

DEPARTMENT OF LEGISLATIVE SERVICES
OFFICE OF LEGISLATIVE AUDITS
MARYLAND GENERAL ASSEMBLY

Karl S. Aro
Executive Director

July 2, 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 Baltimore County Public Schools (BCPS) 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 BCPS 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 BCPS needs to improve certain procurement practices to ensure it obtains goods at services in a cost-effective manner. For example, BCPS appeared to be paying more than necessary for roof replacements obtained through a purchasing consortium. BCPS paid approximately \$31.4 million for roofing services during the period from July 1, 2010 through December 10, 2013. In addition, BCPS procurement policy did not require that a competitive procurement process be used for certain service contracts.

BCPS also needs to improve internal controls and accountability for certain financial operations including procurement and disbursements, payroll processing, information system security, and equipment control. For example, certain critical user functions on the payroll systems, such as the ability to change an employee's salary and direct deposit information, were not properly restricted, thereby increasing the risk of improper transactions being processed without detection. Also, BCPS needs to improve security and controls over its computer network and information systems, including firewall rules which allowed numerous insecure and unnecessary connections to critical network devices.

BCPS also needs to ensure the accuracy of payments for employee healthcare. For example, although BCPS 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 \$125 million in fiscal year 2014.

An executive summary of our findings can be found on page 5 of this report. The BCPS 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 BCPS.

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 a stylized "B".

Thomas J. Barnickel III, CPA
Legislative Auditor

Finding 3

BCPS' procurement policies did not require competitive procurements for certain contractual services.

Analysis

BCPS had not established a comprehensive procurement policy that requires competitive procurement of certain services or documentation of justifications for not using competitive procurements. The Board adopted a procurement policy that requires the purchase of goods to be conducted in compliance with the Annotated Code of Maryland, which requires that procurements of school buildings, improvements, supplies, and equipment exceeding \$25,000 be competitively bid and awarded to the lowest responsible bidder. Although the policy requires price quotes be obtained for purchases of services valued at less than \$25,000, the current policy does not address the selection of contractors for services valued at \$25,000 or more (for example, to be selected by a competitive procurement process). During fiscal year 2013, BCPS issued purchase orders for service contracts totaling approximately \$56.1 million with related expenditures totaling approximately \$49.8 million during that year.

Recommendation 3

We recommend that BCPS amend its existing policies to require competitive procurement methods to be used for all contracts for services.

Human Resources and Payroll

Background

Payroll expense represents the largest single cost component in the BCPS budget. According to BCPS records, fiscal year 2014 salary, wage, and benefit costs totaled \$1.1 billion. According to Maryland State Department of Education reports, during the 2013 - 2014 school year BCPS had 14,281 full-time equivalent positions, which consisted of 9,195 instructional positions and 5,086 non-instructional positions.

BCPS uses an automated integrated human resources and payroll system to maintain human resources information, record employee time, track leave usage, and to process and record payroll transactions. The system automatically generates semi-monthly 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).

Recommendation 9

We recommend that BCPS

- a. limit access to critical databases to personnel whose job duties require such access;
- b. limit the assignment of access and privileges to the student information database and server to only those accounts requiring such access and privileges; and
- c. log all critical audit events and direct changes to critical tables, review these logs on a regular basis with appropriate investigation of unusual activity, document these reviews, and retain the documentation for subsequent verification.

Facilities Construction, Renovation, and Maintenance

Background

BCPS employs a staff of approximately 1,171 employees to maintain its 171 facilities (including schools and other administrative and support offices). According to the fiscal year 2015 Capital Improvement Plan, necessary construction, major renovations, and systemic improvements to BCPS facilities over the next six years were estimated to cost \$819 million.

Finding 10

BCPS is paying a significantly higher cost per square foot for roof replacements compared to other local school systems, and could not adequately justify the rationale for its practice of using the same roofing contractor for a number of years.

Analysis

Our audit disclosed that BCPS is paying significantly more for roof replacements, compared to other Maryland public school systems, through its exclusive use of one contractor. Since 2006, BCPS has been using the same contractor obtained through an intergovernmental cooperative purchasing agreement for all of its roofing requirements. Specifically, BCPS has used a Pennsylvania-based cooperative purchasing program (Program) that is open to K-12 schools, higher education institutions, local government and other non-profit organizations. According to the Program's website, it competitively procures contracts for commodities and services, with awards going to the "lowest responsive responsible bidder," and the contracts are approved by the board of directors of its parent agency (a collective of certain schools located in central Pennsylvania). All cooperative members may purchase the available goods and services at the prices provided for in the related contracts. We were advised by a Program representative that there is no

direct membership fee to Program members, such as BCPS. Instead, the Program's vendors pay the administrative costs of the Program and our review of vendor proposals found that they may pass these costs onto the members.

- BCPS did not evaluate the roofing contractors that were available through the Program of which BCPS was a member to determine which contractor provided the best value. In August 2012 the Program placed its roofing contract out for bid and in December 2012 awarded contracts to two contractors effective March 2013. One contractor was the incumbent, and previously the Program's sole roofing contractor and the other was a new contractor. We selected roofing contracts for two schools that were awarded by BCPS after the second contractor was added by the Program for review. We found that in November 2013 BCPS awarded roofing contracts for two schools to the contractor that had held the cooperative's contract for several years and who BCPS had exclusively used since 2006 and that BCPS was unaware that an additional vendor had been added by the Program. We compared both contractors' published rates and because of differences between the contractors' per unit cost rates for the same roof design, we determined that the new contractor's costs for each project would have been lower. Specifically, one roof would have cost \$722,680 less (\$1,818,999 vs. \$1,096,319) and the other roof would have cost \$496,978 less (\$1,299,470 vs. \$802,492). The cost per square foot was \$28.92 and \$25.68, respectively, for the higher priced alternatives BCPS used compared to \$17.43 and \$15.86, respectively, for the lower priced alternatives.
- Our analysis of nine BCPS roofing projects completed from August 2011 through December 2013 disclosed that the average cost of their projects was \$22.76 per square foot whereas the largest school system in the state replaced two roofs during the summer of 2013 using competitive procurements for an average cost of \$13.70 per square foot (a difference of \$9.06 per square foot). Another school system received bids for a roof replacement in April 2014 and the winning bidder's price was \$14.01 per square foot. BCPS paid this same Program vendor approximately \$31.4 million to replace 1.45 million square feet of roofing during the period from July 2010 through November 2013. We estimate that the amount paid was \$11 million greater than the recent more expensive square foot costs of approximately \$14 per square foot paid by one of the two aforementioned school systems.

We acknowledge that each roofing project is unique and structural differences and quality specifications affect the ultimate costs incurred. BCPS attributes part of the cost differential to the inclusion of annual

inspection services in BPCS contracts, which are not included in other school system roofing contracts. We question whether the cost of annual inspections would account for an appreciable increase in cost. Further, BCPS cited the frequent use of a cold asphalt application, which is a more expensive process that costs an additional \$3.00 - \$3.50 per square foot. The cold asphalt application process is considered advantageous because it results in fewer odors and does not disrupt operations when schools are in session. However, we noted that two of the nine BCPS roof projects reviewed did not use the cold asphalt application process, but still cost \$21.30 per square foot.

In December 2013, a report was issued by a consultant hired by BCPS to perform a roofing study. The purpose of the study, as indicated in the report, was to perform an investigation and comparison for BCPS between the traditional "design, bid and award, construct" process utilized by BCPS prior to 2006 (and currently used by other Maryland public school systems) for roofing replacement projects, to the current methodology of procurement of design and construction through the purchasing cooperative Program that BCPS has been using since 2006. The consultant concluded that use of the Program "to purchase roofing replacements is a sound decision and provides BCPS with the best long term solution and minimizes their involvement in management and maintenance of the roofing well over a 20 year period." The consultant's report provided a comparison of roofing costs between the second through ninth largest Maryland school systems and BCPS, which is the third largest system. However, the comparison, without explanation, did not include data for the largest Maryland school system. Furthermore, the cost per square foot reported for the other Maryland school systems listed in the report for comparative purposes did not appear to be obtained from those systems, as we could not corroborate the costs for the three systems we contacted. For these reasons, we question if the consultant's report justifies the continued use of the same vendor under the Program.

Subsequent to our audit field work, BCPS used the "design, bid and award, construct" process to obtain a vendor for a school roof replacement project. We were advised that BCPS bid this project out instead of using the purchasing cooperative Program to assess which method was more cost effective. BCPS believes the result of this bid process provides grounds to conclude that its practice of using the Program vendor is appropriate and, therefore, disagrees with our conclusion that its roofing replacement costs may be excessive. However, we believe BCPS' conclusion cannot be reliably supported.

BCPS received six bids for the project that were based on design specifications developed by an architect hired by BCPS. The lowest bid of \$1,803,350 was received from the same purchasing cooperative Program vendor that BCPS had used since 2006. During this process, BCPS also obtained a proposal for the project from the same Program vendor based on its own design specifications using the Program's pricing method. That proposal totaled \$1,672,447, which was less than the same vendor's competitive procurement bid, thus ostensibly substantiating BCPS' conclusion.

When questioned, however, BCPS acknowledged that different bid specifications were used for the two proposals from the Program vendor. Furthermore, we consulted a State agency with expertise in managing building construction and they advised us that the specifications between the competitively bid project and the project specified by the Program vendor did not appear to be comparable. For example, the specifications developed by the BPCS hired architect required five inches of insulation material whereas the specifications developed by the Program vendor under its Program proposal appear to require only three inches of insulation. We were advised by staff at the aforementioned state agency that the additional layer of insulation added increased costs to the competitively bid project not only for the insulation material itself, but also resulted in significant cost increases for the additional labor and materials to permanently raise various mechanical components and duct work in order to accommodate the increased height of the additional insulation.

Also, the architect hired by BCPS to develop the design for this roofing project's invitation for bids had used this same roofing vendor (from the Program) to develop certain technical specifications for the project, perhaps giving this roofing vendor an unfair advantage for the competitive bid process. Although not applicable to BCPS and the other public school systems, State law prohibits a person or firm who assisted in drafting specifications for a proposed project for a State agency from bidding on or assisting others in bidding on that project.²

According to the technical advice we received from the aforementioned state agency, a thorough independent technical evaluation of multiple roofing projects at BCPS needs to be performed to determine whether BCPS' use of the purchasing cooperative Program is cost efficient for the products and services being delivered by the Program's vendor.

²State Finance and Procurement Article, §5-508.

Recommendation 10

We recommend that BCPS

- a. obtain a thorough independent evaluation of the of the cost effectiveness of using the purchasing cooperative program's roofing vendors, and if those vendors continue to be used, select the vendor whose proposal provides the best value; and**
- b. adopt a policy similar to the cited State law prohibiting those involved with developing project specifications from bidding on those projects.**

Transportation Services

Background

BCPS had approximately 70,000 students eligible to receive student transportation services during fiscal year 2014. These students were transported 14.8 million route miles during the 2013-2014 school year using 781 system-owned buses and 84 contractor-owned buses. The Office of Transportation (OT) is responsible for providing transportation service to schools and school related activities, determining student transportation eligibility, and establishing school bus stops for each school. The OT has established five geographic service areas in the County. According to MSDE records, fiscal year 2014 transportation costs totaled \$60.3 million, with \$10 million (17 percent) representing payments for contracted bus services. Payments to bus contractors consist of a flat rate per mile for the route.

Finding 11

BCPS was not fully using its automated routing software to develop more efficient routes.

Analysis

Routing software BCPS purchased during fiscal year 2004 has yet to be fully implemented. Instead, the BCPS OT uses a manual routing process which involves the flow of paper documents between schools, area bus depots, and the BCPS business office. This process also involves either an assistant principal at each school or a routing assistant in one of the five geographic areas to manually determine the closest bus stop for each eligible rider.³

The lack of a system-wide route analysis could have a potentially negative impact on route efficiency. For example, our review of fiscal year 2014 bus manifests (documents that record student ridership) for 100 buses disclosed

³At the time of the audit, one of the five areas was in the process of implementing the automated routing software.

APPENDIX

BALTIMORE COUNTY PUBLIC SCHOOLS

S. Dallas Dance, Ph.D., Superintendent

6901 Charles Street

Towson, MD • 21204-3711

June 24, 2015

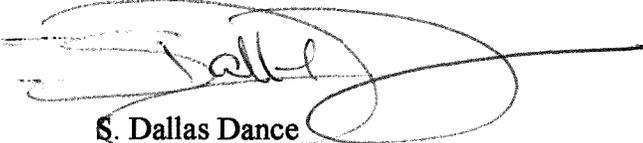
Mr. Thomas J. Barnickel III, CPA
Legislative Auditor
Department of Legislative Services
Office of Legislative Audits
Maryland General Assembly
301 West Preston Street, Room 1202
Baltimore, MD 21201

Dear Mr. Barnickel:

Enclosed is Baltimore County Public Schools' response to your Financial Management Practices Audit Report of June 2015.

Baltimore County Public Schools values your recommendations and has already implemented most of them. Our staff will continue to work on the remainder during the coming fiscal year, as indicated.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Dallas Dance", is written over a large, loopy scribble that extends across the line.

S. Dallas Dance
Superintendent

sdd/gls

Copies:

Mr. Kevin D. Smith, Chief Administrative and Operations Officer
Mr. George L. Sarris, Executive Director, Fiscal Services

Finding 1

BCPS did not adequately separate user duties on the procurement system used by schools to order supplies.

Recommendation 1

We recommend that BCPS strengthen its controls over the automated procurement system used to order supplies for schools. Specifically, we recommend that BCPS restrict user access capabilities to eliminate the ability of users to perform incompatible duties, such as initiating and approving the same procurement transactions, and limit administrator access rights to those employees requiring such access.

Response 1

The 168 employees initiating and approving requisitions are primarily school administrators. School administrators are the financial managers of their budgets and are held to high standards of accountability. The automated supply system is subject to random internal audits and regular review by the Department of Fiscal Services. Additional controls will slow the distribution of supplies to students and increase administrative costs, however, it will be piloted for consideration. BCPS will reduce the number of purchasing personnel with administrative rights.

Finding 2

BCPS did not prepare written determinations that it was in BCPS' best interest to participate in intergovernmental cooperative purchasing agreements.

Recommendation 2

We recommend that BCPS comply with State law and ensure that a written determination substantiating its use of an ICPA is prepared.

Response 2

BCPS has developed a purchasing procedure, checklist, and form for preparing written justification when presenting intergovernmental cooperative purchasing agreements from other government entities.

Finding 3

BCPS' procurement policies did not require competitive procurements for certain contractual services.

Recommendation 3

We recommend that BCPS amend its existing policies to require competitive procurement methods to be used for all contracts for services.

Response 3

BCPS complies with all applicable state, federal, and local statutes. State law is silent as to the purchase of services valued at \$25,000 or more and BCPS' Policy 3210, Purchasing Guidelines, Section VI., provides that BCPS shall have the option to issue bids, requests for proposals, or solicit price quotations for any requirements that do not require formal bids. BCPS' Rule 3210, Purchasing Guidelines, Section V., provides for the establishment of procedures for informal bids, RFPs, and price quotations and these are incorporated in Purchasing Procedure 3210.006.

Auditor's Comment:

Our report finding did not indicate non-compliance with State statutes by BCPS, but questioned the lack of a policy requiring the use of a competitive procurement process for all service contracts. A comprehensive procurement policy requiring competitive procurements for all types of purchases is a recognized best practice and it helps ensure fairness and integrity in the expenditure of public funds. Other Maryland school systems have established comprehensive policies, including competitive procurement requirements for service contracts. BCPS' apparent reluctance to establish a policy requiring competitive procurement for all service contracts is perplexing given that its procurement manual already requires it to obtain price quotes for lower cost services (that is, services valued at less than \$25,000).

Finding 4

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

Recommendation 4

We recommend that BCPS

- a. perform a documented independent review of personnel and payroll transactions,

Response 4a.

Internal controls are important and BCPS will continue to improve them and reinforce the separation between personnel and payroll functions.

- b. eliminate the capability of system users to perform incompatible functions,

Response 4b.

BCPS has removed access for Payroll staff to enter grade and step salary information for regular employees, although this has not resulted in any known inappropriate transactions. A proposed upgrade of human resources and payroll software will offer workflow enhancements that should address concerns about employee's address and direct deposit information.

- c. log all critical audit events and direct changes to critical tables, review these logs on a regular basis with appropriate investigation of unusual activity, document these reviews, and retain the documentation for subsequent verification.

Response 9c.

BCPS is in the process of hiring a full time IT Security Analyst who will be working with the various critical system administrators on setting up the necessary logging of events, and in the review and documentation of logged events to determine appropriate response actions to be taken. Database administrators of the critical systems are reviewing critical events in the log monitoring of their appropriate systems.

Finding 10

BCPS is paying a significantly higher cost per square foot for roof replacements compared to other local school systems, and could not adequately justify the rationale for its practice of using the same roofing contractor for a number of years.

Recommendation 10

We recommend that BCPS

- a. obtain a thorough independent evaluation of the of the cost effectiveness of using the purchasing cooperative program's roofing vendors, and if those vendors continue to be used, select the vendor whose proposal provides the best value;

Response 10a.

BCPS is confident that it delivers cost efficient capital projects and will work to further demonstrate this. BCPS did engage an independent consultant for the previously mentioned 2013 study. BCPS is very interested in any additional studies or reviews conducted by any state agency or independent organization that may have considered this issue or that could provide further guidance in this matter.

and

- b. adopt a policy similar to the cited State law prohibiting those involved with developing project specifications from bidding on those projects.

Response 10b.

BCPS currently complies with all applicable federal, state, and local laws and will continue to do so.