiency improvements and to identify noteworthy accomplishments that recognize efficient and effective practices currently in place at Olentangy LSD. The District is encouraged to continue to monitor and assess its operations to identify other opportunities for future improvements.

District Overview

Olentangy LSD encompasses 110 square miles and is located primarily in Delaware County with its southern border extending into Franklin County. According to the Ohio Department of Education (ODE), the District's average daily membership (ADM) was approximately 8,500 students in FY 2003-04. Olentangy LSD is the 26th largest district in the State of Ohio in terms of enrollment and the largest of the 4 school districts in Delaware County. The District operates 8 elementary schools, 3 middle schools, and 2 high schools. According to the 2000 census, the District population of 35,044 includes a significant percentage (30 percent) of school aged (under 18 years old) residents. Olentangy LSD is located in a predominantly suburban area, with significant commercial and industrial activity.

During FY 2003-04, the District employed approximately 1,000 full-time equivalent (FTE) employees, including approximately 392 regular instruction teachers. The overall student to teacher ratio for regular instruction staff is approximately 18 to 1. According to ODE's FY 2003-04 Local Report Card, Olentangy met 18 of 18 indicators, which merits an excellent rating. The District earned an effective rating in FY 2002-03 having met 20 of 22 indicators.

As noted in its FY 2002-03 Comprehensive Annual Financial Report, the District is considered to be a high wealth district. Much of the business property tax receipts the District enjoys are derived from the commercial tax base centered around the Polaris Fashion Place Mall. The amount of tax revenue Olentangy LSD receives from businesses enables it to maintain instructional operations commensurate with its educational philosophy. In FY 2003-04, property tax collections (local funding) constituted approximately 79 percent of total operating revenue compared to the peer average of 58 percent. Furthermore, the District was successful in passing a 10.5 mill continuous operating levy in March 2004. The new levy is expected to generate approximately \$91.4 million through the forecast period. The increase in local funding helps to bolster the District's financial condition. A review of the District's October 2004 forecast reveals that overall, it will realize an approximate 30 percent increase in revenues over the amounts shown in the June 2004 forecast.

The appeal of the geographic location of the District has been a catalyst for new housing developments which have subsequently led to a greater demand for educational services. From FY 2000-01 to FY 2003-04 the District grew by more than 2,500 students. Hiring certificated staff continues to be a priority for the District as it strives to ensure that it meets educational objectives and the needs of the community it serves. However, it appears that the District could modify hiring and staffing practices, especially for non-instructional positions, in order to achieve levels more commensurate with peer districts. Furthermore, the method used to determine regular instruction staffing levels results in student-teacher ratios that are below peer and state averages. Rapid growth notwithstanding, the District should consider options for

slowing the rate of hiring by reconsidering how it mitigates large class sizes through the hiring of additional staff even when other instruction buildings could absorb overflow.

The District has opened six new buildings since FY 2000-01. It plans to open one new elementary school each year through FY 2008-09 and plans to construct one new middle school to open in FY 2007-08. Enrollment projections indicate that the District will continue to experience high rates of growth in the foreseeable future and will likely require additional space to house new students. The proposed construction schedule is based on enrollment projections developed by the District's development committee which meets regularly to discuss matters regarding school facilities. Despite an aggressive construction schedule, the District's new construction project costs have been lower than national and regional averages in cost per square foot for school facilities. Olentangy LSD will need to remain vigilant in its effort to ensure that students receive instruction in facilities that are well maintained and adequate in size so that service delivery is not affected.

Students at every grade level in Olentangy LSD have access to technology instruction and services. However, the growth in recent years has begun to strain the District's technology infrastructure, leading to a need to upgrade line access to existing buildings. Technology support could be more efficient and cost effective. Reviewing the provision of service and technical support personnel will help to streamline the support services process.

Overall, Olentangy LSD is highly service oriented and strives to ensure that it provides the highest possible quality of education based on its available resources. Although some areas for cost reductions or operational improvements were identified in this audit, the District has been proactive in seeking ways to minimize costs while maintaining high service levels. Continued vigilance and implementation of cost containment practices will help to ensure that the District serves the needs of students and meets the expectations of its community within the constraints of its projected funding.

Objectives, Scope, and Methodology

A performance audit is defined as a systematic and objective assessment of the performance of an organization, program, function, or activity to develop findings, conclusions, and recommendations. Performance audits are usually classified as either economy and efficiency audits or program audits. Economy and efficiency audits consider whether an entity is using its resources efficiently and effectively. Program audits are designed to determine if the entity's activities or programs are effective, if they are reaching their goals, and if the goals are proper, suitable, or relevant. This audit contains elements of both an economy and efficiency and program audit.

This performance audit was conducted in accordance with Generally Accepted Government Auditing Standards. Audit work was conducted between April and October, 2004. To complete this report, auditors gathered and assessed data from various areas, conducted interviews with Olentangy LSD personnel, and evaluated requested information from the selected peer districts. Dublin City School District (Franklin County), Mason City School District (Warren County), Hilliard City School District (Franklin County) and Pickerington Local School District (Fairfield County) were selected as peers based upon comparability as identified by ODE, reviews of demographic information, reported levels of efficiency and effectiveness, and input from District personnel¹⁻¹. These districts, however, have not experienced the same level of growth as Olentangy LSD—selection was weighted on the current student populations of the districts. Best practice information from ODE, the State Employment Relations Board (SERB), American Schools and Universities (AS&U), the National Middle School Association (NMSA), and other school districts were used for additional comparisons.

The goal of this performance audit is to provide an independent assessment of current District operations in an effort to improve service delivery and optimize operational efficiency and effectiveness. The assessments and subsequent recommendations are designed to help Olentangy LSD increase efficiency and maintain its fiscal solvency in the forecasted future. By implementing the recommendations contained in this audit, Olentangy LSD could further bolster its financial standing, increase efficiency in service delivery, enhance planning processes, and strengthen internal controls. Improving the overall operational condition of the district will have a positive impact on the instructional atmosphere to the benefit of both students and employees.

The performance audit process involved information sharing with members of the Board of Education (the Board) and administrative personnel, including the superintendent and treasurer. Periodic status meetings were held throughout the engagement to inform the District of preliminary findings, recommendations, and key issues impacting selected audit areas. In addition, the District provided written comments in response to various recommendations which were taken into consideration in the reporting process.

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

¹⁻¹ Criteria included in ODE's comparable district listings include geographic size, average daily membership (ADM), Ohio Proficiency Test ratings, per pupil expenditures, socioeconomic demographics, population density, and real property valuation

Noteworthy Accomplishments

During the course of the performance audit, several noteworthy accomplishments or best practices were noted. These are outlined below.

- Olentangy LSD has been proactive in independently selecting areas of operations to review on a regular basis. Continual examination of internal processes helps Olentangy LSD remain a high performing district.

Financial Systems

- The treasurer's five-year financial forecast contains an extraordinary level of detail. The treasurer obtains information from sources including the county auditor, district department heads, and ODE before creating the five-year forecast. In addition, all information obtained from these sources is aggregated into a collection of well-organized internal source documents. For each line-item in the forecast, the source documents clearly identify the methodology used to forecast the line-item and quantify any adjustments which were made.

Human Resources

- Olentangy LSD uses on-line search software for hiring certificated staff. This software allows the application and screening processes to occur electronically and allows staff involved in the hiring process to view the information simultaneously. The District also uses an electronically-structured interview to assist in screening applicants. Olentangy LSD's use of this web-based application process provides greater consistency and facilitates involvement of all necessary parties. Olentangy LSD was an early user of this software and as a result of its success, ODE is making this software available to all districts in the State.

Facilities

- The District has a development committee consisting of community members and District personnel. The development committee reviews and develops enrollment projections and determines facility needs, prepares short-term and long-term construction budgets, and updates the long range plan annually. Using a community oriented development committee ensures that the District includes the diverse concerns of its stakeholder groups.

- The District has a web-based security system and web-based access to utilities for most buildings. Web-based security and utility controls reduce the costs associated with building checks performed by employees.
- The District has implemented an automated work order program that allows it to download work orders and track preventive maintenance. Automated work order programs are more efficient than paper-based systems, especially in large districts, because they allow for a greater degree of service level and cost tracking, and provide information on needed repairs more quickly than manual systems.
- The District's construction project costs have been lower than national and regional averages in cost per square foot for school facilities. The ninth annual construction report from *School Planning and Management*, February, 2004, details the costs of school facilities for the previous year. The national median cost per square foot for elementary buildings was \$121. Regionally (Ohio, Indiana, and Michigan), the median cost per square foot was \$137. Olentangy LSD built Walnut Creek Elementary for approximately \$96 per square foot. The cost of Orange Middle School was approximately \$106 per square foot, well below the region's median for middle schools (\$152).

Technology

- The District is implementing Novell ZENworks in FY 2004-05 to manage its servers. ZENworks allows administrators and technicians to automatically configure, update and troubleshoot workstations and servers from remote locations, without having to visit each device. The District also intends to implement an electronic trouble ticketing system to report and track support issues via e-mail.
- The District is increasing standardization of equipment and software among its buildings. This reduces complexity and expense by supporting a limited number of applications and computer environments.
- The District employs numerous procurement strategies, both to maximize its resources and meet user needs. For example, it obtains volume discounts by taking part in purchasing consortiums, enters into multi-year agreements for certain software to reduce costs, and has a productive relationship with a local vendor through which it negotiates competitive prices.
- District officials related an incident in which a student very proficient in technology was caught attempting to circumvent network security to play video games on the Internet.

The District crafted an innovative behavior modification process by requiring the student to assist its technicians in risk-avoidance support functions.

Key Recommendations

The performance audit contains a number of recommendations pertaining to Olentangy LSD operations. The following are the key recommendations from the report:

Financial Systems

- The District should seek to provide public access to financial information via its website. The District should publish budget documents, financial reports, and other useful financial information on its website. During the course of this audit, the treasurer took actions to provide public access to financial information via the District's website.
- Olentangy LSD's published five-year financial forecast and the accompanying assumptions or notes should be expanded to include the detailed historic and projected information and explanatory comments used by the treasurer. During the course of this audit, the treasurer took actions to implement this recommendation by providing public access to financial information via the District's website.
- Olentangy LSD should prepare and distribute a Popular Annual Financial Report (PAFR) in conjunction with the Comprehensive Annual Financial Report (CAFR).

Human Resources

- Olentangy LSD should consider monitoring its hiring practices in the areas of central and site-based administrators, as well as clerical staffing levels. The annual cost savings to Olentangy LSD by reducing clerical staff per school building to the peer average would be approximately \$38,000 beginning in FY 2006-07, with additional savings of approximately \$19,000 beginning in FY 2007-08.
- Olentangy LSD should monitor special education teaching ratios to ensure that staffing is adjusted appropriately to meet student needs based on individual educational plans (IEPs) and the District's special education model. The District should also consider reducing educational service personnel (ESP) staff to a level more in line with the peer average. However, Olentangy LSD is the only district to have contractual requirements regarding the number of library/media specialists and ESP teachers required to serve its student population. Some of these ESP personnel also work in specialized programs, such as the elementary school strings program, that are offered at Olentangy LSD. Based on FY 2003-04 salaries and benefits, Olentangy LSD would see an annual savings of

approximately \$1.4 million by reducing staff in the librarian/media specialist and ESP teacher classifications by 2 FTEs and 20 FTEs, respectively.

- Olentangy LSD should explore options for purchasing health insurance to ensure that competitive rates are being obtained. In addition, the District should negotiate with its certificated staff bargaining unit to change the base plan offered to employees in an effort to reduce overall health care spending. Should Olentangy LSD lower its premiums to the SERB statewide average, it would save 15 percent in premiums for single and 23 percent for family healthcare premiums. This would result in savings of approximately \$1.12 million in FY 2005-06
- During future contract negotiations, Olentangy LSD should seek changes in health insurance coverage and premium payments. The District should negotiate to require all full-time employees who are not contributing toward insurance or are contributing at a lower rate, to pay 10 percent of their health care premiums. The net savings to the District would be just under \$9,000 annually.
- Olentangy LSD should review its vision insurance plan and seek more competitive rates by changing benefits to be more comparable to peers. Olentangy should also seek to increase its co-payment level to achieve premium costs that are comparable to peers. Based on the most conservative difference between Olentangy LSD and the SERB statewide averages, the District would save between \$11,000 and \$31,000 annually if it could lower vision insurance premiums to a level closer to the SERB average.
- As part of its long term technology planning, Olentangy LSD should consider purchasing a comprehensive human resource information system (HRIS) to assist in managing its growing human resource needs. A comprehensive HRIS will help Olentangy LSD better manage and coordinate benefits administration, recruiting and hiring, and other HR functions. To implement and maintain an HRIS for its employees, the District could expect to spend between \$72,000 and \$144,000 annually depending on the package it chooses.

Facilities

- Olentangy LSD should consider realigning custodial assignments to reduce staffing at the elementary schools to 3 FTEs per school. This could be achieved by moving some custodians to the high schools and, as new buildings open, moving employees from their current elementary buildings to staff the new buildings. Although no cost savings will be immediately gained through the implementation of this recommendation, the District will be able to avoid future personnel costs by redistributing its custodians throughout the District.

- Olentangy LSD should consider eliminating or reducing weekend building checks. Building checks are unnecessary as the District has implemented automated controls and remote monitoring. If the District eliminated weekend building checks at the elementary and middle schools, it could save approximately \$29,000 annually.

Technology

- The District should reorganize its staffing methodology for technical support. With the implementation of planned support technologies, strategies of peer districts, and recommendations contained throughout this section, the District should be able to reduce its overall technical support staff by 4.0 FTE positions. If implemented, this reorganization could result in an annual average net savings of approximately \$195,000 from FY 2005-06 to FY 2008-09 after deducting associated costs for the supplemental and part-time laboratory positions.
- The District should investigate the potential to consolidate network file servers to reduce server replacement, administration, and support costs. It should also continue the process of centralizing as many services as possible onto its network. Assuming the District is able to reduce the level of server purchases (new and replacement) by at least one-third, it could avoid \$11,250 in annual capital costs.
- Given the need to increase network capacity, the District should consider significantly altering the makeup of its Wide Area Network (WAN). It should consider a pending proposal from its Data Acquisition Site to upgrade the WAN to a fiber network, but should also investigate other options for WAN architecture. In the short-term, the addition of two T-1 lines for each high school would cost \$12,000 annually. If the District leases lines directly from a cable company, it can expect annual costs (service and content filtering) of \$270,000 beginning in FY 2005-06.
- Due to its high rate of growth and rapid expansion, the District should develop a formal policy to distribute computers in future fiscal years. The District should develop a policy to ensure that it equitable and efficient distribution of technology resources to schools within the District.
- The District should migrate from a reliance on individual inkjet printers to network laser printers. Even though laser printers represent greater up-front purchase costs, they would provide savings over time through reduced ink costs. The net annual savings using this scenario would be approximately \$9,500 based on FY 2003-04 usage. As the District opens new schools, it can expect average annual cost avoidances of \$4,500.

- Given its many in-house applications and the likelihood of continued mass worm attacks against vulnerabilities in its operating system, the District should budget funds to expand security efforts. The minimum cost for the additional security equipment is \$7,200.
- The District should develop and frequently test a disaster recovery plan for its in-house applications. Developing a disaster recovery plan prepares an organization to recover operations as quickly and efficiently as possible after a disruption from natural (fire, flood, or other *force majeure*) or other causes, such as a breach in security.

Additional Findings and Recommendations

Financial Systems

- Olentangy LSD should closely examine spending patterns in several areas and consider allocating monies toward those programs and priorities which have the greatest impact on learning outcomes and proficiency test results.

Human Resources

- Olentangy LSD should implement a program to reduce sick leave use that involves improved tracking of sick leave usage, provision of additional training on managing sick leave usage, setting benchmarks for sick leave use, and coordinating policies to encourage staff attendance. Based on Olentangy LSD's hourly rate for substitutes of \$11.51, a reduction of sick leave to the peer average would result in annual savings of approximately \$8,000.
- The District should negotiate with its Teachers Association to allow the District more flexibility in making changes to its health insurance plan. This will provide the District with increased flexibility to address, in a cooperative manner with staff, additional alternatives to contain the growing costs of employee health care.
- Olentangy LSD should seek to negotiate changes in benefits for certificated employees in the areas of professional leave, sick leave accrual, eligibility for severance pay, amount of severance pay, and notice for personal leave. Further, the District should seek to negotiate to remove language regarding class size and minimum staffing levels for certain areas.
- Olentangy LSD should attempt, in future negotiations with its classified staff bargaining units, to bring employee benefits to a level that is comparable to the peer districts. The District should adjust work hours to exclude the lunch period, which will increase staff productivity.

Facilities

- Olentangy LSD should consolidate its facility plan information into one working document. The plan should be linked to the District's educational programs and academic achievement in the form of a facility master plan. The facility master plan should also be linked to the capital improvement plan.
- Olentangy LSD should, with input from the community, determine the long-term feasibility of its facility capacity calculations. As the standard format used by the district ensures a low capacity to meet its educational philosophy, it needs to confirm community support for the more costly operations associated with buildings designed and staffed to keep class sizes low.

Technology

- The District should increase minimum hiring qualifications for its technicians to a level commensurate with the peer districts and U.S. Department of Labor recommendations.
- The District should consider increasing the level of clerical support by 0.25 FTE to assist in administrative responsibilities now being handled by central office technical staff. The additional clerical support could help process administrative tasks and route support calls without taking time away from technicians. The District responded that it intends to implement this recommendation by increasing administrative support to the technology department.
- The District should consider a curriculum program to train students in technical support. These students could support district technology in a peripheral manner as part of their instructional program. The District should expect, at minimum, a \$5,000 cost encompassing advisor stipends as well as training and material costs.
- The District should consider alternatives to having its own technicians deploy replacement computers. This could include contracting out for the deployment of replacement computers, requiring vendor set-up of equipment, or using student help. The District would realize a cost savings of \$2,300 annually by contracting out deployment rather than using these technicians.
- As the District finalizes implementation of an electronic trouble ticketing system, it should ensure use of the system to randomly track customer satisfaction and closed tickets. The District should use its trouble ticketing system to establish performance indicators to measure both reliability of equipment and technician performance.

- The District should consider using repair histories gained from its trouble-ticketing system, as well as industry recommendations, to determine the optimum standards for repairing versus replacing computers. It should also measure the extent of repair on equipment no longer under warranty and determine if this justifies extending equipment warranties.
- The District should consider developing a policy for the acceptance of donated computers. A donated computer policy will help ensure that donated equipment is compatible and useful to the District.
- The District should increase the resources dedicated to technology-related professional development of its teachers. It should seek cost-effective options for expanding its staff development program for teachers and principals, such as diverting allowable portions of capital grant funding for professional development. Finally, the District should increase the use of online training opportunities. If the District were to fund at least one hour of technology training annually for each teacher, the cost would be approximately \$17,000.
- The District should develop a written security policy and procedures manual. A written policy ensures that proper security practices are uniformly communicated and adopted throughout the District. Development of a manual will also help expose and remediate outstanding security weaknesses to prevent unauthorized access to sensitive applications.
- The District should develop and enforce a policy for staff, describing the appropriate and inappropriate uses of technology. Also, the District should monitor and audit its computers for potential inappropriate use following implementation of the ZENworks remote management software in FY 2004-05.
- The District should seek additional technology grants and ensure sufficient staff resources to monitor these grants. The technology supervisor should devote a portion of his time to grant-seeking using industry Websites or publications.

Summary of Financial Implications

The following table summarizes the performance audit recommendations that contain financial implications. These recommendations provide a series of ideas or suggestions that Olentangy LSD should consider. Several of the recommendations are dependent on labor negotiations or labor agreements. Detailed information concerning the financial implications, including assumptions, is contained within the individual sections of the performance audit.

Summary of Financial Implications

Recommendations from Sections	Estimated Annual Cost Savings	Estimated Annual Cost Avoidance	Estimated Annual Cost	Estimated One-time Implementation Cost
Human Resources				
R3.1 Review hiring practice for site-based and central office/administrators as well as clerical staff	\$57,000			
R3.2 Reduce ESP personnel by 20 teachers and 2 library/media specialists	\$1,400,000			
R3.3 Reduce classified staff sick leave usage	\$8,000			
R3.4 Reduce health care premiums to SERB-reported average for all school districts	\$1,140,000			
R3.5 Implement 10 percent employee contributions to health care	\$9,000			
R3.7 Reduce vision insurance premiums	\$11,000			
R3.10 Purchase an HRIS			\$144,000	
Facilities				
R4.2 Eliminate weekend building checks	\$29,000			
Technology				
R5.1 Reduce technician staff by 4.0 FTE	\$195,000			
R5.4 Develop student technical support program			\$5,000	
R5.5 Set-up of computers	\$2,300			
R5.7 Consolidate Servers		\$11,250		
R5.8a Add two T-1 lines at high schools			\$12,000	
R5.8b Implement fiber optic network			\$270,000	
R5.12 Migrate from inkjet to laserjet printers	\$9,500	\$4,500		
R5.13 Increase spending on technology professional development			\$17,000	
R5.15 Purchase anti-worm security equipment			\$1,700	\$5,500
Total	\$2,860,800	\$15,750	\$437,700¹	\$5,500

Note: Figures are representative of amounts that would be realized in FY 2004-05.

¹ Total estimated annual cost does not include cost of R5.8a since this will be eliminated upon implementation of R5.8b.

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

Issues Requiring 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 the auditors do not have the time or the resources to pursue. AOS has identified the following such issues.

Human Resources

- **Food Service Staffing Levels:** Food Service operations were not reviewed because the District does not use General Fund revenues to support this area of operations. However, comparative staffing data shows that Olentangy LSD uses more staff per 1,000 ADM for food service operations than the peer average. Hilliard CSD contracts with an external vendor to provide food service. It reported that this has been a cost effective way to provide food service and has helped keep lunch costs down. Likewise, Dublin CSD does not prepare its food in-house. Olentangy LSD monitors its food service program using National Lunch Program per-meal standards but should review food service options to ensure that it is providing this service in the most cost effective manner.

Technology

- **Compensation:** The District should study the competitiveness of salaries within the technology department. Average District technician and network support salaries are below the peer averages. Low pay scales have hindered District attempts to attract and retain qualified staff. One elementary technology aide position remained open for all of FY 2003-04.
- **Wireless Technology:** The District should study the costs and benefits of using wireless technology in its school buildings. Olentangy LSD is the only school district among the peers that does not employ wireless technology within its schools. Wireless technology can reduce the costs associated with wiring/retrofitting to expand network access, and reduce costs associated with building space. However, the District would have to make an up-front technology investment for items such as additional laptop computers if it wishes to create wireless solutions such as mobile labs.

Financial Systems

Background

This section focuses on the financial systems within Olentangy Local School District (Olentangy LSD or District). The objective is to analyze the current and future financial condition of Olentangy LSD and develop recommendations for improvements in the financial processes, and identify opportunities to increase cost efficiency. Olentangy LSD's five-year forecast is analyzed to ensure that the projections accurately represent future operational and financial conditions.

The Olentangy LSD Treasurer's Office consists of eight employees, including the treasurer/CFO, assistant treasurer, secretary to the treasurer, two payroll assistants, and three accounting clerks. The District also plans to add a position to the treasurer's office in FY 2004-05. The duties of this position have not yet been determined.

The treasurer is primarily responsible for managing and tracking district revenues and expenditures, developing the annual tax budget, preparing financial statements, and maintaining the district's five year forecast. The District's previous treasurer retired from the position in July 2004 after having served with the District for approximately five years. Under the Direction of the previous treasurer, the District was recognized for excellence in financial reporting by the Government Finance Officers Association (GFOA) of the United States and Canada. In August 2004, the assistant treasurer was promoted to the treasurer position.

Financial Condition

The financial forecast presented in **Table 2-1** represents the treasurer's projections of Olentangy LSD's present and future financial condition as of October 31, 2004. The forecast and accompanying assumptions are the representations of Olentangy LSD and are presented without verification. The projections reflect the General Fund and are accompanied by three years of comparative historical results, general assumptions and explanatory comments. Assumptions that have a significant impact on Olentangy LSD's financial status, such as property tax revenue, salaries and wages, and capital outlays, have been reviewed for reasonableness.

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

	Actual 2001-02	Actual 2002-03	Actual 2003-04	Forecast 2004-05	Forecast 2005-06	Forecast 2006-07	Forecast 2007-08	Forecast 2008-09
Real Estate Property Tax	\$29,386	\$32,853	\$35,745	\$49,723	\$63,847	\$69,640	\$75,314	\$81,233
Tangible Personal Property Tax	\$7,193	\$8,135	\$7,647	\$8,470	\$10,044	\$10,428	\$9,804	\$11,177
Unrestricted Grants-in-Aid	\$2,621	\$3,544	\$4,695	\$4,576	\$3,937	\$3,759	\$3,582	\$3,683
Restricted Grants-in-Aid	\$120	\$96	\$45	\$40	\$40	\$40	\$40	\$40
Property Tax Allocation	\$4,132	\$4,896	\$5,262	\$7,091	\$9,007	\$9,750	\$10,446	\$11,142
Other Revenues	\$1,646	\$2,475	\$2,289	\$2,174	\$2,386	\$2,553	\$2,732	\$2,923
Total Operating Revenues	\$45,098	\$51,999	\$55,683	\$72,074	\$89,261	\$96,170	\$101,918	\$110,198
Total Other Financing Sources	\$3,296	\$3,609	\$3,319	\$14,525	\$5,265	\$5,292	\$5,341	\$5,263
Total Revenues and Other Financing Sources	\$48,394	\$55,608	\$59,002	\$86,599	\$94,526	\$101,462	\$107,259	\$115,461
Salaries & Wages	\$28,346	\$33,743	\$40,715	\$49,691	\$54,950	\$62,764	\$72,469	\$81,862
Fringe Benefits	\$8,407	\$10,617	\$13,548	\$16,349	\$19,044	\$22,522	\$26,948	\$31,501
Purchased Services	\$3,649	\$4,348	\$5,822	\$7,005	\$7,839	\$8,787	\$10,406	\$11,779
Supplies, Materials & Textbooks	\$2,602	\$2,815	\$3,899	\$3,670	\$3,550	\$3,990	\$5,675	\$7,388
Capital Outlay	\$1,086	\$2,168	\$1,067	\$251	\$268	\$285	\$304	\$323
Debt Service	\$0	\$0	\$0	\$0	\$3,638	\$3,638	\$3,638	\$0
Other Expenditures	\$2,082	\$2,431	\$3,410	\$4,068	\$4,528	\$5,037	\$5,861	\$6,372
Total Operating Expenditures	\$46,172	\$56,122	\$68,461	\$81,034	\$93,817	\$107,023	\$125,301	\$139,225
Total Other Financing Uses	\$25	\$118	\$38	\$10	\$10	\$10	\$10	\$0
Total Expenditures and Other Financing Uses	\$46,197	\$56,240	\$68,499	\$81,044	\$93,827	\$107,033	\$125,311	\$139,225
Result of Operations (Net)	\$2,197	(\$632)	(\$9,497)	\$5,555	\$699	(\$5,571)	(\$18,052)	(\$23,764)
Beginning Cash Balance	\$9,111	\$11,308	\$10,676	\$1,179	\$6,734	\$7,433	\$1,862	(\$16,190)
Ending Cash Balance	\$11,308	\$10,676	\$1,179	\$6,734	\$7,433	\$1,862	(\$16,190)	(\$39,954)
Outstanding Encumbrances	\$1,702	\$2,189	\$1,168	\$1,500	\$1,650	\$1,800	\$1,950	\$2,100
Total Reservations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Ending Fund Balance	\$9,606	\$8,487	\$11	\$5,234	\$5,783	\$62	(\$18,140)	(\$42,054)
Unreserved Fund Balance	\$9,606	\$8,487	\$11	\$5,234	\$5,783	\$62	(\$18,140)	(\$42,054)

Source: Olentangy LSD Treasurer

¹Due to rounding, totals shown in **Table 2-1** may vary from the totals reflected in the five-year forecast submitted to ODE

Olentangy LSD’s financial forecast in **Table 2-1** presents projected revenues, expenditures and ending fund balances for the General Fund for each of the fiscal years from June 30, 2005 through June 30, 2009, with historical (un-audited) information presented for the fiscal years ended June 30, 2002, 2003, and 2004. The District’s treasurer has forecasted an ending fund deficit in excess of \$42.0 million at the end of FY 2008-09 in addition to operating deficits in FY 2006-07 through FY 2008-09. The forecast also includes the impact of a 10.5 mill operating levy which was passed in March 2004. Collections on this levy will begin in February 2005 and are expected to generate approximately \$91.4 million through the forecast period.

The assumptions disclosed herein were developed by the treasurer and are used for **Table 2-1**. They are based on information obtained from Olentangy LSD. Because circumstances and

conditions assumed in projections frequently do not occur as expected and are based on information existing at the time projections are prepared, there will usually be differences between projected and actual results. Major assumptions used to develop the five-year forecast were as follows:

Revenues

- Forecasted general property taxes for fiscal years 2005-2009 are based on several factors. For starters, District voters passed a 10.5 mill operating levy in March 2004. The District will receive the first collection of this levy in the spring of 2005, meaning that only one collection of this levy will occur in FY 2005. Approximately 52 percent of the levy amount is expected to be collected at that time, resulting in a \$10 million increase in revenue. Adjustments were also made to account for new construction growth and scheduled updates and reappraisals (inflation). These adjustments were made based on the Districts historical trends since 1995. The percentage increase applied to each category of property taxes were as follows:

Table 2-2: Forecasted Real Estate Tax Percentage Increase

	Tax Year 2004	Tax Year 2005	Tax Year 2006	Tax Year 2007	Tax Year 2008
Residential					
Inflation/reappraisal	2%	15%	2%	2%	12%
Construction Growth	10%	9%	9%	7%	6%
Commercial					
Inflation/reappraisal	3%	12%	0%	0%	8%
Construction Growth	8.5%	6%	6%	8%	5%

Source: Olentangy LSD Five-Year Forecast Notes

The large inflationary increases for tax year 2005 and tax year 2008 are the result of scheduled property value updates conducted by the county auditor. Tax year 2005 reflects a sexennial update, where all property is reappraised through visual inspection. Tax year 2008 reflects a triennial update, where property is reappraised through estimation of market value. Historically, the District has seen greater inflationary increases in years of sexennial updates.

Finally, the forecast contains an adjustment for the collection of delinquent tax payments in FY 2005. The District is forecasting additional revenue totaling approximately \$1 million in FY 2004-05 for the receipt of delinquent tax payments.

- Personal property taxes are forecasted to increase at 0 percent based on actual receipts which were \$730,000 below the Districts projections in FY 2003-04. Tax receipts were lower than expected due to a change in the tax status of a major area business. The District learned in October 2003 that a Banc One Corporation had merged with Bank One

commercial bank, thereby exempting the company from paying personal property taxes. This resulted in a loss of \$1.14 million in revenues. This decrease was partially offset by the first collection of personal property taxes for the Polaris Fashion Place Mall.

Adjustments were also made for several other factors, resulting in increased revenues. For starters, the District will begin receiving personal property taxes from a new distribution center built by the Kroger Company. Also, the District expects to receive additional revenue due to the 10.5 mill levy passed in March 2004. The District expects to receive one collection of this levy in FY 2004-05, totaling 20 percent of the anticipated new revenue. The first full collection year impacted by the new levy will be FY 2005-06.

- This forecast of unrestricted grants-in-aid (primarily state foundation) is based on several factors. As a result of student growth surpassing valuation growth, the District was no longer eligible for additional guarantee revenue at the end of FY 2002-03. However, based on its forecasts of student growth and valuation growth, the District expects to receive the guarantee again beginning in FY 2005-06. While, the District is not forecasting additional guarantee money in FY 2004-05, this lost revenue is expected to be offset by increases in basic aid.

Beginning in FY 2001-02 the state was required to refund school districts for lost property taxes resulting from the reductions in valuation for certain types of public utility property. This reimbursement totaled \$559,000 in FY 2003-04. However, as a result of increases in basic aid the District will not be receiving this revenue in FY 2004-05.

- The restricted grants-in-aid line-item is composed entirely of the District's estimate of bus purchase assistance from the state. The forecast reflects a statewide reduction in bus purchase assistance from the State. This reduction totaled \$45,613 per year. Therefore, the District is assuming that with no additional changes to the funding of this item, state restricted grants-in-aid will total approximately \$40,400 per year.
- Property Tax Allocation (Homestead and Rollback) includes a 10 percent property tax rollback for all real property owners. In 1979, an additional 2.5 percent rollback was enacted for owner-occupied homes. These tax credits are reimbursed to the district through the State. Also included in this category is the \$10,000 exemption for personal property taxes paid by the State. The \$10,000 exemption amount is being phased out over a 10 year period, beginning with FY2003-04; therefore, a decrease of \$24,593 is shown in each of the five years.

The Property Tax Allocation is projected to increase in future years at the same rate as property tax receipts, because the allocation is calculated as a fixed percentage of property tax receipts. Therefore, the growth in this revenue parallels the anticipated

growth in property taxes. The district has adjusted this category in relation to the real estate tax collections it has projected.

- Other revenues include various items such as investment income, facility rentals, pay-to-participate fees, tuition, donations, tax sharing agreements, and items which cannot be classified under any other classification. Revenues from all other sources are based primarily on historical patterns. From this forecast, positive and negative adjustments were made to account for issues bearing a significant impact on the line-item. For instance, the majority of the line-item is from income tax sharing agreements with the City of Westerville and the City of Columbus, as these two entities granted tax abatements to several businesses. Based on the size of the abatements, revenue is required to be shared with the District. This revenue is expected to increase 7 percent per year based on historical trends.

This line was also impacted by several changes in the District's accounting procedures. In FY 2000-01 and FY 2001-02, real estate taxes related to the Tax Increment Financing (TIF) District were included in other revenues. Beginning in FY 2002-03 these revenues were moved to other financing sources to allow the district to better track activities in the TIF properties.

Expenditures

The District uses a building-based budgeting system. Therefore, expenditure assumptions are directly tied to the number and type of buildings the District expects to operate in each year of the five-year forecast. All existing buildings are projected to remain operational and the following buildings to be added:

- One new middle school to open 2004-05
 - One new elementary school to open 2005-06
 - One new elementary school to open 2006-07
 - One new elementary school to open in 2007-08
 - One new middle school to open 2007-08
 - One new elementary school to open in 2008-09
- Forecasted salaries and wages are based on pay increases approved by the board of education for FY 2004-05. For this year, base salary increases are forecasted at 3.1 percent, while step increases are forecasted at 3.0 percent. In addition, the forecast includes approximately \$400,000 per year to account for increases in salaries resulting from certified staff increasing their education. For periods beyond the current agreements, historical patterns regarding salary and benefit increases have been used.

The forecast also includes projections for additional staff which are dictated by future enrollment projections and the opening of new buildings. Additional staffing for increased student enrollment and the opening of new facilities has been incorporated in the projections. Administrative positions have been projected for new facilities and the number of positions has been expanded as the district grows. The salary forecast is detailed by component below.

Table 2-3: Salary Forecast by Component

	Fiscal Year 2005	Fiscal Year 2006	Fiscal Year 2007	Fiscal Year 2008	Fiscal Year 2009
Base Wages	\$40,714,839	\$49,690,500	\$54,950,295	\$62,763,854	\$72,468,517
Base Salary Increase	\$1,260,958	\$1,142,375	\$1,263,297	\$1,267,193	\$1,463,193
Steps	\$1,221,445	\$1,490,715	\$1,648,509	\$1,882,916	\$2,174,056
Advancement in Education	\$400,000	\$375,000	\$375,000	\$375,000	\$375,000
New Staffing	\$4,293,258	\$3,851,705	\$4,501,753	\$6,154,554	\$5,355,916
Other Salaries	\$1,800,000	(\$1,600,000)	\$25,000	\$25,000	\$25,000
Total	\$49,690,500	\$54,950,295	\$62,763,854	\$72,468,517	\$81,861,618

Source: Olentangy LSD Five-Year Forecast Notes

In FY 2004-05, the other salaries line in **Table 2-3** represents a 27th pay period that the District will pay in FY 2004-05 as the District pays every two weeks. Usually, this occurs once every seven years. In FY 2005-06 the calendar will require only 26 pay period, hence the \$1,600,000 reduction noted in **Table 2-3**.

- The fringe benefits line-item includes employer pension payments, medical insurance costs, and Medicare contributions. Pension benefits (payments to STRS/SERS) are forecasted at 14 percent of payroll. In addition, the SERS surcharge will increase dramatically as minimum compensation amount was increased from \$14,500 to \$25,400. Under this change, all salaries less the \$25,400 will be charged by SERS to the District as if the employee were paid \$25,400. While there is a maximum amount a year based on total payroll, this change is forecasted to cost the District at least \$100,000.

In FY 2004 the Districts health benefits increased by 4 percent. This amount was less than expected; therefore the District is forecasting a future increase of 12 percent. Finally, Medicare contributions are forecasted at 1.45 percent of payroll.

- Purchased service expenditures are forecasted to increase an average of 11 percent per year. This estimate is driven by several significant line items. First, utilities are forecasted to increase 15-17 percent in FY 2005-06 and 12-13 percent in the remaining years of the forecast. The District expects tuition payments to community schools to increase 10 percent year. The final portion of the forecast includes a 2 percent inflationary increase for all other items.

- Supplies and materials are forecasted to increase 8 percent per year based on historical patterns and are increased to allow for inflation and student enrollment increases. Also, the District has included additional funding for new buildings and new textbook adoptions. Supply expenditures increased when the District changed the threshold for equipment purchases to \$2,000 (i.e., items previously recorded as capital outlays are reported as supplies if under \$2,000). The District anticipates compliance with set-aside requirements established by Senate Bill (S.B.) 345. The forecast of supplies and materials is detailed in **Table 2-4** below.

Table 2-4: Supplies and Material Forecast by Component

	Fiscal Year 2005	Fiscal Year 2006	Fiscal Year 2007	Fiscal Year 2008	Fiscal Year 2009
Supplies and Materials	\$3,349,602	\$3,131,170	\$3,603,063	\$4,119,350	\$5,064,374
New School Allowances	\$320,000	\$205,000	\$211,150	\$569,885	\$224,009
Textbook adoptions	\$0	\$214,200	\$175,500	\$986,000	\$2,100,000
Total	\$3,669,602	\$3,550,370	\$3,989,713	\$5,675,235	\$7,388,383

Source: Olentangy LSD Five-Year Forecast Notes

- Capital outlay projections only include those items that have a value greater than \$2,000. These expenditures are forecasted to increase at a rate of 6 percent per year. The District anticipates compliance with set-aside requirements established by S.B. 345.
- Forecasted debt service payments are directly related to the District taking a \$10,000,000 tax anticipation note to cover cash requirements until new levy revenue is collected.
- Other expenditures are primarily composed of expenses related to contracted services with the county Educational Services Center (ESC). This category also includes auditor/treasurer fees for collection of taxes. As tax collections increase, so do the collection fees. Therefore the District is forecasting a 6 percent increase in these fees.
- Encumbrances are based on historical trends of actual expenditures which totaled 98 percent of the projected expenditures. Encumbrances are forecasted between 1.5 to 2 percent of total expenditures for all years.

Net Financing

- Real estate taxes related to the Tax Increment Financing (TIF) District were moved to other financing sources in this forecast to allow the district to better track activities in the TIF properties.
- The District is not forecasting transfers-out during the forecast period. Transfers-in are typically not material and may or may not occur depending on the financing needs of

other funds. If transfers-in do occur they are likely to result from operational decisions that could not be predicted at the time the forecast was created. Transfers in are forecasted at \$1,000 per year throughout the forecast and are not expected to have a material impact.

Financial Operations

The following tables represent Olentangy LSD’s operations in FY 2003-04 and could suggest areas for future expenditure reductions. The information in these tables is aggregated and compared in categories based on the Uniform School Accounting System (USAS) guidelines. All Ohio school districts are required to use USAS and the categorization is highly specific. In some cases, minimal differences in the manner in which a district structures its expenditures may exist. For example, a district that collects 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. Where relevant, these discrepancies are disclosed. **Table 2-5** compares Olentangy LSD’s FY 2003-04 General Fund operational revenues and expenditures per pupil to peer districts.

**Table 2-5: FY 2003-04 General Fund Revenues
by Source and Expenditures by Object**

Number of Students (ADM)	Olentangy LSD		Dublin CSD		Hilliard CSD		Mason CSD		Pickerington LSD		Peer Average	
	7,997		11,808		13,512		8,109		8,540		11,143	
	\$ Per Pupil	% of Total	\$ Per Pupil	% of Total	\$ Per Pupil	% of Total	\$ Per Pupil	% of Total	\$ Per Pupil	% of Total	\$ Per Pupil	% of Total
Property/ Income Tax	\$5,825	79%	\$6,640	75%	\$4,643	59%	\$4,561	57%	\$3,281	43%	\$4,781	58%
Intergovernmental Revenues	\$1,252	17%	\$2,036	23%	\$3,133	40%	\$3,299	41%	\$4,290	56%	\$3,190	40%
Other Revenues	\$285	4%	\$223	3%	\$113	1%	\$106	1%	\$58	1%	\$125	2%
Total Revenue Per Pupil	\$7,361		\$8,900		\$7,889		\$8,336		\$7,629		\$8,096	
Wages	\$5,091	59%	\$6,202	70%	\$5,643	66%	\$5,026	65%	\$4,708	64%	\$5,395	66%
Fringe benefits	\$1,694	20%	\$1,704	19%	\$1,893	22%	\$1,593	21%	\$1,411	19%	\$1,650	20%
Purchased Services	\$728	9%	\$544	6%	\$550	6%	\$572	7%	\$869	12%	\$634	8%
Supplies & Textbooks	\$488	6%	\$201	2%	\$289	3%	\$345	4%	\$153	2%	\$247	3%
Capital Outlay	\$133	2%	\$39	0%	\$89	1%	\$41	1%	\$45	1%	\$54	1%
Miscellaneous	\$426	5%	\$130	1%	\$94	1%	\$124	2%	\$184	2%	\$133	2%
Total Expenditures Per Pupil	\$8,560		\$8,820		\$8,558		\$7,702		\$7,369		\$8,112	

Source: FY 2003-04 Annual Financial Reports (4502's)

As shown in **Table 2-5**, the District is receiving a significantly higher percentage of its revenues from property taxes (local funding) than the peer average. This indicates that the District is less reliant on the State operating funds than the peers. Items comprising the other revenues line include classroom materials and fees, earnings on investments, compensation for tax abated property, and all miscellaneous revenues which cannot be classified into one of the previously

mentioned classifications. These revenues historically exhibit a great deal of variability and therefore, it is not certain that revenue levels will be higher than the peers from one year to the next.

Olentangy LSD's financial condition is primarily explained by a higher level of expenditures per pupil compared to the peer average. As shown in **Table 2-5**, Olentangy LSD's operational expenditures per pupil were 5.5 percent greater than the peer average, and were higher than the peer average in the following categories based on cost per pupil.

- Fringe Benefits;
- Purchased Services;
- Supplies & Textbooks;
- Capital Outlay; and
- Miscellaneous uses.

In FY 2003-04, fringe benefits were higher than the peer average. This was due to the District paying substantially higher health insurance premiums (see the **human resources** section for additional analysis) than the peers. Purchased services were higher than the peers due to increases in tuition payments to other districts and increased utility usage resulting from the District opening three new buildings in FY 2003-04. According to the treasurer, these new buildings were also the cause of variances in the categories of supplies and textbooks, capital outlay, and miscellaneous objects. The opening of these new buildings required a significant number of one-time expenditures, which should not occur in FY 2004-05 because the buildings are fully equipped and operational.

Table 2-6 shows selected FY 2003-04 discretionary expenditures by account, as a percentage of total FY 2003-04 General Fund expenditures for Olentangy LSD and the peer districts.

Table 2-6: Peer Comparison of FY 2003-04 Discretionary Expenditures

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Prof. / Technical Services	1.2%	1.3%	1.2%	0.9%	1.1%	1.1%
Property Services	1.1%	1.2%	1.2%	1.6%	0.1%	1.0%
Mileage/Meeting Expense	0.3%	0.2%	0.3%	0.2%	0.1%	0.2%
Communications	0.5%	0.3%	0.3%	0.5%	0.2%	0.3%
Contract. Craft or Trade Service	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%
Pupil Transportation Service	0.2%	0.3%	0.1%	0.3%	5.6%	1.6%
General Supplies	2.7%	1.1%	1.4%	1.7%	1.1%	1.3%
Textbooks/ Reference Materials	1.5%	0.1%	1.1%	0.7%	0.5%	0.6%
Plant Maintenance & Repair	0.7%	0.5%	0.4%	0.8%	0.1%	0.4%
Fleet Maintenance & Repair	0.7%	0.5%	0.4%	0.6%	0.3%	0.5%
Other Supplies & Material	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Equipments	0.7%	0.3%	1.0%	0.5%	0.4%	0.6%
Buses/Vehicles	0.2%	0.1%	0.0%	0.0%	0.3%	0.1%
Dues and Fees	4.9%	1.4%	1.0%	1.5%	2.2%	1.5%
Insurance	0.0%	0.1%	0.0%	0.0%	0.3%	0.1%
Total Discretionary Expenditures	\$10,427,728	\$7,802,230	\$9,819,084	\$5,999,499	\$7,798,125	\$7,854,734
Total Expenditures	\$68,461,151	\$104,526,007	\$115,641,841	\$62,457,319	\$62,928,690	\$94,080,848
Discretionary Expenditures % of Total Expenditures	15.2%	7.5%	8.5%	9.6%	12.4%	8.3%

Source: FY 2003-04 Annual Financial Reports (4502's)

As shown in **Table 2-6**, Olentangy LSD's discretionary spending as a percentage of all General Fund expenses (15.2 percent) was significantly higher than the peer average (8.3 percent). The largest portion of discretionary spending, dues and fees accounted for 4.9 percent of the District's total expenditures. These expenditures can be attributed to charges for services from the local educational service center (ESC). The District feels that in some cases, obtaining services from the ESC is more cost effective than providing the service in-house. In other words, higher expenditures in the dues and fees line item are offset by savings in the salaries and fringe benefits line item. Overall, District expenditures were equal to or greater than the peer average in 12 of 15 possible categories.

For most of the remaining categories, variances from the peer average may indicate operational inefficiency. To determine if this is the case and to illustrate the District's effectiveness in monitoring and controlling expenditures, **Table 2-7** compares the District's annual General Fund expenditures in the categories of purchased services and supplies and materials from FY 2001-02 through FY 2003-04. Due to the District's high growth rate, comparisons are made on a per student basis.

**Table 2-7: General Fund District Purchases per Student
FY 2001-02 through FY 2003-04**

	FY 2001-02	FY 2002-03	% Increase (Decrease)	FY 2003-04	% Increase (Decrease)
ADM	6,332	7,041	11%	7,997	14%
PURCHASED SERVICES:					
Prof. and Technical Services	\$102	\$103	1%	\$104	1%
Property Services	\$86	\$98	14%	\$98	(1%)
Mileage/Meeting Expense	\$26	\$33	25%	\$23	(29%)
Communications	\$45	\$44	(1%)	\$44	0%
Utilities	\$202	\$208	2%	\$272	31%
Contract Craft or Trade Service	\$16	\$15	(6%)	\$19	31%
Tuition	\$78	\$99	28%	\$146	47%
Pupil Transportation Services	\$19	\$15	(24%)	\$17	17%
Other Purchased Services	\$4	\$3	(16%)	\$4	17%
Total Purchased Services	\$578	\$618	7%	\$728	18%
MATERIALS AND SUPPLIES					
General Supplies	\$170	\$172	1%	\$229	33%
Textbooks	\$126	\$101	(20%)	\$118	17%
Library Books	\$6	\$10	66%	\$5	(48%)
Periodicals and Films	\$9	\$6	(30%)	\$8	26%
Food Related Supplies & Materials	\$0	\$1	120%	\$0	(34%)
Maintenance and Repairs to Plant	\$47	\$49	4%	\$64	29%
Maintenance and Repairs to Fleet	\$51	\$62	20%	\$64	3%
Total Materials and Supplies	\$410	\$400	(3%)	\$488	22%

Source: FY 2003-04 Annual Financial Reports (4502's)

Table 2-7 shows that the District has been effective in monitoring expenditures that are under its immediate control. **Table 2-7** also shows that the District has, in many cases, been able to offset significant single year increases with decreases the following year. However, total spending per student has increased significantly over the three-year period. The District indicated that expenditure increases in the categories of utilities, contract craft or trade service, general supplies, textbooks, periodical and films, and maintenance and repairs to plant were likely due to one-time expenditures related to the opening of three new school buildings in FY 2003-04. This appears reasonable considering that these expenditures experienced significant increases in FY 2003-04 but were relatively consistent in prior years.

For FY 2003-04, high percentage increases also existed within the categories of pupil transportation services and other purchased services. However, increases in the total expenditures per student were minimal. Therefore, the increases are not regarded as material.

Only in the categories of tuition and maintenance and repairs to fleet did the District have increases in each year shown in **Table 2-7**. Increases in tuition can be attributed to significant increases in payments to community schools. While in some cases, tuition paid to other districts is discretionary, payments to community schools are not. Parents are ultimately responsible for deciding if their children will leave their home district to attend a community school. Increases in fleet maintenance and repairs can be attributed to several factors. In FY 2002-03 the District expanded its fleet by 20 new buses, each of which began incurring standard maintenance costs in FY 2003-04. In addition, Olentangy LSD's total square mileage is significantly greater than the peers. Olentangy LSD is approximately 110 square miles while the largest peer district (Hilliard) is approximately 60 square miles.

As shown in **Table 2-1**, the District is forecasting operating deficits in each year of the five-year forecast. While the District has reviewed several minor actions to reduce or limit future expenditures, it has not adopted a formal plan for reducing the operating deficits expected to materialize beginning in FY 2004-05. Operating deficits are forecasted primarily because the District's service levels exceed the available financial resources. This factor is compounded by challenging conditions which result from the District's rapid rate of enrollment growth.

Assessments Not Yielding Recommendations

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

- **Five Year Forecast Assumptions:** The assumptions provided as support for the five year forecast were determined to be thorough, reasonable, and based on the best information available at the time the forecast was prepared
- **Discretionary Expenditures:** The District has exercised sufficient control over these expenditures. While the District does allocate a higher percentage of its total general fund expenditures to discretionary purposes, this is primarily due to one-time costs associated with new facilities. During the course of this performance audit, the District also demonstrated the ability to identify these one-time costs and evaluate them independently. This is possible because the District uses the same basic building plan for new buildings.
- **Debt Service:** The District is not using funds which could be used for operations to pay for debt from the General Fund. The District does plan to incur some debt in the form of tax anticipation notes during the forecast period. However, the District is doing so with adequate plans to repay the debt ahead of schedule in order to minimize unnecessary interest expenses.

- **Transfers/Advances:** At no time during the past three years has the District transferred funds from the General Fund to any enterprise funds. In addition, all of the District's advances out to other funds appear to have been returned to the General Fund in the following year.
- **Financial Reporting:** The District's financial reporting system operates effectively and efficiently.

Noteworthy Accomplishments

During the course of this performance audit, the following noteworthy accomplishments or best practices were noted:

- **Five-year forecast:** The treasurer's forecast contains an extraordinary level of detail. The treasurer obtains information from sources including the county auditor, district department heads, and ODE before creating the five-year forecast. In addition, all information obtained from these sources is aggregated into a collection of well-organized internal source documents. For each line-item in the forecast, the source documents are updated frequently and clearly identify the methodology used to forecast the line-item and quantify any adjustments which were made. During the course of the performance audit the District also updated its website to provide access to the five-year forecast and an expanded set of forecast notes, thereby increasing the public's awareness of the issues facing the District.

Recommendations

R2.1 The District should seek to provide public access to financial information via its website. The District should publish budget documents, financial reports, and other useful financial information on its website.

During the course of this audit, the treasurer took actions to provide public access to financial information via the District's website.

As of September 2004, Olentangy LSD's website did not have a subsection devoted strictly to financial information. In addition, departments such as business operations, communications, and personnel have dedicated links while the treasurer's office does not. It should be noted that some financial information is available through links to other subsections, including the Districts Comprehensive Annual Financial Report (CAFR) and financial policies. However, this is the only financial information available on the site.

The Government Finance Officers Association (GFOA) recommends that every government publish budgetary information and financial reports on its website. GFOA has also identified the following guidelines to facilitate this practice:

- The electronic budget document and the electronic CAFR should be identical to the printed versions of these documents;
- The website should prominently notify users that the information in the CAFR has not been updated for developments subsequent to the date of the independent auditor's report;
- The website should prominently inform users whether the budget document presented represents the preliminary budget or the approved budget;
- 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; and
- The security of the website should be evaluated to protect it from manipulation by external or unauthorized persons.

The specific benefits of including budget documents and the CAFR on the government's website include the following:

- *Increased awareness.* Many potential users of the District's financial information are completely unaware of the existence of certain important sources of financial data. The website is a practical means of ensuring that all those with a potential interest in the government's finances are able to benefit from the information.
- *Increased usage.* The difficulties inherent in obtaining any published document may be a barrier to usage for ordinary citizens. This barrier can be eliminated when the budget document and the CAFR are presented on the government's website.
- *Application of analytical tools.* The availability of the budget document and the CAFR in electronic form makes it easy for users to find, extract, and analyze the data contained in these documents.

In general, a high quality website with links to financial data not only facilitates and enhances the budget process, but also promotes greater stakeholder participation, thereby helping to realize an essential element of the mission of the budget process. Similarly, a high quality website is an unparalleled means of demonstrating financial accountability. By placing additional financial information on its web site, the District could enhance stakeholder understanding of that data and garner support for future efforts to control and enhance its financial situation. Olentangy LSD could implement this recommendation within existing resources.

R2.2 In conjunction with R2.1, the published five-year financial forecast and the accompanying assumptions or notes should be expanded to include the detailed historic and projected information and explanatory comments used by the treasurer. The District should consider using its website to provide the public with information beyond that which is required by ODE.

During the course of this audit, the treasurer took actions to implement this recommendation by providing public access to financial information via the District's website.

A forecast is a management tool developed by the treasurer with the assistance of other managers within the school district. Assumptions are the methods by which informed estimates are developed by the appropriate managers within each building or at the district level and communicated to the school 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 Olentangy LSD includes assumptions and notes to its published five-year financial forecast, the assumptions and notes do not provide adequate disclosure regarding the following factors that have an impact on the forecast:

- Historical growth percentages or dollar amounts;
- Detailed descriptions of the components of state foundation revenues;
- Historic and projected expenditures for significant components of purchased services, and supplies;
- Detailed descriptions of capital outlay expenditures, identifying amounts; and
- Projected set-asides for capital maintenance.

Although the treasurer has developed detailed supporting documentation for the forecast, this information has not been made available to the public, in large part because of the limited information that can be included in the material submitted to ODE. The following items represent a sample of inconsistencies or insufficiently detailed analyses that were noted during the review of forecast assumptions which could be better explained through the inclusion of existing supporting documentation on the District's web site:

- The forecast assumptions state that "general property taxes are forecasted based on historical growth patterns including scheduled updates and reappraisals". However, the impact of these factors is not quantified. In the published forecast, the treasurer does not state what percentages were used for historical increases or the additional increases which can be specifically applied to updates and reappraisals.
- The District's estimate of state foundation revenue does not include projections of future enrollment or average daily membership. While the treasurer did make an adjustment to the state foundation forecast to account for the District's trend of increasing enrollment, it could not be determined from the published forecast notes how the treasurer determined that the adjustment was appropriate.
- The forecast should also identify projected set-asides for capital maintenance, textbooks and instructional materials supplies. Olentangy LSD should quantify the cost of implementing programs needed to meet educational outcomes and accountability standards. These costs should be identified as "Additional Educational Enhancements" and described in the accompanying forecast notes.

The treasurer's internal forecast notes contain substantially more information than the assumptions included in the forecast provided to ODE. As discussed in the noteworthy accomplishments, this forecast was also based on sufficient and reasonable data and subject to adequate levels of review. However, the forecast which is submitted to the public (the forecast submitted to ODE) does not sufficiently communicate the factors which will have a significant impact on the District in the future.

The treasurer indicated that this is due primarily to restrictions on the amount of information which can be submitted to ODE electronically. In order for the District to

meet ODE's requirements, information must be summarized prior to submission. Other local districts, such as Westerville City School District, have circumvented this problem by including additional or expanded information via their websites.

By expanding the forecast document on its website in a manner comparable to Westerville CSD, the District will demonstrate greater financial accountability and enhance communication with its stakeholders. The District will be able to provide more comprehensive information to its residents. This will provide the public with a better understanding of the issues which the district has faced or will be facing in the future. Inclusion of additional detail concerning historical events and future expectations would also assist the reader in interpreting the forecast and drawing well informed conclusions.

R2.3 Olentangy LSD should prepare and distribute a Popular Annual Financial Report (PAFR) in conjunction with the Comprehensive Annual Financial Report (CAFR).

Information presented in annual financial reports is broad and presented with a high level of detail. Such comprehensive and detailed presentations are needed to inform decision-makers and demonstrate compliance with legal requirements. However, the level of detail found in many annual financial reports may confuse or discourage those unfamiliar with accounting and financial reporting. A Popular Annual Financial Report (PAFR) is intended to supplement annual financial reports in a simpler format. Olentangy LSD does not prepare a PAFR. Because of the sophistication of its residents and the level of stakeholder involvement in the District, a PAFR would enhance the District's communication with the community it serves.

The GFOA recommends that governments issue a PAFR in conjunction with the Comprehensive Annual Financial Report (CAFR) as a best practice. The GFOA recommends that popular reports exhibit the following characteristics:

- The report should be issued on a timely basis, no later than six months after the close of the fiscal year, so that the information it contains is still relevant.
- The scope of the popular report should be clearly indicated.
- The popular report should mention the existence of the CAFR for the benefit of readers desiring more detailed information.
- The popular report should attract and hold readers' interest, convey financial information in an easily understood manner, present information in an attractive and easy-to-follow format and be written in a concise and clear style.
- The popular report should avoid technical jargon to meet the needs of a broad, general audience and the report's message should be underscored, as appropriate, by photographs, charts, or other graphics.
- Narrative descriptions should be used, as appropriate, to highlight and explain items of particular importance.

- Comparative data should be used constructively to help identify trends useful in the interpretation of financial data.
- Popular reports should be distributed in a number and manner appropriate to their intended readership.
- Users of popular reports should be encouraged to provide feedback.
- Most important, the popular report should establish its credibility with its intended readers by presenting information in a balanced and objective manner.

The PAFR is intended to target those who need or desire a less detailed overview of financial activities. Therefore, by issuing a PAFR, the District can communicate financial accountability to a broader segment of its residents. Considering the District’s rapid rate of growth, the PAFR will also help to communicate the past financial performance of the District to new residents.

R2.4 Olentangy LSD should closely examine spending patterns in several areas (see Table 2-9 and Table 2-10) and consider allocating monies towards those programs and priorities which have the greatest impact on learning outcomes and proficiency test results. In addition, Olentangy LSD should analyze cost reductions recommended in the human resources, facilities, and technology sections of this report to further increase operational and financial efficiency.

The allocation of resources between the various functions of a school district is one of the most important aspects of the budgeting process. Given the limited resources available, functions must be evaluated and prioritized. Analyzing the spending patterns between the various functions should indicate where the priorities of the school board and management are placed. Each school district receives a performance accountability rating from ODE based on 22 performance standards. These 22 standards are minimum performance goals for public education in Ohio. The number of ODE performance standards a school district meets should correlate with its spending patterns. **Table 2-8** presents the number of performance standards Olentangy LSD and the peers met in FY 2003-04.

Table 2-8: ODE Performance Standards Met (of 22 Possible)

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD
Number of Indicators Met (of 18)	18	17	16	18	18
Performance Index Score (2003-04)	98.4	96.9	96.1	104.3	99.5
Performance Index Score (2002-03)	92.8	94.8	94.8	101.1	96.7
Performance Index Improvement	5.6	2.1	1.3	3.2	2.8
District Rating	Excellent	Excellent	Effective	Excellent	Excellent

Source: ODE School Year 2003-04 District Report Cards

As shown in **Table 2-8**, Olentangy LSD met all of the performance standards established by ODE, and improved notably from FY 2001-02 to FY 2002-03.

Table 2-9 shows the expenditure amounts posted to the Uniform School Accounting System (USAS) function codes for Olentangy LSD and the peer districts. Function codes are designed to report USAS expenditures by nature or purpose. **Table 2-9** shows the operational expenditures per pupil, and percentage of total operational expenditures by function, for all governmental funds.

**Table 2-9: Governmental Funds
Operational Expenditures by Function and Cost per Pupil for FY 2003-04**

USAS Function Classification	Olentangy LSD		Dublin CSD		Hilliard CSD		Mason CSD		Pickerington LSD		Peer Average	
	\$ per Student	% of Exp	\$ per Student	% of Exp	\$ per Student	% of Exp	\$ per Student	% of Exp	\$ per Student	% of Exp	\$ per Student	% of Exp
Instruction Expenditures												
Regular Instruction	\$4,053	45%	\$4,358	46%	\$4,356	49%	\$3,469	42%	\$3,879	49%	\$3,849	47%
Special Instruction	\$988	11%	\$1,144	12%	\$985	11%	\$688	8%	\$555	7%	\$833	10%
Vocational Instruction	\$77	1%	\$24	0%	\$62	1%	\$2	0%	\$96	1%	\$44	1%
Adult/Continuing Inst.	\$0	0%	\$0	0%	\$0	0%	\$3	0%	\$0	0%	\$1	0%
Other Instruction	\$45	0%	\$0	0%	\$3	0%	\$37	0%	\$130	2%	\$33	0%
Support Services Exp.												
Pupil Support	\$458	5%	\$610	6%	\$559	6%	\$473	6%	\$380	5%	\$490	6%
Instructional Support	\$367	4%	\$675	7%	\$653	7%	\$674	8%	\$403	5%	\$577	7%
Board of Education	\$34	0%	\$14	0%	\$29	0%	\$7	0%	\$60	1%	\$25	0%
Administration	\$537	6%	\$653	7%	\$613	7%	\$535	6%	\$690	9%	\$589	7%
Fiscal Services	\$210	2%	\$191	2%	\$255	3%	\$190	2%	\$152	2%	\$192	2%
Business Services	\$39	0%	\$89	1%	\$48	1%	\$27	0%	\$19	0%	\$47	1%
Plant Operation/Maint.	\$1,048	12%	\$783	8%	\$758	8%	\$1,095	13%	\$753	10%	\$781	10%
Pupil Transportation	\$745	8%	\$496	5%	\$347	4%	\$509	6%	\$463	6%	\$418	5%
Central Support Services	\$188	2%	\$36	0%	\$30	0%	\$301	4%	\$10	0%	\$75	1%
Non-Instructional Services Expenditures	\$71	1%	\$53	1%	\$36	0%	\$73	1%	\$5	0%	\$39	1%
Extracurricular Activities Expenditures	\$233	3%	\$291	3%	\$192	2%	\$211	3%	\$261	3%	\$221	3%
Total Governmental Fund Operational Expenditures	\$9,091	100%	\$9,418	100%	\$8,925	100%	\$8,294	100%	\$8,260	100%	\$8,212	100%

Source: FY 2003-04 Annual Financial Reports (4502's)

According to **Table 2-9**, Olentangy LSD allocates a lower percentage of its expenditures to instruction when compared to the peers. In addition, Olentangy LSD's total per pupil operating expenditures (\$9,091) were approximately 11 percent higher than the peer district average. Excluding regular instruction, Olentangy LSD's instructional expenditures in each area are greater than the peers. As shown in **Table 2-8**, Olentangy LSD meets the same number of ODE performance standards as the peers. Therefore, it is

costing Olentangy more to achieve similar results. See the **human resources** section for a detailed assessment of instructional costs.

As previously discussed, a portion of these expenditures can be explained by one-time costs associated with new buildings. However, as discussed in the **human resources**, **facilities**, and **technology** sections of this report, operational efficiencies could be realized through the implementation of the recommendations contained in this report. These recommendations, if implemented, could potentially increase revenues or reduce expenditures as illustrated in **Table 2-9**.

Table 2-9 shows that Olentangy LSD allocated a greater percentage of its expenditures on the following support function categories:

- **Board of Education:** The District was higher than the peers in this category, primarily due to higher expenses for legal counsel. The treasurer indicated that during the past fiscal year, counsel has been needed to represent the District in cases of property tax revisions. Typically, these challenges would not require representation; however, due to the high value of taxes being disputed, the District felt representation was necessary.
- **Plant Operation and Maintenance:** The District indicated that the higher expenditures (compared to the peer average) resulted from expenditures associated with new buildings. In FY 2003-04 the District opened three new buildings. No peer opened more than two new buildings in FY 2003-04.
- **Pupil Transportation:** According to the Treasurer, the District was higher than the peer average in this category due to the implementation of a new bus replacement plan.
- **Central Support Services:** Differences within this classification exist due to differences in accounting between the District and the peers. The District charges activities for several departments to this function code while the peers either do not have this code or charge to other codes. These departments include personnel, technology, communications, and the District's welcome center.
- **Non-Instructional Expenditures:** While District expenditures were above the peer average in this category, these expenditures were made from special revenue funds. The use of these funds is restricted; therefore, the District does not have an opportunity to redistribute these funds to other areas.

Table 2-10 shows the total expenditures for governmental funds, including facilities acquisition, construction, and debt service.

Table 2-10: Total Governmental Fund Expenditures by Function and Cost per Pupil for FY 2002-03

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
USAS Function Classification	% of Exp	% of Exp	% of Exp	% of Exp	% of Exp	% of Exp
Total Governmental Funds Operational Expenditures	66%	63%	85%	79%	79%	72%
Facilities Acquisition & Construction Expense	22%	11%	7%	2%	12%	8%
Debt Service Expenditures	12%	26%	9%	19%	33%	20%
Total Governmental Funds Expenditures	\$110,683,037	\$175,845,906	\$142,460,479	\$85,360,022	\$105,657,235	\$127,330,910
Total Governmental Funds Expenditures per Pupil	\$13,840	\$14,893	\$10,542	\$10,526	\$13,029	\$11,427

Source: FY 2002-03 Annual Financial Reports (4502's)

As shown in **Table 2-10**, Olentangy LSD's total governmental fund expenditures of \$110,683,037 are lower than the peer average by \$16,647,873. However, the District only spent 66 percent on operations. This is due to the large percentage of expenditures allocated to the construction of three new buildings, as reflected in the facilities acquisition and construction expenses line. These expenses accounted for 22 percent of the District's total expenditures and should decline substantially in coming years as the District's construction schedule slows to one building per year. As these expenditures decline, operational expenditures should account for a much larger portion of the District's total expenditures. **R2.5** summarizes the District's options for reducing these expenditures.

R2.5 Olentangy LSD should analyze and use the proposed financial forecast outlined in Table 2-11 to evaluate the recommendations presented within this performance audit and determine the impact of the related cost savings on its financial condition. Olentangy LSD should also consider implementing the recommendations in this performance audit to improve its current and future financial situation. In addition, the District should update its forecast on an ongoing basis as critical financial issues are addressed.

Table 2-11 demonstrates the effect of the recommendations in this report and includes both the beginning fund balance for each year and the adjusted fund balance reflecting the effect of the recommendations.

Table 2-11: Revised Financial Forecast with Adjustments (in 000's)

	Actual 2001-02	Actual 2002-03	Actual 2003-04	Forecast 2004-05	Forecast 2005-06	Forecast 2006-07	Forecast 2007-08	Forecast 2008-09
Real Estate Property Tax	\$29,386	\$32,853	\$35,745	\$49,723	\$63,847	\$69,640	\$75,314	\$81,233
Tangible Personal Property Tax	\$7,193	\$8,135	\$7,647	\$8,470	\$10,044	\$10,428	\$9,804	\$11,177
Unrestricted Grants-in-Aid	\$2,621	\$3,544	\$4,695	\$4,576	\$3,937	\$3,759	\$3,582	\$3,683
Restricted Grants-in-Aid	\$120	\$96	\$45	\$40	\$40	\$40	\$40	\$40
Property Tax Allocation	\$4,132	\$4,896	\$5,262	\$7,091	\$9,007	\$9,750	\$10,446	\$11,142
Other Revenues	\$1,646	\$2,475	\$2,289	\$2,174	\$2,386	\$2,553	\$2,732	\$2,923
Total Operating Revenues	\$45,098	\$51,999	\$55,683	\$72,074	\$89,261	\$96,170	\$101,918	\$110,198
Total Other Financing Sources	\$3,296	\$3,609	\$3,319	\$14,525	\$5,265	\$5,292	\$5,341	\$5,263
Total Revenues and Other Financing Sources	\$48,394	\$55,608	\$59,002	\$86,599	\$94,526	\$101,462	\$107,259	\$115,461
Salaries & Wages	\$28,346	\$33,743	\$40,715	\$49,691	\$54,950	\$62,764	\$72,469	\$81,862
Fringe Benefits	\$8,407	\$10,617	\$13,548	\$16,349	\$19,044	\$22,522	\$26,948	\$31,501
Purchased Services	\$3,649	\$4,348	\$5,822	\$7,005	\$7,839	\$8,787	\$10,406	\$11,779
Supplies, Materials & Textbooks	\$2,602	\$2,815	\$3,899	\$3,670	\$3,550	\$3,990	\$5,675	\$7,388
Capital Outlay	\$1,086	\$2,168	\$1,067	\$251	\$268	\$285	\$304	\$323
Debt Service	\$0	\$0	\$0	\$0	\$3,638	\$3,638	\$3,638	\$0
Other Expenditures	\$2,082	\$2,431	\$3,410	\$4,068	\$4,528	\$5,037	\$5,861	\$6,372
AOS Recommendations				(\$11)	(\$3,059)	(\$3,336)	(\$3,679)	(\$4,023)
Implementation Costs				\$7	\$438	\$438	\$438	\$438
Total Operating Expenditures	\$46,172	\$56,122	\$68,461	\$81,034	\$91,196	\$104,125	\$122,060	\$135,639
Total Other Financing Uses	\$25	\$118	\$38	\$10	\$10	\$10	\$10	\$0
Total Expenditures and Other Financing Uses	\$46,197	\$56,240	\$68,499	\$81,044	\$91,206	\$104,135	\$122,070	\$135,639
Result of Operations (Net)	\$2,197	(\$632)	(\$9,497)	\$5,555	\$3,320	(\$2,673)	(\$14,811)	(\$20,178)
Beginning Cash Balance	\$9,111	\$11,308	\$10,676	\$1,179	\$6,734	\$10,054	\$7,381	(\$7,429)
Ending Cash Balance	\$11,308	\$10,676	\$1,179	\$6,734	\$10,054	\$7,381	(\$7,429)	(\$27,608)
Outstanding Encumbrances	\$1,702	\$2,189	\$1,168	\$1,500	\$1,650	\$1,800	\$1,950	\$2,100
Total Reservations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Ending Fund Balance	\$9,606	\$8,487	\$11	\$5,234	\$8,404	\$5,581	(\$9,379)	(\$29,708)

Source: Treasurers Office and AOS Recommendations

Table 2-12 details those performance audit recommendations reflected in the forecast in Table 2-11. The recommendations are divided into two categories -- those requiring negotiation, and those not requiring negotiation.

Table 2-12: Summary of Performance Audit Recommendations

Recommendation	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09
R3.1 Review hiring practice for site-based and central office/administrators as well as clerical staff	\$0	\$43,971	\$47,046	\$74,434	\$79,467
R3.3 Reduce classified sick leave usage	\$2,122	\$9,006	\$9,555	\$10,138	\$10,756
R3.7 Reduce vision insurance premiums	\$0	\$13,798	\$15,454	\$17,309	\$19,386
R4.2 Eliminate weekend building checks	\$8,792	\$37,314	\$39,590	\$42,005	\$44,568
R5.5 Set-up computers	\$0	\$2,300	\$2,300	\$2,300	\$2,300
R5.7 Consolidate Servers	\$0	\$11,250	\$11,250	\$11,250	\$11,250
R5.12 Migrate from Inkjet to LaserJet printers	\$0	\$14,000	\$14,000	\$14,000	\$14,000
Total Recommendations Not Subject to Negotiation	\$10,914	\$131,640	\$139,196	\$171,436	\$181,727
R3.2 Reduce ESP personnel by 20 teachers and 2 library/media specialists	\$0	\$1,615,492	\$1,728,467	\$1,850,065	\$1,981,020
R3.4 Reduce health care premiums to SERB-reported average for all school districts	\$0	\$1,143,180	\$1,280,361	\$1,434,004	\$1,606,085
R3.5 Implement 10 percent employee contributions to health care	\$0	\$11,290	\$12,644	\$14,162	\$15,861
R5.1 Reduce technician staff by 4.0 FTE	\$0	\$157,497	\$174,976	\$209,225	\$238,724
Total Recommendations Subject to Negotiation	\$0	\$2,927,458	\$3,196,448	\$3,507,456	\$3,841,691
Total Recommendations Included in Forecast	\$10,914	\$3,059,098	\$3,335,645	\$3,678,892	\$4,023,418

Source: AOS Recommendations

Table 2-13 summarizes the implementation costs associated with various recommendations contained within the performance audit. Each cost is dependent on Olentangy LSD’s decision to implement the associated recommendation and the timing of that implementation.

Table 2-13: Implementation Costs

Recommendation	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09
R3.10 Purchase HR software system	\$0	\$144,000	\$144,000	\$144,000	\$144,000
R5.4 Develop student technical support program	\$0	\$5,000	\$5,000	\$5,000	\$5,000
R5.8b Implement fiber optic network	\$0	\$270,000	\$270,000	\$270,000	\$270,000
R5.13 Increase technology professional development	\$0	\$17,000	\$17,000	\$17,000	\$17,000
R5.15 Purchase anti-worm security equipment	\$7,200	\$1,700	\$1,700	\$1,700	\$1,700
Total Recommendations Implementation Cost	\$7,200	\$437,700	\$437,700	\$437,700	\$437,700

Human Resources

Background

This section of the report focuses on various human resources operations within the Olentangy Local School District (Olentangy LSD, Olentangy, or the District). Best practice data from the Ohio Department of Education (ODE), the State Employment Relations Board (SERB), as well as peer school districts and other best practice organizations was used for additional comparisons throughout this section of the report. The peer districts are Dublin City School District (Dublin CSD or Dublin) in Franklin County, Hilliard City School District (Hilliard CSD or Hilliard) in Franklin County, Mason City School District (Mason CSD or Mason) in Warren County, and Pickerington Local School District (Pickerington LSD or Pickerington) in Fairfield County.

Organizational Structure and Function

Under the direction of the superintendent, human resources (HR) operations for certificated and classified employees are the responsibility of the director of personnel. The director of personnel is responsible for developing, monitoring, and forecasting student enrollment projections and personnel needs; recruiting and selecting new employees; maintaining personnel records; ensuring compliance with all State and federal laws applicable to personnel matters; and serving as the District's benefits administrator. The assistant director of personnel focuses on issues related to classified staff. The District has a staff person on special assignment working as the personnel/operations assistant. This position works with the local professional development committee and with building administrators on operational and staffing needs.

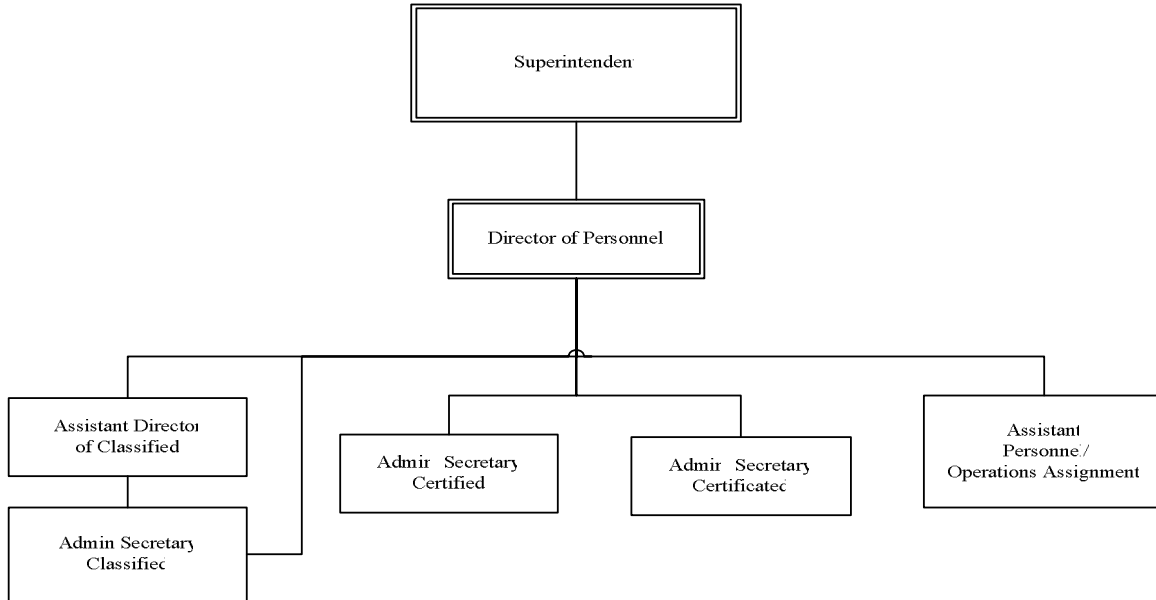
The administration and management of certificated and classified human resources includes the following activities, which are conducted by the Personnel Office:

- Developing, monitoring, and forecasting student enrollment projections and job classifications for all personnel positions;
- Coordinating activities and programs for the recruitment and selection of employees;
- Monitoring compliance with employment standards (criminal background checks and teaching certifications);
- Facilitating employee performance evaluations;
- Negotiating and administering collective bargaining agreements;
- Assisting in the issuance of all administrative, certificated, and classified contracts and renewals;
- Maintaining personnel files;

- Placing selected substitutes; and
- Coordinating licensure/certification information and statistics.

Chart 3-1 depicts the organizational structure of the District’s Personnel Office.

Chart 3-1: Olentangy LSD Personnel Office Organization Chart



Source: Olentangy LSD Personnel Office

Additional day-to-day HR activities are handled through the Treasurer’s Office, including payroll and benefits information. The Treasurer’s Office develops salary and compensation analyses and enters personnel and payroll information into the Educational Management Information System (EMIS). The Business Operations Department maintains information regarding employee accidents and injuries.

Staffing

Table 3-1 illustrates the actual FTE staffing levels at Olentangy LSD and the peer districts during FY 2003-04 as reported to ODE through EMIS and including contracts with individual county educational service centers (ESCs). Adjustments were made to the corresponding EMIS reports and contract employee list based upon interviews with the appropriate district personnel to ensure consistent classification of positions among the peers.

Table 3-1: FTE Staffing Levels for FY 2003-04

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Central Administrators						
Subtotal ¹	28.0	26.8	31.3	24.8	26.9	27.4
Asst Superintendent	1.0	1.0	3.0	3.0	1.0	2.0
Supervising/Directing/ Coordinating ²	23.0	21.8	24.3	18.8	19.9	21.2
Other Administrative ³	2.0	2.0	2.0	1.0	4.0	2.3
Site-Based Administrators						
Subtotal	24.0	28.0	33.0	22.0	16.0	24.8
Principal	12.0	17.0	20.0	6.0	11.0	13.5
Assistant Principal	12.0	11.0	13.0	16.0	5.0	11.3
Curriculum Specialist	4.0	4.0	30.0	12.0	13.0	14.8
Counseling	17.5	31.0	31.0	16.6	19.0	24.4
Librarian/Media	12.0	18.0	21.0	3.0	7.5	12.4
Regular Teaching	392.4	602.8	690.6	379.0	367.5	510.0
Special Education Teaching	61.0	83.8	103.5	69.0	36.0	73.1
Vocational Education Teaching	9.0	7.0	10.0	N/A	8.2	8.4
Educational Service Personnel	57.4	93.5	48.9	35.0	13.6	47.7
Other Professional ⁴	25.3	82.8	125.3	14.0	23.5	61.4
Professional Education Subtotal	578.6	922.9	1060.3	528.6	488.2	750.0
Professional - Other Subtotal	30.2	58.2	73.9	18.4	23.6	43.5
Technical Subtotal	22.5	10.0	17.0	35.6	15.9	19.6
Technical Staff ⁵	14.0	N/A	N/A	11.0	8.4	9.7
Practical Nursing	N/A	9.0	N/A	8.8	N/A	8.9
Printer/other	N/A	1.0	2.0	2.0	N/A	1.7
Library Aide	8.5	N/A	15.0	13.8	7.5	12.1
Office/Clerical Subtotal	96.6	182.9	191.6	53.8	79.7	127.0
Bookkeeping	3.0	2.0	N/A	6.0	7.0	5.0
Clerical	64.9	83.5	N/A	39.2	32.9	51.9
Teaching Aide	27.4	83.4	103.6	N/A	39.8	75.6
Other Office/Clerical ⁶	1.4	14.0	88.0	8.6	N/A	36.9
Crafts/Trades Subtotal	15.0	15.5	36.0	16.0	4.0	17.9
Vehicle Operating - Buses	71.4	92.4	60.0	71.4	N/A	74.6
Service Worker/Laborer Subtotal	136.6	110.3	98.0	263.6	100.5	143.1
Custodian/Grounds keeping	81.0	75.9	98.0	77.0	59.3	77.6
Food Service	43.1	27.4	N/A	38.2	29.2	31.6
Monitoring/Attendant	12.5	1.0	N/A	143.3	11.5	51.9
Other Worker/Laborer ⁷	N/A	6.0	N/A	5.2	0.5	3.9
Total FTEs	1,002.9	1,447.0	1,601.1	1,034.1	754.8	1,227.9

Source: FY 2003-04 EMIS Staff Summary Reports from Olentangy LSD and the peer districts; client interviews, and Delaware County ESC staff list

Note: Some categories include positions in the subtotals that are not shown in the detailed information by positions. Therefore, the subtotal may reflect a higher number of employees than the sum of the categories. Where positions not included in the detail have been added to the subtotal, the positions are explained in a footnote.

N/A: District did not code any employees in this category and the peer average only includes those districts with employees coded in this category.

¹ Each district employs only 1.0 FTE superintendent and 1.0 FTE treasurer.

² Category includes all staff coded as supervising/managing/directing, coordinator, or director.

³ Category includes administrative assistant and other official/administrative.

⁴ Category includes remedial specialist, tutor/small group instructors, and other professionals.

⁵ Category includes computer operating, computer programming, and library technician.

⁶ Category includes messenger, records managing, telephone operator, and other office/clerical.

⁷ Category includes attendance officer, guard/watchman, stores handling, and other service worker/laborer.

In addition to comparing actual FTE figures, staffing levels are analyzed based on average daily membership (ADM) since staffing levels vary depending upon the number of students enrolled in a district. **Table 3-2** illustrates the 2003-04 staffing levels per 1,000 ADM at Olentangy LSD and the peer districts.

Table 3-2: FY 2003-04 FTE Staffing Levels per 1,000 ADM

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Average Daily Membership (ADM)	8,130	11,880	13,675	8,176	8,583	10,579
Central Administrators Subtotal ¹	3.44	2.26	2.29	3.03	3.13	2.59
Asst Superintendent	0.12	0.08	0.22	0.37	0.12	0.19
Supervising/Directing/Coordinating ²	2.83	1.84	1.78	2.29	2.32	2.00
Other Official/Administrative ³	0.25	0.17	0.15	0.12	0.47	0.21
Site-Based Administrators Subtotal	2.95	2.36	2.41	2.69	1.86	2.34
Principal	1.48	1.43	1.46	0.73	1.28	1.28
Assistant Principal	1.48	0.93	0.95	1.96	0.58	1.06
Professional Education Subtotal	71.17	77.68	77.53	64.65	56.88	70.90
Curriculum Specialist	0.49	0.34	2.19	1.47	1.51	1.39
Counseling	2.15	2.61	2.27	2.04	2.21	2.31
Librarian/Media	1.48	1.52	1.54	0.37	0.87	1.17
Regular Teaching	48.27	50.74	50.50	46.35	42.81	48.21
Special Education Teaching	7.50	7.05	7.57	8.44	4.19	6.91
Vocational Education Teaching	1.11	0.59	0.73	N/A	0.95	0.79
Educational Service Personnel Teacher	7.07	7.87	3.57	4.28	1.58	4.51
Other Professional ⁴	3.11	6.97	9.16	1.71	2.74	5.80
Professional - Other Subtotal	3.71	4.90	5.40	2.24	2.75	4.11
Technical Subtotal	2.77	0.84	1.24	4.35	1.85	1.85
Technical Staff ⁵	1.72	N/A	N/A	1.35	0.98	0.92
Practical Nursing	N/A	0.76	N/A	1.07	N/A	0.84
Printer/Other	N/A	0.08	0.15	0.24	N/A	0.16
Library Aide	1.05	N/A	1.10	1.69	0.87	1.14
Office/Clerical Subtotal	11.88	15.40	14.01	6.58	9.29	12.01
Bookkeeping	0.37	0.17	N/A	0.73	0.82	0.47
Clerical	7.98	7.03	N/A	4.79	3.83	4.90
Teaching Aide	3.37	7.02	7.58	N/A	4.64	7.15
Other Office/Clerical ⁶	0.17	1.18	6.44	1.05	N/A	3.49
Crafts/Trades Subtotal	1.85	1.30	2.63	1.96	0.47	1.69
Vehicle Operating - Buses	8.78	7.78	4.39	8.73	0.00	7.05
Service Worker/Laborer Subtotal	16.80	9.29	7.17	32.24	11.71	13.53
Custodian/Grounds keeping	9.96	6.39	7.17	9.42	6.91	7.33
Food Service	5.31	2.30	N/A	4.67	3.40	2.99
Monitoring/Attendant	1.53	0.08	N/A	17.52	1.34	4.91
Other Service Worker/Laborer ⁷	N/A	0.51	N/A	0.63	0.06	0.37
Total FTEs per 1,000 ADM	123.36	121.80	117.08	126.48	87.94	116.07

Source: FY 2003-04 EMIS Staff Summary Report, interviews, Delaware County ESC and 1st Full Week of October Enrollment Report from Olentangy LSD and the peer districts

Note: Some categories include positions in the subtotals that are not shown in the detailed information by positions. Therefore, the subtotal may reflect a higher number of employees than the sum of the categories. Where positions not included in the detail have been added to the subtotal, the positions are explained in a footnote.

N/A: District did not code any employees in this category and the peer average only includes those districts with employees coded in this category.

¹ Each district employs only 1.0 FTE superintendent and 1.0 FTE treasurer.

² Category includes all staff coded as supervising/managing/directing, coordinator, or director.

³ Category includes administrative assistant and other official/administrative.

⁴ Category includes remedial specialist, tutor/small group instructors and other professionals.

⁵ Category includes computer operating, computer programming and library technician.

⁶ Category includes messenger, records managing, telephone operator and other office/clerical.

⁷ Category includes attendance officer, guard/watchman, stores handling, and other service worker/laborer.

As illustrated in **Table 3-2**, Olentangy LSD is 6.3 percent above the peer average in terms of total district staff per 1,000 ADM. The District has 123.36 FTEs per 1,000 ADM, which is 7.29 FTEs more than the peer average of 116.07 FTEs per 1,000 ADM. The District has higher FTE staffing allocations compared to the peer average within the following classifications:

- **Administrators:** In central administration, Olentangy is higher in terms of central administrators per 1,000 ADM than the peer average. However, not all of the districts provide the same services as Hilliard contracts for food service and Pickerington outsources its transportation services. Removing these two districts from the peer averages results in a new peer average of 2.57 central administrator FTEs per 1,000 ADM. Olentangy LSD is above this adjusted peer average. However, using the District's projected enrollment for FY 2004-05, Olentangy's staffing level is closer to the next highest peer, Mason CSD. In terms of site-based administrators, Olentangy is 26 percent above the peer average. See **R3.1** for further analysis of both central and site-based administrators.
- **Regular Education Teachers:** Olentangy LSD's regular education FTEs per 1,000 ADM is slightly above the average. Based on students per teacher ratios, Olentangy LSD (18-to-1) was below the peer average (19.2-to-1) and the State average (18.5-to-1) in FY 2003-04. However, using the projected enrollment of 9,595 for FY 2004-05, and factoring in the 62.5 new teachers hired by the District for this school year, Olentangy LSD's ratio increases to 19-to-1, which is above the State average and higher than two of the four peers. A review of the ratios for each building at Olentangy found that staff ratios were comparable across District buildings. If the District uses its target ratios to determine staffing levels for future years, the District will be above the peer and State averages.
- **Special Education Teachers**³⁻¹: Olentangy LSD is 9 percent above the peer average in special education teachers per 1,000 ADM; however, Pickerington LSD skews the peer average in this category because it is well below the staffing levels of any of the other districts. Removing Pickerington LSD from the peer average raises it to 7.69 FTEs per 1,000 ADM, which is above Olentangy LSD's staffing of 7.5 FTEs per 1,000 ADM. In terms of the ratio of special education teachers to special education students, the District has a ratio of 13-to-1, while the peer average is 14-to-1. Olentangy LSD is in compliance with minimum standards outlined in Ohio Administrative Code (OAC) 3301-51-09. Olentangy LSD indicated that it uses the ODE standards as guidelines when hiring and employing personnel in this category (see **R3.2**). Nevertheless, the District is eight percent above the peer average (excluding Pickerington LSD) in cost per special education student served in FY 2003-04.

³⁻¹ This analysis also includes teachers coded as supplemental service teaching as these are also special education teachers.

- **Vocational Education Teachers:** In FY 2003-04, Olentangy LSD employed 9.0 FTE teachers for its vocational educational classes. This number was reduced to 8.0 FTEs for FY 2004-05. The District supported vocational education with over \$300,000 from its General Fund in FY 2003-04, but this constitutes less than one percent of its total General Fund expenditures. In addition, based on vocational staffing levels and projected enrollment for FY 2004-05, the FTE per 1,000 ADM ratio is reduced from 1.11 to 0.83, which is closer to the peer average.
- **Educational Service Personnel (ESP)** ³⁻²: An analysis of ESP positions shows that Olentangy LSD is higher than 3 of the 4 peers and is 35 percent higher than the peer average. The District is 57 percent higher than the peer average for ESP teachers (see **R3.2**). The District attributes its higher staffing to special programs within the District, such as its elementary level strings program. Olentangy LSD is the only district to have contractual requirements regarding the number of library/media specialists and ESP teachers required to serve its student population.
- **Technical Staff:** Olentangy LSD is above the peer average for this position as coded in EMIS; however, there are significant differences between Olentangy and the peers in how technology staff is coded. See the **Technology** section for further discussion and analysis of technology staffing.
- **Office/Clerical** ³⁻³: Olentangy LSD is higher than the peer average for office/clerical positions. Olentangy LSD has 8.52 FTEs per 1,000 ADM but the peer average is 6.72 per 1,000 ADM (see **R3.1**).
- **Crafts/Trades and Transportation:** Olentangy LSD is higher than the peer average in these categories. See the **Facilities** section for further discussion and analysis of the District's maintenance staffing. The District was undergoing an analysis of transportation services during the time of this performance audit but no written report was available for review. Because the District contracted for a separate examination of transportation services, this area was excluded from the performance audit; therefore, an explanation of the elevated transportation staffing levels was unavailable.
- **Service Worker/Laborer:** Olentangy LSD is 24 percent higher than the peer average for total staff in this area. The District is also higher than the peers in food service staff, but this service is supported by the District's Food Service Fund, rather than the General

³⁻² Educational service personnel, as defined by OAC 3301-35-05, includes counselors, library/media specialists, school nurses, visiting teachers, social workers, as well as elementary art, music, and physical education teachers.

³⁻³ This includes the EMIS positions of bookkeeping, clerical, messenger, records managing, telephone operator, printer, and other office/clerical positions.

Fund. In addition, Dublin CSD does not prepare meals on-site as does Olentangy LSD. As a result, no further analysis was conducted in this area. Custodial and grounds keeping staff is 36 percent higher than the peer average. See the **Facilities** section of this report for additional information on staffing levels in these areas.

Collective Bargaining Agreements

Certificated personnel within Olentangy LSD are governed by a negotiated agreement between the Board of Education and the Olentangy Teachers Association. Classified employees are organized under two separate collective bargaining agreements. Bus drivers are represented by the Ohio Association of Public School Employees, OAPSE/AFSCME Local 4/AFL-CIO, while maintenance, custodial, and field service technician personnel are represented by the OAPSE/AFSCME, AFL-CIO, Local #039. Benefits for non-bargaining unit (or exempt) employees follow the negotiated agreement with certificated personnel. Because contractual and employment issues directly affect the operating budget, many have been assessed to show their financial implications to the District. The implementation of some of the associated recommendations would require negotiations with the collective bargaining units.

Table 3-3 compares key stipulations within District and peer negotiated agreements for certificated personnel.

Table 3-3: Contract Comparison for Certificated Personnel

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD
Length of work day	7 hrs and 40 min (includes 30 min duty free lunch) Planning: 200 min/week	7 hrs and 35 min (includes 30 min duty free lunch)	7 hrs and 30 min (includes 30 min duty free lunch) Planning: 200 min/week (K-5), 40 min or 1 period (6-12)	7 hrs and 30 min (includes 30 min duty free lunch) Planning: 200 min/week	7 hours, 30 minutes (includes 30 minute lunch) Planning: 210 min/week (K-4), 200 min/ week (5-12)
Maximum class size	24:1 (K-5) 25:1 (6-12)	None specified	None specified	None specified	K-4: 26 5-8: 28 9-12: 30
Number of contract days	<u>185 days</u>	<u>185 days</u>	<u>183 days</u>	<u>185 days</u>	<u>186 (K-12) days</u>
Instructional days	180 days	Not specified	180 days	180 days	179 (K-8), 180(9-12)
Inservice/Parent/teacher conferences/Professional development	5 days	2 days	3 days	5 days	7 (K-8), 6 (9-12)
Maximum number of sick days accrued	1 ¼ days per month up to 300 days.	1 ¼ days per month,; unlimited number	1 ¼ days per month, up to 255 days	1 ¼ days per month up to 232 days	1 ¼ days per month up to 260 days
Severance Pay - Maximum number of sick leave days paid out at retirement	30% of sick leave up to 90 days	25% of sick leave up to 55 days plus 1/10 of leave over 220 days up to 10 additional days	25% of unused sick leave up to 60 days. Severance pay of \$2,000 if 255 sick days have been accrued.	25% of sick leave up to 58 days	25% of sick leave up to 61 days
Number of years required for severance pay	Eligibility for retirement benefits under STRS.	None noted.	10 years	10 or more full years of service; Less than 10 years is prorated	5 yrs employment with district
Number of personal days	3 days/year	3 days/year	3 days/year	3 days/year	3 (prorated for part-time, hourly, short year members)
Notice required	Written request 24 hrs in advance	MS/HS teachers instructing 6 classes every day each semester receive an additional personal day written request 24 hrs in advance	Written request 5 days in advance	Application made 2 days in advance	2 days

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD
Number of leave days for association business	4 days for officers	Association members: 40 days FY 2002-03: 50 days FY 2003-04: 60 days FY 2005-06: President shall be granted leave for the equivalent of either full-time or ½ of full time status	5 days per year up to total of 25 days. Increased to 45 day limit in yr of contract negotiations	3 days for member; 5 days for president	12 days annually and 20 days during contract negotiation years. The President shall be granted an additional 12 days of association leave.
Sabbatical	Up to 1 yr with part pay and insurance benefits. Eligibility is 5 yrs of service with the District.	Up to 1 yr with part pay and insurance benefits. Eligibility is 5 yrs of service with the District	Up to 1 yr for professional study or travel and is unpaid leave	Granted pursuant to ORC § 3319.131	1 year paid at the difference between staff salary and the substitute salary; 50% employee contribution for insurance benefits.
Professional leave	1 day per year per teacher	As approved	As needed	As approved	As approved
RIF restrictions	20 calendar days notice to OTA. Reductions can not be made during school year.	No specific notice requirement	15 days notice with notice on or before May 30th	Notified in writing by May 30 th of preceding school year.	Notice by April 30 and not occur prior to August 1 unless emergency, in emergency 30 days notice
Cost of living increases each year of the contract (based on base salary levels for Bachelor level)	CY 03: 3.50% CY 04: 3.50% CY 05: 1.75% ¹	FY 04: 4.00% FY 05: 4.00%	CY 03: 3.75% CY 04: 3.75%	FY 03: 4.00% FY 04: 5.00%	FY 03: 4.25% FY 04: 4.25%
Certificated step increases - Based on BA schedule	CY 03: 3.00% CY 04: 3.00% CY 05: 3.00%	FY 04: 4.00% FY 05: 4.00%	CY 03: 4.00% CY 04: 4.00%	FY 03: 3.00% FY 04: 3.00%	FY 03: 4.00% FY 04: 4.00%

Source: Olentangy LSD and the peer districts

Note: All districts had comparable sick/personal leave incentives. Only Dublin CSD offers a retirement incentive (\$25,000 per employee up to 5 percent of bargaining unit members). None of the districts pick up the employee share of STRS payments.

¹ Contract ends June 30, 2005 hence COLA is specified only for the first six months of 2005.

Table 3-4 compares key stipulations within District and peer negotiated agreements for classified personnel.

Table 3-4: Contract Comparison for Classified Personnel

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD
Hours of work	8 hours including paid 30 min lunch – not bus drivers Overtime is paid for time over 40 hrs/week	8 hours per day with 2-15 minute breaks and 30 min lunch, Four hours per day with 1-15 minute break; doesn't apply to bus drivers	Bus driver: min of 2 hrs 12 month employees: 8 hrs per day M-F	Not specified in policy.	Does not spell out in policy. Does note that meal periods do not count as hours worked
Minimum call-in hours paid to employees for emergencies	Building checks: 2 hrs for buildings <175,000 square feet 3 hrs for larger buildings	None noted.	None noted.	None noted.	None noted
Vacation time to accumulate	12 month employees 1-10 yrs = 10 days 11 yrs + = 1 day per yr up to 20 max	12 month employees: 0-8 year: 10 days 9-19 years: 15 days 20-24 years: 20 days 25+ years: 22 days	12 month employees: 1-6 years: 10 days 7-9 years: 12 days 10-15 years: 15 days 16-19 years: 17 days 20+ years: 20 days	Full time 12 month employees: 1-7 yrs: 10 days 8-20 yrs: 15 days 20+ yrs: 20 work days Part-time 12 month employees are prorated at number of scheduled work hours.	<1 yr = 1 day/month 1 – 9 yrs = 12 days Max accrual = 24 days 10 – 14 yrs = 15 days Max accrual = 30 days 15 + yrs = 20 days
Sick/personal leave incentive	Over 5 yrs of service and minimum of 100 days of sick leave may cash out 15 days for perfect attendance for preceding contract year unused personal days paid out at ½ hourly rate up to max of \$35 or may be transferred to sick leave balance	No sick leave incentive Remaining personal leave days can be converted to sick leave at the end of the year	No sick leave incentive Remaining personal leave days can be converted to sick leave at the end of the year	No sick leave incentive Unused personal days are converted to accumulated sick leave	No sick leave incentive Unused personal leave shall be converted to sick leave on a 1:1 basis
Maximum sick days accrued	300 days	Unlimited	255 days	232 days	260 days
Severance Pay	30% of sick leave days up to 90 days custodial staff also get 100% of personal leave	25% of sick leave up 432 hours (54 days)	25% of sick leave up to 63.75 days. If over 15 years and have 255 hours, receive a \$2,000 addition	25% of sick leave up to 58 days.	25% of sick leave, up to 61 days
Retirement incentive	None noted	District may offer 1 of 3 plans to 5% of eligible staff by February 1	None noted.	None noted	None noted

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD
Number of years required for severance pay	5 yrs service immediately prior to retirement with the Board	Eligible for retirement under SERS	10 years (28)	10 yrs Employees with between 5 and 9 yrs are paid a percentage of benefits ranging from 70 to 90%	5 years and Eligible for retirement under SERS
Number of personal days	3 days	3 days	3 days	3 days	3 days
Notice required	72 hours	Written notice within 24 hours	Written notice within 5 days	2 days	48 hours in advance
Number of holidays paid for 12-month employees	13	10	9	11	7
Number of holidays paid for less than 12 month employees	10 for bus drivers; Custodial and maintenance paid for holidays that occur during that part of the year they are scheduled to work (12 holidays occur during school year)	8	8	7	6
Cost of living increases each year of the contract	<u>Bus Drivers:</u> FY 2003-04: 2.5% FY 2004-05: 2.5% <u>Maintenance and custodial:</u> FY 2004-05: 3.3% FY 2005-06: 3.3% FY 2006-07: 4.0%	FY 2002-03: 4.0% FY 2003-04: 4.0%	FY 2003: 3.75% FY 2004: 3.75%	Only one year contract. COLA not specified.	FY 2003: 4.25% FY 2004: 4.25%
Average Step Increase	<u>Bus Drivers:</u> FY 2003-04: 2.0% FY 2004-05: 2.0% <u>Maintenance and custodial:</u> FY 2003-04: 3.0% FY 2004-05: 3.0% FY 2005-06: 3.0%	<u>Bus drivers, custodians and maintenance:</u> FY 2002-03: 3.0% FY 2003-04: 3.0% FY 2004-05: 3.0%	<u>Bus drivers, custodians and maintenance:</u> FY 2002-03: 1.0% FY 2003-04: 1.0% FY 2004-05: 1.0%	<u>Bus drivers and custodians:</u> FY 2002-03: 4.0% <u>Maintenance:</u> FY 2002-03: 3.0%	<u>Custodians and maintenance:</u> FY 2002-03: 2.0% FY 2003-04: 2.0%

Source: Olentangy LSD and peer Classified Employee Agreements, and Mason CSD and Pickerington LSD policies and procedures.

Noteworthy Accomplishments

Olentangy LSD has implemented certain high-performance practices within its personnel operations, including:

- **Internet-based application process:** Olentangy LSD uses on-line search software for hiring certificated staff. This software allows the application and screening processes to occur electronically and allows staff involved in the hiring process to view the information simultaneously. The District also uses an electronically-structured interview to assist in screening applicants. Olentangy LSD's use of this web-based application process provides greater consistency and facilitates involvement of all necessary parties. Olentangy LSD was an early user of this software and as a result of its success, ODE is making this software available to all districts in the State.

Assessments Not Yielding Recommendations

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

- **Personnel Office staffing:** Personnel Office staffing levels are higher than the peers based on FY 2003-04 ADM. However, the District is projecting future increases in ADM and in overall District staffing. Factoring in these increases, the District is in-line with the peers. Based on the FY 2004-05 projected enrollment of 9,595, the ratio of Personnel Office FTEs per 1,000 ADM will be 0.52, which is in-line with the peer average.
- **Collective bargaining agreement issues:** The number of contract days and instructional days for certificated staff at Olentangy LSD is comparable to the peers and the planning time received by staff is the same as three of the four peers (one peer did not specify planning time in its contract). In addition, Olentangy LSD's cost of living adjustments are at or below those of the peers.
- **Teacher attendance:** Olentangy LSD is at or above the peer average in two of the three years reviewed. Olentangy LSD was slightly below the State average in FY 2001-02 and 2002-03. The three-year average for Olentangy LSD matches the State's three-year average and is 0.1 percent below the peers. This data shows that there is no significant difference between Olentangy LSD's teacher attendance and the peer or the State averages.
- **Salaries:** Olentangy LSD's average salaries are comparable to or below the peer averages; however, it should be noted that the District is at risk of higher average salaries

in the future based on a review of the step schedules for maintenance and custodial staff. The step schedules for these positions provide a higher percentage increase in the final two steps of between 5 percent and 7 percent. Also, as the longevity of staff increases, it is likely that Olentangy LSD's average salaries will rise above the peer average.

- **Dental insurance premiums:** Olentangy LSD's dental premiums are the lowest of all of the peer districts. In comparison to the State average reported by SERB, the District is 20 percent lower in its single coverage premium and 8 percent higher on family coverage. In addition, the District requires most of its employees to contribute toward the premium costs for dental insurance, while two of the three peers do not require contributions from their employees.

Issues for Further Study

- **Food Service Staffing Levels:** Food Service operations were not reviewed because the District does not use General Fund revenues to support this area of operations. However, comparative staffing data shows that Olentangy LSD uses 31 percent more staff per 1,000 ADM for food service operations than the peer average between Mason CSD and Pickerington LSD. Olentangy LSD indicated that it uses the National Lunch Program per-meal benchmark to monitor staffing levels. Hilliard CSD, contracts with an external vendor to provide food service and it reported that this has been a cost effective way to provide food service and has helped it keep lunch costs down. Dublin CSD contracts with an external vendor for meal preparation. Olentangy LSD should review food service options to ensure that it is providing this service in the most cost effective manner.

Recommendations

Staffing

R3.1 Olentangy LSD should monitor its hiring practices in the areas of central and site-based administrators, In addition, the District should reduce the number of clerical staff per school building to a level similar to the peers. Altering the criterion for staffing these positions could result in a redirection of resources toward education programs that directly benefit students.

A review of staffing shown in **Table 3-2**, shows that Olentangy LSD’s FTEs per 1,000 ADM is higher than the peer average in the areas of central based administrators, site based administrators, special education teachers, educational service personnel and regular education teachers (see **R3.2**).

Table 3-5 displays the central administrative staffing level for Olentangy LSD and the peers.

Table 3-5: FY 2003-04 Central Administrative Staffing Level Comparison

	Olentangy LSD	Dublin CSD	Mason CSD	Peer Average
Superintendent	1.0	1.0	1.0	1.0
Asst. Superintendent/ Supervising/Directing/ Coordinating	24.0	22.8	21.8	22.3
Treasurer	1.0	1.0	1.0	1.0
Other Official/Administrative	2.0	2.0	1.0	1.5
Central Administrators Subtotal	28.0	26.8	24.8	25.8¹
Central Administrators on per 1,000 ADM	3.44	2.26	3.03	2.57²

Source: FY 2003-04 EMIS Staff Summary Report, Olentangy LSD, and peer districts

¹ Peer average for central administrators subtotal is an average of the subtotals for Dublin CSD and Mason CSD.

² Peer average for central administrators per 1,000 ADM based on the average ADM for Dublin and Mason of 10,028.

It should be noted that Pickerington LSD contracts with an external vendor for transportation services and Hilliard CSD contracts with an external vendor for food service. These contractual arrangements decrease the number of supervisory staff in each district and as a result, these two districts are not included in the analysis. As shown in **Table 3-5**, Olentangy LSD is 14 percent higher than the next highest peer (Mason CSD) in central administrators per 1,000 ADM. Also, compared to Mason CSD, Olentangy LSD is 11 percent higher in assistant superintendent/supervising/directing/ coordinating staff per 1,000 ADM. The District contracts with Delaware County ESC for four

employees in the central administrative category. Based on projected enrollment for FY 2004-05 and new administrative hires for this school year, the District’s central administrator FTE per 1,000 ADM is 3.13 which is comparable to Mason CSD but still 38 percent higher than Dublin CSD. Olentangy LSD maintains that the additional central administrators were needed to assist in managing the annual growth that the District has experienced and is projecting to continue.

Table 3-6 displays site-based administrators for Olentangy LSD and the peer districts and does a further analysis of these positions on a per school building basis. The number of buildings listed in **Table 3-6** was taken from EMIS demographic reports for certificated staff.

Table 3-6: FY 2003-04 Site-Based Administrative Staffing Level Comparison

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Principal	12.0	17.0	20.0	6.0	11.0	13.5
Assistant Principal	12.0	11.0	13.0	16.0	5.0	11.3
Site-Based Administrators Subtotal	24.0	28.0	33.0	22.0	16.0	24.8
School buildings in FY-2003-04	12.0	17.0 ¹	20.0	6.0	11.0	13.5
Ratio of administrators per building	2.0	1.6	1.7	3.7	1.5	1.8

Source: FY 2003-04 EMIS Staff Summary Report, Olentangy LSD, and peer districts

¹ Excludes the “1919 building” (pre-school only) and the new high school, which was not open in FY 2003-04.

Only Olentangy LSD and Mason CSD assign an assistant principal to every elementary school building. Dublin CSD, Hilliard CSD, and Pickerington LSD do not assign assistant principals to their elementary schools. According to the director of personnel, the decision to have assistant principals in all of the schools was made by the District in conjunction with the Board of Education. This results in a higher level of site-based administrators, compared to the peer average. Mason CSD has fewer but larger buildings and uses additional assistant principals in its staffing model. Based on enrollment numbers for FY 2003-04, Dublin CSD’s and Hilliard CSD’s elementary schools average enrollment (477 and 492, respectively) is lower than Olentangy LSD’s average of 530. However, Pickerington LSD’s average enrollment of 641 is higher than the District’s. Olentangy’s average does not include an overflow of elementary students housed in the Shanahan Middle School. In addition, Olentangy LSD opened two elementary buildings in FY 2003-04 which impacted the average enrollment per building.

Tables 3-7 and 3-8 display Olentangy LSD and the peers' office/clerical staffing by the categories of central office personnel and office/clerical staff located in the school buildings.

Table 3-7: FY 2003-04 Central Administration Office/Clerical Comparison

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Bookkeeping	3.00	1.00	8.00	6.00	7.00	5.50
Clerical	18.00	27.5 ¹	3.00	16.80	8.00	13.80
Messenger	0.00	0.00	2.00	1.00	0.00	0.80
Records Managing	1.00	0.00	0.00	3.00	0.00	0.80
Telephone Operator	0.00	1.00	0.00	1.00	0.00	0.50
Other office/Clerical	0.00	2.00	22.00	0.00	0.00	6.00
Printer	0.00	1.00	2.00	0.00	0.00	0.80
Total	22.00	32.50	37.00	27.80	15.00	28.10
Clerical staff per 1,000 ADM	2.70	2.70	2.70	3.40	1.70	2.70
Total staff to clerical staff	45.59	44.52	43.27	37.20	50.32	43.74
Total Central Administrative Staff	28.00	36.80	31.30	24.80	26.90	29.90
Administrative staff to clerical staff	1.27	1.13	0.85	0.89	1.79	1.07

Source: FY 2003-04 EMIS Staff Summary Report, Olentangy LSD, and peer districts

¹ Figure includes 10 FTEs coded as Administrative Assistant but otherwise perform clerical duties.

Table 3-7 shows that central administration office clerical staff per 1,000 ADM is the same as the peer average in terms of staff, as well as administration staff per clerical office staff person. The comparison shows that Olentangy LSD's central administration office clerical staff is supporting more administration staff than peers, but this is impacted by the District's higher number of central administrators. If Olentangy LSD was at the peer average for central administrative staff, the ratio of administrative staff to clerical staff would have been 1-to-1.

Table 3-8: FY 2003-04 Building Level Office/Clerical Personnel Comparison

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Bookkeeping	0.00	1.00	0.00	0.00	0.00	0.30
Clerical	46.90	56.00	0.00	22.40	24.90	25.80
Messenger	0.00	0.00	0.00	0.00	0.00	0.00
Telephone Operator	0.00	1.00	0.00	1.00	0.00	0.50
Other office/Clerical	0.00	10.00	64.00	2.60	0.00	19.20
Total	46.90	68.00	64.00	26.00	24.90	45.70
Number of buildings	12.00	17.00	20.00	6.00	11.00	13.50
Clerical staff per building	3.90	4.00	3.20	4.30	2.30	3.40
Clerical staff per 1,000 ADM	5.77	5.72	4.68	3.18	2.90	4.32
Total staff to Clerical staff ¹	21.38	21.28	25.02	39.78	30.31	26.85

Source: FY 2003-04 EMIS Staff Summary Report, Olentangy LSD, and peer districts

¹ Figures are calculated based on the total number of Central Administrative and Building Level office staff.

Table 3-8 shows that Olentangy LSD is higher than peer average for clerical staff per building; however, the average is skewed by Pickerington LSD, which is considerably lower than the other peers. Excluding Pickerington LSD, the peer average of clerical staff per building is 3.7, which is lower than the District's ratio. Olentangy LSD opened a new building in FY 2004-05 but also added three new secretaries. The District also exceeds the peer average in terms of clerical staff per 1,000 ADM, which shows that Olentangy LSD uses more clerical support to serve its student population. Based on projected enrollment for FY 2004-05 and factoring in newly hired staff, the ratio of building clerical staff per 1,000 ADM goes down to 5.2, but this is still higher than the peer average.

Olentangy LSD had an assessment completed by Paragon Communications, Inc. in June 2000, which was updated in August 2003. Three of the four peers used in this performance audit were used in the Paragon Communications review; however, Mason CSD was not included in their analysis. The Paragon study also includes other schools of varying enrollment in Ohio and in other states. The study recommended that Olentangy LSD add several administrative positions, some of which the District has added. The 2003 report also recommends that the District continue to hire additional administrative positions over the next several years.

Based on the analysis completed in this performance audit, Olentangy LSD is operating with more administrative staff than the peers. If Olentangy LSD was at the level of the next highest peer (Mason CSD) for the number of assistant superintendent/supervising/directing/coordinating administrators, it would have operated with about two fewer FTEs in FY 2003-04. The District should scrutinize any future decisions to hire additional central administrators and should continuously benchmark its staffing levels to similar districts to ensure it uses resources efficiently. Based on the average salary of an assistant principal (\$62,109) in FY 2003-04 and the number of elementary schools at

Olentangy LSD, the decision to place an assistant principal in every elementary, a practice not shared by the peers, costs the District approximately \$653,000 in salaries and benefits. The District may need to reconsider this administrative staffing model should it become necessary to reduce salary expenditures in the future.

Olentangy LSD should redistribute clerical staff as new buildings are opened to achieve a per building staffing level comparable to the peers. The District plans to open one new elementary school in FY 2006-07, and one new middle school and one new elementary school in FY 2007-08 (see the **Facilities** section).

Financial Implication: Based on the average salary and benefit costs for a clerical position at Olentangy LSD, (approximately \$38,000), the annual cost savings to Olentangy LSD by reducing clerical staff per school building to the peer average would be approximately \$19,000 beginning in FY 2006-07, with an additional savings of approximately \$38,000 beginning in FY 2007-08.

R3.2 Olentangy LSD should monitor special education teaching ratios to ensure that staffing is adjusted appropriately to meet student needs based on individual educational plans (IEPs) and the District’s special education model. The District should also consider reducing ESP staff to level more comparable to the peer average. In future negotiations, the District should seek to eliminate contractual language regarding required staffing levels for librarian/media specialist and ESP staff to facilitate its ability to achieve staffing levels that are more comparable with peers.

Table 3-9 shows Olentangy LSD’s and the peer districts’ staffing in terms of special education FTEs. Special education teachers and supplemental service teachers are included in the FTE count as these are the two categories for special education teachers. These staffing levels also include personnel contracted from county ESCs.

Table 3-9: FY 203-04 Comparison of Special Education Staffing

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Total FTEs	61.00	83.80	103.50	69.00	36.00	73.08
Special Needs Students	778	1,174	1,472	665	821	1,033
Students per Staff FTE	12.75	14.01	14.22	9.64	22.81	14.14

Source: Olentangy LSD and peer EMIS reports, interviews, and ODE report on special needs students

As demonstrated in **Table 3-9**, Olentangy LSD’s ratio of special education teachers to special education students is 10 percent lower than peer average. The District has a ratio of nearly 13 students per special education teacher while the peer average is slightly over

14-to-1. Olentangy LSD is in the process of implementing a model beyond inclusion and the difference in staffing levels could be due to the District’s educational model.

Table 3-10 displays the special education expenditures and State Foundation funding for Olentangy LSD and the peer districts.

Table 3-10: FY 2003-04 Special Education Instructional Costs Comparison

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average	
						Includes Pickerington LSD	Excludes Pickerington LSD
Special Needs Students	778	1,174	1,472	665	821	1,033	1,104
Special Education Expenditures	\$7,899,068	\$13,512,109	\$13,303,970	\$5,577,271	\$4,743,341	\$9,284,173	\$10,797,783
State Foundation Funding	\$3,817,590	\$5,930,087	\$7,131,267	\$3,270,770	\$4,039,879	\$5,093,001	\$5,444,041
District’s Cost	\$4,081,478	\$7,582,022	\$6,172,703	\$2,306,501	\$703,462	\$4,191,172	\$5,353,742
Total Cost per Student	\$10,153.04	\$11,509.46	\$9,038.02	\$8,386.87	\$5,777.52	\$8,987.58	\$9,783.55
District Cost per Student	\$5,246.12	\$6,458.28	\$4,193.41	\$3,468.42	\$856.84	\$4,057.28	\$4,850.87

Source: Olentangy LSD and peer district 4502 SF-3 reports

Note: Number of special needs student taken from ODE report.

Based on the data in **Table 3-10**, the District is 4 percent above the peer average in terms of total cost per student and 8 percent above the peer average for district cost per student when Pickerington LSD is excluded from the peer average. Also, Olentangy LSD’s higher costs are likely due to a higher staffing count, lower student to teacher ratio, higher benefit costs at the District, and a higher number of central administrators. Given the growth in the District’s enrollment, the differences in this analysis are not likely to be significant. However, the District should carefully monitor staffing levels and expenditures to ensure that resources are being use efficiently.

Pursuant to OAC 3301-35-05 (A)(4), a minimum of 5 FTE educational service personnel should be employed district-wide for every 1,000 students in the regular student population. Educational service personnel should be assigned to at least five of the eight following areas: counselor, library media specialist, school nurse, visiting teacher, social worker, as well as elementary art, music, and physical education. Educational service personnel assigned to elementary art, music, and physical education must hold the special teaching certificate or multi-age license in the subject to which they are assigned.

Table 3-11 illustrates staffing levels in the educational service personnel category for Olentangy LSD and the peers.

Table 3-11: FY 2003-04 Educational Service Personnel Comparison

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average
Counselor	17.5	31.0	31.0	16.6	19.0	24.4
Library/Media Specialist	12.0	18.0	21.0	3.0	7.5	12.4
School Nurse	6.0	4.8	12.0	0.0	6.2	5.8
Social Worker	2.0	4.0	2.0	1.0	0.0	1.8
ESP Teacher	57.4	93.5	48.9	35.0	13.6	47.8
Total ESP Staffing	94.9	151.3	114.9	55.6	46.3	92.2
ADM ¹	7,997	11,807	13,513	8,110	8,540	10,493
Staff per 1,000 ADM	11.87	12.81	8.50	6.86	5.42	8.80

Source: FY 2003-04 EMIS Staff Summary Report, Olentangy LSD, and peer districts

¹ For the purpose of this analysis, ADM was taken from Olentangy LSD’s and the peer districts’ FY 2004 Final SF3 Version 2 reports dated 4/20/2004.

Table 3-11 shows that in FY 2003-04, Olentangy LSD was higher than two of the four peers and the peer average in total ESP staffing levels. A review of the District’s total staffing levels per 1,000 ADM (see **Table 3-2**) shows that the District is high in library/media specialists and ESP teachers. In addition, on a per 1,000 ADM basis, Olentangy LSD is at the peer average for registered nurses and social workers and slightly below the peer average for counselors.

Olentangy LSD is the only district to have contractual requirements in its negotiated agreements regarding librarian and ESP staffing levels. The current contract specifies that the District must have 1 FTE librarian per library in each high school, 1 FTE librarian per middle school, and 1 FTE librarian for every two elementary schools. The contract also specifies staffing levels for library aides and requires 1 FTE aide in each school building. As for ESP staffing, the District is required to have enough special teachers to provide each student in grades 1-5 with combined total of at least 200 minutes of art, music, and physical education per week, and kindergarten students with 100 minutes per week of similar education services if half-time students. It appears that these contractual requirements contribute to higher staffing level ratios in these areas than the peers. However, the District attributes some of the high ESP staffing to specialized programs, like its elementary level strings program.

In FY 2003-04, the average salary for librarian/media specialists was \$49,100 and the average salary for ESP teachers was \$48,700. On a per 1,000 ADM basis, Olentangy LSD has approximately 20 more ESP teachers and 2 more librarian/media specialists, compared to the peer average. In FY 2004-05, Olentangy LSD hired two librarians, one guidance counselor, two art teachers, a part-time nurse (0.5 FTE), three music teachers, and two physical education teachers. Factoring the increase in projected enrollment for

FY 2004-05 and the District new hires, the District’s FTEs per 1,000 ADM in these two categories remained at the same level. The District should consider reducing staffing levels by 2 librarians and 20 ESP teachers to have a staff ratio more comparable to the peer average.

Financial Implication: Based on FY 2003-04 salary and benefit costs, Olentangy LSD would see an annual savings of approximately \$1.4 million by reducing staff in the librarian/media specialist and ESP teacher classifications by 2 FTEs and 20 FTEs, respectively.

Leave Usage

R3.3 Olentangy LSD should implement a program to reduce sick leave use that involves improved tracking of sick leave usage, provision of additional training on managing sick leave usage, setting benchmarks for sick leave use, and coordinating policies to encourage staff attendance.

Table 3-12 shows the sick leave usage by classified employees for Olentangy LSD and the peer districts.

Table 3-12 FY 2003-04 Comparison of Classified Staff Sick Leave Usage

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD	Peer Average	
						Including Hilliard CSD	Excluding Hilliard CSD
Days of Sick Leave	2,566	3,622 ¹	5,738	3,075	1,627	3,516	2,775
Classified Staff	312.6	400.1	402.6	454.3	206.3	365.8	353.6
Average Days per Classified Staff	8.2	9.1	14.3	6.8	7.9	9.6	7.8

Source: Olentangy LSD and peer district staff attendance reports

Note: For the purpose of this analysis, staff includes only those employed directly by the districts.

¹ Dublin CSD reported sick leave in total hours which was divided by 8 to determine sick leave days.

Table 3-12 shows that in comparison to all four peers, Olentangy LSD’s average days of sick leave use per classified staff was 8.2 days, which is significantly below the peer average of 9.6 days. However, Hilliard CSD’s sick leave usage is higher than the other peers and considered to be an outlier. Removing Hilliard CSD from the analysis reduces the peer average to 7.8 days. When Hilliard CSD is excluded, the peer average is commensurate with AFSCME’s reported average for FY 2002-03. Although Olentangy LSD slightly exceeds these benchmarks, the director of personnel noted no problems with

sick leave usage and stated that the District tracks the use of substitutes in school buildings as one indicator of monitoring leave usage.

As noted in the 2003 article, *Sickened by the Cost of Absenteeism* (published by Workforce Management), of all the expenses related to absence from work, unscheduled time off has the greatest impact on productivity, cost, and morale. The inability to plan for many of these absences forces the use of substitute staff, more overtime, and the necessity to maintain additional staff to cover for unanticipated lost work time. Options for managing sick leave use include wellness programs, disability management, and flexible time-off options.

Other recommendations noted in the article include the following:

- Holding senior management accountable for managing sick leave;
- Providing training and guidance to managers and supervisors on how to manage sick leave;
- Establishing targets and benchmarks to manage sick leave better;
- Ensuring that management information systems meet the needs of users in supporting the management of sick leave; and
- Coordinating sick leave policy with other human resource initiatives to promote staff welfare and attendance.

The article also notes that many companies overstaff by 10 to 20 percent to mask lost productivity from unscheduled time off. Olentangy LSD should implement the strategies discussed above to reduce sick leave usage in the District. If the District reduced sick leave use by classified employees to the peer average (excluding Hilliard CSD) it would reduce annual sick leave by 96 days. This would reduce the District's need to hire substitutes. A reduction in sick leave use would also assist the District in operating with fewer staff and could help the District bring its staffing levels more in-line with the peers (see **R3.1**).

Financial Implication: Based on Olentangy LSD's hourly rate for substitutes of \$11.51, a reduction of sick leave to the peer average would result in annual savings of approximately \$8,000.

Health Care Benefits

R3.4 Olentangy LSD should explore options for purchasing health insurance that ensure competitive rates are being obtained. In addition, the District should negotiate with its certificated bargaining unit to change the base plan offered to employees in an effort to reduce overall health care spending.

Olentangy LSD is a member of the Champaign, Delaware, Marion, Union School Employee Welfare Benefit Association and purchases health insurance through this association. This is a self-funded plan with the association maintaining a trust to fund the plan. According to the director of personnel, Olentangy LSD has been in this insurance consortium for 10 to 15 years. The plan uses a third party administrator, CoreSource, Inc., which solicits bids for rates. The consortium offers three levels of benefits and the District is contractually obligated to offer its employees the plan with the highest benefit levels. According to the director of personnel, the District would have to pay a penalty for leaving the consortium.

Table 3-13 compares the FY 2002-03 monthly health insurance premiums for the client, the peer districts, as well as SERB averages for school districts employing similar numbers of employees. For the purpose of this analysis, the percentage contributed by certificated, administrative, and support staff that also elect to include vision insurance is being used for Olentangy LSD.

A review of contributions by Olentangy LSD's employees found that a high number of staff selected this option.

Table 3-13: Health Insurance Premiums in FY 2003-04

School District	Provider(s)	Monthly Premium for Single Plan	Full-time Employee Share (monthly)	Percent of Employee Share	Monthly Premium for Family Plan	Full-time Employee Share	Percent of Employee Share
Olentangy LSD ¹ Certificated, support and administrative staff	Champaign, Delaware, Marion, Union School	\$387.00	\$27.09	7.0%	\$1,046.00	\$177.82	17.0%
Custodial/maintenance staff	Employee Welfare Benefit Association	\$387.00	\$19.35	5.0%	\$1,046.00	\$198.74	19.0%
Transportation staff ²		\$387.00	\$82.56	21.3%	\$1,046.00	\$292.66	28.0%
Dublin CSD - PPO	Anthem Blue Cross	\$262.60	\$26.26	10.0%	\$711.31	\$106.70	15.0%
- HMO	Blue Shield	\$247.63	\$24.76	10.0%	\$673.61	\$101.04	15.0%
Hilliard CSD	Medical Mutual of Ohio	\$314.44	\$0	0.0%	\$848.98	\$0	0.0%
Mason CSD	Humana	\$299.00	\$29.90	10.0%	\$735.00	\$73.50	10.0%
Pickerington LSD ³	United Healthcare	\$334.25	\$35.86	10.7%	\$765.44	\$95.86	12.5%
Peer Average	N/A	\$302.57	\$23.01	7.6%	\$765.18	\$69.02	9.4%
SERB Statewide Average for All School Districts	N/A	\$327.92	\$22.7	6.9%	\$806.70	\$22.77	2.8%
SERB School District Avg. – for plans covering 500-999 lives	N/A	\$302.21	\$19.96	6.6%	\$734.66	\$66.38	9.0%

Source: Olentangy LSD, peer districts, and SERB’s 2003 Annual Report

¹ Olentangy LSD reduces the percent of insurance premiums covered for single coverage and family if employee elects to also carry vision insurance. Olentangy LSD covers 52 percent of all insurance premiums for single coverage and 42 percent for family coverage if the employee works 3 hours or less per day. Olentangy covers 72 percent of single coverage or 62 percent for family coverage if the employee works more than 3 hours but less than five hours per day.

² Transportation staff at Olentangy LSD hired before July 1, 2002 contributes at a lower rate for health insurance than new employees in this area. Contributions for more senior staff are \$34.87 and \$198.74 for single and family coverage, respectively.

³ Premiums shown are for medical only, employee contributions may include dental and life insurance. District did not provide a breakdown of contributions.

As illustrated in **Table 3-13**, Olentangy LSD’s premiums are 28 percent and 37 percent higher than the peer average for single and family coverage respectively. The District’s premiums are 28 and 42 percent higher, for single and family coverage respectively, than the SERB-reported average for schools with 500 to 999 employees. Ideally, since Olentangy LSD purchases health care through a consortium, it should have benefited from this pooled effort and achieved lower costs. However, the data shows that the District is not receiving lower costs than the peers as a result of this group purchasing effort. Furthermore, the comparison of medical plan benefits in **Table 3-14** (see **R3.6**) shows no significant differences to explain the higher costs.

Olentangy LSD could seek to lower premiums costs through the following options:

- Reviewing purchasing process used by the consortium as they are not producing competitive pricing compared to benchmarks;
- Leaving the consortium if unable to obtain competitive pricing; or
- Changing the base plan to one of the other plans offered by the consortium.

In addition, the District could make the other plans available to staff and pass on the increase in premiums to the employee (see **R3.5**). A review of one of the other plans offered by the consortium found that it covers the same services but there are increases in co-payments and annual deductibles.

If the District does not take steps to reduce premiums, it will continue to use more funds for staff benefits that could be used for educational activities. To illustrate, the District will pay approximately \$7.2 million in FY 2004-05 for health insurance premiums. If it were paying premiums similar to the SERB-reported average for all school districts (see **Table 3-13**), total healthcare costs for the District would amount to approximately \$6.2 million, or \$1 million less than it will incur under current provisions. Negotiating successfully to reduce premiums and/or change healthcare packages could result in an average annual savings of approximately 19 percent in health insurance premium expenditures. Staffing levels and plan selection by employees affects the amount of potential savings.

Financial implication: Should Olentangy LSD successfully lower its premiums to the SERB-reported average for all school districts, which is the closest in premium costs, the District would reduce premium costs by 15 percent for single plan and 23 percent for family plan coverage. This would result in a savings of approximately \$1.14 million in FY 2005-06, based on the District's projected expenditures for health insurance of \$7.2 million in FY 2004-05. Cost savings will be compounded annually based on expected inflationary increases (see the **Financial Systems** section).

R3.5 During future contract negotiations, Olentangy LSD should seek to negotiate changes in health insurance coverage and premium payments. The District should negotiate to require all full-time employees, who are not contributing toward insurance, or are contributing at a lower rate, to pay 10 percent of their health care premiums. The District should require all employees to pay a portion of the monthly premium costs to bring District practices in-line with the average employee contributions compiled by SERB. Establishing employee contributions that are more in-line with identified benchmarks will help to offset annual increases in health care costs.

Olentangy LSD covers 100 percent of insurance premiums for single plan coverage if the employee does not carry vision insurance (except for custodial/maintenance and

transportation staff). There are 220 employees who receive single plan coverage and are making no premium contributions. If the employee elects to have vision coverage, then the District picks up 93 percent of single coverage and 84 percent of family coverage. The District covers 95 percent of insurance premiums for single coverage if a custodial/maintenance employee does not carry vision insurance. For transportation staff, Olentangy LSD contributes differing amounts, depending on the date of hire. For those employees hired before July 1, 2002, Olentangy LSD pays 91 percent for single coverage and 81 percent for family coverage. For those employees hired after July 1, 2002, the District pays 79 percent for single coverage and 72 percent for family coverage. The percentage of employee contributions for Olentangy LSD and the peers is shown in **Table 3-13** (see **R3.4**).

Olentangy LSD pro-rates benefits for part-time employees who work less than 5 hours per day. For those employees who work less than 3 hours, the District covers 52 percent of all insurance premiums for single plan and 42 percent for family plan coverage. For employees who work 3-5 hours, the District covers 72 percent for single plan and 62 percent for family plan coverage. For all staff working over 5 hours, the District pays premiums in the same manner as full-time employees.

The Kaiser Family Foundation, in its *Employer Health Benefits 2004 Annual Survey*, reported the following findings pertaining to employer/employee premium contributions:

- 51 percent of surveyed employees who are covered under a health plan are required to pay a deductible;
- The average single plan coverage deductible for Preferred Provider Organization (PPO) plans is \$287 for in-network services and \$558 for out-of-network services;
- 80 percent of surveyed employees with single plan coverage contribute towards their insurance premium costs;
- 90 percent of surveyed employees with family plan coverage contribute towards their premium insurance costs;
- 41 percent of surveyed employers that offer health benefits indicate that they are likely to increase the percentage paid for family plan coverage;
- The average percentage of employee contributions for single plan coverage is 16 percent;
- The average percentage of employee contributions for family plan coverage is 28 percent; and
- The vast majority of covered workers have co-payments, typically for office visits and prescriptions.

According to SERB's 2003 annual report, *The Cost of Health Insurance in Ohio's Public Sector*, the average employee contributes 11 percent for single plan coverage and 12.3 percent for family plan coverage. For school district plans covering 500 to 999

employees, 63 percent require employees with single plan coverage to contribute an average of 10.4 percent of premium costs, while 73 percent require employees with family plan coverage to contribute an average of 12.7 percent.

An additional option for the District to help lower health care costs is to change the coverage for part-time employees. The District could offer full benefits to only those employees who work seven hours or more. Benefits for employees working between 5 and 7 hours would be the same as those working less than 5 hours. Savings from this option were not calculated as the savings are not likely to be significant. However, it is presented as an option to the District as an additional step for managing growing health care costs.

Financial Implication: Implementing a 10 percent employee share for all single premiums for all employees that are not presently paying premiums or are paying less than this percent, as well as requiring all employees to contribute towards dental insurance would result in annual savings to District of over \$11,000. However this would decrease the incentive to not elect vision insurance which would increase costs. Factoring this in, the net savings to the District would be approximately \$9,000.

R3.6 The District should negotiate with its Teachers Association to allow more flexibility in making changes to its health insurance plan. This will provide the District with increased flexibility to address, in a cooperative manner with staff, additional alternatives to contain the growing costs of employee health care.

Table 3-14 compares key medical insurance benefits received by the employees of Olentangy LSD to those received by employees of the peer districts. All of the plans compared in the table are PPO plans.

Table 3-14: Key Medical Plan Benefits in FY 2003-04

	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington LSD
Co-pays per Visit	Office: \$10 ER: \$50	Office: \$10 Urgent Care: 20% ER: \$50	In-Network Office: \$10 Out-of- Network: 80%	In-Network Office: \$10 Out-of- Network: 70% ER: \$50	In-Network Office: \$5 Urgent Care: \$5 Out-of- Network: 20% ER: \$50
Prescription Plan Included	<u>Generic:</u> \$5 <u>Brand Name:</u> \$10 ¹ <u>90-day supply:</u> \$5	<u>30-day supply:</u> \$5/\$12/\$22 <u>90-day supply:</u> \$10/\$24/\$34	<u>Generic:</u> \$7.50 <u>Brand Name:</u> \$15	<u>In-Network:</u> <u>Generic:</u> \$8 <u>Brand Name:</u> \$14 <u>90-day supply:</u> \$16/\$28	<u>Formulary:</u> \$5 <u>Non-formulary:</u> \$20 <u>90-day supply:</u> \$10/\$40
Employee Annual Deductible	<u>In-Network:</u> \$0 <u>Out-of- Network:</u> \$200/\$400	<u>In-Network:</u> \$0 <u>Out-of- Network:</u> \$150/\$300	<u>In-Network:</u> \$0 <u>Out-of- Network:</u> \$200/\$400	<u>Single:</u> \$100 <u>Family:</u> \$300	<u>In-Network:</u> \$0 <u>Out-of- Network:</u> \$300/\$600
Employee Out-of- Pocket Maximum	<u>In-Network:</u> \$0 <u>Out-of- Network:</u> \$700/\$1,400	<u>In-Network:</u> \$500/\$1,000 <u>Out-of- Network:</u> \$550/\$1,100	<u>In-Network:</u> \$0 <u>Out-of- Network:</u> \$1,200/\$2,400	<u>In-Network:</u> \$2,000/\$4,000 <u>Out-of- Network:</u> \$4,000/\$8,000	<u>In-Network:</u> \$500/\$1,000 <u>Out-of- Network:</u> \$1,000/\$2,000
Percentage of Care & Treatment (After Co-pay)	<u>In-Network:</u> 100% <u>Out-of- Network:</u> 80%	<u>In-Network:</u> 100% <u>Out-of- Network:</u> 80%	<u>In-Network:</u> 100% <u>Out-of- Network:</u> 80%	<u>In-Network:</u> 100% <u>Out-of- Network:</u> 80%	<u>In-Network:</u> 100% <u>Out-of- Network:</u> 80%
Lifetime Maximum Benefit Amount	\$1 million	\$2 million combined	Unlimited	\$5 million	\$2 million

Source: Schedule of Benefits and interviews from Olentangy LSD and peer school districts

¹ If person requests a brand name drug not specifically ordered by physician, the employee is responsible for the \$10 co-pay and the cost differential between the generic and the brand name drug.

Table 3-14 shows that Olentangy LSD’s plan is comparable to the plans offered by the peers. The District’s out-of-pocket maximum (out-of-network) is lower than three of the four peers and co-pays for prescriptions are the lowest. Olentangy LSD is contractually obligated to offer the current level of service, as its negotiated agreement with certificated staff requires the District to provide benefits equal to the preferred provider plan A. This contract expires in June 2005. This contract limitation does not exist within the District’s two remaining negotiated agreements.

The District has the ability, through its participation in the insurance consortium (see **R3.4**), to offer staff other health plans with different levels of service. Olentangy LSD's plan offers the highest benefit levels available through the consortium. For the District to maximize the benefits of being in a consortium while minimizing expenditures, it should work with the collective bargaining units to negotiate a lower-tiered plan. The District could still make the higher benefit level available to employees who are willing to pay the premium difference.

In addition to changing the base plan offered to employees to a lower-tier, there are other options for the District to reduce its overall health care costs. The director of personnel reported that the District has discussed creating a committee to address the issue of health care and rising costs. Building on the efforts already begun by the District, Olentangy LSD should continue to develop an insurance committee that could explore additional options to assist in managing health care costs.

As noted in the 2004 article, *Research Report: What Works Now – Employer Strategies and Tactics for Controlling Health Care Costs* (published by Workforce Management), companies use a variety of strategies to better manage health care costs. These strategies include developing an internal committee, similar to that being discussed by Olentangy LSD. This committee can help to facilitate sharing of information about the employer's financial situation and health care costs. One source of information often used is information from a third-party administrator regarding historical costs of health-related services used by employees. This helps to educate employees about what drives increases in health insurance premiums. Information sharing can also help to persuade employees to increase co-pay amounts which would result in savings for the employer.

One option that could be considered by the District's insurance committee would be the use of health savings accounts. These accounts provide a consumer-driven approach to health plans as well as greater incentives for employees to judiciously use health-related services. A High Deductible Health Plan (HDHP) with a Health Savings Account (HSA) or a Health Reimbursement Arrangement (HRA) provides traditional medical coverage and a tax-free method to help build savings for future medical expenses. These plans provide greater flexibility and discretion over how employees use health care benefits.

Another approach is related to improving the health status of the workforce. Using an employee committee to design a health promotion program focused on risk-based incentives or offering financial incentives to workers who reduce specific risk factors such as weight, high blood pressure, cholesterol, etc., are popular means to improve the workforce's overall health status. Such a program would create incentives to participate in various health and wellness activities. Other ideas include offering a regular exercise program in a cleared-out lunchroom and looking for ways to integrate wellness with a

more comprehensive approach to employee development. A speaker’s bureau can also be used to provide information on nutrition and exercise.

R3.7 Olentangy LSD should review its vision insurance plan and seek to obtain more competitive rates by adjusting benefits to be more comparable to peers. Olentangy should also seek to increase its co-payment level to achieve premium costs that are comparable to peers.

Tables 3-15 and 3-16 illustrate vision insurance benefits and premiums, respectively, for Olentangy LSD and the peer districts.

Table 3-15: Comparison of Vision Benefits for In-Network Providers

	Olentangy LSD	Dublin CSD	Mason CSD
Provider	Vision Service Plan	Vision Service Plan	Vision Service Plan
Co-payment for examinations	\$5	\$10	None
Eye examinations	Covered in full	Covered in full	20% off usual and customary fees with \$40 indemnity allowance.
Lenses	\$10 co-pay for lenses and/or frame; \$120 allowance for frame	Covered in full with \$ 80 for frame	20% off usual and customary fees with \$35 allowance for sing vision lenses. ¹
Contact Lenses	No co-payment with \$105 allowance. Receive 15% off the exam before allowance is applied	No co-payment with \$105 allowance. Receive 15% off the exam before allowance is applied	No co-payment with \$200 indemnity allowance. Receive 15 % off before allowance is applied

Source: Olentangy LSD and the peer districts

Note: Pickerington LSD does not offer vision. Hilliard CSD’s benefit book was not available and the only benefit noted was that routine vision exam is covered as part of health insurance plan. As a result, neither of these peers are included in this comparison.

¹ Mason CSD plan allowances for bifocal and trifocal lenses are \$45 and \$65, respectively.

Table 3-16 Comparison of Vision Insurance Premiums for FY 2003-04

	Single Premiums	Employee Contributions	Family Premiums	Employee Contributions
Olentangy LSD				
• Certificated staff	\$10.73	\$0.75	\$24.97	\$4.24
• Custodial/transportation	\$10.73	\$0.97	\$24.97	\$4.74
Dublin CSD	\$6.97	\$0.70	\$19.83	\$2.97
Hilliard CSD ¹	\$10.60	\$0.00	\$27.62	\$0.00
Mason CSD	\$4.69	\$0.00	\$10.13	\$0.00
Peer Average	\$7.42	N/A	\$19.19	N/A
SERB Statewide Average	\$9.87	N/A	\$18.50	N/A

Source: Olentangy LSD and the peer districts

Note: Pickerington LSD does not provide vision insurance and is not included in this analysis.

¹ Hilliard CSD also offers a single +1 vision plan at \$15.40 premium cost.

Table 3-15 shows that Olentangy LSD has vision insurance comparable to the peers. However, as seen in **Table 3-16**, the District is paying the highest premium for single vision coverage and the second highest for family coverage. Olentangy LSD’s single premium is 9 percent higher than the SERB-reported average and 45 percent higher than the peer average. The District’s family vision premium is 35 percent higher than the State average and 30 percent higher than peers. Olentangy LSD requires staff to contribute towards both single and family coverage, which two of the three peers do not require.

In addition to vision insurance, Olentangy LSD offers life insurance of \$60,000 for certificated, administrative, and support staff, which is higher than any of the peer districts. Dublin CSD and Mason CSD provide \$50,000, Hilliard CSD provides \$40,000, and Pickerington LSD provides \$35,000. The State average reported by SERB is nearly \$32,200. While reducing the amount of life insurance provided would not result in significant savings, this further illustrates the generous nature of benefit levels and may offer an area of future savings if this benefit were altered.

Financial Implication: Based on the most conservative difference between Olentangy LSD and SERB’s statewide averages, as well as the District’s expenditures of \$136,221 for vision insurance in FY 2003-04, Olentangy LSD could save between \$11,000 and \$31,000 annually if it reduced vision insurance premiums to more closely reflect the SERB average.

Collective Bargaining Agreements

R3.8 Olentangy LSD should seek to negotiate changes in benefits for certificated employees in the areas of professional leave, sick leave accrual, eligibility for severance pay, amount of severance pay, and notice for personal leave. Further, the District should seek to negotiate to remove language regarding class size and

minimum staffing levels for certain areas. These contractual requirements are not found in peer district bargaining agreements and are costly to Olentangy LSD.

Olentangy LSD's agreement with its teachers extends from January 1, 2002 through June 30, 2005. The bargaining unit includes certificated teachers, but excludes administrators, substitutes, and hourly paid tutors. There are a number of areas where the Olentangy LSD contract language varies from peers (see **Table 3-3**):

- Olentangy LSD is only district that provides one day of professional leave per teacher per year. The District should negotiate a fixed number of days more similar to the peer districts, which use more general guidelines.
- The District does not specify a minimum number of years of employment with the District in order to become eligible for severance pay. Two of the peers require a minimum of 10 years and one requires 5 years. Similar to the District, Dublin CSD does not stipulate a requirement. Olentangy LSD should seek to require 10 years of employment with the District before an employee becomes eligible for severance pay. This would be in addition to the existing language that requires retirement eligibility under STRS.
- Olentangy LSD has specific language dictating maximum class size in its negotiated agreement. Three of the four peers do not specify maximum class size. The only other district to specify class size is Pickerington LSD, and its limits are higher than Olentangy LSD's. The District should negotiate to remove maximum class sizes from its negotiated agreement.
- Olentangy LSD requires shorter notice for the use of personal leave than three of the four peers. The District should increase the required notice to a minimum of two days.
- Upon retirement, Olentangy LSD pays 30 percent of unused sick leave and allows staff to accumulate 300 days. This results in potential sick leave severance package of 90 days pay, based on the individual's daily rate of pay at retirement. The peers all pay 25 percent of unused sick leave and the peer average of maximum number of sick leave accrued is 249 days (not including Dublin CSD that has no limit on accrued leave). Olentangy LSD is 20 percent above the peer average. The maximum number of days paid by Olentangy LSD is 90, while the peer average is 61 days. If the District reduced its benefit to that of the next highest peer, Dublin CSD, which pays a maximum of 65 days, it would realize a reduction of 25 days of severance pay for each person retiring with the maximum amount of leave time.

In general, these contractual changes would give the District more flexibility in meeting its staffing needs while minimizing the cost of doing business. Increases in the required tenure for severance pay could result in the District paying less. Savings for the reduction in severance pay are not quantified in this report as the District has a relatively young staff and is not forecasting retirements during the forecast period.

R3.9 Olentangy LSD should attempt, in future negotiations with its classified bargaining units, to bring employee benefits to a level that is comparable to the peer districts. The District should adjust work hours to exclude the lunch period, which will increase staff productivity. The District should also seek to eliminate minimum call-in hours (see the Facilities section). Lastly, the District should seek to reduce the maximum number of days paid out at retirement, as well as paid holidays.

As seen in **Table 3-4**, Olentangy LSD offers higher benefits to its classified employees in the following areas: paid lunch break; holidays; accumulated sick leave; sick leave severance package; and minimum call-in hours for building checks (see the **Facilities** section).

Olentangy LSD is the only peer to pay employees for their lunch period. For each of the peers, the standard work day is 8 hours compared to 7.5 at Olentangy LSD. The District provides 12-month employees with 13 holidays while the next highest peer, Mason CSD provides 11 days. Olentangy LSD gives the day after Christmas and New Year's Eve as two additional holidays. For classified employees who work fewer than 12-months, Olentangy LSD gives 10 holidays (bus drivers), while custodial and maintenance staff are paid for holidays that occur during their scheduled work days (a total of 12 days). The closest peers are Dublin CSD and Hilliard CSD which offer 8 holidays each. A reduction in the number holidays and an increase in work hours will potentially increase productivity and allow the District to complete additional preventive maintenance and routine cleaning duties during periods when the buildings are not occupied.

Olentangy LSD allows classified staff to accumulate a maximum 300 days of unused sick leave, which is 20 percent more than the average of the peers that specify a limit. Dublin CSD has no limit on the maximum sick days accrued. Olentangy LSD is the only district to offer a sick leave incentive and to allow staff to cash out personal leave as opposed to converting it to sick leave. It may be beneficial for the District to consider a bonus payment similar to Hilliard CSD. This would allow the District to reward staff that do not use sick leave but will keep its overall benefit level more in-line with peers. This would potentially be helpful to District in lowering sick leave usage by classified staff (see **R3.3**)

In addition to the higher number of accumulated sick leave days, Olentangy LSD is the only district to pay 30 percent of this amount in severance pay. If the District reduced its

benefit to next highest peer, Hilliard CSD, which allows for a maximum of 63.75 days, it would mean a reduction of 26.25 days of pay for each person retiring with the maximum number of leave days. Savings for the reduction in severance pay are not quantified in this report as the District has a relatively young staff and is not forecasting retirements during the forecast period.

Technology

R3.10 As part of its long-term technology planning, Olentangy LSD should consider purchasing a comprehensive human resource information system (HRIS) to assist in managing its growing human resource needs. A comprehensive HRIS will help Olentangy LSD better manage and coordinate benefits administration, recruiting and hiring, and other HR functions.

Olentangy LSD does not have a comprehensive HRIS. The District uses a variety of software programs to perform specific human resource functions. For example, the District uses on-line search software, Searchsoft, for hiring certificated staff. Searchsoft permits the application and screening process to occur electronically, and allows all staff involved in the hiring process to view the information simultaneously. The District also recently purchased software to better track information related to staff certification and professional development needs. This will allow staff to view their own information and status regarding certification and assist them in meeting professional development requirements. The system will also maintain staff-accessible information pertaining to the status of negotiated agreements.

The personnel director has also developed an excel spreadsheet which, using enrollment projections from DeJong and Associates, applies staffing ratios to determine future staffing needs. The District uses Filemaker Pro to communicate internal job openings and vacancies.

The District has explored a number of HRIS programs, but has found them to be cost prohibitive. The District relies on the State's software system and supplements it with additional software packages. As the District continues to grow, so will the burden of HR-related recordkeeping. The Personnel Office maintains employment information and the treasurer maintains all financial information. While both departments input data into EMIS, they do not have a single in-house program where the information is maintained.

According to research conducted by CIO Magazine, technology plays the dual role of reducing administrative costs through systems automation and providing a helping hand with more strategic tasks. In almost all cases, HR technology cuts across the entire enterprise. Internal websites post HR policies and procedures, and employees can use an

Intranet system to review changes in policy or benefits and make necessary alterations (change of address).

According to one HRIS software manufacturer, a comprehensive program can reduce hidden costs in the following manner:

- Streamlining staff duties;
- Reducing paper and postage;
- Minimizing the use of unnecessary hardware;
- Reducing outsourcing costs associated with over-billing;
- Minimizing the cost of recruiting through increased efficiency;
- Reducing wasted effort associated with the benefits selection/open enrollment;
- Enhancing classroom training; and
- Minimizing staff overpayment via enhanced controls.

Additional benefits include improved stakeholder communication on HR-related issues, as well as increased integration with other computerized systems (i.e., accounting and payroll).

CDG and Associates recommends the following steps in preparing to implement an HRIS:

- Create a project team upfront that includes representatives from HR and information technology. If the information technology group does not have expertise in a particular technology, hire a consultant with relevant experience.
- List attributes of any HR-related systems that are in place. Make note of what the systems do well, what needs improvement, and what functionality is missing. Pay particular attention to existing functionality so that it does not become lost when replaced by a new system.
- Before meeting with vendors, list any specific requirements necessary to facilitate a customized product demonstration. Never base a purchase decision on a canned demonstration.
- During a demonstration, all members of the evaluation team should be present. If integration is a goal, everyone should be around for the entire demonstration.
- Hold a debriefing session as soon as possible after each demonstration.

Several HRIS companies offer comprehensive packages. Purchasing options range from one-time implementation fees with a monthly per-employee rate, to direct software purchasing with additional charges for upgrades and support. Many vendors offer discounts to governmental entities.

Financial Implication: To implement and maintain an HRIS for its employees, Olentangy LSD should expect to spend between \$72,000 and \$144,000 annually, depending on the type of package it chooses.

Financial Implications Summary

The following table is a summary of estimated annual cost savings and implementation costs. The financial implications are divided into two groups: those that are, and those that are not subject to negotiations. Implementation of those recommendations subject to negotiation may require agreement from the affected bargaining units.

Summary of Financial Implications Not Subject to Negotiations

Recommendation	Estimated Annual Cost Savings	Estimated Annual Implementation Costs
R3.1 Review hiring practice for site-based and central office/administrators as well as clerical staff	FY 2006-07: \$19,000	
	FY 2007-08: \$38,000	
	Total: \$57,000	
R3.3 Reduce classified staff sick leave usage	\$8,000	
R3.7 Reduce vision insurance premiums	\$11,000	
R3.10 Purchase an HRIS		\$144,000
Total	\$76,000	\$144,000

Summary of Financial Implications Subject to Negotiations

Recommendation	Estimated Annual Cost Savings
R3.2 Reduce ESP personnel by 20 teachers and 2 library/media specialists	\$1,400,000
R3.4 Reduce health care premiums to the SERB-reported average for all school districts	\$1,140,000
R3.5 Implement 10 percent employee contributions to health care	\$9,000
Total	\$2,549,000

Facilities

Background

The facilities section focuses on custodial and maintenance operations, and building capacity within Olentangy Local School District (Olentangy LSD). The objective is to analyze the building operations of Olentangy LSD and develop recommendations for improvements in efficiency, as well as possible reductions in expenditures.

Organizational Structure and Function

Olentangy LSD consists of 12 schools: 8 elementary school (grades Pre-K-5), 2 middle schools (grades 6-8), and 2 high schools (grades 9-12). Orange Middle School opened to students in FY 2004-05.

The custodial department is responsible for the operation and upkeep of District facilities. The mission of the custodial staff is to provide a clean and safe environment for students, staff, and visitors. In addition to the general cleaning and upkeep of the facilities, custodians are responsible for some minor maintenance duties.

The maintenance department is responsible for the building maintenance for school buildings and office space throughout the District. In addition, there is a grounds staff responsible for all of the grounds maintenance including mowing, trimming, snow removal, athletic field preparation and maintenance.

Staffing

The custodial staff consists of 69 full-time equivalents (FTEs). The number of custodians assigned to individual buildings ranges from 4 to 10 FTEs, depending on the size of the building. The elementary and middle schools have both a day and evening shift. The high schools have staff in the building 24 hours a day during the school week when school is in session.

The District has 12 FTEs assigned to building maintenance and 12 FTEs assigned to grounds maintenance. The grounds employees are also responsible for printing and mail delivery.

In addition to the custodial and maintenance staff, the District employs a maintenance supervisor, an assistant maintenance supervisor, a secretary, a Director of Business Services, and an Assistant Director of Business Services. The custodians within a building report to that

building's head custodian for schedules and work assignments. The head custodians work closely with the assistant maintenance supervisor on general personnel and operational issues.

Olentangy LSD also has a director of facilities planning who works with the development committee to create enrollment projections, plan for future growth, oversee ongoing construction projects, and negotiate to acquire future land for District development.

Olentangy LSD is experiencing unprecedented growth in enrollment. It is the fastest growing school district in the state. From FY 2000-01 to FY 2003-04 the District grew by more than 2,500 students and added 6 new buildings. Of the 12 schools in use for FY 2003-04, only three were built prior to 1995. The District uses the same basic building plan for the elementary schools, and the new middle school (opening for FY 2004-05) was built with the same basic plan as the most recently completed middle school. Using the same building plans saves the district architectural and planning costs. However, the District remains under constant pressure to meet the needs of a growing community which is expected to continue to grow at record pace. The Director of Facilities Planning works with developers, local governments, and several utility companies when identifying possible sites for future school construction.

Key Statistics

Key statistics related to the maintenance and operations (M&O) of Olentangy LSD are presented in **Table 4-1**. In addition, results from the 33rd Annual American School & University (AS&U) Maintenance & Operations Cost Study, which was released in April 2004, are included in **Table 4-1** and throughout the facilities section of the report. AS&U conducted a detailed survey of chief business officials at public school districts across the nation to gather information regarding staffing levels, expenditures and salaries for maintenance and custodial workers.

According to the 33rd Annual AS&U study, school district expenditures on maintenance and operations continue to hover around historic lows. The low allocation of resources to M&O is a "stark reminder of how difficult it continues to be to upkeep and operate America's aging education infrastructure on a shoestring budget." While aging buildings and limited resources are the paramount issue for many school districts in America, Olentangy LSD's buildings are predominantly less than 10 years old and in very good condition.

The data provided by AS&U is a comparison based on national data. Since the study reports the median rather than the average, and utilities expenditures across the nation vary based on cost and consumption, the AS&U median cost per square foot may be lower than those expenditures in Ohio.

Table 4-1: Key Statistics and Indicators

Number of School Buildings	12
- Elementary Schools	8
- Middle School	2
- High School	2
Total Square Feet Maintained	1,548,570
- Bus and Maintenance Facility	16,550
- Elementary Schools	597,948
- Middle School (Administrative annex included with Shanahan middle)	343,067
- High School	591,005
Square Feet Per FTE Custodial Staff Member	22,443
- Administrative Building (per FTE)	N/A
- Elementary School (per FTE)	18,686
- Middle School (per FTE)	21,442
- Senior High School (per FTE)	29,550
AS&U 33rd Annual Cost Survey > 3,500 Students Median	21,520
AS&U 33rd Annual Cost Survey National Median	23,787
Peer District Average	22,623
Square Feet Per FTE Maintenance Employee (FTEs)	129,048
AS&U 33rd Annual Cost Survey > 3,500 Students Median	80,887
AS&U 33rd Annual Cost Survey National Median	90,757
Peer District Average	217,197
Acres Per FTE Grounds Employee (FTEs)	61
AS&U 33rd Annual Cost Survey > 3,500 Students Median	102
AS&U 33rd Annual Cost Survey National Median	47
Peer District Average	70
FY 2003-04 Maintenance and Operations Expenditures Per Square Foot	\$5.37
- Custodial and Maintenance	\$3.96
- Utilities	\$1.41
AS&U 33rd Annual Cost Survey > 3,500 Students Median	\$4.09
AS&U 33rd Annual Cost Survey National Median	\$3.84
Peer District Average	\$5.22

Source: Olentangy LSD and peer districts; AS&U 33rd Annual Maintenance & Operations Cost Survey

Olentangy Local School District custodians maintain slightly fewer square feet per FTE than the peer school districts. The maintenance employees also maintain fewer square feet than the peer average; however, one of the peer districts outsources all HVAC work, which causes the peer average to be exceptionally low. Also, the acres maintained per grounds employee at Olentangy LSD is slightly lower than the peer average; however, these employees have other responsibilities at Olentangy LSD.

Financial Data

Table 4-2 illustrates the General Fund expenditures incurred to maintain and operate Olentangy LSD’s facilities for FYs 2001-02, 2002-03, and 2003-04. **Table 4-2** shows only those expenditures directly related to the maintenance and custodial operations and the upkeep of the District’s facilities. In addition, **Table 4-2** also details expenditures per square foot for FY 2002-

03 and 2003-04, since the District has experienced growth in total square footage maintained. Overall expenditures are expected to increase with additional square footage, but the cost per square foot should remain fairly stable.

Table 4-2: Maintenance and Operations Expenditures

Accounts	FY 2001-02 Total	FY 2002-2003 Total	FY 2002 to FY 2003 Percentage Change	FY 2003-04	FY 2003 to FY 2004 Percentage Change
Salaries	\$2,050,257	\$2,227,935	9%	\$3,091,744	39%
Benefits	679,227	841,338	24%	1,237,347	47%
Purchased Services	467,549	542,392	16%	710,394	31%
Utilities	1,282,027	1,461,145	14%	2,176,191	49%
Supplies/ Materials	312,650	355,053	14%	515,964	45%
Capital Outlay	345,875	643,371	86%	567,556	-12%
Other	0	0		0	
Total	\$5,137,585	\$6,071,234	18%	\$8,299,196	37%
Total Expenditures per Square Foot	\$4.74	\$5.52	16.5%	\$5.37	-2.9%

Source: Olentangy LSD Treasurer’s Office

Olentangy LSD’s expenditures per square foot increased substantially from FY 2001-02, but declined by almost 3 percent in FY 2003-04. Driving the increase from FY 2001-02 to FY 2002-03 were expenditures in Capital Outlay. This was related to the three construction projects occurring in FY 2002-03; two elementary schools and a new high school.

Table 4-3 illustrates Olentangy LSD’s and the peer districts’ FY 2003-04 General Fund custodial and maintenance-related expenditures in terms of cost per square foot, using the FY 2003-04 square footage for Olentangy LSD.

Table 4-3: FY 2003-04 General Fund Expenditures per Square Foot

Expenditure	Olentangy LSD	Dublin CSD	Hilliard CSD	Mason CSD	Pickerington CSD ¹	Peer Average	AS&U National Median	AS&U Median for 3,500 plus Students
Custodial and Maintenance Salaries and Benefits	\$2.80	\$2.44	\$3.48	\$3.39	\$2.51	\$2.96	\$1.84	\$2.06
Purchased Services	\$0.46	\$0.65	\$0.56	\$0.88	\$0.20	\$0.57	\$0.18	\$0.17
Utilities	\$1.41	\$1.33	\$1.32	\$1.64	\$1.35	\$1.41	\$1.16	\$1.18
Supplies/Materials	\$0.33	\$0.28	\$0.30	\$0.37	\$0.06	\$0.25	\$0.32	\$0.30
Capital Outlay	\$0.37	\$0.07	\$0.03	\$0.03	\$0.00	\$0.03	N/A	N/A
Other	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.34	\$0.38
Total General Fund Expenditures	\$5.37	\$4.77	\$5.69	\$6.31	\$4.12	\$5.22	\$3.84	\$4.09

Source: Olentangy LSD Treasurer’s Office; peer districts; AS&U Magazine, April 2004

¹ Includes General Fund Only Pickerington Local School District funds some maintenance expenditures through a permanent improvement levy

When compared to the peer districts, Olentangy LSD is higher than the peer district average in two categories: supplies, and capital outlay. Supplies and materials expenses, as well as purchasing practices in the District, are discussed in the *financial systems* section. The District’s utility costs are higher than the peer districts located in the Columbus suburban area because the District’s gas must be purchased, in part, from a rural cooperative where the District does not receive a discount.

Noteworthy Accomplishments

Olentangy LSD has implemented certain high-performance practices within its facilities operations, including:

- **Development committee:** The District has a development committee consisting of community members and District personnel. The development committee reviews and develops enrollment projections and determines facility needs, prepares short-term and long-term construction budgets, and updates the long range plan annually. Using a community oriented development committee ensures that the District includes the diverse concerns of its stakeholder groups.

- **Web-based security system:** The District has a web-based security system and web-based access to utilities for most buildings. Web based security and utility controls reduce the costs associated with building checks performed by employees.
- **Work orders:** The District has implemented an automated work order program that allows it to download work orders and track preventive maintenance. Automated work order programs are more efficient than paper based systems, especially in large districts, because they allow for a greater degree of service level and cost tracking, and provide information on needed repairs more quickly than manual systems.
- **Construction costs:** The District's construction project costs have been lower than national and regional averages in cost per square foot for school facilities. The 9th annual construction report from *School Planning and Management*, February, 2004 details the costs of school facilities for the previous year. The national median cost per square foot for elementary buildings was \$121. Regionally (Ohio, Indiana, and Michigan), the median cost per square foot was \$137. Olentangy LSD built Walnut Creek Elementary for approximately \$96 per square foot. The cost of Orange Middle School was approximately \$106 per square foot, well below the region's median for middle schools (\$152).

Assessments Not Yielding Recommendations

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

- **Work order process:** The District has an electronic work order system that it brought on line in FY 2003-04. The daily work orders are downloaded to palm pilots carried by maintenance employees. The District is still in the process of entering preventive maintenance activity as it comes due, but once all of the information is entered, preventive maintenance activity will also automatically issue a work order through the system.
- **Building use policy:** The District has a building use policy that outlines all of the charges for various types of groups. These charges are sufficient to recoup the cost of these services.
- **Energy management:** The District has centralized control of utility settings in most buildings and a policy regulating temperature settings. The District also employs the services of a utility bill auditing service to assist in identifying and controlling costs.

- **Custodial operations:** The District has a custodial handbook detailing employee expectations and daily and weekly cleaning requirements, procedures and contact numbers.

Recommendations

Custodial Staffing

- R4.1 Olentangy LSD should consider realigning custodial staffing over time to reduce staffing at the elementary schools to 3 FTEs per school. This could be achieved by moving some custodians to the high schools and, as new buildings open, moving employees from their current elementary building to staff the new buildings.**

Table 4-1 shows that the total square feet maintained per custodial employee district-wide is similar to the peer average and AS&U median for similar size districts. Additionally, **Table 4-4** shows the custodial staffing for FY 2003-04 for each building at Olentangy LSD and the square footage maintained per custodial FTE for each building. The building level analysis shows that the District is well below the AS&U median at the elementary and middle school level, but above it at the high school level. Furthermore, **Table 4-4** compares Olentangy LSD's staffing levels to what is reported by AS&U and presents proposed modifications as described above.

Table 4-4: Existing and Proposed Olentangy LSD Custodial Staffing

Building	Square Footage	Custodial FTE's	SF per Custodial FTE	Difference SF per Custodian and AS&U Median	Proposed Custodial FTE ¹	Difference Actual FTE from Proposed
Alum Creek Elementary	82,330	4.00	20,583	(3,205)	3.5	0.5
Arrowhead Elementary	72,830	4.00	18,208	(5,580)	3.0	1.0
Indian Spgs. Elementary	72,803	4.00	18,201	(5,586)	3.0	1.0
Oak Creek Elementary	71,419	4.00	17,855	(5,932)	3.0	1.0
Scioto Ridge Elementary	72,830	4.00	18,208	(5,580)	3.0	1.0
Tyler Run Elementary	72,803	4.00	18,201	(5,586)	3.0	1.0
Walnut Creek Elementary	72,803	4.00	18,201	(5,586)	3.0	1.0
Wyandot Run Elementary	80,130	4.00	20,033	(3,755)	3.4	0.6
Elementary School	597,948	32.00	18,686	(5,101)	24.9	7.1
Shanahan Middle (including east wing and admin)	206,067	9.00	22,896	(891)	8.7	0.3
Liberty Middle	137,000	7.00	19,571	(4,216)	5.8	1.2
Middle School	343,067	16.00	21,442	(2,345)	14.5	1.5
Olentangy High School	287,750	10.00	28,775	4,988	12.1	(2.1)
Liberty High School	303,255	10.00	30,326	6,539	12.8	(2.8)
High School	591,005	20.00	29,550	5,763	24.9	(4.9)
Bus Facility	16,550	1.0	16,550	(7,237)	1.0	0.0
TOTALS	1,548,570	69	22,443	(1,344)	65.1	3.9

Source: Olentangy LSD Custodial Staffing List and Building Inventory

Note: Federal guidelines from the Department of Education (*Planning Guide for Maintaining School Facilities*, 2003) recommend total area cleaning square footages of 18,000 square feet for level 2 (optimal) cleaning and 28,000 to 31,000 square feet for level 3 (reduced expectations based on funding reductions) cleaning per custodian for an 8-hour shift.

¹ Calculated by taking the custodial square footage and dividing by the AS&U National Median (23,787 SF/FTE)

If the District continues to add new elementary and middle schools and staffs them according to the existing staffing levels, the District’s overall square feet per custodial employee will decrease. Therefore, the trend of the District will lead them to be below the peer average within a few years. Also, the newest high school, Liberty High School, was only housing approximately 760 students in FY 2003-04, a portion of its future capacity. The District may find that it will need to add staff as the enrollment increases and class sizes grow at Liberty High School.

Redistributing the staff over time according to **Table 4-4** will allow the District to transition toward a new staffing model and reduce the chances it may be overstaffed at

the elementary level. The District should review the staffing model periodically to determine the appropriateness of the custodial staff distribution and ensure the custodial needs of the District are being met. Although no cost savings will be immediately gained through the implementation of this recommendation, the District will be able to avoid future personnel costs by redistributing its custodians throughout the District.

Custodial and Maintenance Operations

R4.2 Olentangy LSD should consider eliminating or reducing weekend building checks. Building checks are unnecessary as the District has implemented automated controls and remote monitoring.

Each building's head custodian performs weekend building checks, unless there is already an activity planned at the facility. The head custodians of elementary and middle schools are paid two hours overtime for the weekend building checks and the high school head custodians are paid three hours overtime for the weekend building checks. However, the District has an internet-based security system, as well as centrally controlled utilities, that should reduce or eliminate the need for physical building checks.

The internet-based security system allows the Assistant Director of Business Services and other key District personnel to monitor the condition and security of the buildings from a remote location. Although this duty may need to be rotated among several managers and supervisors to ensure continuous coverage, the checks performed by custodians are redundant to the internet-based system.

If the District feels the weekend building checks are still a necessary security or maintenance function, it should consider dividing and rotating the responsibility, so that only one or two staff members perform weekend checks of all buildings. Eliminating or consolidating this function will save the District the cost of overtime pay for the weekend building checks.

Financial Implication: In FY 2003-04 the District had 8 elementary schools, 2 middle schools and 2 high schools. Assuming that there are often weekend activities at the high schools, the District would still have approximately 20 hours of overtime each weekend for building checks. If the District eliminated weekend building checks at the elementary and middle schools, it could save approximately \$29,000 annually.

Long Range Planning and Facilities Use

R4.3 Olentangy LSD should consolidate its facility plan information into one working document. The plan should be linked to the District's educational programs and

academic achievement in the form of a facility master plan. The facility master plan should also be linked to the capital improvement plan.

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

The District has developed historical enrollment records, enrollment projections, and a methodology for completing enrollment projections and capacity analyses. While the District has plans for future growth and building needs, combining all of the facility improvement information into a single document, and working with the District administration and the community to use the data compiled to link the facility plans with the educational plan for the District, would enable the District to better communicate its capital needs to constituents.

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

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

Olentangy LSD has all of the information needed to develop a master plan. However, it has, in the past, segregated new facilities planning and existing facility maintenance. Using this information, Olentangy LSD should work with a cross-section of school personnel, parents, students, and community members to develop a plan that clearly states the future plans for each facility in the District. The document should specify planned projects, including timing and sequencing, and estimated costs. The plan should also include the condition of existing facilities, the District's planned educational programs, the demography of the District, and a description of the District's vision of its future facility needs.

R4.4 Olentangy LSD should, with input from the community, determine the long-term feasibility of its facility capacity calculations. As the standard format used by the district ensures a low capacity to meet its educational philosophy, it needs to confirm community support for the more costly operations associated with buildings designed and staffed to keep class sizes low. If the District is unable to garner ongoing support for its existing configurations, it should consider increasing student counts within its elementary, middle and high school classrooms.

Olentangy LSD has considered its educational philosophy when developing its long-range facility plan. The school board’s redistricting guidelines resolution states that it is committed to providing a similar educational experience for all students in the District, including similar size schools and schools close to home. The District is seeking to achieve smaller class sizes, especially in preschool and kindergarten through third grade, where target ratios are 20:1 in K-1 and 22:1 in 3-5. The teachers’ negotiated agreement limits class sizes to 24:1 in K-5 and 25:1 in grades 6-12. However, the District’s growth presents a challenge in achieving these goals.

The District has set capacity for each of the elementary schools at 650 students, with 300 as the capacity for the east side of Shanahan. The middle school capacities as determined by the District were 900 students each, and the high schools capacities were 1,600 students each. These capacities, based on the designed uses for the building, were compared with enrollment projections and long-term facility needs were developed by the District. Olentangy LSD reviews enrollment projections annually and updates the long-range facility plan to coincide with the projections.

A capacity review of the existing buildings, as they were actually used by the District in FY 2003-04, determined slightly higher capacities than those listed by the District in its long range plan. This was due to variances in how the buildings were used and higher class size assumptions. **Table 4-5** shows the District’s long range facility plan compared to a revised plan based on the revised capacities in **Table 4-6**.

Table 4-5: Existing Facilities Development Plan

FY	Elementary	Capacity	Enroll.	Middle	Capacity	Enroll.	High	Capacity	Enroll.
2004-05		5,500	5,264	1	2,700	2,149		3,200	2,182
2005-06	1	6,150	5,934		2,700	2,384		3,200	2,443
2006-07	2	7,450	6,555		2,700	2,625		3,200	2,737
2007-08		7,450	7,247	1	3,600	2,809		3,200	2,999
2008-09	1	8,100	7,924		3,600	3,074	1	4,800	3,321
2009-10	1	8,750	8,473		3,600	3,273		4,800	3,554
2010-11	1	9,400	9,131	1	4,500	3,645		4,800	3,890
2011-12	1	10,050	9,789		4,500	3,910		4,800	4,187
2012-13	1	10,700	10,444		4,500	4,342		4,800	4,505
2013-14	1	11,350	11,099	1	5,400	4,591	1	6,400	4,894
Total	9			4			2		

Source: Olentangy LSD, Facilities Development Office

Table 4-6: Alternative Facilities Development Plan

FY	Elementary	Capacity	Enroll.	Middle	Capacity	Enroll.	High	Capacity	Enroll.
2004-05		6,555	5,264	1	2,800	2,149		3,761	2,182
2005-06		6,555	5,934		2,800	2,384		3,761	2,443
2006-07	1	7,315	6,555		2,800	2,625		3,761	2,737
2007-08	1	8,075	7,247		2,800	2,809		3,761	2,999
2008-09	1	8,835	7,924	1	3,800	3,074		3,761	3,321
2009-10	1	9,595	8,473		3,800	3,273		3,761	3,554
2010-11	1	10,355	9,131		3,800	3,645		3,761	3,890
2011-12	1	11,115	9,789		3,800	3,910		3,761	4,187
2012-13	1	11,875	10,444	1	4,800	4,342	1	5,716	4,505
2013-14		11,875	11,099		4,800	4,591		5,716	4,894
Total	7			3			1		

Source: Enrollment information Olentangy LSD, Facilities Development Office

Table 4-6, shows that the revised capacity numbers indicate some facility development may be able to be delayed. However, the District is committed to controlling class sizes, especially in the primary grades and there are other factors that affect the ability to achieve higher capacities. For example, the commons area of Olentangy High School holds a limited number of students which affects the scheduling of lunch periods. In addition, the capacity of the high schools is determined using an 85 percent utilization rate as suggested by William DeJong in *Defining Capacity*. In Olentangy LSD High School, teachers do not teach every period, so, at higher capacities, teachers may be required to share classrooms or ‘float’ without a designated classroom. These issues should be considered when evaluating the feasibility of delayed development. Enrollment projections should continue to be reviewed and recalculated each year, and future development plans should be adjusted to reflect changes in the enrollment projections.

Another option for economizing in facilities planning would be to design and build larger schools. This option would require the District to gain the support of the community for a change in educational philosophy. The District does not currently have what are generally considered small schools. According to *School Planning and Management, 2004 Construction Report*, the size of all Olentangy LSD buildings are already above the national median, which is 570 students for elementary schools, 800 students for middle schools, and 1,200 students for high schools. However, some districts have chosen to build significantly larger facilities. The new high school in Mason CSD holds over 2,000 students in grades 9-12. The intermediate campus houses 2,000 in grades 4-6 in two buildings. Mason CSD is also experiencing high growth in enrollment, with approximately 700 new students per year entering the District. The philosophy at Mason CSD is to build larger buildings to reduce the amount of funds dedicated to facilities and administration. Olentangy LSD may consider these other options in the future if the economic or community climate changes.

Financial Implications Summary

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

Summary of Financial Implications for Facilities

Recommendation	Annual Cost Savings
R4.2 Eliminate weekend building checks	\$29,000
Total	\$29,000

Technology

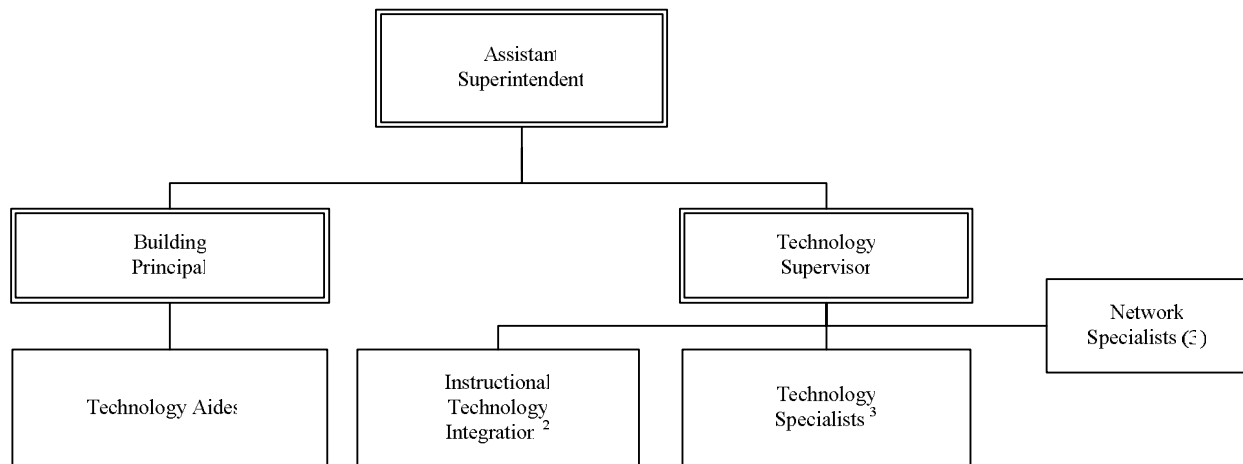
Background

This section focuses on the technology functions within the Olentangy Local School District (Olentangy LSD). The scope includes assessments of staffing and processes; technology architecture and network communications; hardware and software; professional development; security; and technology planning, budgeting and financial management.

Organizational Chart and Staffing

Technology at Olentangy LSD is largely managed through the Technology Department (Department), although some duties are also shared by building principals. The Department incorporates both technical support and instructional technology. The organization and staffing in full-time equivalents (FTE) is shown in **Chart 5-1**.

Chart 5-1: Olentangy LSD Technology Department Organization FY 2003-04



Source: Olentangy LSD Technology Department

¹ Nine technical support/computer lab monitor positions in each elementary school. One vacancy.

² Twelve teacher supplemental contracts totaling approximately 1 FTE.

³ Four technical support positions in each secondary school.

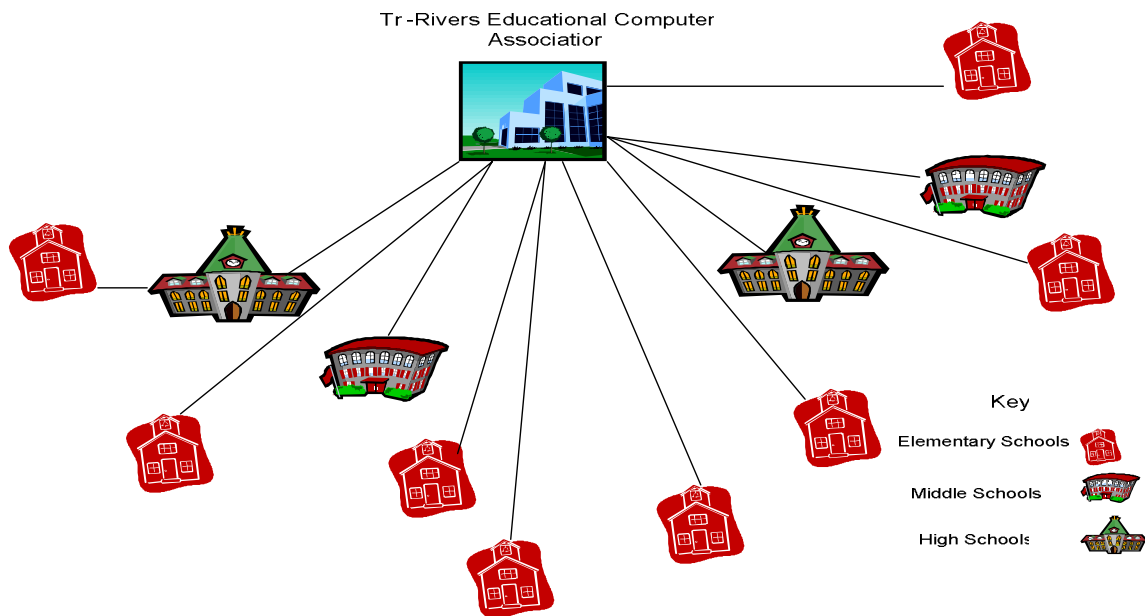
Network specialists, secondary school technicians, and instructional technology integration positions report to the technology supervisor. However, elementary technology aides report to building principals because they provide both technology support and instructional services.

The technology supervisor (1 FTE) manages overall integration of technology into the classroom as well as technical support functions. Network specialists (3 FTEs) manage network administration, database development and support, network infrastructure design and second-tier support for school buildings. Technology specialists (4 FTEs) provide first-tier technical support to the secondary schools. Technology aides (9 FTEs) provide a combination of first-tier technical support and instructional technology integration through elementary school computer labs. The teacher supplemental positions (1 cumulative FTE) help plan the integration of technology into each building’s curriculum through collaboration with other teachers. The District also maintains an advisory committee of community members with expertise in different areas of technology to help examine processes and improve all areas of implementation.

Network Architecture

Chart 5-2 illustrates the District’s Wide Area Network (WAN).

Chart 5-2: Olentangy LSD Network Diagram FY 2004 ¹



Source: OLSD Technology Department

¹ The Central Office is part of the Middle School Complex. Also, there is a fiber-optic cable connecting Liberty High School and the adjacent Indian Springs Elementary School.

All but one Olentangy LSD building is directly connected to the District’s Data Acquisition Site (DAS) via a T-1 line⁵⁻¹. Moreover, each building’s Local Area Network (LAN) consists of cabling that can deliver between 10-100 million data bits per second.

Table 5-1 illustrates key components of technology equipment located within the District.

Table 5-1: Olentangy LSD Technology Equipment, FY 2003-04

Instructional Workstations	Staff Workstations	File Servers	Printers	File/Print Sharing Operating System
2,183	451	12	930	1

Source: Olentangy LSD Inventory, 2004 BETA report

The District maintains a file server in each building within the District. The servers are linked by a Novell Netware operating system.

Network Users

Table 5-2 illustrates the number and make-up of the users of the Olentangy LSD computer network

Table 5-2: Olentangy LSD Network Users FY 2003-04¹

Building/Grade Level	Total Buildings	Total Users		
		Students	Staff/Teachers	Total
Elementary	8	4,237	399	4,636
Middle	2	1,856	187	2,034
High School	2	1,965	179	2,144
Administration	2	N/A	47	47
Total	14	8,058	812	8,949

Source: Olentangy LSD Technology Department; EMIS reports

¹ In addition to the total listed, there are approximately 70 Delaware County Educational Service Center employees working at Olentangy LSD who also have network accounts but could not be broken out by school level.

The District has nearly 9,000 users accessing the network, including all students as well as instructional, administrative and some support staff. There is an overall student to computer ratio of 3.7, and staff user to computer ratio of 2.0.

Financial Data

Table 5-3 illustrates recent technology expenditures and the FY 2004-05 technology budget at Olentangy LSD.

⁵⁻¹ T-1 lines can carry up to 1.5 million bits of data per second.

Table 5-3: Technology Expenditures FY 2002-03, 2003-04, and 2004-05 ¹

Category	FY 2002-03	FY 2003-04	Percent Change	FY 2004-05	Percent Change
Salaries/Benefits	\$460,086	\$582,567	26.6%	\$666,942	14.5%
Purchased Services	\$180,446	\$245,239	35.9%	\$256,404	4.5%
Supplies/ Materials	\$142,260	\$259,454	82.4%	\$125,500	(51.6%)
Capital Outlay	\$901,975	\$1,977,839	119.2%	\$797,428	(59.7%)
Total	\$1,684,767	\$3,065,099	81.9%	\$1,846,274	(39.8%)

Source: Olentangy LSD Treasurer's Office

¹ FY 2004-05 reflects appropriations without encumbrances of approximately \$196,000 carried over from prior year.

Funding sources for expenditures shown in **Table 5-3** include the District's General Fund, Bond Fund (new buildings), state grants received via the Ohio SchoolNet Commission, and federal Title II grants.

The major reasons for the expenditure variances included:

- **Salaries/Benefits (44.9 percent cumulative increase).** The District places a technician and teacher coordinator (a supplemental position) in each new school building. The District has increased from nine buildings in FY 2002-03 to thirteen in FY 2004-05. Salaries for technical staff have also increased approximately 6 percent annually.
- **Purchased Services (42.1 percent cumulative increase).** The District spends an additional \$7,560 in annual T-1 charges with each new building it opens. It also rewired two school buildings during this period.
- **Supplies/Materials (11.8 percent cumulative decrease).** These purchases, which largely represent software, have fluctuated with the number of new buildings opened each year.
- **Capital Equipment (11.5 percent cumulative decrease).** These costs have fluctuated with the rate of new buildings opened and outfitted. Also, the District began deferring scheduled equipment replacements in FY 2003-04 to decrease costs.

Noteworthy Accomplishments

Olentangy LSD has implemented certain high-performance practices within its technology operations, including:

- **Remote management tools:** The District is implementing Novell ZENworks in FY 2004-05 to manage its servers. ZENworks allows administrators and technicians to automatically configure, update and troubleshoot workstations and servers from remote

locations, without having to visit each device. The District also intends to implement an electronic trouble ticketing system to report and track support issues via e-mail.

- **Standardization practices:** The District is increasing standardization of equipment and software among its buildings. This reduces complexity and expense by supporting a limited number of applications and computer environments.
- **Technology acquisition:** The District employs numerous procurement strategies both to maximize its resources and meet user needs. For example, it obtains volume discounts by taking part in purchasing consortiums, enters into multi-year agreements for certain software to reduce costs, and has a productive relationship with a local vendor through which it negotiates competitive prices.
- **Student support of technology:** District officials related an incident in which a student very proficient in technology was caught attempting to circumvent network security to play video games on the Internet. The District crafted an innovative behavior modification process by requiring the student to assist its technicians in risk-avoidance support functions. For additional recommendations on student support, see **R5.4**.

Assessments Not Yielding Recommendations

In addition to the analyses in this report, assessments were conducted on several areas within technology section which did not warrant changes and did not yield any recommendations. These areas include the following:

- **Escalation process/contracted support:** The District has a well-defined escalation process for support issues, including the strategic use of contracted support and application hosting for complex matters. For example, the District uses all the major business application services available through its Data Acquisition Site.
- **Job descriptions:** The District maintains adequate job descriptions for its technology functions. However, when it consolidated the positions of instructional technology coordinator and technology systems administrator into the technology supervisor position, it did not share the new job description with the person assuming the position.
- **Overall hardware allocation:** The overall ratio of students per computer (3.7) is, well within the Ohio SchoolNet general goal of one computer for every five students in grades K-12. Allocations at the high school level were also below the peer district average ratio.

- **EMIS data:** The District has implemented recommendations from a 2001 study to improve data accuracy reported to Ohio's Educational Management Information System.
- **Training/certification of technical staff:** The technology supervisor is considering purchase of a CD self-study course for eight certification exams. He envisions having his certified and/or more experienced staff use the curriculum to help less experienced staff prepare for certification exams.
- **Technology planning and budgeting:** The District has recently adopted a comprehensive technology plan using the Ohio SchoolNet Commission's online planning tool. The plan links to the District's budgeting practices.

Issues for Further Study

- **Compensation:** The District should study the competitiveness of salaries within the technology department. Average District technician and network support salaries are below the peer averages. Low pay scales have hindered District attempts to attract and retain qualified staff. One elementary technology aide position remained open for all of FY 2003-04.
- **Wireless Technology:** The District should study the costs and benefits of using wireless technology in its school buildings. Olentangy LSD is the only school district among the peers that does not employ wireless technology within its schools. Wireless technology, such as mobile computer laboratories, can reduce the costs associated with wiring/retrofitting to expand network access, and reduce costs associated with building space. However, the District would have to make an up-front technology investment such as additional laptop computers if it wishes to create wireless solutions such as mobile labs.

Recommendations

Staffing and Processes

R5.1 The District should reorganize its staffing methodology for technical support. With the implementation of planned support technologies, strategies of peer districts, and recommendations contained throughout this section, the District should be able to reduce its overall technical support staff by 4.0 FTE positions. It should eliminate the elementary technology aide position and technical personnel should instead support multiple schools. Also, supplemental positions in certain elementary schools could offer first-line support defense. Olentangy LSD intends to implement an electronic trouble ticketing system and remote management software in FY 2004-05, which should significantly streamline the support process. This technology, combined with staffing strategies recommended below will improve the efficiency and effectiveness of District technology staff deployment.

Olentangy LSD has the lowest computer to support staff ratio among the peer districts, which results in the District paying approximately \$75 in technician salary cost per computer, compared to a peer average of \$63. **Table 5-4** compares technology support positions by full-time equivalent employee (FTE) at Olentangy LSD and the peer school districts. The table includes only the percentage of time staff spends on technical support duties, as many staff members also perform instructional duties.

Table 5-4: Technology Support Staffing, FY 2003-04 ¹

Position by FTE	Olentangy LSD	Dublin CSD ²	Mason CSD	Hilliard CSD	Pickerington LSD	Peer Average
Director ³	0.5	1	1	1.4	0.75	1.0
Network Support/Database	3	1.25	4	3	0	2.1
Technician/Technical Support	8.0	5.2	6.5	9.1	3.4	6.1
Administrative Support	0.25	0.5	1	0.5	0.5	0.6
Computers District-wide	2,638	5,779	3,650	5,689	2,082	4,300
Computer to Technical Support Staff Ratio ⁴	330	1,111	562	625	612	728
Total Technician Salary Cost Per Computer	\$74.65	\$46.81	\$80.78	\$66.99	\$57.30	\$62.97

Source: Olentangy LSD and peer district staff reports and interviews

¹ These numbers only reflect time staff spend on technical support. Many staff members split time between technical support and integration of technology into the classroom. Olentangy filled 0.5 FTE technician vacancy in FY 2004-05 not reflected here.

² Includes planned positions for Dublin CSD in FY 2004-05.

³ Does not include the time directors at Dublin CSD and Pickerington LSD spend on network administration.

⁴ Olentangy primarily uses Windows-based personal computers, while Dublin CSD and Pickerington LSD predominantly employ Macintosh computers. According to Olentangy LSD, Macintosh platforms require less intensive support than Windows platforms and thus allow a higher computer to technical support staff ratio.

Even when excluding the high computer to technical support staff ratio at Dublin CSD, Olentangy LSD's computer to technician ratio is 45 percent below the peer average of 600 users per technician and 8.4 percent less than the peer average technician salary costs of \$68.36 per computer. In fact, the District has the second-lowest computer to technician ratio among 12 other Ohio school districts assessed in performance audits since 2002. This is because the District uses a staffing methodology that places a technician in every school building, although some are only 0.5 FTE technical support positions. Mason CSD is the only peer district to place a technician directly within each school, but it only has six school buildings and a much higher number of computer workstations than Olentangy LSD. One factor influencing workload capacity may be skill level. Olentangy LSD has lowest technician hiring qualifications among the peers, especially in the elementary positions, (see **R5.2**) which could impact the proficiency and efficiency of services.

Each peer has developed unique strategies to maintain a high computer to technician ratio which, in turn, keeps costs lower. These include:

- Using electronic trouble-ticketing systems to report problems and offer potential solutions online;
- Employing remote management tools to address problems online from a central location;
- Having roving technicians serve multiple schools;
- Delegating software issues to building-level staff and all hardware repair issues to a roving, centrally based expert technician;
- Using supplemental positions, or a small percentage of a full-time technology teacher's time, dedicated to first-line technical support in elementary schools; and
- Having the technology director also serve as network administrator.

Based on staffing patterns of the peer districts, it appears Olentangy LSD could eliminate the elementary technology aide position (0.5 FTE technician, 0.5 FTE technology integration into curriculum) and have technicians at secondary schools support additional buildings. While two peer districts (Hilliard and Mason) also have technicians solely assigned to a secondary building, their middle and high schools each have approximately double the instructional computers of Olentangy LSD based on FY 2003-04 inventories. Further, many existing Olentangy LSD school buildings are so close to one another that one technicians could support these buildings with minimal travel time. Examples include:

- Shanahan Middle-Shanahan Elementary-Administration Building (same complex);
- Liberty High School-Indian Springs Elementary (0.2 miles);

- Liberty Middle School-Wyandot Run Elementary (0.2 miles);
- Orange Middle School-Oak Creek Elementary (1.6 miles); and
- Olentangy High School-Alum Creek Elementary (2.3 miles).

Based on existing and planned maps of District buildings, Olentangy LSD should develop the best scenario to minimize travel time for technicians. Further, the District should create supplemental positions for elementary schools that cannot be reached within a reasonable time by technicians to provide initial support and potentially diagnose the issue for the full-time technician. The Hilliard CSD Director of Technology stated that the district’s supplemental positions only perform such support functions during times when they are not instructing classes.

Table 5-5 projects the computer to technical support ratio at Olentangy LSD if it were to reduce staffing levels in FY 2005-06 by 4.0 FTEs and create five supplemental positions (each 0.1 FTE) to support technology in five outlying elementary schools. Subsequent staff additions reflect increasing supplemental positions to serve new elementary schools in FY 2006-07. However, as the District adds 2 FTE technicians in secondary schools planned to open in the FY 2007-08 and FY 2008-09, the projection assumes these technicians will also serve nearby elementary schools and allow for a reduction in supplemental positions.

Table 5-5: Projected Computer-Technician Ratio

	Actual FY 2003-04	Projected FY 2004-05	Projected FY 2005-06	Projected FY 2006-07	Projected FY 2007-08	Projected FY 2008-09
Technician Staff	8	9	5.5	5.7	6.3	7.2
Computers	2,638	2,898	2,978	3,098	3,438	3,998
Computer- Technician Ratio	330	322	541	544	546	555

Source: Olentangy LSD building projections, computer inventories and AOS projections

Assuming the District reduces its nine elementary technology aide positions (as of FY 2004-05), it should replace the 0.5 FTE computer laboratory monitoring role these positions perform.

Financial Implication: If implemented, this reorganization could result in an annual average net savings of approximately \$195,000 from FY 2005-06 to FY 2008-09 after deducting associated costs for the supplemental and part-time laboratory positions. The District should reallocate these savings and cost avoidances to other technology priorities identified throughout this section.

R5.2 The District should increase minimum hiring qualifications for its technicians to a level commensurate with the peer districts and U.S. Department of Labor recommendations. This would ensure a more consistent skill set among staff and potentially reduce on-the-job training.

Olentangy LSD maintains lower hiring qualifications than peer districts for technicians. **Table 5-6** illustrates technician hiring qualifications at Olentangy LSD and the peers:

Table 5-6: Hiring Qualifications for Technician Positions

Olentangy LSD	High school diploma. Experience working with PCs using windows 9X. Limited networking knowledge is desired but not required (general knowledge required for secondary positions). Alternative to the above qualifications as superintendent and board may find appropriate.
Dublin CSD	(Hardware technician) degree in computer science or equivalent work experience with computer systems desirable; five years of experience working with computers and networks.
Mason CSD	Two-year technical degree or 2-3 years of experience in full-service MIS operation. Thorough knowledge of IT technology and methods, concepts and facilities such as in project management, systems development and support.
Hilliard CSD	Two years of experience and/or training as an electronics repair technician dealing with both computers and printers.
Pickerington LSD	Two--year associates degree in technology repair, technology systems or networking, plus mathematical and reasoning abilities.

Source: Olentangy LSD and peer technology departments

Olentangy LSD requires only that technicians have a high school diploma and general experience working with personal computers for entry-level positions, while the peers require at least an associate’s degree and/or specific electronic technician experience. The United States Department of Labor, Bureau of Labor Statistics has identified the following common hiring qualifications and job tasks for technical employees:

Hiring Qualifications

- 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.

Job Tasks

- Beginning computer support specialists usually work for organizations that deal directly with customers or in-house users.

- Advanced 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

The technology supervisor believes the lower qualifications may relate to the lower pay scales of its technicians (see *Issues for Further Study*). Low qualifications have resulted in lost productivity while technicians learn skills on-the-job, and the technology supervisor reports there are still gaps in proficiency among staff. If Olentangy LSD increases the required skill set for its computer technicians, it can increase productivity and expertise, thereby improving the level of customer service to District employees and students.

R5.3 The District should consider increasing the level of clerical support by 0.25 FTE to assist in administrative responsibilities now being handled by central office technical staff. The additional clerical support could help process administrative tasks and route support calls without taking time away from technicians. The District stated that it intends to implement this recommendation by increasing administrative support to the technology department.

The department maintains 0.5 FTE clerical support (evenly split between technical support and technology integration into curriculum). It shares clerical staff allocations with the central office. **Table 5-4** indicates that peer districts maintain an average 0.6 FTE administrative support employees (technical support only). The low level of clerical help has caused central office technical support staff, including the technology supervisor, to assume administrative tasks that divert them from their core responsibilities. For example, central office technical staff spends an estimated 167 hours annually processing inventory and special purchase requests, reducing their available time for regular technical support services. Even with the implementation of an electronic trouble ticketing system for users to e-mail service requests, the technology department will likely continue to receive telephone calls when computers break down or users experience other high-priority issues.

The U.S. Department of Labor notes that as the increased reliance on technology continues to expand in offices across the Nation, the role of the office professional has greatly evolved. Office automation and organizational restructuring have led secretaries and administrative assistants to assume a wider range of new responsibilities. Clerical personnel may now provide training and orientation for new staff, conduct research on the Internet, and operate and troubleshoot new office technologies. In the midst of these changes, however, their core responsibilities have remained much the same—performing

and coordinating office administrative activities, and storing, retrieving, and integrating information for dissemination to staff and clients. In essence, the role of secretaries (clerical personnel) is to ensure the smooth operation of the office and complete routine tasks, freeing up specialists to attend to more technically complex functions.

Because the Department does not have sufficient clerical staff, professional employees (technicians, network specialists, and the technology supervisor) must allocate a small portion of their time to routine functions such as answering phones, photocopying materials, and completing correspondence. As these employees are dedicated to other functions and paid higher wages for their expertise, performing clerical functions is an inefficient use of their time. Within increased clerical support, the Department can focus its attention on critical tasks and project completion. Given the minimal increase in recommended FTE hours, the District should assess existing clerical support levels among its central office departments and reallocate 0.25 FTE to the technology department. As the District and its technology functions increase, it should eventually consider assigning full-time clerical support to the Department to minimize higher-paid time technology staff must spend outside of core duties.

R5.4 The District should consider a curricular program to train students in technical support. These students could support district technology in a peripheral manner as part of their instructional program. Olentangy LSD should study an Ohio SchoolNet Commission database on school districts such as Plain LSD and Gahanna-Jefferson LSD in Franklin County that have effectively utilized students to augment professional technical staff.

The District does not formally use student employees to support technology due to its educational philosophy. The only exceptions are students that volunteer to assist technical staff during their free periods. However, 31 percent of teachers reported on the FY 2003-04 BETA survey that they received technical support from students. Consequently, students are providing ad-hoc support without professional guidance, while technicians must invest time in more routine tasks such as installation and set-up of new computers, software installation, cleaning and defragmenting drives, performing scans, maintaining printers, installing network cables and connectors, and assisting with basic user support questions.

The International Society for Technology in Education (ISTE) recommends that school districts design curricular programs to train students in technical support in which students provide peripheral support. According to a National School Boards Foundation survey, more than half of school leaders reported that students are providing technical support in their districts. Key duties included troubleshooting problems, setting up equipment/wiring, and technical maintenance. Nearly half of these leaders reported that they provide formal support training to students.

The Ohio SchoolNet Commission (OSN) has developed an online database at www.osn.state.oh.us/misc/assist/ containing field-proven technology support models utilizing students from 30 school districts, including school systems demographically similar to Olentangy LSD. In particular, districts such as Stow-Munroe City School District, Tallmadge City School District and Woodridge Local School District were early implementers of this program⁵⁻². The District should consider implementation or adaptation of one of these models to provide valuable training and augment the work of technical staff. Further, districts taking part in the program stated the costs for implementing and/or running student technical support projects were minimal, and virtually all districts stated a “positive economic aspect” due to the projects mitigating the costs of full-time staff. Many districts provide students class credit in lieu of an hourly wage.

Training students in technical support functions represents a win-win program for Olentangy LSD. First, it helps the District prepare students for careers in technology and educate them in technology support and deployment. Also, it allows the District to use low-cost resources for some of its technology support needs. Finally, it creates an opportunity for the District and students to work toward mutual goals within the venue of technology use and support activities.

Financial Implication: While costs will vary depending on the complexity of the program and whether students are paid, the District should expect, at minimum, a \$5,000 annual cost encompassing advisor stipends as well as training and material costs.

R5.5 The District should consider alternatives to having its own technicians deploy replacement computers. This could include contracting out for the deployment of replacement computers, requiring vendor set-up of equipment, or using student help as suggested in R5.4. This will free up District technician time to perform their core support services.

The District uses its technicians to deploy replacement computers, which it assumes takes 1.5 hours per computer, based on a recent project. While the District attempts to minimize costs by using lower-paid elementary technology aides as much as possible to deploy equipment, the set up cost per computer is \$25 based on their average wages and benefits. Conversely, the district can contract for deployment for approximately the same price.

The International Society for Technology in Education (ISTE) recommends that school districts use resources other than staff technicians to set up computers to avoid disruptions in their regular service. Given District projections to replace 400 computers

⁵⁻² Several of the districts in the Northeast Ohio Network for Educational Technology were early implementers of the Technology Workforce Employment (TWE) program.

per year for the next several years, contracting for deployment could free up 584 hours (73 days) in technician time to provide technical support. Further, if the District eliminates the elementary positions (**R5.1**) and/or increases the pay scale of its technicians (**Issues for Further Study**), contracting to deploy computers may provide cost savings.

Financial Implication: Based on the average secondary building technician compensation in FY 2003-04, the District would realize a cost savings of approximately \$2,300 annually by contracting out deployment rather than using district technicians.

R5.6 As the District finalizes implementation of an electronic trouble ticketing system, it should ensure it uses the system to randomly track customer satisfaction and closed tickets. The District should use its trouble ticketing system to establish performance indicators measuring both reliability of equipment and technician performance. Finally, it should use both its trouble ticketing system and Novell ZenWorks to establish preventive maintenance schedules for District hardware and software.

Quality assurance surveys are done annually as part of a larger survey of services by all District departments and the biennial BETA survey of district teachers. While the technology department received positive reviews for response time on the BETA survey, collecting customer satisfaction input throughout the year on technical support would provide more current and comprehensive data to make adjustments to support services.

The District does not track performance indicators on the reliability of equipment/infrastructure or individual technician performance because there is no tracking system. Tracking performance indicators will provide valuable information for making data-driven decisions for service and support. **Table 5-7** reveals key performance indicators that could be tracked through the electronic trouble ticketing database.

Table 5-7: Equipment and Personnel Performance Indicators

Reliability of equipment and infrastructure	Number of maintenance incidents for current academic year per workstation/server; cause category, location.
	Average number of hours of downtime for current academic year (per workstation/server, etc.).
	Average number of calls to help desk/ tech-support services, per workstation/server.
Technical support workload	Average time elapsed between initial call to help desk and response call to end user.
	Average time between initial response call and notification of problem resolution.
	Number of calls handled by FTE position, and by dedicated positions.
	Ratio of calls or incidents to FTE support staff hours.
	Ratio of technical support staff to numbers of workstations/servers.
	Ratio of technical support staff to end users.

Source: National Center for Education Statistics

ISTE recommends that network monitoring tools be used to establish performance matrices for preventive maintenance as well as diagnose problems. Preventive maintenance is sporadic on hardware and software due to lack of time to service individual workstations and the lack of a central tracking system. Establishing schedules through the trouble ticketing system for hardware and Novell Zenworks for software could reduce the level of breakdowns and consequently conserve support staff time. Further, many preventive maintenance duties could be delegated to student support as suggested in **R5.4**.

Technology Architecture and Network Communication

R5.7 The District should investigate the potential to consolidate network file servers to reduce server replacement, administration, and support costs. It should also continue the process of centralizing as many services as possible onto its network.

The District maintains a file server in every building, with an average cost of \$7,500 for each new server. If it maintains this practice, it will spend an average \$11,250 annually on servers just for new buildings over the next ten years. Due to financial constraints, the District moved its server replacement schedule in FY 2003-04 from three to four years (approximately three per year) which may add to existing maintenance costs.

School districts can simplify their technology infrastructures by consolidating network file servers, resulting in substantial cost savings due to reduced administration and support. Toledo Public Schools is in the process of centralizing its technology services, with the potential to consolidate 50 servers currently being used to approximately 15. The Business Manager for Toledo Public Schools estimates that server centralization will also reduce network operational costs by 15 percent annually.

ISTE also recommends centralizing as many business services as possible onto the network to reduce duplication in internal staffing, contract maintenance, equipment, space, and utility costs. Olentangy LSD already controls energy management and security cameras over its network. Other potential services that could be centralized over the network include building access control, media retrieval, paging and intercom, voice mail, bell and alarm systems, and routing the District-wide phone system through the computer network. Likewise, the network consultant to the Ohio School Facilities Commission (OSFC) recommends that OSFC projects maximize the centralization of services on the network to achieve both initial capital savings and long-term operational savings. For example, it estimated that districts could reduce annual telephone bills by 70-80 percent by routing intra-district calls through the network, assuming a fiber-optic network.

The District should first perform a series of tests to determine the percentage of utilization of each server against established manufacturer guidelines. If these tests confirm underutilization, the District should consider consolidation of its servers. When purchasing new servers it should consider high performance servers that increase consolidation potential. SchoolNet Plus grant funds might help cover these costs.

Financial Implication: Until the District conducts server utilization tests to confirm whether it can consolidate and the level of consolidation, exact savings are difficult to pinpoint. However, assuming the district is able to reduce the level of server purchases (new and replacement) by at least one-third, it could avoid \$11,250 in annual capital costs.

R5.8 Given the need to increase network capacity, the District should consider significantly altering the makeup of its Wide Area Network (WAN). It should consider a pending proposal from its Data Acquisition Site to upgrade its WAN to a fiber network, but should also investigate other options for WAN architecture. Regardless which long-term solution it chooses, the District will likely have to make a significant capital investment. During the course of the audit, Olentangy LSD officials met with vendors to consider WAN changes and is in the process of making decisions. In the short-term, it should consider increasing the number of T-1 lines at the high schools.

Chart 5-2 shows that all but one building within the District is directly connected to the Tri-Rivers Educational Computer Association (TRECA) via a T-1 line. However, T-1 lines used by each building are becoming insufficient to handle network capacity demands, especially at the high schools where slowdowns occur during peak usage times. The District is experiencing significant network slowdowns at its high schools, and the technology supervisor said that the new software TRECA is planning to implement in FY 2004-05 will consume even more bandwidth. Further, centralization of servers and services on the network (**R5.7**) would require direct connections among buildings and increased bandwidth. An interim solution is to install additional T-1 lines at the high school, thereby allowing data exchange to take place in greater volume. The estimated annual cost to maintain one additional T-1 line at each of the two high schools (two lines total) is \$12,000. Although the end user will see an increase in connectivity speed, true enhanced information transfer can be achieved via fiber optic cabling.

TRECA has recently approached its school district members with a preliminary proposal to redesign its WAN architecture to meet increasing bandwidth needs and network capacity requirements. TRECA states that its plan would shift its member Districts to a fiber optic-based network, which can deliver up to 1 billion bits of data per second compared to 1.5 million for a T-1 line. Fiber optic cable is expensive to implement and maintain. TRECA was still negotiating with vendors and had not released cost estimates

to Districts at the release of this report, although the District may pay a one-time fee as well as a continuing monthly maintenance fee.

The technology supervisor is also consulting with the district's Technology Advisory Committee, a group of District residents, to assess potential alternatives. The OSFC consultant stated the average implementation cost for a school district to build its own fiber optic network is \$30,000 to \$50,000 per building. This does not include ongoing maintenance costs which can vary according to several factors, although the OSFC consultant estimated this would be less than if the lines were leased. The District would also have to pay a service provider for required content filtering services that are currently provided through TRECA as part of its consortium fees. A local cable company estimated monthly filtering costs at \$150 per month per school⁵⁻³. Even if the District does not completely adopt this option, it should continue to lay short private fiber lines for buildings constructed adjacent to one another.

Another potential option to laying private fiber networks is to lease existing fiber-optic lines directly from cable companies. The OSFC consultant stated that most Ohio school buildings are within a few thousand feet of existing fiber-optic lines that the cable company could lease to the school district. For example, a representative from a local cable provider developed a preliminary cost estimate to lease fiber optic cable at a total monthly service fee of \$20,500 (13 schools, 10-year term)⁵⁻⁴. Including the content filtering option increases the price to approximately \$22,500 per month. Also, the District may be able to discount 40 percent of maintenance/service fees through the federal E-rate program, which helps subsidize school Internet connectivity costs. The District would have to collaborate with the service provider and the Ohio SchoolNet Commission to ensure eligibility, especially if it would ever run both voice and data over the same network lines given subsidy restrictions in this situation.

Financial Implication: In the short-term, the addition of two T-1 lines for each high school would cost \$12,000 annually, given a recent price drop in T-1 charges from TRECA. For the long-term solution, cost estimates are pending for the TRECA fiber optic proposal. Other options include laying a private network that will cost \$390,000 to \$650,000 in one-time costs based on 13 schools, plus an approximately \$2,000 per month content filtering and undetermined maintenance costs. Finally, if the District leases lines directly from a cable company, it can expect annual costs (service and content filtering) of \$270,000 beginning in FY 2005-06. The District may also realize cost savings by the discontinuing T-1 line service. The cable company was unable to provide estimates for future schools beyond this date, and costs will vary according to school location.

⁵⁻³ Additional router hardware would also be required. Prices depend on number of users and computers per school.

⁵⁻⁴ Reflects network diagram for FY 2005-06. Note two adjacent buildings are already connected via fiber. Speed to each school is 10 million bits of data per second, compared to 1.5 million for a T-1 line. System is upgradeable to 100 million bits of data per second for an additional cost.

Hardware and Software

R5.9 Due to its high rate of growth and rapid expansion, the District should develop a formal policy to maintain as equitable a distribution of computers as possible in future fiscal years. The District should develop a policy to ensure that it equitably and efficiently distributes technology resources to schools within the District. Unless there is a unique educational program or need in a certain building, it should attempt to achieve general uniformity in distribution of computers among similar levels of school buildings.

The District does not have a formal policy to ensure the equitable and efficient distribution of resources among its schools, but rather, follows the general practice of two computers per classroom and the remainder of computers in laboratories. **Table 5-8** lists students per instructional computer by building.

Table 5-8: Students per Instructional Computer, FY 2003-04 ¹

	Head Count ²	Total Student Workstations	Number of Students per Computer	Difference from School-level average
Alum Creek ES	482	109	4.42	-0.54
Arrowhead ES	539	140	3.85	-1.12
Indian Springs ES	408	87	4.69	-0.28
Oak Creek ES	582	98	5.94	0.97
Scioto Ridge ES	506	128	3.95	-1.00
Tyler Run ES	564	97	5.81	0.85
Walnut Creek ES	572	102	5.61	0.64
Wyandot Run ES	584	109	5.36	0.39
Elementary Average	529.625	108.375	4.97	N/A
Liberty Middle	898	210	4.28	0.12
Shanahan Middle ³	958	237	4.04	-0.12
Middle School Average	928	224	4.16	N/A
Olentangy High	1,195	415	2.88	0.54
Liberty High	770	429	1.79	-0.54
High School Average	983	422	2.34	N/A
Totals/Average Students per Computer	8,058	2,151	3.75 ⁴	N/A

Source: Olentangy LSD 2004 BETA reports, inventory list, and staff interviews

¹ Includes classroom, laboratory and library computers. Does not include 25 computers listed on Shanahan Elementary inventory (closed during FY 04) that could not be tracked to individual schools.

² Kindergarten students counted as 0.5 student since attend half-day

³ Includes 54 laboratory computers housed in attached Shanahan Elementary used by middle school students.

Table 5-8 shows significant variances in the number of students per computer at the elementary level (3.85 – 5.81) and high school level (1.79-2.88), although the high school gap will narrow when Liberty High School adds a new grade in FY 2004-05. While the District (including elementary schools as a whole) fell within Ohio SchoolNet goal of one computer for every five students, four elementary schools exceeded this standard. In part, the variance in computers within selected schools can be attributed to the District's replacement policy and its efforts to continue to use computers that may have been replaced by newer computers but still be usable for instructional technology. However, the absence of a formal policy creates a risk of inequitable distribution of resources.

The Florida Office of Program Policy Analysis and Government Accountability (OPPAGA) recommends that school districts develop a policy to ensure equitable allocation of resources among schools. OPPAGA cites processes to ensure equitable distribution of resources among schools by linking each school's educational plan with the technology plan and reviewing the resource allocation levels to meet planning and curriculum needs in conjunction with the development of an annual budget request.

This could be especially beneficial to a district like Olentangy LSD, which is continually opening buildings and realigning its building populations. Consequently, the District should consider a policy that allows for an annual adjustment of technology resources based on individual building populations, while also taking into consideration unique educational programming that may demand more resources. Unless such practices are formalized in policy and then monitored for effectiveness, the District can not ensure that all students have equitable access to technology resources.

R5.10 The District should consider using repair histories gained from its trouble-ticketing system, as well as industry recommendations, to determine the optimum standards for repairing versus replacing computers. It should also measure the extent of repair on equipment no longer under warranty and determine if this justifies extending equipment warranties.

While the District has historically been on a 4 year computer replacement schedule, budget limitations in FY 2003-04 caused a revision of the schedule to 5 years. District technicians already support and maintain surplus computer equipment older than the normal replacement schedule. However, this practice may also increase support costs in terms of replacement parts, labor, and loss of instructional time – especially considering the lengthened replacement schedule. The technology department has not tracked the financial impact of maintaining older equipment. However, the implementation of an electronic trouble ticketing system in FY 2004-05 will allow it to track repair histories and potentially determine criteria for when to repair or retire equipment (see **R5.6**).

Dublin CSD has developed a rationale for repair versus replacement for computers and laser printers as illustrated in **Table 5-9**.

Table 5-9: Dublin CSD Replacement vs. Repair Rationale

Equipment Type	Computers		Printers	
Rationale for repair	Less than 4 years old and repair cost is less than \$500	Older than 4 years and the repair cost is less than \$300	Less than 5 years old and the repair cost is less than \$350	Older than 5 years and the repair cost is less than \$200
Rationale for replacement	Less than 4 years old and the repair cost is greater than \$500	Older than 4 years and the repair cost is more than \$300	Less than 5 years old and the repair cost is greater than \$350	Older than 5 years and the repair cost is greater than \$200

Source: Dublin CSD

Dublin’s rationale helps to ensure cost-efficient technical support and may also relate to its high computer to technician ratio (see **Table 5-4**). Also, the International Society for Technology in Education recommends that school districts purchase extended warranties of 5 years to mitigate internal repair costs.

The District purchases extended 3-year warranties on computers only, but none for peripheral equipment. While it has not sought the maximum warranties due to the up-front costs, the District may be at risk of spending more over a period of time in repair costs. It needs to perform a cost/benefit analysis based on its repair histories. Olentangy LSD should use its trouble ticketing system to track the failure rate of non-warrantied equipment over a certain time period (e.g., 6 months). It should then compare the cost of repairing this equipment under a repair/replacement rationale with the cost of purchasing extended warranties. If the repair costs are significantly higher even with the rationale, the District should consider alternatives such as purchasing the extended warranty or possibly purchasing a different brand or model of equipment altogether. By using a repair versus replacement rationale, Olentangy LSD can ensure that it maximizes the financial resources dedicated to technology and does not spend excessive resources on repairing antiquated technology. Likewise, a rationale will help determine when the most cost-effective solution is repair.

R5.11 The District should consider developing and marketing a policy for the acceptance of donated computers. A donated computer policy will help ensure that donated equipment is compatible and useful to the District.

Olentangy LSD does not to have a written donation policy, because in practice, it generally accepts only computers with Pentium III processors and above. The District

received five such donations in FY 2003-04. Each of the peer districts had policies governing donated equipment.

Technology Support Index best practices state donated equipment should be accepted only if it meets specific brand, model, performance, and system requirements. Equipment accepted should be less than two years old and cash donations should be encouraged so new equipment can be purchased. Also, according to E-School News Online magazine, school districts should develop and post a computer donation policy specifying goals, criteria and technology specifications. This would ensure that any donations match District technology standards to avoid excess maintenance costs.

A detailed donation policy posted on the District website could advertise to potential donors exactly what the District will accept, and potentially increase the level of donated equipment. For example, Pickerington LSD gained 15 computers in the previous school year. Further, Microsoft Corporation has a program that enables school districts that accept donated machines without paperwork or the original operating systems to secure software licenses and Windows Installation CDs at no cost. Such a policy could be especially valuable given the level of business development in southern Delaware County.

Equipment donations are an invaluable tool for acquiring needed equipment in school districts with chronically limited funding. Therefore, it is important to ensure that such equipment meets the needs of students and teachers and does not result in any additional costs to Olentangy LSD in areas such as software and maintenance.

The District should develop a donation policy that outlines acceptable brands, models and specifications to ensure the technology will be beneficial. Donation policies should be posted on the District Website for access by potential donors as well as to help eliminate any potential confusion about equipment donations. Without formal donation policies, Olentangy LSD may inadvertently accept equipment that is outdated and of little direct benefit to the District.

R5.12 The District should migrate from a reliance on individual inkjet printers to network laser printers. Even though laser printers represent greater up-front purchase costs, they would provide savings over time through reduced ink costs. In the short-term, Olentangy LSD should restrict color printing to instances that are absolutely necessary.

The District maintains more than nine color ink jet printers for every network laser printer (840 versus 90) because inkjet printers cost substantially less to purchase. The District pays \$166 per inkjet, compared to \$1,350 for a monochrome laser printer or \$2,095 for a color laser printer. However, inkjet printers are more expensive to operate in

terms of printer ink than laser printers. The average cost per page for the inkjet printer the District most commonly purchases is 4.4 cents for monochrome and 8 cents for color, using statistics from *PC Magazine* and the price paid by the District for printer cartridges. On the other hand, the average cost per page of the monochrome laser jet used by the District is 1.2 cents, and the average cost per page for color lasers is 9 cents. Given the savings potential over time, the District placed nearly 2 monochrome laser printers for every desk jet in the newly opened Orange Middle School, and has also implemented a similar schematic at Oak Creek Elementary School.

Further, in FY 2003-04, the technology department developed a proposal to migrate from inkjet to network laser printers in elementary schools. Instead of placing a printer in every classroom, the number of monochrome printers would be doubled throughout the building so that groups of staff could share these printers. The proposal also added one additional color laser printer to offset the loss of color capability. Another key part of the proposal is to increase the use of monochrome printing from 75 percent to 90 percent of all printing – the current averages at Orange Middle and Oak Creek Elementary.

If the District were to increase its inventory of approximately 80 school building laser printers by a similar configuration (125 percent) over the next five years, it would result in approximately \$15,500 in additional annual capital costs. This cost includes a conservative estimate that the District will continue maintaining 250 desk jet printers for key staff in school buildings. However, based on printing estimates developed in conjunction with the District, it could save more than \$25,000 annually in ink costs by both decreasing reliance on inkjets and increasing overall use of monochrome printing. This assumes the district achieves the 90 percent goal of all printing as monochrome and reduces its reliance on inkjets by 70 percent. This results in a net annual savings of \$9,500.

Further, if the District applies this methodology to each new building it opens it will avoid an average of \$4,500 in annual ink costs for these buildings through FY 2008-09. A final undetermined benefit to this scenario is that laser printers generally have a lifecycle longer than five years. The director of technology at Hilliard CSD stated his District is maintaining laser printers that are up to seven years old. Consequently, Olentangy LSD may be able to defer replacement costs over a longer period, avoiding \$15,000 in annual future capital costs.

Financial Implication: The net annual savings using this scenario equals approximately \$9,500 based on FY 2003-04 use. In addition, if the District follows this pattern as it opens new schools, it can expect average annual cost avoidances of \$4,500 between FY 2005-06 and FY 2008-09.

Professional Development

R5.13 The District should increase resources dedicated to technology-related professional development of its teachers. It should seek cost-effective options for expanding the staff development program for teachers and principals, such as diverting allowable portions of capital grant funding for professional development. Finally, the District should increase the use of online training opportunities.

The District spent approximately \$25,000 on technology-related formal professional development in FY 2003-04, most of which was funded through State and federal funds. Also, the District delivers additional informal staff development through stipend positions that work with teachers to integrate technology into the classroom, as well as elementary technology aides who work with teachers and students in computer laboratories. The total expenditures for these efforts was approximately \$150,000 in FY 2003-04. When combined, these two areas represent about 7 percent of technology-related expenditures (including a three-year average of bond fund expenses). Historically, training on the integration of technology into instruction has not been prioritized by the District because it does not directly tie to the Continuous Improvement Plan.

The technology supervisor is working with a local nonprofit educational technology training agency to arrange training that meets District CIP stipulations. The agency would train the stipend teacher positions who, in turn, could provide training to other teachers. While the District believes existing grant levels will cover training of technology stipend teachers, sufficient funding has not been allocated to pay extended time contracts for the remaining teachers to be trained by their peers.

Table 5-10 illustrates technology training levels for Olentangy LSD and the peers based on responses from teachers on the FY 2003-04 BETA survey.

Table 5-10: Percentage Response, Hours of Educational Professional Development Classes Taken by Teachers in FY 2002-03¹

Hours	Olentangy LSD	Dublin CSD	Mason CSD	Hilliard CSD	Pickerington LSD	Peer Average
None	35%	15%	15%	15%	33%	19.5%
Less than 5	43%	41%	35%	37%	39%	38%
5-10	14%	27%	29%	29%	20%	26.3%
11-15	3%	8%	12%	10%	4%	11%
More than 15	5%	10%	9%	9%	4%	8%

Source: Ohio SchoolNet 2004 BETA Survey

¹ The District responded that it does not believe teachers considered training received on a student information system as technology professional development for this survey. The AOS was unable to verify this claim.

Olentangy LSD had more teachers reporting none or less than five hours of training, and the fewest teachers among the peers reporting more than five hours of training. In 2000, the National Center for Education Statistics (NCES) reported in a national survey that over a 3-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. Teachers’ feelings of classroom technology preparedness dramatically increased with each category of training. Even those with at least 1 hour of training reported only 19 percent feeling unprepared compared to 32 percent among those who reported no training at all.

In addition to concerns regarding their own technology proficiency, Olentangy LSD teachers also have concerns regarding the technology experience of building principals. **Table 5-11** indicates teacher opinions of their building principals as educational technology leaders at Olentangy LSD and the peer districts:

**Table 5-11: Teacher Percentage Response:
Is Building Principal an Educational Technology Leader?**

Response	Olentangy LSD	Dublin CSD	Mason CSD	Hilliard CSD	Pickerington LSD	Peer Average
Strongly Agree	14%	25%	14%	16%	19%	18.5%
Agree	44%	44%	51%	49%	46%	47.5%
Disagree	21%	12%	14%	16%	15%	17.3%
Strongly Disagree	5%	6%	5%	4%	5%	5%
No Opinion	15%	13%	15%	15%	16%	14.8%

Source: SchoolNet 2004 BETA Survey

Only 58 percent of teachers at Olentangy LSD agree/strongly agree building principals are technology leaders, compared to a peer average of 65 percent. Like teachers, District administrators receive little technology training due to the District’s philosophy that professional development be tied directly to the CIP.

The NCES survey shows even a small investment is beneficial. Also, Ohio SchoolNet offers a three day course to specifically train superintendents and building principals in technology leadership issues. Course cost is \$325 per participant. However, the sponsoring district of each administrator finishing the course receives a laptop computer valued at \$1,000 for use by that administrator. Furthermore, TRECA offers free online technology workshops to member districts through which participants can qualify for graduate credit⁵⁻⁵. Also, TRECA recently provided the District a shell program for

⁵⁻⁵ District staff did not use TRECA online training in FY 2003-04.

designing its own online training. All the peers provide online training in varying degrees, and increasing online learning would enhance the convenience and efficiency of professional development within Olentangy LSD.

Because the District is facing potential fiscal constraints, it should begin improvements in this area by adding an average of one additional hour of annual technology training per year per teacher. Because inadequate staff training may lead to under-utilization of computers and a loss of return on the District's technology investments, the small cost associated with this additional training would be a wise investment. Likewise, encouraging the use of online training would help Olentangy LSD enhance educators' and administrators' skills without incurring large training costs. Similarly, increasing the technology training and capacity of administrators, particularly building principals, can help enhance the integration of technology and curriculum within the District.

Financial Implication: If the District were to fund at least one hour of technology training annually for each teacher, the cost would be approximately \$17,000. The first year of the increased training could be funded through the SchoolNet Plus grant, and then from local sources (General Fund revenues) in subsequent years.

Security

R5.14 The District should develop written security policy and procedures manual. A written policy ensures that proper security practices are uniformly communicated and adopted throughout the District. Development of a manual will also help expose and remediate outstanding security weaknesses to prevent unauthorized access to sensitive applications.

The District does not have a written security policy and procedures manual largely because District-level applications and personal computers that manage information to the Internet are password-protected and protected by TRECA's firewall. However, there are still vulnerabilities such as passwords that are not regularly rotated for some applications. Failing to adopt a comprehensive policy on securing sensitive student and district business information creates the risk for lost, damaged, inappropriately accessed, or modified data. This could result in significant costs to restore data, re-administer tests, and settle legal claims. In developing a written security policy and procedures manual, the following issues cited by the National Center for Education Statistics should be among those considered:

- Security assessments are performed to determine what measures need to be taken.
- Hardware security includes creating a physical environment in which equipment is protected.

- Application and operating system software is protected by using passwords and by eliminating access to those who have no need to use particular software.
- Total network security encompasses additional elements, including the following:
 - Qualified individuals must be hired to maintain networks;
 - Appropriate tools must be used to monitor networks;
 - Intrusion detection systems must be used; and
 - Regular inspection and analysis of router audit logs must be implemented.
- Data integrity and security can be maintained through processes similar to those used for operating system security.
- Anti-virus software is used to protect each computer connected to a network.
- Inter-agency data transmission security risks are minimized through the use of standardized protocols, various encryption technologies, and digital signatures.

The District should enlist a broad range of internal stakeholders, as well as its external advisory committee, in developing the manual. It should rely on the NCES online publication on school district security at <http://nces.ed.gov/pubs98/safetech/index.asp>. While there will be no formal external costs, the District should expect to devote considerable staff time to this project. A completed security policy and procedures manual will help Olentangy LSD safeguard its technology assets and clearly communicate security protocols to all employees. However, without established, formal policies and procedures, the District leaves itself vulnerable to network intrusions and other security risks.

R5.15 Given its many in-house applications and the likelihood of continued mass worm attacks against vulnerabilities in its operating system, the District should budget funds to expand security efforts. While the District should continue evaluating the cost-effectiveness of various brands of preventive software, it must prioritize these efforts to avoid additional lengthy shutdowns of network traffic or the potential for lost data.

The District was attacked by two computer worms in FY 2003-04 that penetrated its anti-virus software, shutting down network traffic for a total of four days. The District has maintained leading anti-virus software, but since the attacks, the technology department is investigating procurement of additional security equipment to combat this new generation of worm.

The Gartner Group predicts attackers will continue to quickly develop worms that will cause substantial disruptions and/or damage. Costs range widely for this additional security depending on complexity of protection, and the District wishes to ensure a cost-effective purchase. Nonetheless, the Gartner Group predicts the market for host-based intrusion prevention software will not mature until the end of 2005. It recommends that organizations not delay in budgeting for and obtaining these products to secure their

Windows-based systems. Failure to implement adequate measures may result in the District suffering additional network shutdowns, lost productivity and even the potential for damaged information. Consequently, the District should expedite its research and final decision in this area.

Financial Implication: According to the manufacturer, the minimum cost for the additional security equipment the District is considering is \$7,200, including implementation costs of \$5,500, and annual maintenance fees of approximately \$1,700.

R5.16 The District should develop and enforce an acceptable use policy for staff, describing the appropriate and inappropriate uses of technology. Also, the District should monitor and audit its computers for potential inappropriate usage upon implementation of ZENworks remote management software in FY 2004-05. The policy should ensure that all staff are made aware that computer/network usage is a privilege, and not a right, that can be revoked for defined unacceptable behavior.

The District does not have a policy denoting acceptable use of technology that staff must review and sign. Olentangy LSD has an acceptable use policy for students and community members. Historically, it has applied the same policy to employees. However, a specific employee-oriented policy has not been developed.

All the peer districts maintain acceptable use policies that staff must sign regarding network usage. An acceptable use policy helps protect both the organization supplying computer access and the user. It protects the organization by restricting the behavior of users—the user is informed of the parameters of use. According to the National Center for Education Statistics, an acceptable use policy should contain:

- Notice of the rights and responsibilities of computer and network users;
- Notice of legal issues, such as copyright and privacy;
- Notice of acceptable content and conduct on the network;
- Description of behaviors that could result in disciplinary action; and
- Description of the range of disciplinary options, including the removal of access privileges.

While it has generally relied on its student/community usage policy to guide staff, the lack of a specific staff policy increases risk for leakage of confidential information, legal liability for offensive material sent or received by an employee, libel issues arising from employee opinions documented in e-mail, and lost productivity. The District should formalize its policy specifically for staff.

R5.17 The District should develop and frequently test a disaster recovery plan for its in-house applications. Developing a disaster recovery plan prepares an organization to recover operations as quickly and efficiently as possible after a disruption from natural (fire, flood, or other *force majeure*) or other causes, such as a breach in security.

The District has no disaster recovery plans for the software applications housed internally. Further, the data backup practices among buildings are inconsistent. Without a clear plan, the District may spend significant time and resources recovering data from its in-house systems.

Table 5-12 lists key elements of a model disaster recovery plan from the National Center for Education Statistics:

Table 5-12: Key Elements of a Disaster Recovery Plan

Build Disaster Recovery Team	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	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	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	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	Test the plan frequently and completely. Analyze test results to determine further needs.
Deal with the damage appropriately.	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.	Don’t make the plan unnecessarily complicated. Make one individual responsible for maintaining the plan, but have it structured so that others are authorized and prepared to implement if it is necessary. Update the plan regularly and whenever changes are made to the system.

Source: National Center for Education Statistics

Since the District does not have a plan in place, it should use best practices like those shown above to develop and implement a plan specific to its needs. Olentangy LSD should ensure that the plan is updated on an annual basis (or when circumstances or personnel change) and tested at least annually. The District should consider forming a district-community advisory group to assist in the development and implementation of

the plan. Although this can be accomplished within existing resources, development of a disaster recovery plan, either internally or through a community partnership, will require staff resources.

R5.18 The District should seek additional technology grants and ensure sufficient staff resources to monitor these grants. The technology supervisor should devote a portion of his time to grant-seeking using industry Websites or publications. Finally, the District should maximize its limited technology grant funding by ensuring that it spends all these funds before they lapse.

Olentangy LSD obtained several grants in FY 2003-04. These grants are outlined in **Table 5-13.**

Table 5-13: Grant Funding FY 2003-04

Grant	Source	Purpose	Amount Granted
Connectivity (ONEnet Ohio)	State	To maintain connectivity. Assists with cost of switches and fibers.	\$36,000
Ohio SchoolNet Professional Development	State	To provide technology training for technical support staff.	\$4,140
Title II-D, Technology	Federal	To provide teacher training for integrating technology into the classroom	\$12,748

Source: Ohio SchoolNet, Ohio Department of Education

These grants are standard for school districts and were received by all the peers. Olentangy LSD and the peers also receive a federally subsidized discount (E-rate) on Internet connectivity charges. However, the technology supervisor does not actively seek grants due to lack of staff resources, as well as high property valuation which may exclude it from many grant opportunities. Nonetheless, technology directors at districts comparable to Olentangy LSD on the FY 2003-04 BETA survey reported spending 2.7 percent of their time on grant-seeking activities. There are several tactics to streamline this process, including:

- Using the grant expert at TRECA who advises member districts for no additional charge and will review grant applications.
- Reviewing educational technology Websites, such as eschoolnews.com, and publications that provide grant-seeking tips and funding opportunities from government, corporate and foundation resources.
- Collaborating with other entities to improve chances of success as most funders view collaborative services as more cost-effective.

The District has returned an unused portion of its professional development grants for the past two years, including \$770 (19 percent) in FY 2002-03. This was partly due to difficulties in securing training to meet both District Continuous Improvement Plan restrictions and SchoolNet guidelines (see **R5.13**). In the future, the District must ensure these limited funds are spent before they lapse.

Financial Implications Summary

The following table presents a summary of annual cost savings, cost avoidances and implementation costs. For purposes of this table, only recommendations with quantifiable impacts are listed.

Summary of Financial Implications for Technology ¹

Recommendation	Net Average Annual Cost Savings	Net Annual Average Cost Avoidance	Estimated One-time Implementation Cost	Annual Cost Increase
R5.1 Reduce technician staff by 4.0 FTEs	\$195,000			
R5.4 Develop student technical support program				\$5,000
R5.5 Set-up of computers	\$2,300			
R5.7 Consolidate servers		\$11,250		
R5.8a Add two T-1 lines at high schools				\$12,000
R5.8b Implement fiber optic network ²				\$270,000
R5.12 Migrate from inkjet to laserjet printers	\$9,500	\$4,500		
R5.13 Increase spending on technology professional development ⁴				\$17,000
R5.15 Purchase anti-worm security equipment			\$5,500	\$1,700
Totals ⁵	\$206,800	\$15,750	\$5,500	\$293,700

¹ Net average cost savings and avoidances, with the exception of **R5.7**, reflect only the forecast period between FY 2005-06 and FY 2008-09. N/A on annual cost increases reflects that these costs have been counted as part of the net savings.

² This represents leasing of lines from a cable company over 10-year term – the only fiber network option for which complete cost estimate data was available.

⁴ Assumes annual cost to the General Fund. However, the District can reallocate a portion of SchoolNet Plus grant funding that it currently receives once every three years to cover professional development, beginning in FY 2004-05.

⁵ Total annual cost does not include cost of **R5.8a** since this will be eliminated upon implementation of **R5.8b**.



OFFICE OF THE SUPERINTENDENT

814 Shanahan Road, Suite 100

Lewis Center, OH 43035

January 26, 2005

Betty Montgomery, Auditor of State
Columbus Regional Office
88 East Broad Street, Fourth Floor
Columbus, Ohio 43215

Dear Auditor of State Montgomery,

This letter is in response to the Performance Audit conducted on the operations at Olentangy Local School District in Lewis Center, Ohio. First, I want to thank the auditor's office for the professional manner in which the entire audit was conducted. All of your representatives sought to obtain accurate data and information from which to make their recommendations about our operations. It is our district's intent to seriously consider all of the recommendations from the Auditor's Office. The audit recommendations will be presented to our school board in a public board meeting and I expect that the board will assign different segments of the audit recommendations to some of the board's standing community committees. I believe our board will direct those committees and our district administration to examine those recommendations and to consider the full ramifications of each and then to return to the board with suggestions regarding implementation of the audit recommendations.

Olentangy Local School District has a strong history of asking outside sources to examine its operations for efficiency. This Performance Audit is just one in a long list of efforts that the district has made to have an outside eye examine our operations. In 1999, the district created a community task force to study its operations and efficiency. The district implemented many of the recommendations of the Operations and Efficiencies Task Force. In 2000, the district asked Paragon Communications, Inc. to study its administrative staffing. An update of this study was conducted by Paragon in 2003. The district followed recommendations from that study in building the current administrative staff. In 2004, the district received a consultant's study of the Transportation Department, and is currently enacting some of the recommendations. Finally, in 2004, the district voluntarily sought this Performance Audit.

The only concerns I have regarding the recommendations of the Performance Audit have to do with Olentangy's comparison with other school districts and the possible ramifications that implementing some of the recommendations may have on the quality of our operations. Frankly, I do not believe that our district compares very closely with any other district in Ohio because of our explosive growth. Olentangy is the fastest growing school system in the state by enrollment. The district brings in approximately 1,000 new students every year, three times more growth over the last three years than the average growth of the four comparison districts in this study. During a recent two-year period, Olentangy opened four new schools. That kind of growth requires an enormous amount of extra work by administrators and staff.

I believe that the representatives of the Auditor of State's office did their best to consider the uniqueness of our school district, but it is extremely difficult when comparing us to districts that are not facing the same growth challenges that Olentangy faces. It is our intent to embrace the recommendations as best we can, if the district determines that there would be no negative effect on the quality of our operations. Again, I want to thank the State Auditor's Office for a very professional job well done.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Reimer".
William L. Reimer

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