

Financial Management Practices Audit Report

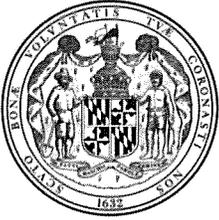
Harford County Public Schools

January 2015



OFFICE OF LEGISLATIVE AUDITS
DEPARTMENT OF LEGISLATIVE SERVICES
MARYLAND GENERAL ASSEMBLY

-
- This report and any related follow-up correspondence are available to the public through the Office of Legislative Audits at 301 West Preston Street, Room 1202, Baltimore, Maryland 21201. The Office may be contacted by telephone at 410-946-5900, 301-970-5900, or 1-877-486-9964.
 - Electronic copies of our audit reports can be viewed or downloaded from our website at <http://www.ola.state.md.us>.
 - Alternate formats may be requested through the Maryland Relay Service at 1-800-735-2258.
 - The Department of Legislative Services – Office of the Executive Director, 90 State Circle, Annapolis, Maryland 21401 can also assist you in obtaining copies of our reports and related correspondence. The Department may be contacted by telephone at 410-946-5400 or 301-970-5400.
-



DEPARTMENT OF LEGISLATIVE SERVICES
OFFICE OF LEGISLATIVE AUDITS
MARYLAND GENERAL ASSEMBLY

Karl S. Aro
Executive Director

January 29, 2015

Thomas J. Barnickel III, CPA
Legislative Auditor

Senator Guy J. Guzzone, Co-Chair, Joint Audit Committee
Delegate Craig J. Zucker, Co-Chair, Joint Audit Committee
Members of Joint Audit Committee
Annapolis, Maryland

Ladies and Gentlemen:

We conducted an audit of the financial management practices of the Harford County Public Schools (HCPS) in accordance with the requirements of the State Government Article, Section 2-1220(e) of the Annotated Code of Maryland. The objectives of this audit were to evaluate whether the HCPS procedures and controls were effective in accounting for and safeguarding its assets and whether its policies provided for the efficient use of financial resources.

Our audit disclosed that HCPS needs to improve internal controls over information systems. HCPS did not sufficiently ensure that the system capabilities assigned to employees to process procurements, payroll, and payments to vendors were necessary and appropriate. For example, a number of employees were assigned incompatible system functions that allowed them to process certain payments without independent review. Our audit also disclosed that HCPS had not taken certain steps to properly secure its network and backup critical data files.

HCPS also needs to ensure the accuracy of payments for employee healthcare. For example, although HCPS had verified that dependents of its employees were eligible for health care coverage, it had not conducted reviews to verify the propriety of health care claim payments, which totaled \$67.3 million in fiscal year 2013.

HCPS should also implement steps to improve cost-effectiveness and efficiency, especially as it relates to its student bus transportation. For example, HCPS did not use automated bus routing software, and ridership on routes we selected for testing was significantly lower than bus capacities. Also, certain elements used to determine payment amounts to bus contractors did not reflect market conditions or actual costs.

An executive summary of our findings can be found on page 5 of this report. The HCPS response to this audit is included as an appendix to this report. We wish to acknowledge the cooperation extended to us during our audit by HCPS.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Thomas J. Barnickel III". The signature is written in a cursive style with a large initial "T" and "B".

Thomas J. Barnickel III, CPA
Legislative Auditor

Table of Contents

Executive Summary	5
Background Information	7
Statistical Overview	7
Oversight	7
External and Internal Audits	7
Status of Findings From Preceding Audit Report	8
Findings and Recommendations	9
Revenue and Billing Cycle	
* Finding 1 – Finance Office Collections Were Not Recorded or Deposited Timely	9
Federal Funds	10
Procurement and Disbursement Cycle	
* Finding 2 – HCPS Did Not Adequately Restrict Users’ Capabilities on Its Automated Procurement and Accounts Payable System	11
* Finding 3 – HCPS Did Not Adequately Monitor Payments Made for Special Education Services	12
Human Resources and Payroll	
* Finding 4 – Independent Reviews of Payroll and Personnel Transactions Were Lacking and Access to the Automated Payroll System Was Not Properly Restricted	13
Finding 5 – HCPS Certified Sick Leave to the Maryland State Retirement and Pension System as Unused for the Portion That Was Previously Paid to Employees Upon Separation, Resulting in Increased Pension Benefits	14
Inventory Control and Accountability	
* Finding 6 – HCPS Equipment Policies Were Not Comprehensive	15
* Denotes item repeated in full or part from preceding audit report	

Information Technology		
*	Finding 7 – HCPS’ Information Technology Controls Over Disaster Recovery Planning and Backup of Critical Data Were Not Sufficient	16
	Finding 8 – HCPS Lacked Assurance That Adequate Controls Existed Over Its Production Data Backups Stored With a Cloud Service Provider	17
	Finding 9 –The HCPS Intrusion Detection Prevention System Was Not Properly Protecting the Network	19
Facilities Construction, Renovation, and Maintenance		
	Finding 10 – HCPS’ Energy Management Program Was Not Sufficiently Comprehensive	20
Transportation Services		
	Finding 11 – HCPS Did Not Have Formal Targets and Goals for Revising Bus Routes or Use Automated Routing Software to Improve Route Efficiency	22
*	Finding 12 – Certain Payments to Bus Contractors Were Not Based On Market Conditions or Actual Costs	23
Food Service Operations		
*	Finding 13 – Collections Were Not Properly Recorded Nor Adequately Safeguarded Until Deposit	26
School Board Operations		26
Other Financial Controls		
	Finding 14 – HCPS Did Not Ensure the Propriety of Payments for Employee and Retiree Healthcare Costs	28
*	Finding 15 - Competitive Bids Were Not Obtained for a Stop-loss Contract and the Contract Was Not Approved by the Board	29
Audit Scope, Objectives, and Methodology		31
Agency Response		Appendix

* Denotes item repeated in full or part from preceding audit report

Executive Summary

Legislative Audit Report on the Harford County Public Schools (HCPS) January 2015

According to data compiled by the Maryland State Department of Education, HCPS ranks 8th in student enrollment among the 24 public school systems in Maryland. During the fiscal year ending June 30, 2013, HCPS had a total full-time regular and special education pupil population of 37,868 at its 53 schools. HCPS operating and capital expenditures totaled \$540 million during fiscal year 2013.

The Office of Legislative Audits has conducted its second audit of HCPS' financial management practices. The results of the first audit were issued in a report dated May 30, 2008. Our current audit identified a number of opportunities for HCPS to improve internal controls, to adopt more cost effective processes, and to enhance policy direction.

HCPS Needs To Improve Internal Controls and Accountability

HCPS needs to improve internal controls in several critical areas. We noted that a number of employees were assigned capabilities that allowed them to process transactions on the automated procurement and disbursement system without any subsequent review. Non-payroll disbursements processed through this system totaled \$129 million during fiscal year 2013. Also, there was a lack of an independent review of payroll and personnel transactions as well as a number of users of the payroll and personnel system being assigned unnecessary or excessive capabilities. HCPS needs to implement certain security measures to protect its network from security risks. In addition, HCPS did not have sufficient controls in place for information technology disaster recovery and the backup of critical data.

HCPS did not verify the propriety of certain vendor payments. Specifically, HCPS did not verify health care claim payments made to a third-party administrator, which totaled \$67.3 million during fiscal year 2013. Also, HCPS did not verify payments for two special education service providers to independent documentation. Payments to these two providers totaled \$733,000 during fiscal year 2013.

HCPS Should Take Certain Steps to Improve Cost Effectiveness

HCPS should take steps to ensure the efficiency of its bus operation, which transported over 33,000 students on over 450 buses, primarily operated by contractors. Specifically, HCPS did not use automated bus routing software designed to assist in planning efficient bus routes. Our analysis found that

ridership was often significantly lower than bus capacity. Also, HCPS should establish payment rates to bus contractors in a manner that ensures that the amounts are reasonable, considering market conditions and actual costs. For example, we estimated potential cost savings of \$17.6 million over the estimated 12 year life of 393 buses owned by contractors if a particular payment component was based on market rates.

HCPS Needs to Establish and Modify Certain Comprehensive Policies and Procedures

HCPS needs to develop formal system-wide policies to adequately control equipment including physical inventory and recordkeeping requirements. Also, HCPS needs to reevaluate its policy regarding paying a portion of accumulated sick leave upon retirement while also certifying the same portion of unused sick leave to Maryland State Retirement and Pension System for increased retirement service credit.

Background Information

Statistical Overview

According to student enrollment records compiled by the Maryland State Department of Education (MSDE), Harford County Public Schools (HCPS) ranks 8th in student enrollment among the 24 public school systems in Maryland. Fiscal year 2013 full-time student enrollment was 37,868 students. HCPS has 53 schools, consisting of 33 elementary, 8 middle, 8 high schools, 1 middle/high school, 1 technical high school, and 2 alternative education schools.

According to HCPS' audited financial statements, expenditures totaled \$540 million in fiscal year 2013. The largest expenditure category was salaries and wages, including benefits, which accounted for 76 percent of total operating expenditures during fiscal year 2013. According to MSDE records, during the 2012 - 2013 school year, HCPS had 5,500 full-time equivalent positions, which consisted of 3,998 instructional positions and 1,502 non-instructional positions.

Oversight

HCPS is governed by a local school board, which is composed of three elected voting members, six appointed voting members and one student member with limited voting privileges. Effective June 30, 2015, the terms of three appointed members will expire and the related board seats will be filled by three individuals elected in November 2014. The State and the Harford County government provide the majority of HCPS funding. In addition, MSDE exercises considerable oversight through the establishment and monitoring of various financial and academic policies and regulations, in accordance with certain provisions of the Annotated Code of Maryland. MSDE also works with HCPS to comply with the requirements and mandates of federal law. Harford County government exercises authority over HCPS, primarily through review and approval of HCPS' annual operating and capital budgets.

External and Internal Audits

Annually, HCPS engages a certified public accounting firm to independently audit its fiscal year-end financial statements. Additionally, the auditor conducts what is referred to as a Single Audit of HCPS federal grant programs (as required by federal regulations). The resulting financial statement audit and Single Audit reports for fiscal year 2013 were issued in September 2013

and October 2013, respectively. Neither report included any material weaknesses or deficiencies in HCPS' record keeping, processes, and controls.

Due to similarities between the work of the independent certified public accounting firm that audited HCPS' financial statements and conducted the Single Audit, and the risks and scope of our audit in certain areas, we relied on the results of the independent audit for fiscal year 2013 to reduce the scope of our audit work related to revenues, accounts receivable, and federal grant activity. In addition, we relied on the results of the work performed by the HCPS internal auditors related to school activity funds.

Status of Findings From Preceding Audit Report

Our audit included a review to determine the status of 23 of the 27 findings contained in our preceding audit report dated May 30, 2008 (the 27 findings resulted in 20 detailed recommendations in that report). We followed up on these 23 findings based on our current assessment of significance and risk relative to the audit objectives. We determined that HCPS satisfactorily addressed 13 of these findings. The remaining 10 findings are repeated as 9 findings in this report.

Findings and Recommendations

Revenue and Billing Cycle

Background

Harford County Public Schools (HCPS) revenues consist primarily of funds received from Harford County, the State, and the federal government. According to the HCPS audited financial statements, revenues from all sources totaled \$535 million during fiscal year 2013. In addition to these revenue sources, schools also collect funds for various purposes, such as student activities, clubs, and school publications. Because they are not considered school revenue, these school activity funds are accounted for separately by each school and are reported in summary in the audited financial statements. Although this revenue is raised through student-related activities, HCPS has a fiduciary duty to safeguard these funds. For fiscal year 2013, school activity fund collections totaled \$6.7 million and the June 30, 2013 balance was \$2.7 million.

External Audits

Due to the similarities between the work of the independent certified public accounting firm that audited the HCPS financial statements and our objectives for this area, we placed significant reliance on the results of the firm's audit for certain revenues and accounts receivable, for which the auditor's procedural reviews and testing disclosed no material weaknesses or deficiencies.

Internal Auditor Audits School Activity Funds

The HCPS internal auditor conducts audits of school activity funds. The internal auditor's review and testing of the school activity funds at HCPS schools identified some control weaknesses at certain schools that were addressed by school management. The internal auditor's reports we reviewed disclosed that internal control weaknesses identified were not prevalent. The internal auditor audits all schools' activity funds on a rotating basis and reports its findings to the school principals, central administrative staff, and the Board.

Finding 1

Collections received at the Finance Office were not recorded or deposited timely.

Analysis

Internal controls over cash receipts collections, such as Medical Assistance reimbursements from the State of Maryland, received at various departments

in the HCPS central office building and forwarded to the HCPS Finance Department for subsequent deposit processing were not adequate.

- Collections were not always recorded and checks were not always restrictively endorsed immediately upon receipt. Rather certain collections, including Medical Assistance reimbursement checks, were handled by multiple HCPS employees before being restrictively endorsed and recorded. Also, the transfer of funds from receiving departments to the Finance Department was not documented to establish the chain of custody for the funds.
- Collections were not always deposited in a timely manner. Our test of 15 Medical Assistance reimbursement checks paid to HCPS by the State of Maryland totaling \$1.9 million disclosed that 9 of the 15 checks totaling \$1.2 million were deposited between 4 and 17 business days after initial receipt.

Similar conditions were commented upon in our preceding audit report.

As a result of these conditions, collections could be misappropriated without detection. According to HCPS records, cash receipts processed by the Finance Department totaled approximately \$9.3 million during fiscal year 2013 of which \$4.2 million related to Medical Assistance reimbursements.

Recommendation 1

We recommend that HCPS

- a. record collections immediately upon receipt (repeat),**
- b. restrictively endorse all checks immediately upon receipt (repeat),**
- c. document the chain of custody when transferring collections to other departments,**
- d. perform independent verifications of collections from initial receipt to deposit (repeat), and**
- e. deposit collections in a timely manner.**

Federal Funds

Background

HCPS receives funds pertaining to federal government programs that are generally restricted for use for a specific program (such as the School Lunch Program or Special Education). According to the audited Schedule of Expenditures of Federal Awards, fiscal year 2013 expenditures totaled \$24.6 million.

Single Audit Report Disclosed No Reportable Conditions Regarding Federal Grant Management

Due to work performed by the independent certified public accounting firm that conducted the Single Audit of the HCPS federal grants and the objectives of our audit in this area, we relied on the auditor's work and results. Besides expressing an opinion on HCPS' compliance with the terms of several grant programs, the auditor also considered the existing internal control structure's impact on compliance and audited the required Schedule of Expenditures of Federal Awards (which includes claimed and reported grant expenditures) for fiscal year 2013. The related reports stated that HCPS complied, in all material respects, with the requirements applicable to its major federal programs. With respect to internal controls over compliance with, and the operation of, major federal programs, the auditors did not identify any material weaknesses or significant deficiencies.

Procurement and Disbursement Cycle

Background

According to the audited financial statements and HCPS records, non-payroll disbursements totaled \$129 million during fiscal year 2013. HCPS has a comprehensive procurement policy and related procedures. The policy sets bidding requirements and specifies when Board approval is required. HCPS uses a combination of automated and manual processes to process requisitions, purchase orders, invoices, and payments to vendors.

HCPS has established a comprehensive credit card purchasing program and, during calendar year 2013, HCPS employees used credit cards to make purchases totaling \$14.8 million, with the monthly invoices being paid directly by the school system. According to HCPS records as of June 2013, 555 employees have been issued credit cards to facilitate purchasing activity.

Finding 2

HCPS did not adequately restrict users' capabilities on its automated procurement and accounts payable system.

Analysis

HCPS did not adequately restrict users' capabilities on its automated procurement and accounts payable system. Eleven employees were assigned capabilities that allowed them to perform incompatible functions. For example, four employees could initiate and approve purchase orders and change and add vendors to the system. Two of these employees could also initiate and approve payment vouchers while the other two employees could mark the purchases in the system as being received. Furthermore, HCPS had not established independent electronic approval requirements for certain

critical documents, such as purchase orders and payment vouchers. As a result, employees could initiate and approve purchase order or disbursement transactions without independent approvals. Finally, although there were certain manual processes in place, these were not adequate to compensate for the incompatible capabilities. For example, a listing of all purchase orders issued was periodically reviewed by a supervisor to determine the legitimacy of the related disbursements, but this listing was prepared by an employee who could initiate and approve purchases on the system. Similar conditions regarding controls over user access were commented upon in our preceding audit report.

Our test of procurement and accounts payable transactions processed by HCPS disclosed that the transactions tested were for appropriate HCPS disbursements and were properly supported except for the special education services (see Finding 3).

Recommendation 2

We recommend that HCPS strengthen its controls over the automated procurement and accounts payable system and processes. Specifically, we recommend that HCPS

- a. restrict user access capabilities to eliminate the ability of users to perform incompatible duties (repeat), and**
- b. establish independent approval requirements for all critical purchasing and accounts payable transactions (repeat).**

Finding 3

HCPS did not adequately monitor payments made for special education services.

Analysis

Invoices processed for two special education service providers were not verified against independent documentation. HCPS special education program personnel compared the invoices to time records, which were produced and maintained by the providers' employees. Although the time records were signed by HCPS school-based personnel after services were rendered, these original signed time records were not sent directly to HCPS contract monitors but, rather, were first returned to the providers' employees. This practice allows the opportunity for unauthorized changes to be made to the time records that could go undetected. According to HCPS records, payments to the two special education service providers totaled \$733,000 during fiscal year 2013. A similar comment regarding the monitoring of special education services was commented upon in our preceding audit report.

Recommendation 3

We recommend that HCPS obtain independent supporting documentation for invoices (repeat).

Human Resources and Payroll

Background

Payroll expense represents the largest single cost component in the HCPS budget. According to HCPS records, fiscal year 2013 salary, wage, and benefit costs totaled \$411 million. According to Maryland State Department of Education reports, during the 2012 - 2013 school year, HCPS had 5,500 full-time equivalent positions, which consisted of 3,998 instructional positions and 1,502 non-instructional positions.

HCPS uses an automated integrated human resources and payroll system to maintain personnel information, record employee time, track leave usage, and process and record payroll transactions. The system automatically generates biweekly time records and any adjustments are processed by central payroll personnel. The system generates payroll checks and direct deposit advices. Payroll processing involves both automated processes (such as compiling leave and running edit reports) and manual processes (such as data entry of new employee information).

Finding 4

Independent reviews of payroll and personnel transactions were lacking and access to the automated system was not properly restricted.

Analysis

Independent reviews of personnel and payroll changes processed were not performed and certain system users had unneeded capabilities in the automated human resources and payroll systems.

- HCPS lacked an independent review to ensure employee personnel and payroll transactions were correct and appropriate. Transaction reports of new employees added to the system or changes to employee data, including salary changes, were not generated for verification to source documentation by an independent employee. During our test of terminations, we noted one employee was overpaid \$11,200 due to errors in HCPS calculations.
- HCPS did not adequately restrict employees' capabilities to perform certain critical functions, such as changing employee salary and direct deposit information. Our review of critical functions related to human

resources and payroll disclosed that 38 system users had unnecessary or excessive capabilities.

Similar conditions were commented upon in our preceding audit report.

Recommendation 4

We recommend that HCPS

- a. **perform a documented independent review of personnel and payroll transactions (repeat),**
- b. **resolve the noted payment error, and**
- c. **limit assignments of critical system functions to those employees who require such capabilities to perform their job duties (repeat).**

Finding 5

HCPS certified sick leave to the Maryland State Retirement and Pension System as unused for the portion that was previously paid to employees upon separation, resulting in increased pension benefits.

Analysis

It was HCPS' policy to pay employees upon retirement for 25 percent of their accumulated sick leave up to maximums specified in union agreements that ranged from 200 to 250 days. However, HCPS also certified to the Maryland State Retirement and Pension System (MSRPS) that the paid portion of the sick leave was unused, resulting in increased retirement service credit for these employees. For example, upon retirement HCPS paid one employee \$27,885 in fiscal year 2013 for a portion of the employee's unused sick leave balance at a rate specified in the applicable union agreement, and then certified to MSRPS that the paid sick leave for this employee was unused. Accordingly, MSRPS increased the annual retirement benefit for the paid unused sick leave, resulting in an additional annual retirement benefit of \$1,610. Based on HCPS records, unused sick leave payouts totaled approximately \$1.3 million in fiscal year 2013.

We were advised by HCPS personnel that reporting the full unused sick leave balance to MSRPS has occurred for many years. Furthermore, although a joint advice of counsel from legal counsels assigned to the Maryland General Assembly and MSRPS indicated that the law in this area is ambiguous, the advice concluded that the better interpretation of the law would be to not report leave to the MSRPS for which employees have been paid upon retirement. State personnel policies do not allow for sick leave balance payments upon retirement. The practice of making payments to retirees for a portion of their unused sick leave is not universal among the school systems,

yet for those that do, it appears that they also report the entire accumulated sick leave balance to MSPRS for retirement service credit purposes.

Recommendation 5

We recommend that HCPS Board reevaluate the accumulated sick leave payment practices and consider discontinuing the practice of certifying unused sick leave to MSRPS while making a payment to employees for unused sick leave at retirement.

Inventory Control and Accountability

Background

According to the HCPS audited financial statements, the undepreciated value of its capital equipment (including furniture and fixtures) was \$37.7 million as of June 30, 2013. HCPS uses automated records to track equipment inventory with a cost of \$5,000 or more (including items capitalized for financial statement purposes).

Finding 6

HCPS equipment policies were not comprehensive.

Analysis

HCPS lacked sufficient policies and procedures to govern the accountability and control of its equipment, including non-capitalized equipment items prone to theft, such as digital cameras and other electronic equipment. HCPS' current policy only sets the threshold for equipment to be capitalized for financial statement purposes and delegates the responsibility for accounting for non-capitalized equipment to the individual departments and schools within HCPS. HCPS' equipment policy did not establish system-wide standards to adequately control capitalized equipment. For example, requirements were not established for tagging equipment, maintaining inventory records, performing physical inventories, reporting lost and stolen items, and establishing separation of duties over the custody of equipment. HCPS also did not have a policy to control equipment items costing below the \$5,000 capitalization threshold, deemed sensitive to theft, such as technology equipment (e.g., cameras, laptops). The Government Finance Officers Association recommends that an entity establish controls over non-capitalized equipment that is marketable and susceptible to theft. Similar conditions were commented upon in our preceding audit report.

Recommendation 6

We recommend that HCPS establish policies and procedures to ensure that uniform accountability and control is maintained over its equipment inventory, including certain non-capital items that are prone to theft or loss (repeat).

Information Technology

Background

The HCPS Office of Information Technology maintains and administers the HCPS' computer network, computer operations, and information system applications. HCPS operates a wide area network, with Internet connectivity, which connects the individual schools' local networks to the computer resources located at the HCPS headquarters. The Office maintains a computer room at the headquarters location in which numerous computer servers and network devices operate to support HCPS information system applications including its student information system, finance management system, and electronic grading system.

Finding 7

HCPS' information technology controls over disaster recovery planning and backup of critical data were not sufficient.

Analysis

Controls over disaster recovery planning and backup of critical data were not sufficient.

- HCPS did not have a complete information technology Disaster Recovery Plan (DRP) for recovering computer operations from disaster scenarios (for example, a fire or flood). The State of Maryland *Information Technology (IT) Disaster Recovery Guidelines* provide best practices on the minimum required elements needed for a DRP. HCPS' DRP did not address several of these minimum requirements. For example, the DRP did not contain alternate site processing arrangements, complete listings of hardware and software components, or critical vendor contact information. In addition, although we were advised that the DRP had been tested, documentation supporting this testing did not exist. Without a complete and tested DRP, a disaster could cause significant delays (for an undetermined period of time) in restoring information systems operations above and beyond the expected delays that would exist in a planned recovery scenario. Similar conditions were commented upon in our preceding audit report.
- Daily backups of a critical financial database were not stored off-site. These backups were stored on two servers that resided within the same

data center as the server hosting the critical production database. Since these backups were not stored off-site, if the facility which houses the original database and backup data were destroyed by a disaster, it is uncertain if all critical information could be recreated. Best practices identified in the aforementioned *Guidelines* state that backup media should be created and stored off-site in a secure, environmentally-controlled location.

Recommendation 7

We recommend that HCPS

- a. **develop and implement a comprehensive disaster DRP that is in accordance with the State of Maryland *Information Technology (IT) Disaster Recovery Guidelines* (repeat);**
- b. **periodically test the DRP, document the testing, and retain the documentation for verification purposes (repeat); and**
- c. **backup files of critical data at an off-site, secure, environmentally-controlled location.**

Finding 8

HCPS lacked assurance that adequate information technology security and operational controls existed over its production data backups stored with a cloud service provider.

Analysis

HCPS lacked assurance that adequate information technology security and operational controls existed over its production data backups stored with a cloud service provider. Effective July 1, 2005, HCPS began storing its production data backups with a cloud service provider. These backups, although encrypted, contained sensitive information such as employees and students' social security numbers and other personal information.

- HCPS' contract with the service provider did not adequately protect HCPS against certain significant information technology security and operational risks. For example, this contract:
 - contained disclaimers of liability, on behalf of the service provider, relating to all warranties implicit or explicit;
 - limited damages to a percentage of fees paid by HCPS with the sole remedy as a credit against future payments to the provider;

- did not contain any provision requiring the service provider to submit to a third party independent review;¹
- did not contain any provision for the secure disposal and complete removal of HCPS data from all storage media upon termination of services; and
- did not require the service provider to perform daily documented reviews of audit logs, separate network environments via use of properly configured firewalls, or protect against data contamination between customers.

As a result of these conditions, HCPS lacked assurance that adequate security controls existed over its data and had limited remedies against data loss or unauthorized data exposure. Best practices established by the Cloud Security Alliance, a not-for-profit organization with a mission to promote the use of best practices for providing security assurance within cloud computing, include detailing the specific responsibilities mentioned above in clear and concise contractual language to limit operational and security risks.

- Although the service provider had obtained a SOC 2 Type 2 independent review and report for the period January 1, 2012 through December 31, 2012 covering its information technology security and operational controls, as of April 14, 2014 HCPS had not requested nor obtained a copy of the report which was dated April 24, 2013. We obtained a copy of this independent report and noted that the report did not address several critical information technology controls such as intrusion detection, malware prevention, and vulnerability scanning. Unless HCPS performs timely reviews of periodic independent reports (that address all critical security concerns and controls) of the cloud service provider, HCPS lacks assurance as to the adequacy of security over its data.

Recommendation 8

We recommend that HCPS

- a. ensure that cloud service provider contracts include provisions that address the aforementioned security and operational risks, including requiring service providers regularly obtain SOC 2 Type 2 reviews**

¹The American Institute of Certified Public Accountants has issued guidance concerning examinations of service organizations. Based on this guidance, service organizations (like the aforementioned service provider) may contract for an independent review of controls and the resultant independent auditor's report is referred to as a Service Organization Controls (SOC) report. There are several types of SOC reports, with varying scope and levels of review and auditor testing. One type of report, referred to as a SOC 2 Type 2 report, includes the results of the auditor's review of controls placed in operation and tests of operating effectiveness for the period under review and could include an evaluation of system security, availability, processing integrity, confidentiality, and privacy.

- pertaining to the service provider's information technology security and operational controls; and
- b. obtain and review copies of these SOC 2 Type 2 reports from service providers and ensure that the related independent reviews adequately address all critical security and operational concerns and that the service provider implements all critical report recommendations.

Finding 9

The HCPS intrusion detection prevention system was not properly protecting the network.

Analysis

The HCPS intrusion detection prevention system (IDPS) was not properly protecting the network. We determined that although the network-based IDPS utilized by HCPS had the capability to decrypt and analyze encrypted network traffic received, this feature was not enabled. Furthermore, host-based intrusion protection systems (HIPS) were not in use on HCPS' servers that processed encrypted traffic. The absence of IDPS coverage for such encrypted traffic created a network security risk as such traffic could contain malicious traffic which are not detected or dropped. We identified 20 HCPS internal network addresses which could receive encrypted traffic from the Internet. Complete IDPS coverage includes either the use of a properly-configured, network-based IDPS that analyzes encrypted traffic, or the use of a HIPS, to aid significantly in the detection and prevention of, and response to, potential network security breaches and attacks.

Recommendation 9

We recommend that HCPS perform a documented review and assessment of its network security risks from encrypted network traffic to its critical devices and identify how such traffic should be subject to IDPS. Based on this review and assessment, we recommend that HCPS implement IDPS coverage as necessary.

Facilities Construction, Renovation, and Maintenance

Background

HCPS maintains a total of 57 facilities (including schools and other administrative and support offices) with a staff of 338 custodial and 87 maintenance personnel. According to the fiscal year 2015 Capital Improvement Plan (CIP), planned construction, major renovations, and systemic improvements to HCPS facilities over fiscal years 2015 through 2020 are estimated to cost \$379 million.

An Inclusive Process is Used to Plan for School Facility Construction, Major Renovation, and Repair Projects

HCPS uses a comprehensive process, which includes the solicitation of input from various sources, to plan for future school construction, major renovation, and repair projects. For example, HCPS uses public meetings, student demographic data, and other internal sources (such as current curriculum mandates) to develop its six-year CIP. The CIP is presented to and approved by the Board, as well as elected local officials. In addition, the Educational Facilities Master Plan that is used to guide overall HCPS operations incorporates certain CIP objectives and strategies related to school facilities. Our review of the fiscal year 2015-2020 CIP disclosed that it appeared to address the needs of HCPS based on items such as student demographics and facility assessments.

HCPS Contracts and Expenditures for Capital Projects Were Proper

Our review of four contractual procurements totaling approximately \$61 million disclosed that the contracts were properly bid, awarded, and approved by the Board. We also tested 10 related invoices totaling \$6.2 million and found that the payments were proper. That is, payments were based on the percentage of completion as evidenced by formal approved inspection documentation.

Finding 10

HCPS' energy management program was not sufficiently comprehensive.

Analysis

Although, HCPS implemented certain energy management procedures in order to reduce energy costs (such as, participating in a local utility's energy rebate program), it did not have a comprehensive energy management program that detailed expected results and specific monitoring to be performed.

- HCPS had not developed specific goals for its energy management program such as reducing energy consumption by a specified percentage. Also, HCPS had not implemented other practices, such as establishing a school-based incentive program (setting school-based goals and allowing schools to share in savings when goals are achieved or exceeded) even though HCPS' energy and resource conservation procedures suggest the use of the school-based incentive program as a means to encourage energy reduction.
- HCPS did not effectively use an electronic system to track the usage of electricity and natural gas by HCPS facilities. The system can generate

customized reports to show monthly usage data for a facility over multiple years. Although these reports were available to HCPS and the HCPS' energy and resource conservation procedures require the monthly monitoring of utility consumption, the usage reports were not produced on a regular basis to identify opportunities for utility savings. For example, we requested that HCPS generate reports from the system showing electricity usage between fiscal years 2011 and 2013 for 63 HCPS electric utility sites, within its 57 educational and administrative facilities.

Our review of this report disclosed that although usage decreased at 42 of these sites contributing to a total usage decrease from 2011 to 2013 for the 63 sites collectively, electricity usage increased during this period for 21 of these sites by an average of 6 percent. For 6 of the 21 sites, which were educational facilities, the electricity usage had increased in each of the previous two years, even though there was no significant change in enrollment at the six educational facilities. HCPS could not explain the usage increases, which ranged from 2 to 16 percent. HCPS personnel informed us that utility bills were monitored for unexpected increases; however, this review was not documented. If utility usage had been monitored using the system generated reports, then actions could have been taken to identify and address the cause of the increased usage.

- HCPS conducts site visits to monitor energy usage but did not document these visits. We were advised by HCPS personnel that site visits are conducted as needed. However, HCPS was unable to provide a comprehensive listing of visits or actions taken or recommended as a result of the visits and, consequently, we could not determine if all locations had been evaluated. In addition, results of these visits and appropriate recommendations for reducing energy usage were not summarized for management review or other programmatic oversight.

HCPS has an assistant supervisor dedicated to monitoring energy practices at the facilities, as well as advising personnel on energy conservation practices. According to HCPS records, during fiscal years 2011 and 2013 energy costs totaled \$12.2 million and \$11.5 million, respectively.

Recommendation 10

We recommend that HCPS

- a. develop a comprehensive energy management program that includes specific goals and strategies, such as school incentive programs;**
- b. routinely monitor and analyze the utility usage data to determine if HCPS facilities are meeting or exceeding goals; and**

- c. maintain documentation of energy monitoring activities, including site visits, and track the recommendations made and actions taken as the basis for reporting to management.

Transportation Services

Background

HCPS has approximately 33,700 students eligible to receive student transportation services. These students were transported on one of 361 contractor-owned buses or 102 school system-owned buses. According to MSDE records, fiscal year 2013 transportation costs totaled \$31 million, with \$23 million (74 percent) representing payments for contracted services. Of the 8.3 million reported route miles for the 2012-2013 school year, 30 percent represented miles traveled to transport disabled students. Bus contractors are paid a per vehicle allotment (PVA) that repays the contractors the full acquisition cost of the bus over its life (for example, 12 years). The PVA also provides an additional annual payment as a return on investment (ROI) to the contractors, which is established when a bus is purchased and remains fixed over the bus' life. Finally, bus contractors are paid for operating costs (such as driver salaries, fuel use, maintenance costs, and certain administrative costs).

Finding 11

HCPS did not have formal targets and goals for revising bus routes or use automated routing software to improve route efficiency.

Analysis

HCPS did not have formal targets and goals to guide the decisions made during the process of reviewing and revising bus routes nor did it use automated bus routing software to promote efficiency. Specifically, HCPS had not developed formalized and comprehensive policies that defined the relevant factors for HCPS to consider when determining the most appropriate bus routes, such as bus capacity guidelines and maximum student ride times. Rather, HCPS uses existing bus routes and makes manual modifications to accommodate students' school assignment, based on the experience and knowledge of its transportation staff, without periodically reviewing all routes for efficiency on a system-wide basis.

The lack of a system-wide route analysis could impact route efficiency. For example, our review of 822 HCPS bus routes using fiscal year 2014 bus manifests (documents that record student ridership) disclosed that 517 of the

routes were below 75 percent of HCPS' informal bus capacity goals.² On 171 of these 517 routes, actual student ridership was less than 50 percent of the goals.

The use of routing software is a recognized best practice that can reduce the time it takes to design efficient routes, reduce student ride times, help ensure that routes utilize existing bus capacity, and minimize the number of buses needed to transport students. In an HCPS commissioned study of its student transportation services dated November 2013 the study consultant recommended that HCPS obtain and implement automated bus routing software to develop more efficient routes as a means to reduce transportation costs.

Recommendation 11

We recommend that HCPS

- a. develop formal and comprehensive policies and procedures for its bus routes that include guidance regarding bus capacity, student ride times and any other factors in order to assist in developing bus routes; and**
- b. use automated routing software to help ensure the efficient utilization of buses.**

Finding 12

Certain payments to bus contractors were not based on market conditions or actual costs.

Analysis

Certain elements used to determine payment amounts to bus contractors did not reflect market conditions and actual operating costs. Our review of the contract terms disclosed the following conditions:

- HCPS could not substantiate the basis for the ROI rate used in the PVA payment formula. Although, HCPS provided the Harford County Board of Education with an explanation of some of the components of the bus contractor rates (such as personnel and fuel cost), there was no explanation of the ROI. In addition to the reimbursement for the cost of the bus (for example 1/12th of the cost of the bus paid each year for a bus with a 12-year life) the PVA formula includes an annual 10.42 percent ROI rate (a percentage of the total cost of the bus paid each year for the operator investing money in the bus instead of another investment option).

²HCPS' informal school bus capacities are lower than manufacturer stated capacities and differ depending on the type of school. For example, the capacity for secondary (high school and middle school) and elementary school routes is 44 and 55 students, respectively, based on 64-passenger buses (manufacturer stated capacity).

The ROI used was considerably higher than the prime interest rate,³ which is recommended for use in other studies.

To estimate the financial impact to HCPS of using the 10.42 percent ROI rate rather than the prime interest rate, we recalculated the PVA for each of the 393 new buses placed into service from fiscal years 2001 to 2013. These calculations show that the HCPS annual PVA payments per bus were \$292 to \$6,844 higher than the payments would have been had the prime rate that existed at the time of purchase been used in the calculation. For example, in fiscal years 2010 to 2013, the prime rate was 3.25 percent and the ROI rate used by HCPS was 10.42 percent. The effect is that, over the 12-year life of these 393 new buses put into service by contractors since 2001, HCPS will pay out approximately \$17.6 million more than if the prime rate at the time of purchase was used for the ROI. This analysis does not include the effects of the lost interest income that could have been earned by HCPS on the excess amounts paid. HCPS claimed that contractors suffered losses in other areas that offset the higher PVA amount; however, it could not document that assertion.

- HCPS payments to contractors for operating costs pertaining to bus maintenance were negotiated with the bus contractors and were not supported by documented maintenance and other repair costs, for example. Furthermore, HCPS had not formally evaluated why maintenance payments to contractors were higher than in-house maintenance costs. According to HCPS records, per mile costs for maintenance on HCPS-owned buses was \$0.58 per mile for fiscal year 2013. However, bus contractors were paid \$0.71 per mile during fiscal year 2013 for maintenance. HCPS maintains, but could not readily support, that using their maintenance costs as a basis for maintenance payments to contractors is not appropriate because HCPS benefits from volume discounts and lower labor rates than what is charged by commercial vehicle repair facilities.
- HCPS did not exclude from payments to bus contractors the full amount of the federal fuel excise taxes. In this regard, HCPS pays contractors for fuel usage using a monthly average of diesel fuel prices (as established by an independent source), subtracting \$0.143 for a portion of the federal fuel excise tax, and dividing by an established miles per gallon (mpg) rate of

³The use of the prime interest rate was recommended in a November 1999 study commissioned by another Maryland school system. Also, in 1975 an MSDE study recommended the prime rate as a reasonable ROI interest rate. The prime rate is actually a lending rate that nearly always exceeds the available market investment rate; therefore, it is deemed to be reasonable for the ROI calculation.

7.1 mpg.⁴ However, according to federal law, HCPS contractors are exempt from the \$0.244 per gallon excise tax for diesel fuel and are able to receive a credit for federal fuel taxes paid when they file their income tax returns.⁵ As a result, if HCPS had considered the full \$0.244 exemption amount in its calculation, payments to the contractors would have been lower (for example, a total of \$84,300 less during fiscal year 2013).

Similar comments regarding not using market interest rates to calculate the PVA and the components of bus contractor payments not being approved by the Board were commented upon in our preceding audit report.

Recommendation 12

We recommend that HCPS establish payment amounts to bus contractors in a manner that ensures all costs are reasonable and necessary. Specifically, we recommend that HCPS

- a. use market investment rates as the basis for establishing contractor rates for the annual PVA (repeat),**
- b. present the components of the PVA calculation including the ROI to the Board of Education (repeat),**
- c. use actual bus operating costs as a basis for establishing contractor rates for per mile maintenance costs, and**
- d. exclude the full value of federal fuel excise taxes from contractor payments.**

Food Service Operations

Background

HCPS has a cooking cafeteria at each of its 50 single building schools, 3 double building schools and the environmental education center. Food and related supplies are received and stored in each school. In fiscal year 2013, HCPS had 481 food service employees (comprised of 467 cafeteria positions and 14 administrative positions). According to the fiscal year 2013 audited financial statements, food service operation expenditures (\$15,358,309) exceeded revenues (\$15,439,666) by \$81,357.

⁴The American School Bus Council reported that the national average usage for a large school bus with a diesel engine is 7 miles per gallon.

⁵There is no exemption from the State motor fuel tax for buses operated by HCPS or contractors.

Finding 13

Collections were not properly recorded nor adequately safeguarded until deposit.

Analysis

Controls over collections received at the food service central office were not properly recorded nor adequately safeguarded.

- We were informed that collections received at the food service central office are recorded immediately upon receipt. However, the date that the collections are initially received was not being recorded. As a result, no record existed to document how long the collections were held prior to deposit.
- Collections were not adequately safeguarded under locked storage before the collections were deposited. Instead, the undeposited collections were stored in an unlocked desk drawer, which was readily accessible to all personnel at the food service central office.

Similar conditions were commented upon in our preceding audit report.

According to HCPS records, the total collections received by the HCPS food service central office, the majority of which related to federal and State reimbursement checks for the school breakfast and lunch programs, totaled \$6.8 million in fiscal year 2013.

Recommendation 13

We recommend that HCPS

- a. record the date of initial receipt for collections received at the food service central office and ensure that collections are promptly deposited (repeat), and**
- b. ensure all collections are adequately secured prior to subsequent processing and deposit (repeat).**

School Board Operations**Background**

HCPS' Board of Education is currently composed of three elected and six appointed voting members and one student representative with partial voting rights. In its oversight responsibilities, the Board contracted with a certified public accounting firm for independent audits of the HCPS financial statements and federal programs. The Board has established special committees to study and report on various matters, including an active,

standing audit committee consisting of two board members and several community members with various financial expertise to which the HCPS internal auditor reports.

HCPS Adopted an Ethics Policy that Met the Current Requirements of State Law

The Board has adopted a detailed ethics policy that, according to the State Ethics Commission, conforms to State Law and includes provisions for conflicts of interest and financial disclosure. Provisions of this policy are applicable to Board members as well as all HCPS employees. HCPS established an Ethics Panel consisting of five members who are not subject to the authority of the Board of Education to interpret ethics policies and provide advice on policy implementation. The Panel also reviews and rules on any reported complaints of ethics violations. According to the ethics policy, annual financial disclosure statements are required to be filed by Board members, candidates for the Board, the Superintendent, Assistant Superintendents, and a number of other administrators (such as school principals and department heads) by April 30th of each year. Our review of the records for employees required to submit financial disclosure forms for calendar year 2012 disclosed that forms were submitted as required with few exceptions.

HCPS Has an Operational Fraud Hotline

In 2008, HCPS implemented a confidential fraud hotline to enable employees and others to confidentially report operational concerns and suspected fraud, waste, and mismanagement. The HCPS internal auditor is responsible for investigating the allegations and documenting the efforts, results, and any follow-up actions taken. According to the HCPS fraud hotline records, the hotline received 44 calls from its inception in 2008 through August 2013. The internal auditor investigated and resolved nine calls which we reviewed and found that all calls appeared to be handled appropriately. The remaining calls were either referred to another HCPS department, deemed not significant enough to warrant additional inquiry or research, or were hang-ups.

Other Financial Controls

Healthcare Background

HCPS is a member of the Harford County Public Entities Consortium for employee and retiree health care. The four Consortium members are self-insured for healthcare costs up to a designated stop-loss limit. The Consortium contracts with a vendor to provide administrative services, such as claims processing for participants' medical and vision costs and for stop-loss coverage. The Consortium rebid the administrative service contract in 2014, which went into effect on July 1, 2014. HCPS is the largest member of the consortium as its claims represent 71 percent of the consortium's total

claims for plan year 2013. HCPS verifies the eligibility of employee dependents prior to enrollment in the health care plans.

Medical providers submit claims to the administrator who pays them on behalf of HCPS. HCPS pays the administrator for claims the administrator reports it paid and pays an administrative fee for these services based on the number of plan participants. According to administrator records, amounts paid for health care during fiscal year 2013 totaled \$71.6 million, including administrative fees and stop-loss insurance costs of approximately \$4.3 million.

Finding 14

HCPS did not ensure the propriety of payments for employee and retiree healthcare costs.

Analysis

HCPS lacked procedures and controls to ensure that amounts paid to the third-party administrator for medical claims, stop-loss insurance costs, and administrative fees were proper.

- HCPS did not obtain a listing of, nor audit the propriety of, the claims paid on its behalf by the program administrator to ensure that the services were actually provided, were covered by the health plans, and were appropriately priced. Furthermore, HCPS did not verify that all claims exceeding the stop-loss limit were reimbursed by the administrator under the stop-loss coverage. HCPS relies on the administrator to notify it of any payments above the stop-loss limit. According to the administrator, HCPS paid \$1.9 million for stop-loss coverage and received \$1.6 million in plan year 2013 related to claims exceeding the stop-loss limit.
- HCPS did not ensure that administrative fees (which are based on the number of plan participants) for health and stop-loss claims processing paid to the administrator were proper by comparing its enrollment records to administrator invoices.

The State of Maryland, which has a similar contract for State employees, contracts with a private firm to audit the administrators of the State's health insurance, prescription drug, and dental benefit plans, which includes conducting reviews to ensure the propriety of claims paid.

Recommendation 14

We recommend that HCPS establish procedures to verify the amounts paid for health insurance. Specifically, we recommend that HCPS

- a. obtain documentation to support actual claim payments and ensure audits of the claims paid by the administrator are conducted;
- b. use detailed claims payment data to ensure that all claims paid above the stop-loss limit are reimbursed by the insurer; and
- c. compare its records of enrolled employees, retirees, and dependents to invoices from the administrator and determine the propriety of all administrative fees billed.

Finding 15

HCPS did not competitively bid the health care contract for stop-loss coverage or obtain approval from the Board of Education for the new contract.

Analysis

HCPS obtained stop-loss medical insurance without using a competitive procurement and did not obtain Board of Education approval as required by Board policy for contracts that exceed \$100,000 in value. Specifically, services for stop-loss medical insurance were not bid in fiscal year 2012 when the services were switched from a previous insurer to a new insurer that also provided HCPS with third-party administrative services for its health care services. HCPS payments to the new insurer for stop-loss coverage (for example, for claims in excess of \$300,000 in a year for any individual) totaled \$1.9 million during plan year 2013. A similar comment regarding not obtaining Board approval for contracts that exceed \$100,000 was commented upon in our preceding audit report.

HCPS, which belongs to a consortium that procures various health care services, used the consortium's consultant to negotiate prices for stop-loss coverage; however, in order to help ensure that the best value is obtained, bids or proposals from other interested firms should be solicited.

Recommendation 15

We recommend that HCPS

- a. work with its healthcare consortium members to select healthcare services vendors for stop-loss coverage through competitive procurement processes, and
- b. obtain Board approval for contracts that exceed \$100,000, as required (repeat).

Audit Scope, Objectives, and Methodology

We conducted a performance audit to evaluate the effectiveness and efficiency of the financial management practices of the Harford County Public Schools (HCPS). We conducted this audit under the authority of the State Government Article, Section 2-1220(e) of the Annotated Code of Maryland, and performed it in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We had two broad audit objectives:

1. Evaluate whether the HCPS procedures and controls were effective in accounting for and safeguarding its assets.
2. Evaluate whether the HCPS policies provided for the efficient use of financial resources.

In planning and conducting our audit of HCPS, we focused on 11 major financial-related areas of operations as approved on September 14, 2004 by the Joint Audit Committee of the Maryland General Assembly in accordance with the enabling legislation. The scope of the work performed in each of these areas was based on our assessments of significance and risk. Therefore, our follow-up on the status of findings included in our preceding audit report on HCPS dated May 30, 2008, was limited to those findings that were applicable to the current audit scope for each of the 11 areas.

The audit objectives excluded reviewing and assessing student achievement, curriculum, teacher performance, and other academic-related areas and functions. Also, we did not evaluate the HCPS Comprehensive Education Master Plan or related updates, and we did not review the activities, financial or other, of any parent teacher association, group, or funds not under the local board of education's direct control or management.

To accomplish our objectives, we reviewed applicable State laws and regulations pertaining to public elementary and secondary education, as well as policies and procedures issued and established by HCPS. We also interviewed personnel at HCPS, the Maryland State Department of Education (MSDE), and staff at other local school systems in Maryland (as appropriate).⁶

⁶During the course of the audit, it was necessary to contact other systems to identify policies or practices for comparative purposes and analysis.

Our audit procedures included inspections of documents and records, and observations of HCPS operations. We tested transactions and performed other auditing procedures that we considered necessary to achieve our objectives, generally for the period from July 1, 2011 through June 30, 2013. For certain areas within the scope of the audit, we relied on the work performed by the independent accounting firm that annually audits HCPS' financial statements and conducts the federal Single Audit.

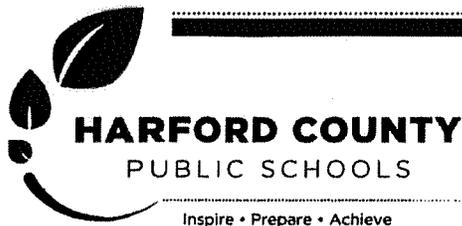
We used certain statistical data—including financial and operational—compiled by MSDE from various informational reports submitted by the Maryland local school systems. This information was used in this audit report for background or informational purposes, and was deemed reasonable.

We also used data extracted from HCPS' automated financial system and corporate purchasing card program for the purpose of testing expenditure and payroll transactions. We performed various tests of the relevant data and determined that the data were sufficiently reliable for the purposes the data were used during the audit.

HCPS' management is responsible for establishing and maintaining effective internal control. Internal control is a process designed to provide reasonable assurance that objectives pertaining to the reliability of financial records, effectiveness and efficiency of operations including safeguarding of assets, and compliance with applicable laws, rules, and regulations are achieved.

Because of inherent limitations in internal control, errors or fraud may nevertheless occur and not be detected. Also, projections of any evaluation of internal control to future periods are subject to the risk that conditions may change or compliance with policies and procedures may deteriorate. In addition to the conditions included in this report, other less significant findings were communicated to HCPS that did not warrant inclusion in this report.

We conducted our fieldwork from October 2013 to June 2014. The HCPS response to our findings and recommendations is included as an appendix to this report. As prescribed in the State Government Article, Section 2-1224 of the Annotated Code of Maryland, we will advise HCPS regarding the results of our review of its response.



APPENDIX

Barbara P. Canavan, Superintendent of Schools
102 S. Hickory Avenue, Bel Air, Maryland 21014
Office: 410-838-7300 • www.hcps.org • fax: 410-893-2478

December 22, 2014

Thomas J. Barnickel III, CPA
Legislative Auditor
Department of Legislative Services
Office of Legislative Audits
301 West Preston Street, Room 1202
Baltimore, Maryland 21201

Dear Mr. Barnickel,

Enclosed are the responses to the findings and recommendations made in the Financial Management Practices Audit Report.

I would like to thank the legislative auditors for their comprehensive audit of our school system. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Barbara P. Canavan
Superintendent of Schools

Enclosure

Cc: Nancy Reynolds, President, Harford County Board of Education
James A. Jewell, CPA, Assistant Superintendent for Business Services, Harford County Public Schools
Jennifer A. Birkelien, CPA, Internal Auditor, Harford County Public Schools

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Revenue and Billing Cycle

Finding 1

Collections received at the Finance Office were not recorded or deposited timely.

Recommendation 1

We recommend that HCPS

- a. record collections immediately upon receipt (repeat),**
- b. restrictively endorse all checks immediately upon receipt (repeat),**
- c. document the chain of custody when transferring collections to other departments,**
- d. perform independent verifications of collections from initial receipt to deposit (repeat), and**
- e. deposit collections in a timely manner.**

HCPS Response

HCPS received 98 percent of cash receipts in FY14 electronically via ACH credit or wire transfer. Included in the remaining two percent of cash receipts were state Medicaid payment checks that have now been converted to ACH credits.

HCPS would like to note that it began the process of trying to switch medical assistance reimbursements from checks to electronic receipt in January 2007, during the first Financial Management Practices Audit performed by OLA. Since that time, HCPS had made several attempts to convert to electronic reimbursements without success. Finally, in May 2014, the Comptroller's Office processed our request and we are now receiving all medical assistance payments electronically, resulting in a decrease of collections received as checks to 1% of all cash receipts.

Mail received at the HCPS AA Roberty Building is routed, unopened, to the various departments by the Communications Office. Therefore, checks received via mail are routed to the department to which it is addressed and not immediately recorded upon receipt in the mailroom. The Communications Office does not have the staffing to allow for someone to open every piece of mail, record checks immediately upon receipt and restrictively endorse each check. The cost to add a position to perform this function outweighs any benefit that would be derived, especially since we anticipate receiving only one percent of all cash receipts as paper checks going forward. Additionally, checks could also be mailed directly to other HCPS locations.

However, HCPS recognizes the value of the OLA's recommendations and will work with the various offices and departments to implement them. Responses to the specific recommendations are as follows.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

a. record collections immediately upon receipt (repeat);

Agree. The Finance Office records all collections received immediately upon receipt. Additionally, the Finance Office secures all un-deposited collections in a locked safe. Practices and procedures currently followed by other offices or departments receiving checks will be documented and HCPS will work with those offices and departments to help them implement or modify procedures to record collections immediately upon receipt by June 30, 2015.

b. restrictively endorse all checks immediately upon receipt (repeat);

Agree. The Finance Office has always restrictively endorsed checks upon receipt. However, by February 2015, HCPS will provide an endorsement stamp to the departments outside of Finance that have historically received checks and require that those departments endorse all checks upon receipt.

c. document the chain of custody when transferring collections to other departments;

Agree. Beginning in August 2014, the Finance Office began to note the department from which each collection is received in the Cash Receipts Log if the collection was not received initially by the Finance Office. This, in combination with the receiving office or department's cash receipts log, will provide a chain of custody for collections received.

d. perform independent verifications of collections from initial receipt to deposit (repeat); and

Agree. Beginning in FY16, HCPS will periodically perform independent verifications of collections from initial receipt to deposit on a sample basis to ensure timely deposit.

e. deposit collections in a timely manner.

Agree. HCPS will communicate the importance of timely delivery of all collections to the Finance Office. Effective immediately, the Finance Office will strive to deposit all collections received at least on a weekly basis. However, with limited staff, there are certain times of the year when this may not be feasible, but the intention is to make this the exception rather than the rule.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Procurement and Disbursement Cycle

Finding 2

HCPS did not adequately restrict users' capabilities on its automated procurement and accounts payable system.

Recommendation 2

We recommend that HCPS strengthen its controls over the automated procurement and accounts payable system and processes. Specifically, we recommend that HCPS

- a. **restrict user access capabilities to eliminate the ability of users to perform incompatible duties (repeat), and**

Agree. HCPS has restricted user access capabilities to eliminate the ability of users to perform incompatible duties on its procurement and accounts payable systems to the extent possible without impairing operations. Current HCPS staffing levels prevent complete elimination of the ability of users to perform incompatible duties. However, HCPS recognizes the potential for errors and irregularities in the absence of segregation of duties and will implement compensating controls to detect any such potential errors or irregularities. Additionally, since the conclusion of the audit, HCPS has completed the implementation of *Lawson Security* that replaces the prior class-based security function *Lawson User Access* with a role-based security schema and enables user access control customization based on the individual user's job function. Beginning this fiscal year, HCPS will perform an independent review of user access capabilities on a periodic basis.

- b. **establish independent approval requirements for all critical purchasing and accounts payable transactions (repeat).**

Establish independent approval requirements for all purchasing transactions:

Agree. The elimination of incompatible duties as identified during this audit now provides for an independent approval of purchasing transactions. The Supervisor of Purchasing, who is independent as of November 2014, will continue to review the list of purchase orders created on a monthly basis.

Establish independent approval requirements for all accounts payable transactions:

Agree. The elimination of incompatible duties as identified during this audit now provides for an independent approval of accounts payable transactions. The Director of Finance, who is independent as of November 2014, will continue to review the list of payments prior to issuance.

Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014

Procurement and Disbursement Cycle, *continued*

Finding 3

HCPS did not adequately monitor payments made for special education services.

Recommendation 3

We recommend that HCPS obtain independent supporting documentation for invoices (repeat).

Agree. HCPS will establish procedures to obtain independent supporting documentation for invoices from special education service providers by June 30, 2015.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Human Resources and Payroll

Finding 4

Independent reviews of payroll and personnel transactions were lacking and access to the automated system was not properly restricted.

Recommendation 4

We recommend that HCPS

- a. perform a documented independent review of personnel and payroll transactions (repeat),
- b. resolve the noted payment error, and
- c. limit assignments of critical system functions to those employees who require such capabilities to perform their job duties (repeat).

HCPS Response

- a. perform a documented independent review of personnel and payroll transactions (repeat),
Agree. Beginning this fiscal year, HCPS will perform a periodic documented independent review of personnel and payroll transactions on a test basis.
- b. resolve the noted payment error, and
Agree, in part. HCPS will strengthen procedures to ensure that only sick leave earned during the employee's tenure with HCPS is paid out at retirement in accordance with the negotiated agreements. HCPS will also review sick leave payouts for the last three years for accuracy and will determine the feasibility of recouping prior leave payments where appropriate.
- c. limit assignments of critical system functions to those employees who require such capabilities to perform their job duties (repeat).
Agree. HCPS has reviewed the existing access to critical system functions for personnel and payroll transactions and has limited assignments of critical system functions to only those employees who require such capabilities to perform their job duties. Additionally, since the conclusion of the audit, HCPS has completed the implementation of *Lawson Security*, which replaces the prior class-based security function *Lawson User Access* with a role-based security schema and enables user access control customization based on the individual user's job function. Beginning this fiscal year, HCPS will perform an independent review of access to critical system functions identified by the OLA team on a periodic basis.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Human Resources and Payroll, *continued*

Finding 5

HCPS certified sick leave to the Maryland State Retirement and Pension System as unused for the portion that was previously paid to employees upon separation, resulting in increased pension benefits.

Recommendation 5

We recommend that HCPS Board reevaluate the accumulated sick leave payment practices and consider discontinuing the practice of certifying unused sick leave to MSRPS while making a payment to employees for unused sick leave at retirement.

Disagree. Employees who enter retirement from HCPS after ten (10) years of service receive payment for unused sick days at 25% of the employee's daily rate of pay. The amount of days eligible for payout varies by bargaining unit and ranges from 200 to 250. This partial payment of unused sick leave after entering retirement is the subject of collective bargaining agreements and is considered an employee benefit. It serves as a tool to retain loyal employees.

Additionally, HCPS contacted the Maryland State Retirement and Pension System for clarification. In response, Karen Simpson, Program Manager, verified that the law allows retirees to receive credit for unused sick leave earned as sick leave but not used prior to retirement. She also stated that the law is silent and therefore does not restrict retirees from receiving credit for leave paid out *after* retirement. HCPS feels we are in compliance with the law.¹

¹ **Auditor's Comment:** HCPS disagreed and stated they feel their current practice complies with the law. Our finding does not state HCPS's practice violates law. In fact, we state that legal counsel indicated the law in this area is ambiguous. But we also state that legal counsel advised that the better interpretation of the law in question would be to not report leave to the MSRPS for which employees have been paid; therefore, we believe that this is a matter for Board reevaluation. The Board may also want to reconsider the practice since the local school systems along with the State are now jointly funding certain contributions for teachers' pension costs.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Inventory Control and Accountability

Finding 6

HCPS equipment policies were not comprehensive.

Recommendation 6

We recommend that HCPS establish policies and procedures to ensure that uniform accountability and control is maintained over its equipment inventory, including certain non-capital items that are prone to theft or loss (repeat).

HCPS agrees with the spirit of the recommendation, and will review existing policies and procedures related to capitalized and non-capitalized equipment by June 30, 2015. However, current staffing levels do not allow for centralized tracking of both capitalized and non-capitalized equipment.

Board Policy 16-0005-000, Capitalization of Fixed Assets, was amended by the Harford County Board of Education on March 29, 2009. This policy provides for the capitalization of individual assets with a useful life of at least two years and having a value of \$5,000 or greater. It also provides for the control of all fixed assets acquired under federal awards in accordance with the applicable federal requirements. HCPS will review this policy and consider incorporating system-wide standards to adequately control capital equipment that can be implemented given current staffing and resources.

HCPS approved the administrative procedure entitled “Control over Noncapitalized Assets” in November 2008 after the first OLA report was issued. This procedure provides for the control of non-capitalized (assets with a unit cost less than \$5,000 and a useful life of at least two years). The administrative procedure provides for non-capitalized items to be controlled at the school or department level, as recommended by the GFOAs Best Practice “Maintaining Control over Items that Are Not Capitalized.” HCPS will review this procedure in order to determine if any amendments can be made to provide additional uniform accountability and control over non-capitalized items given current staffing and resources.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Information Technology

Finding 7

HCPS' information technology controls over disaster recovery planning and backup of critical data were not sufficient.

Recommendation 7

We recommend that HCPS

- a. develop and implement a comprehensive disaster DRP that is in accordance with the State of Maryland *Information Technology (IT) Disaster Recovery Guidelines (repeat);***

Agree, with modifications. All necessary components of a DRP are maintained on the HCPS SharePoint server under a restricted site. Auditors made note that if a disaster involved SharePoint, the plan would be unavailable. HCPS' response is that a printed copy is too frequently outdated. With limited staff, each staff member understands their role and responsibilities during a disaster event.

- b. periodically test the DRP, document the testing, and retain the documentation for verification purposes (repeat); and**

Agree, with modifications. HCPS lacks the resources to conduct a full scale test as recommended in the findings above. During construction of Edgewood High School, a remote disaster operations center was built, however, additional funds have been unavailable to procure backup servers and network equipment to make the remote operations center fully functional.

- c. backup files of critical data at an off-site, secure, environmentally-controlled location.**

Agree. The ERP production server backups are hosted by a vendor off site. During Q1 2014, a technical issue was present in the ERP environment that prevented the backup process from completing the nightly off-site backups in the allotted time window. The technical issue that prevented off-site backup was rectified on April 9, 2014, and we have been performing backup off site ever since. The finding is accurate that full backups of the ERP database were pushed to local servers on a daily basis; such is the first phase of the two-phase backup. The second phase is to back up the local server directory copies. This is necessary because exclusive access to the files is required to accomplish the complete ERP backup. While not compliant with keeping an off-site backup, the presence of local backups did provide a measure of recover.

Please note that HCPS is upgrading its ERP and associated with this project will be a lifecycle platform replacement. The production and test servers will be separated between two computer rooms, at two geographically diverse locations. The new platform configuration should be operational by June 2015. The intent of this configuration is to support a measure of business continuity. Off-site data from the backup vendor could be restored onto the test platform and business operations resumed within two business days.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Information Technology, *continued*

Finding 8

HCPS lacked assurance that adequate information technology security and operational controls existed over its production data backups stored with a cloud service provider.

Recommendation 8

We recommend that HCPS

- a. **ensure that cloud service provider contracts include provisions that address the aforementioned security and operational risks, including requiring service providers regularly obtain SOC 2 Type 2 reviews pertaining to the service provider's information technology security and operational controls; and**

Agree. HCPS is working with the cloud service provider to ensure that the contract includes the provisions that address the security and operational risks identified by OLA.

- b. **obtain and review copies of these SOC 2 Type 2 reports from service providers and ensure that the related independent reviews adequately address all critical security and operational concerns and that the service provider implements all critical report recommendations.**

Agree. HCPS has obtained and reviewed the most recent SOC 2 Type 2 review from the service provider for the period January 1 - December 31, 2013. HCPS will continue to obtain and review SOC 2 Type 2 reports from service providers.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Information Technology, continued

Finding 9

The HCPS intrusion detection prevention system was not properly protecting the network.

Recommendation 9

We recommend that HCPS perform a documented review and assessment of its network security risks from encrypted network traffic to its critical devices and identify how such traffic should be subject to IDPS. Based on this review and assessment, we recommend that HCPS implement IDPS coverage as necessary.

Agree. HCPS will take the suggestions under advisement. The current firewalls supports the suggested functionality, however, further investigation is required to determine if the firewalls can handle the added processing without impacting network performance.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Facilities Construction, Renovation and Maintenance

Finding 10

HCPS' energy management program was not sufficiently comprehensive.

Recommendation 10

We recommend that HCPS

- a. develop a comprehensive energy management program that includes specific goals and strategies, such as school incentive programs;**

Agree. HCPS has developed specific energy consumption goals as part of its energy performance contract that now encompasses 39 schools through the third phase of the project.

HCPS' Energy and Resource Conservation Steering Committee is comprised of teachers, administrators and various central office and county government stakeholders (from Harford County Government and Harford Community College). Its mission is to evaluate the current state of our school system's sustainability by analyzing the effectiveness of our energy management plan and environmental stewardship through education. In January, 2010, a subcommittee was formed and tasked with considering the costs and benefits of a school-based incentive program. The subcommittee concluded that while a school-based incentive program would be beneficial towards HCPS' energy reduction goals, HCPS lacks the staff to accomplish the functions necessary for a successful program. However, HCPS remains committed to this endeavor and will continue to look for ways to implement a school-based incentive program.

- b. routinely monitor and analyze the utility usage data to determine if HCPS facilities are meeting or exceeding goals; and**

Agree. HCPS will develop a periodic reporting system to analyze the utility usage data and determine if our facilities are meeting or exceeding utility usage goals.

- c. maintain documentation of energy monitoring activities, including site visits, and track the recommendations made and actions taken as the basis for reporting to management.**

Agree. HCPS will document its periodic analysis of the utility usage data and any corresponding recommendations made or actions taken. HCPS will also document any site visits made for the purpose of evaluating utility usage and any corresponding recommendations made or actions taken.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Transportation Services

Finding 11

HCPS did not have formal targets and goals for revising bus routes or use automated routing software to improve route efficiency.

Recommendation 11

We recommend that HCPS

- a. **develop formal and comprehensive policies and procedures for its bus routes that include guidance regarding bus capacity, student ride times and any other factors in order to assist in developing bus routes; and**

Agree. HCPS will review existing student transportation policies and procedures for possible changes, including guidance regarding bus capacities, student ride times and other identified factors that affect bus routing decisions. We anticipate this review will be completed by December 31, 2015.

- b. **use automated routing software to help ensure the efficient utilization of buses.**

Agree. HCPS had already planned to procure automated routing software prior to the OLA recommendation and issued an RFP in May 2014 while the auditors were on site. Proposals were evaluated by a selection committee and on September 8, 2014, an Informational Report was presented to the Board regarding the procurement, installation and implementation of automated transportation routing software from the Transfinder Corporation. HCPS began implementation of the transportation routing software in October 2014 and plans to begin using the software for the 2015-16 school year.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Transportation Services, *continued*

Finding 12

Certain payments to bus contractors were not based on market conditions or actual costs.

Recommendation 12

We recommend that HCPS establish payment amounts to bus contractors in a manner that ensures all costs are reasonable and necessary. Specifically, we recommend that HCPS

- a. use market investment rates as the basis for establishing contractor rates for the annual PVA (repeat),**

Agree, in part. HCPS created an internal study group to perform a comprehensive evaluation of the contractor table of rates, which includes the PVA. As part of this ongoing evaluation, HCPS will consider the use of market rates as the basis for establishing contractor rates for the annual PVA. However, HCPS has always felt that the use of market investment rates as a basis for establishing the PVA is not competitive. HCPS will substantiate the basis for the ROI rate that is recommended by the group if market investment rates are not recommended.

- b. present the components of the PVA calculation including the ROI to the Board of Education (repeat),**

Agree. HCPS will present the components of the PVA calculation, including the ROI and along with the other components of the table of rates, beginning with the next scheduled contractor table of rates presentation to the Board of Education.

- c. use actual bus operating costs as a basis for establishing contractor rates for per mile maintenance costs, and**

Disagree. HCPS maintains that using its actual maintenance costs as a basis for contractor rates for per mile maintenance costs is not appropriate because HCPS benefits from volume discounts and lower labor rates than what is charged by commercial vehicle repair facilities. HCPS will review the per mile maintenance costs as part of the overall evaluation of the contractor table of rates mentioned above and document justification of this assertion.

- d. exclude the full value of federal fuel excise taxes from contractor payments.**

Disagree. However, HCPS will consider excluding the full value of federal fuel excise taxes from contractor payments as part of the annual review of the table of rates. We would note that HCPS is one of the only counties using bus contractors that deducts any portion of the federal fuel excise tax from contractor payments. In order to negotiate a constant table of rates (with the exception of the PVA), HCPS agreed not to increase the deduction for federal fuel excise tax from \$0.143 to \$0.244 from the monthly average diesel fuel price.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Food Service Operations

Finding 13

Collections were not properly recorded nor adequately safeguarded until deposit.

Recommendation 13

We recommend that HCPS

- a. record the date of initial receipt for collections received at the food service central office and ensure that collections are promptly deposited (repeat), and**
Agree. Collections at the food service central office are recorded upon receipt. The log of collections has been revised to include a field for the date received.

- b. ensure all [collections are adequately secured prior to subsequent processing and deposit (repeat).**
Agree. Undeposited food service collections (primarily checks) are now stored in a locked drawer.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Other Financial Controls

Finding 14

HCPS did not ensure the propriety of payments for employee and retiree healthcare costs.

Recommendation 14

We recommend that HCPS establish procedures to verify the amounts paid for health insurance. Specifically, we recommend that HCPS

- a. obtain documentation to support actual claim payments and ensure audits of the claims paid by the administrator are conducted;**

Agree. HCPS is working with its healthcare consultant, Bolton Partners, to locate a firm with the expertise to conduct an audit of the third-party administrator to include a review of claims paid for propriety.

- b. use detailed claims payment data to ensure that all claims paid above the stop-loss limit are reimbursed by the insurer; and**

Agree. HCPS is working with its healthcare consultant, Bolton Partners, to locate a firm with the expertise to conduct an audit of the third-party administrator to include a review of claims paid above the stop-loss limit for proper reimbursement by the insurer.

- c. compare its records of enrolled employees, retirees, and dependents to invoices from the administrator and determine the propriety of all administrative fees billed.**

Agree. HCPS will work with its healthcare consultant, Bolton Partners, to implement a recalculation of administrative fees to determine the propriety of administrative fees paid.

**Harford County Public Schools
Responses to Office of Legislative Audits
Financial Management Practices Report
December 22, 2014**

Other Financial Controls, *continued*

Finding 15

HCPS did not competitively bid the health care contract for stop-loss coverage or obtain approval from the Board of Education for the new contract.

Recommendation 15

We recommend that HCPS

- a. work with its healthcare consortium members to select healthcare services vendors for stop-loss coverage through competitive procurement processes, and**

Agree. The finding refers to the stop-loss medical insurance for fiscal year 2012. In August 2013 Harford County Government issued RFP #14-056 [Harford County Public Entities Health Care Consortium Employee Health Benefits Plans], which required respondents to include stop-loss coverage pricing as part of their proposal for the medical portion of health coverage. The quotes for stop-loss coverage were considered by the consortium as part of the overall evaluation of medical insurance proposals.

- b. obtain Board approval for contracts that exceed \$100,000, as required (repeat).**

Agree. The Harford County Board of Education approved the Health Consortium bid decision on January 13, 2014 (which took effect on July 1, 2014). When it was presented to the Board, the stop-loss coverage was included as part of the contracted price for medical insurance. Going forward, beginning with the next Board approval required for healthcare, HCPS will present the stop-loss insurance contract pricing separately from the medical insurance contract pricing.

HCPS will also strengthen procedures to ensure that Board approval is obtained for all contracts that exceed \$100,000, as required by board policy. HCPS is in the process of drafting an Administrative Procedure that will strengthen controls over several aspects of contract execution and will incorporate controls to ensure that Board approval is obtained for contracts that exceed \$100,000. We anticipate this administrative procedure to be finalized by June 30, 2015.

AUDIT TEAM

Stephen C. Pease, CPA
Edward L. Shulder, CPA
Audit Managers

Richard L. Carter, CISA
Stephen P. Jersey, CPA, CISA
Information Systems Audit Managers

Nelson W. Hopkins, CPA
Senior Auditor

Michael K. Bliss, CISA
John C. Venturella
Information Systems Senior Auditors

Mary K. Davis, CPA
Ryan A. Myles
Edward A. Rubenstein, CPA
Staff Auditors

Matthew D. Walbert
Information Systems Staff Auditor