

Financial Management Practices Audit Report

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**Anne Arundel County Public Schools**

October 2019

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**OFFICE OF LEGISLATIVE AUDITS**  
DEPARTMENT OF LEGISLATIVE SERVICES  
MARYLAND GENERAL ASSEMBLY

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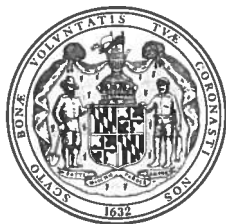
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DEPARTMENT OF LEGISLATIVE SERVICES  
OFFICE OF LEGISLATIVE AUDITS  
MARYLAND GENERAL ASSEMBLY

Victoria L. Gruber  
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Legislative Auditor

October 24, 2019

Senator Craig J. Zucker, Senate Chair, Joint Audit and Evaluation Committee  
Delegate Shelly L. Hettleman, House Chair, Joint Audit and Evaluation Committee  
Members of Joint Audit and Evaluation Committee  
Annapolis, Maryland

Ladies and Gentlemen:

We conducted an audit of the financial management practices of the Anne Arundel County Public Schools (AACPS) 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 AACPS' 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 AACPS needs to improve internal controls and accountability in certain areas, including information systems, employee and retiree health care claims and fee processing, vendor billings related to intergovernmental cooperative purchasing agreements (ICPA), and student transportation. For example, we identified significant security and control risks that existed within the AACPS computer network. Specifically, the procedures for monitoring security activities over a critical system were not sufficient and certain steps were not taken to properly secure its network.

We also found that AACPS did not ensure the accuracy of certain claim payments for employee and retiree healthcare costs, administrative fees, and prescription drug rebates. According to AACPS' records, during fiscal year 2017, healthcare expenditures totaled \$201 million, which included \$7.4 million in administrative fees. We also determined that AACPS did not always obtain vendor price lists for ICPAs to verify billed amounts on vendor invoices, and the procedures for processing student transportation invoices were inadequate to ensure the propriety of payments.

In addition, we identified certain practices which, if implemented, could provide opportunities for achieving cost savings in student transportation. Specifically, AACPS had not established comprehensive bus routing procedures that specified target bus capacities, ridership goals, and student ride-time limits. Additionally, AACPS had not performed a system-wide route analysis, and some bus routes were operating at less than 50 percent of the desired capacity. We also found that AACPS had not performed an analysis of the structure of its bus contractor procurement and payment process for almost 20 years after switching from a standard per vehicle allotment (PVA) payment methodology to a competitive procurement process. The PVA payment methodology is intended to provide the bus contractor a reasonable rate of return. Although a competitive process is usually thought of as resulting in lower costs, we noted AACPS' transportation cost per student mile of \$5.30 for fiscal year 2018 was significantly higher when compared to the \$4.01 average of the 15 local education agencies that use bus contractors for a majority of their routes and pay those contractors based on a PVA methodology.

Furthermore, AACPS had not competitively bid its third-party administrator (TPA) services for healthcare plans since at least 2004, and relied on a consultant to negotiate the best value for healthcare costs without obtaining sufficient support to document that value. We determined that AACPS might be able to achieve possible cost savings by competitively bidding for TPA services.

Finally, based on our current audit assessment of significance and risk to our audit objectives, our audit included a review to determine the status of 13 of the 15 findings contained in our preceding audit report. We determined that AACPS satisfactorily addressed 5 of these findings. The remaining 8 findings are repeated in this report.

AACPS' response to this audit is included as an appendix to this report. We reviewed the response and noted general agreement to our findings and related recommendations, and we will advise the Joint Audit and Evaluation Committee of any outstanding issues that we cannot resolve with AACPS. In accordance with our policy, we have redacted the names of any private companies or products mentioned by AACPS in this document.

We wish to acknowledge the cooperation extended to us during our audit by AACPS. We also wish to acknowledge AACPS' willingness to address the audit issues and to implement appropriate corrective actions.

Respectfully submitted,

A handwritten signature in black ink that reads "Gregory A. Hook". The signature is written in a cursive style with a large, prominent initial 'G'.

Gregory A. Hook, CPA  
Legislative Auditor



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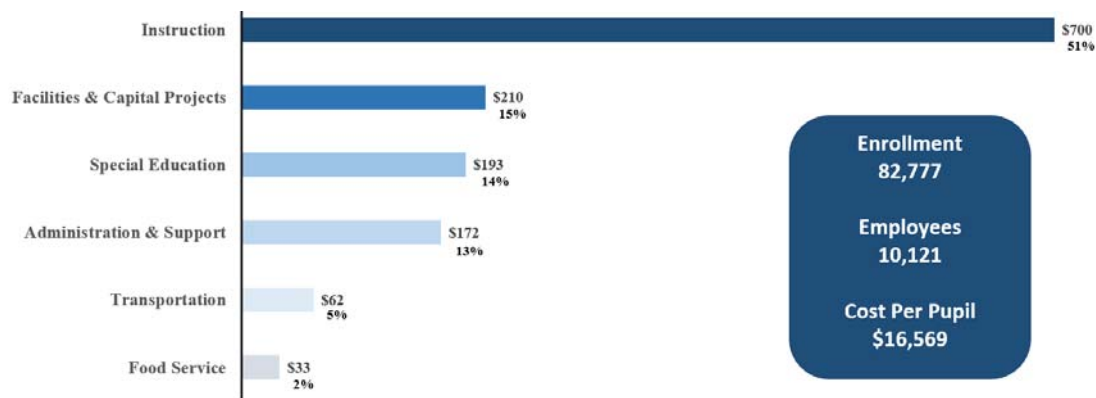
# Background Information

## Statistical Overview

According to student enrollment records compiled by the Maryland State Department of Education (MSDE), Anne Arundel County Public Schools (AACPS) ranks 4<sup>th</sup> in student enrollment among the 24 public school systems in Maryland. Fiscal year 2018 full-time student enrollment was 82,777 students. AACPS has 130 schools, consisting of 79 elementary schools, 19 middle schools, 12 high schools, and 20 other types of schools (including vocational, outdoor, special education, training centers, and charter/contract schools).

According to AACPS' audited financial statements, fiscal year 2017 expenditures were approximately \$1.37 billion and revenues were approximately \$1.28 billion. The largest expenditure category was salaries and wages, including benefits, which accounted for approximately 74 percent of total expenditures during fiscal year 2017. According to MSDE records, during the 2017-2018 school year, AACPS had 10,121 full-time equivalent positions, which consisted of 7,310 instructional and 2,811 non-instructional positions.

**Table 1**  
**AACPS Expenditures by Category and Selected Statistical Data**  
**Fiscal Year 2017**  
**(amounts in millions)**



**Source:** AACPS' Fiscal Year 2017 Audited Financial Statements and MSDE Data

## **Oversight**

AACPS is governed by a local school board, presently consisting of four elected members, four members appointed by the Governor, and one voting student member. The State and the Anne Arundel County government provide the vast majority of AACPS 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 AACPS to comply with the requirements and mandates of federal law. Anne Arundel County government exercises authority over AACPS primarily through the review and approval of AACPS' annual operating and capital budgets.

## **External Audits**

AACPS engages a certified public accounting firm to independently audit its annual financial statements. Additionally, the auditor conducts what is referred to as a Single Audit of AACPS' federal grant programs (as required by federal regulations). We reviewed the resulting financial statement audit and Single Audit reports for fiscal years 2013 through 2017, and examined the related work papers for fiscal year 2017, which were the latest available at the time we performed our audit field work.

There were similarities between the work of the independent certified public accounting firm that audited AACPS' financial statements and conducted the Single Audit, and the risks and scope of our audit in certain areas. As a result, we reduced the scope of our audit work related to State and local government revenues received via wire transfer, accounts receivable, and federal grant activity.

## **Status of Findings From Preceding Audit Report**

Based on our current assessment of significance and risk relative to our audit objectives, our audit included a review to determine the status of 13 of the 15 findings contained in our preceding audit report dated June 25, 2014. As disclosed in the following table, we determined that AACPS satisfactorily addressed 5 of these findings. The remaining 8 findings are repeated in 6 findings in this report as noted in the following table.

**Table 2**  
**Status of Preceding Findings**

<b>Preceding Finding</b>	<b>Finding Description</b>	<b>Implementation Status</b>
Finding 1	AACPS did not use available features of its automated accounts payable and procurement system to restrict and monitor user capabilities.	Not repeated
Finding 2	AACPS did not adequately monitor a contract to develop an automated human resources and payroll system.	Not repeated
Finding 3	AACPS did not thoroughly evaluate purchasing card assignments to reduce the number of unnecessary cards.	Not repeated (Not followed up on)
Finding 4	AACPS did not ensure the propriety of payments for employee and retiree health care costs.	<b>Repeated</b> (Current Finding 10)
Finding 5	Certain users were assigned unneeded capabilities in the automated human resources and payroll system and reports of personnel and payroll changes were not comprehensive.	Not repeated
Finding 6	The AACPS equipment inventory policies lacked specificity and a complete physical inventory had not been performed.	<b>Repeated</b> (Current Finding 2)
Finding 7	The AACPS detail equipment records were not always accurate and comprehensive.	<b>Repeated</b> (Current Finding 2)
Finding 8	Access and monitoring controls over critical databases and applications were not sufficient to protect critical data.	<b>Repeated</b> (Current Finding 3)
Finding 9	Administrative access to the AACPS network was not adequately controlled and audit policies for monitoring the security of certain critical servers were not in effect.	Not repeated
Finding 10	Malware protection on the AACPS workstations was not comprehensive.	Not repeated
Finding 11	The AACPS network was not properly secured.	<b>Repeated</b> (Current Finding 4)
Finding 12	AACPS did not have formal targets and goals for revising bus routes or use automated routing software to improve route efficiency.	<b>Repeated</b> (Current Finding 5)
Finding 13	Procedures and controls were not sufficient to ensure that contractors were paid the proper amounts.	<b>Repeated</b> (Current Finding 7)
Finding 14	Payments to contractors for bus transportation were not always properly calculated and were not always in compliance with the contract terms.	<b>Repeated</b> (Current Finding 7)
Finding 15	Cash receipt duties were not properly segregated since transactions could be voided by cashiers without independent review or approval.	Not repeated (Not followed up on)

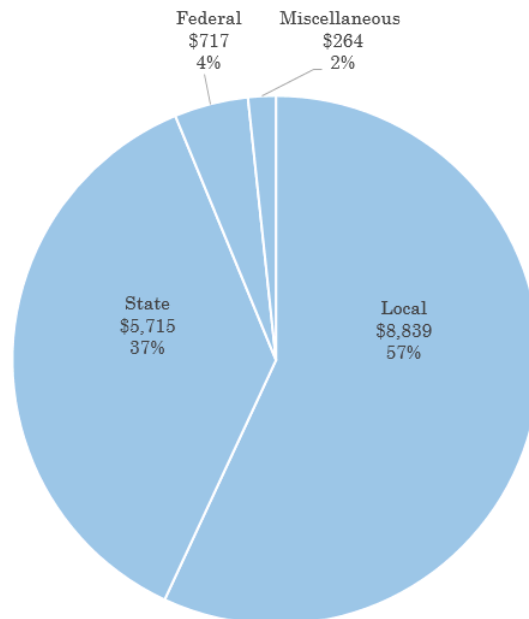
## Findings and Recommendations

### Revenue and Billing Cycle

#### Background

Anne Arundel County Public Schools (AACPS) revenues consist primarily of funds received from Anne Arundel County, the State, and the federal government. According to AACPS' audited financial statements, revenues from all sources totaled approximately \$1.28 billion during fiscal year 2017, including \$473 million from the State. See Table 3 below for AACPS' revenue sources per enrolled student in fiscal year 2017 according to its audited financial statements.

**Table 3**  
**AACPS Revenue Sources Per Enrolled Student**  
**Fiscal Year 2017**



Source: AACPS' Audited Financial Statements and MSDE Data

In addition, schools collect funds for other 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, AACPS has a fiduciary duty to safeguard these funds. For fiscal year 2017, school activity fund collections totaled \$14.3 million, and the June 30, 2017 balance was \$9.4 million.

### **External Audits**

There were similarities between the work of the independent certified public accounting firm that audited AACPS' financial statements and our audit objectives of certain revenue activities. As a result, we reduced the scope of our audit work related to State and local government revenues received via wire transfer and accounts receivable, for which the auditor's procedural review and testing disclosed no material weaknesses or significant deficiencies.

### **Reviews of School Activity Funds**

AACPS' internal auditor conducts audits of school activity funds to determine whether proper controls have been established over collections and disbursements, and whether funds have been properly accounted for. The internal auditor audits all schools' activity funds on a two-year rotating basis, reports to the Board, and reports its findings to the school principals and central administrative staff. The audits of school activity funds at AACPS schools identified some control weaknesses at certain schools that, according to the audit reports, are being addressed by school management. The internal audit reports we reviewed disclosed that internal control weaknesses identified were not prevalent. As a result of the work of the internal auditor, we reduced the scope of our audit work related to school activity funds.

### **Conclusion**

Based on our current assessment of significance and risk relative to our audit objectives, and in consideration of the work of the independent certified public accounting firm and AACPS' internal auditor, we relied on the work of these other auditors to provide audit coverage pertaining to the procedures and controls related to the accounting for and safeguarding of cash receipts with respect to revenue and billing.

## **Federal Funds**

### **Background**

AACPS receives funds pertaining to federal government programs that are generally restricted for use for a specified program (such as the School Lunch Program or Special Education). According to the audited Schedule of Expenditures of Federal Awards in the AACPS Single Audit, fiscal year 2017 federal expenditures totaled \$55.8 million, not including federally funded fee-for-

service programs such as Medicaid reimbursement for special education services. According to the audited financial statements, AACPS received approximately \$2.5 million in Medicaid funding during fiscal year 2017.

### **Single Audit Report Disclosed Some Significant Deficiencies But No Material Weaknesses Regarding Federal Grant Management**

There were similarities in the work performed by the independent certified public accounting firm that conducted the Single Audits of AACPS' federal grants and the objectives of our audit in this area. In addition to expressing an opinion on AACPS' compliance with the terms of several grant programs, the auditor also considered the existing internal control structure's impact on compliance and audited the Schedule of Expenditures of Federal Awards (which includes claimed and reported grant expenditures) for fiscal year 2017.

The related report stated that AACPS 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 auditor identified two significant deficiencies that were not considered to be material weaknesses for fiscal year 2017. AACPS generally agreed to take corrective actions to correct these deficiencies.

### **Conclusion**

Based on our current assessment of significance and risk relative to our audit objectives, and in consideration of the work performed by the independent certified public accounting firm that conducted the Single Audits, we relied on the work of the firm pertaining to policies, procedures, and controls with respect to federal grants and expenditures.

## **Procurement and Disbursement Cycle**

### **Background**

According to the audited financial statements and AACPS' records, non-payroll disbursements totaled \$364 million during fiscal year 2017. AACPS uses a combination of automated and manual processes to process requisitions, purchase orders, invoices, and payments to vendors. The Procurement Department creates purchase orders based on requests from departments. All purchase orders must be approved by the Supervisor of Purchasing. Invoices are to be submitted by vendors directly to the Finance Office. The receipt of goods and services is confirmed by the requesting department before payments are processed by the Finance Office. The Finance Office uses an automated system to print vendor

checks or transfer the funds electronically and to post the payments to the financial records.

AACPS' written procurement policies require that procurements exceeding \$25,000 be competitively bid in accordance with Section 5-112 of the Education Article of the Annotated Code of Maryland. Contracts and agreements exceeding \$100,000 are required to be approved by the Board. The Procurement Department reports each contract and agreement valued at more than \$25,000 but less than \$100,000 to the Board for informational purposes.

**Finding 1**

**AACPS did not always obtain price lists from intergovernmental cooperative purchasing agreement (ICPA) vendors to verify invoices.**

**Analysis**

AACPS did not always obtain price lists from ICPA vendors to verify invoices. According to its records, during the period from January 2013 through July 2018, AACPS had 430 active ICPAs.

We tested six procurements of goods and services using ICPAs for fiscal years 2014 through 2018 with contract awards totaling \$15.4 million. Our test disclosed that AACPS documented that the ICPAs were procured by other government entities using published solicitations (as part of a competitive bidding process) and completed an ICPA benefit assessment form for each of the ICPAs, as required by applicable State procurement laws. However, we noted that AACPS had not obtained price lists for four ICPAs totaling \$13.7 million and, therefore, could not verify the accuracy of vendor billings. We obtained price lists and conducted limited testing of invoices totaling \$2.1 million paid to these four vendors during fiscal years 2017 and 2018. While our testing did not disclose any discrepancies, without these price lists, AACPS cannot ensure the propriety of the vendor invoices.

As defined by Section 13-110 of the State Finance and Procurement Article of the Annotated Code of Maryland, an ICPA is a contract entered into by at least one governmental entity that is available for use by this governmental entity and at least one additional governmental entity. ICPAs are intended to promote efficiency and savings.

**Recommendation 1**

**We recommend that AACPS ensure that price lists are obtained from ICPA vendors and used to verify the propriety of billed vendor costs.**

## Human Resources and Payroll

### Background

Payroll expense represents the largest single cost component in the AACPS budget. According to AACPS' records, fiscal year 2017 salary, wage, and benefit costs were approximately \$1 billion, representing approximately 74 percent of the total expenditures. According to Maryland State Department of Education reports, during the 2017 – 2018 school year AACPS had 10,121 full-time positions, which consisted of 7,310 instructional positions and 2,811 non-instructional positions.

### Conclusion

Our audit did not disclose any significant deficiencies in the design or operation of AACPS' internal control over the human resources and payroll areas of operations. Our audit also did not disclose any significant instances of noncompliance with applicable laws, rules, or regulations.

## Equipment Control and Accountability

### Background

According to AACPS' audited financial statements, the undepreciated value of its capital equipment inventory totaled approximately \$50.2 million as of June 30, 2017. AACPS maintains centralized automated records for equipment inventory with a cost of \$5,000 or more (including assets capitalized for financial statement purposes) and items designated to be sensitive (highly prone to theft, regardless of cost). In addition, certain information technology items (desktops, laptops, tablets) are also recorded on separate inventory records maintained by each school where the items are located.

### **Finding 2**

**AACPS' equipment record keeping policies were not comprehensive, detail records were incomplete, and physical inventories were not conducted.**

### Analysis

AACPS' equipment record keeping policies were not comprehensive, detail records were incomplete, and physical inventories were not conducted.

- AACPS' equipment record keeping policies did not specify that cost and purchase date information should be recorded for items added to the detail equipment records.

- The centralized detail records were incomplete. Our comparison of the centralized equipment records with the information technology (IT) records separately maintained by six judgmentally selected schools disclosed that approximately 6,200 of the approximate 10,000 IT items (62 percent) were not included on the centralized equipment records as required by AACPS equipment policy.
- Although the general equipment policies required that AACPS' affixed property bar code numbers be recorded in the centralized detail equipment records, our review of these records disclosed that property bar code numbers were missing for most of the items purchased during fiscal years 2015, 2016, and 2017. Specifically, bar codes were missing for 58,003 of the 58,416 equipment items (99 percent) purchased, which included IT and non-IT items.
- AACPS had not established a formal comprehensive plan to ensure that all equipment items had been inventoried once every three years as required by its policy. Property control personnel conducted various on-site inventory spot checks of selected items or requested the schools to report counts of designated categories of items on hand. Although these efforts were recorded on a spreadsheet, these records were insufficient to ensure all items were inventoried over the three-year cycle. We found that all recorded items were not subject to a physical inventory, nor was there a documented reconciliation performed between the physical inventory results and centralized equipment records.

As a result of the deficiencies cited above, equipment could be lost or misappropriated without detection. Similar conditions regarding the failure to maintain complete equipment records and perform complete physical inventories were commented upon in our two preceding audit reports.

## **Recommendation 2**

**We recommend that AACPS**

- enhance equipment record keeping policies to require the recording of the purchase date and cost;**
- ensure that all equipment items are recorded in the detail records (repeat);**
- ensure that the detail records include required identifying bar code numbers (repeat); and**
- establish a comprehensive plan to ensure all equipment items are inventoried once every three years and reconciled to the detail records, as required by its policy (repeat).**

## Information Technology

### Background

AACPS' Technology Division, aided by other AACPS offices, maintains and administers the AACPS computer network, computer operations, and information system applications. AACPS operates a wide area network with Internet connectivity, which connects the individual schools' local networks to the computer resources located at AACPS' headquarters. The Division maintains a primary data center at the headquarters location in which numerous computer servers and network devices operate to support AACPS information system applications, including its student information system (containing attendance and grades), and finance management system, and human resources/payroll applications (all of which contain personally identifiable information).

### Finding 3

**AACPS' procedures for logging and monitoring its critical student information system database's security events were not sufficient.**

### Analysis

AACPS' procedures for logging and monitoring its critical student information system database's security events were not sufficient. For the student information system database, numerous critical security and audit events (for example, database grant, revoke, or deny events, and changes to database roles or audit settings) were logged using multiple methods (the methods did not create duplicate records of the same events). However, our review determined that logging records created from one method were only reviewed by the system's database administrator who lacked independence given their duties as the database administrator, and these reviews were not regularly documented. Additionally, logging records created using another method were not regularly reviewed and were also subject to being regularly overwritten.

Accordingly, unauthorized changes to this critical database could occur that could result in inappropriate changes to production data without detection by management. Best practices identified in the State of Maryland *Information Technology Security Manual* require that information systems must generate audit records for all security-relevant events, and procedures must be developed to routinely (for example real time or weekly) review audit records for indications of inappropriate activities and report findings to appropriate officials for prompt resolution.

### **Recommendation 3**

**We recommend that AACPS log critical student information system database security and audit related events, regularly generate reports of these logged events, perform independent reviews of these reports on a timely basis, and document and retain these reviews for future reference (repeat).**

#### **Finding 4**

**Thirty-one publicly accessible servers were improperly located within the internal network, and AACPS' network resources were not secured against improper access from high school students using school computer labs and media centers.**

#### **Analysis**

AACPS' computer network was not adequately secured. We noted the following conditions affecting network security.

- Thirty-one publicly accessible servers were located in the AACPS internal network rather than being isolated in a separate protected network zone to minimize security risks. These servers, if compromised, could expose the internal network to attack from external sources. Best practices, identified in the *Information Technology Security Manual* require that publicly accessible servers reside in an external protected network zone to safeguard those servers as well as the entity's internal network.
- AACPS did not adequately secure its internal network, which contains significant amounts of confidential information recorded within various administrative systems, from improper network-level access from AACPS students in 12 high schools using either computer lab workstations or media center workstations. AACPS did not use network access control software or network-level traffic filtering to protect its network from activity emanating from these workstations. Student access from these workstations should be limited to devices and ports necessary for these students to perform required tasks. Best practices identified in the *Information Technology Security Manual* require that boundary protection be used for information systems interfaces to protect the confidentiality and integrity of information, while employing the concept of least privilege to allow only authorized access to users needed to accomplish tasks in accordance with entity business functions.

Similar conditions regarding the network placement of publicly accessible servers and the unrestricted network access allowed for high school students were commented upon in our preceding audit report.

#### **Recommendation 4**

**We recommend that AACPS**

- a. relocate all publicly accessible servers to a separate protected network zone to limit security exposures to the internal network segment (repeat), and**
- b. restrict student network-level access to only authorized local school and headquarters network resources (repeat).**

### **Facilities Construction, Renovation, and Maintenance**

#### **Background**

AACPS employs a staff of 935 employees to maintain 126 of its 130 schools (including vocational, outdoor, special education, and training centers) and a number of other facilities (such as administrative and support offices). AACPS' 4 charter/ contract schools are maintained by the operators of those schools. According to its fiscal year 2018 Capital Budget Plan, necessary construction, major renovations, and systemic improvements to AACPS' facilities over the next six years are estimated to cost approximately \$1.4 billion.

#### **AACPS Capital Projects Were Competitively Procured and Related Expenditures Were Generally Properly Supported**

Our review of five construction-related procurements made during fiscal years 2014 through 2018, totaling \$46.6 million, disclosed they were competitively procured and the contracts were properly awarded. Our test of 15 invoices totaling \$9.5 million for these contracts disclosed that, generally, the invoices were properly reviewed and approved, and the amounts invoiced were in accordance with the related contract terms.

#### **Processes Were in Place to Minimize Energy Costs**

AACPS employs a utility systems program manager and maintains a separate energy conservation division consisting of four full-time employees. AACPS also has processes in place to minimize energy costs. For example, AACPS participates in a regional energy company's cost savings program. In addition, AACPS uses energy management systems to monitor heating and air conditioning systems from a central location to control temperature settings. AACPS also publishes energy conservation guidelines biannually that encourage employees to be aware of and limit their energy use. Finally, in February 2016, AACPS executed a 20-year solar power purchasing agreement to help offset energy cost at nine facilities. According to AACPS' records, electrical and solar energy costs from fiscal years 2017 to 2018 have declined by 16 percent from \$17.5 million to \$14.8 million.

## **Conclusion**

Our audit did not disclose any significant deficiencies in the design or operation of AACPS' internal control over the facilities construction, renovation, and maintenance areas of operations. Our audit also did not disclose any significant instances of noncompliance with applicable laws, rules, or regulations.

## **Transportation Services**

### **Background**

AACPS has approximately 61,000 students eligible to receive transportation services. These students were transported on 550 contractor-owned buses and 54 system-owned buses during fiscal year 2018. According to AACPS financial records, fiscal year 2017 transportation costs totaled \$56 million, with \$48.2 million (86 percent) representing payments for contracted bus services. AACPS reported that 10.7 million route miles were traveled to transport students for the 2017-2018 school year.

AACPS uses a bidding process to award routes to contractors based on the lowest competitive bid that specifies several cost components, including an annual fixed rate, hourly rates for drivers and aides, and per mile maintenance and fuel rates. AACPS calculates the lowest bid for the 12-year life of a bus based on a standard number of hours and miles contained in the request for bids. Payments to bus contractors are based on the contractor bid and actual mileage and time.

### **Finding 5**

**AACPS had not established comprehensive bus routing procedures and did not periodically perform a system-wide analysis of routes and related bus capacities to maximize efficiency.**

### **Analysis**

AACPS had not established comprehensive bus routing procedures that specified target bus capacities, ridership goals, and student ride-time limits. In addition, AACPS had not performed a system-wide analysis of bus routes and related bus capacities to maximize the efficiency of its bus routes and address bus routes with low ridership.

Although AACPS owned an automated bus routing software tool, procured after being recommended during our preceding audit, it did not fully use this tool to identify alternative routes, route consolidations, or bus stop consolidations that might reduce costs. Instead, AACPS transportation department employees reviewed existing individual bus routes annually and, as needed, throughout the

year, and manually made modifications to accommodate students' school assignments, and to address road construction and other issues. Consequently, routes may be inefficiently designed and could result in significantly underutilized capacity on individual buses and in operating more buses than necessary to fulfill AACPS' transportation needs.

Our analysis of the routing system data disclosed that there might be opportunities to increase ridership on certain bus routes. Our review of routing system data for 69 of the 550 regular contractor buses for the 2017-2018 school year disclosed that 139 of the 170 reviewed routes were designed to transport students at less than 75 percent of customary capacity goals, including 68 routes that transported students at less than 50 percent of bus capacity based on bus size.<sup>1</sup> While we recognize that Anne Arundel county includes some rural areas (such as, south county), which can make it difficult to maximize ridership in all cases, our analysis primarily focused on highly populated areas.

Similar conditions were commented upon in our two preceding audit reports. In response to our preceding audit report, AACPS agreed that obtaining and implementing an automated routing software package could potentially result in greater routing efficiency.

#### **Recommendation 5**

**We recommend that AACPS take steps to use its buses more efficiently.**

**Specifically, we recommend that AACPS**

- a. establish comprehensive bus routing procedures that specify target bus capacities, ridership goals, and student ride-time limits (repeat); and**
- b. use its automated bus routing software to periodically perform a system-wide analysis of bus routes to maximize the ridership on its bus routes (repeat).**

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<sup>1</sup> It is customary for school target bus capacities to be lower than (a percentage of) manufacturer stated capacities and for capacities to differ depending on the school level. For example, the customary capacity we calculated based on those used by similarly sized schools for high, middle, and elementary school routes is 44, 54, and 61 students, respectively based on 72-passenger buses (manufacturer stated capacity).

**Finding 6****AACPS did not periodically re-evaluate the cost-effectiveness of its method for procuring and paying bus contractors.****Analysis**

AACPS did not periodically re-evaluate the cost-effectiveness of its method used to procure and pay bus contractors. Since the 1999 school year, AACPS has used a competitive bid process to award bus routes to contractors. Specifically, AACPS currently bids out clusters of pre-determined bus routes to 17 local bus contractors. Four of the 17 bus contractors are responsible for a majority of the routes. Prior to the 1999 school year, AACPS made payments to contractors based on a longstanding methodology that included a per vehicle allotment (PVA). The PVA methodology is based on bus prices increased by some specified return on investment percentage, hours of operation, and maintenance costs; a similar method is still used by 15 of the 18 LEAs that contract out their student transportation services. In our 2007 audit report, we commented that, for AACPS' bus transportation contracts awarded in January 2006, AACPS asserted that for the route clusters awarded under the competitive bid process there would be a \$1.1 million savings over the life of the contract when compared with the prior PVA method. We did not verify the aforementioned claimed cost savings, and also noted in our 2007 audit report that AACPS subsequently increased the hourly rates paid to bus drivers; which we stated "appeared to effectively undermine the benefits of the competitive process under which they were procured".

Nevertheless, according to recent statistics compiled by MSDE, AACPS is the largest of the 18 LEAs that contracted for the majority of their bus transportation services. Although AACPS' transportation cost per mile (\$5.30) was the lowest of the three LEAs that competitively bid out bus routes, the remaining 15 LEAs used a PVA payment methodology for their bus contractors and their cost per mile ranged from \$2.98 to \$4.89, with an average cost per mile of \$4.01.<sup>2</sup> As AACPS has not conducted a recent cost effectiveness study, these statistics indicate it might be possible for AACPS to achieve costs savings by switching to a PVA payment methodology for bus contractors.

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<sup>2</sup> During our audits of a number of LEAs using the PVA payment process, we have commented on the possibly excessively high return on investment percentage paid to bus contractors. Even with the potentially excessive rates of return, the MSDE statistics indicate that the PVA method could still be more cost effective than AACPS' current competitive procurement process.

## **Recommendation 6**

**We recommend AACPS establish a process to periodically evaluate the comparative cost-effectiveness of a PVA payment methodology for bus contractors versus competitively bidding for bus routes.**

### **Finding 7**

**Procedures and controls were not sufficient to ensure that bus contractors were paid the proper amounts.**

### **Analysis**

Procedures and controls were not sufficient to ensure that bus contractors were paid the proper amounts based on the awarded contractor bids and actual mileage driven and hours worked. AACPS used an automated bus contractor payment system to process contractor payments. According to AACPS' financial records, payments to bus contractors totaled \$48.2 million in fiscal year 2017.

- The bus contractor payment components that were entered into its bus contractor payment system by AACPS employees were not subject to independent review to ensure accuracy. Specifically, although another employee performed reviews of the data entered, this employee was not independent as they could also change the same data in the system. The payment components include the agreed-upon rates from the winning bids, the annual contractually required cost-of-living adjustments to labor rates, monthly fuel prices, and the base number of miles driven and hours worked.
- A documented verification to ensure the accuracy of hours worked and mileage reported by bus contractors on route manifests was not performed. We noted that significant changes in reported hours and mileage components occurred and were recorded in the system, affecting subsequent payments.
- Access capabilities assigned to individuals on the bus contractor payment system were not periodically reviewed. We identified seven individuals (four AACPS employees and three employees of the vendor operating the bus contractor payment system) who could record adjustments to contractor pay data even though their job functions did not require this capability. Ten additional individuals (nine AACPS employees and one vendor employee) had unnecessary access to process contractor payments. Finally, one of these ten employees was assigned multiple userids.

Similar conditions regarding controls over changes to the data in the automated bus contractor payment system were commented upon in our two preceding audit

reports. Similar conditions regarding verification of hours worked and mileage reported, and unnecessary access capabilities were commented upon in our preceding audit report.

#### **Recommendation 7**

**We recommend that AACPS establish adequate controls over the processing of bus contractor payments to ensure their accuracy and consistency with contract terms. Specifically, we recommend that AACPS**

- a. ensure that an independent employee verifies that data entered into the contractor payment system agrees to source documents, at least on a test basis (repeat);**
- b. verify the time and mileage reports received from the contractors to actual mileage and driver hours required for the specific bus routes (repeat);**
- c. periodically review the propriety of system access; and**
- d. eliminate payment system access for individuals who do not require assigned access to perform their duties and ensure users have unique userids (repeat).**

## **Food Services**

### **Background**

AACPS has a cooking cafeteria at 116 of its schools. Food and related supplies are received and stored in each school. According to MSDE records, AACPS had 272 cafeteria positions (consisting of 266 cafeteria positions and 6 administrative positions) in fiscal year 2018.

### **Conclusion**

Based on our current assessment of significance and risk relative to our audit objectives, our audit did not include a review of policies, procedures, and controls with respect to the Food Services area of operations.

## **School Board Oversight**

### **Background**

The Anne Arundel County Board of Education (the Board) is composed of four elected members, four members appointed by the Governor for a five-year term, and one student voting member elected by county students appointed for a one-

year term.<sup>3</sup> In its oversight responsibilities, the Board contracted with a certified public accounting firm for independent audits of the AACPS financial statements and federal programs. The Board has standing committees for budget and policy and within the committee structure, individual members are periodically informed of, and become involved with, all other aspects of operations and governance.

The AACPS Board has adopted a detailed ethics policy that conforms to State law and includes provisions for conflicts of interest and financial disclosure and was approved by the State Ethics Commission. Provisions of this policy are applicable to Board members as well as all AACPS employees. AACPS established an Ethics Panel consisting of five members who are appointed by the Board 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 agency buyers) by April 30th of each year.

### **Conclusion**

Based on our current assessment of significance and risk relative to our audit objectives, our audit did not include a review of AACPS' general policies, procedures, and controls with respect to the School Board Oversight area of operations.

## **Management of Other Risks**

### **Healthcare Background**

AACPS is self-insured and uses a third-party administrator (TPA) to oversee and administer its employee and retiree healthcare plans. Specifically, for medical coverage, AACPS contracts with a TPA to provide administrative services, such as claims processing for participants' medical, vision, pharmacy, and dental costs. Medical providers submit claims to the TPA who pays on behalf of AACPS. AACPS reimburses the TPA for the claims it reports as paid on behalf of AACPS and pays an administrative fee for these services. According to AACPS' records, healthcare expenditures totaled \$201 million in fiscal year 2017, including administrative fees totaling \$7.4 million.

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<sup>3</sup> Effective June 1, 2017, the Board selection process was changed from all members being appointed by the Governor to the current split process. Beginning in 2020, the non-student member selection process will transition to all elected members and the number will be reduced from eight to seven members.

AACPS contracts with a consultant to help manage the health plans. The consultant performs data analysis of the utilization of health services and costs, provides recommendations on potential rate changes, and evaluates the merits of the health plan proposals. As of July 31, 2018, according to the TPA's records, AACPS provided health insurance benefits to 31,600 enrolled employees, dependents, and retirees.

**Finding 8**

**AACPS had not competitively bid its TPA services since at least 2004, and relied on a consultant to negotiate the best value for healthcare costs.**

**Analysis**

AACPS had not competitively bid its TPA services for healthcare plans since at least 2004 (15 years). AACPS advised us that it continues to use the same TPA based on the recommendation of its consultant who negotiates with the TPA on AACPS' behalf. However, this recommendation dates back to 2005. Our comparison of administrative fees for AACPS' TPA with a similar plan for another comparably sized school system, which competitively bid for these services disclosed that AACPS's costs were significantly higher.

Specifically, in October 2005 the consultant recommended to AACPS that it continue with its current TPA since other TPAs would not submit proposals if AACPS competitively bid its services. AACPS provided us with email correspondence from its consultant from 2005, which stated that three other TPAs would not bid on AACPS healthcare services unless certain changes were made to an existing employee union agreement provision, which was incorporated into the TPA contract. Thus, AACPS believes that the existing employee union contract provision, designed to ensure that employee costs for the use of out-of-network providers do not increase, has been a barrier to full and open competition for these services. AACPS believes that conducting a competitive procurement is likely to result in higher overall health care costs because of the financial risk associated with this contract provision.

We were not readily able to determine the existence of the similar contract provision (that created claimed barriers to a competitive procurement) at other local education agencies (LEAs). Our review of 11 other LEAs determined that, while various procurement methods were used for TPA contracts for healthcare plans, 6 LEAs used a competitive bidding process in an effort to achieve the best value for healthcare costs. We compared the TPA administrative fees for AACPS' most comprehensive medical, vision, pharmacy, and dental coverage plan with a similar plan for one of these LEAs of comparable size that competitively bid for TPA services. This comparison disclosed that AACPS' cost

was approximately \$6 more per participant per month, which we estimated would result in approximately \$740,000 in higher costs to AACPS annually for members enrolled in the comprehensive plan coverage. Therefore, there may be opportunities to achieve cost savings through a competitive bidding process.

During AACPS's most recent negotiated procurement with its TPA for medical and pharmacy health care services, AACPS advised the Board that the TPA's terms were equivalent to or better than those offered to comparable schools in the region based on documentation from its consultant that did not specify which school systems were used in the comparison. (See Finding 9 for additional comments regarding AACPS' execution of the current TPA health services contract.) Additionally, AACPS represented to the Board that, according to its consultant, overall cost savings on the prescription drug benefit claims were estimated at \$16.9 million over the three-year contract period through prescription drug rebates. However, in response to our inquiry, AACPS could not provide support for the aforementioned information presented to the Board.

The Government Finance Officers Association's best practices recommend that requests for proposals be issued periodically (such as every few years) for healthcare plans to test the market and ensure that competitive pricing is obtained.

#### **Recommendation 8**

**We recommend that AACPS ensure and document that it is obtaining the best value for its employee and retiree healthcare TPA services. For example, AACPS should periodically competitively bid for TPA services or document the justification for not obtaining such bids.**

#### **Finding 9**

**AACPS did not maintain a current contract to support TPA payments for its healthcare services.**

#### **Analysis**

AACPS did not maintain a current contract to support TPA payments for its healthcare services. As of September 2018, AACPS' calendar year 2018 health plans were operating without an executed TPA contract. The prior TPA contract had expired on December 31, 2017 and AACPS' consultant was in the process of negotiating the rates for the 2018 plan year. As a result, AACPS was billed for health claim reimbursements without any governing terms and with fees at rates that were not supported by an executed contract. Further, although the parties were supposed to be operating under an informal verbal extension of the previous contract, the TPA billed administrative fees for retired employee prescription

claims that were not provided for in the prior contract. Establishing all financial terms and conditions in written contractual agreements is essential in order to define the duties and responsibilities of the parties and to protect each party in the event of default or nonperformance.

After we discussed this with AACPS management during the audit, AACPS procurement personnel executed the new TPA contract during the third week of September 2018. This new TPA contract covered the three-year period from January 1, 2018 to December 31, 2020 at a cost of \$20.9 million for administrative fees. AACPS paid the TPA approximately \$130.9 million for reimbursement of health care claims and \$4.7 million for administrative fees, including \$460,000 for retiree prescription administrative fees, during the period from January 2018 to August 2018 without an executed contract, which exposed AACPS to unnecessary risks regarding its health care costs.

**Recommendation 9**

**We recommend that AACPS ensure that written contracts are executed timely and clearly define all terms and conditions including the duties and responsibilities of the parties.**

**Finding 10**  
**AACPS did not adequately monitor the TPA's performance.**

**Analysis**

AACPS did not ensure the propriety of certain claim payments made by the TPA for employee and retiree healthcare costs, as well as TPA administrative fees and the receipt of prescription drug rebates. Additionally, audits of TPA performance measures, which had liquidated damage provisions, were not performed by AACPS.

Verification of Claim Payments, Administrative Fees, and Prescription Drug Rebates

AACPS paid the TPA's invoices for plan member health care claims without verifying the amounts billed were proper. For example, AACPS was provided access to automated claims data; however, AACPS did not perform a review of the data to verify the reasonableness of the related invoice amounts.

In addition, AACPS did not ensure that administrative fees invoiced and paid were proper by comparing the number of participants from the TPA invoices to AACPS' human resources enrollment records. Our comparison of enrollment data for the period from June 2018 to November 2018 from AACPS' enrollment

system to TPA billings for those months disclosed that AACPS' average monthly enrollment of 42,900 participants exceeded TPA billings for 31,600 participants by 11,300 participants. This difference could be partly attributable to participants enrolling in more than one healthcare plan; nevertheless, AACPS had not investigated the differences.

Finally, AACPS did not have a process to ensure that it received all the prescription drug rebates from the TPA to which it was entitled. In fiscal year 2017, AACPS received prescription drug rebates from the TPA totaling \$7.6 million.

Similar conditions regarding the verification of billings, including administrative fees, were commented upon in our preceding audit report.

#### Lack of Independent Claims Audits

AACPS did not conduct or contract for independent audits of claims paid by the TPA to ensure that the billed health services were actually provided to participants, were covered by the health plans, and that amounts paid were proper. AACPS' consultant, which had negotiated with the TPA on AACPS' behalf, did conduct a TPA claims audit in 2014. However, the past and current TPA contracts did not provide for periodic independent third-party audits of the accuracy and validity of claim reimbursements and administrative fees billed by the TPA and paid by AACPS.

The State of Maryland Office of Personnel Services and Benefits (OPSB) contracts with a private firm to audit the third-party administrators of the State's health insurance, prescription drug, dental benefit, and mental health benefit plans. These audits include conducting reviews to ensure the propriety of claims paid. These reviews, which are provided for in the State's contracts with the third-party administrators, allow for the statistical projection of error rates to total claims paid, allowing the State to recoup the projected amount of erroneous claims. According to OPSB, improper payments from these reviews have consistently exceeded the cost of the reviews.

#### Verification of TPA Performance

AACPS did not ensure that the TPA met its contractual performance measures. The contract defines these measures and how they will be determined. The performance measures relate to critical operational areas, including claims adjudication accuracy, customer service, customer satisfaction, and network discounts. The contract allows for assessment of penalties (up to \$1.4 million per year) if these measures are not met. The vendor self-reported its compliance levels with these measures, resulting in assessed penalties totaling \$41,450 in

calendar years 2014 through 2018 (through September 30, 2018). However, AACPS did not have a process in place to verify the TPA's reported performance even though the contract allows for an independent audit of the performance measures if conducted within a year.

A similar condition regarding the verification of TPA performance was commented upon in our preceding audit report.

Recommended practices published by the Government Finance Officers Association state that health care cost containment is a critical component of long-term financial planning and budgeting.

#### **Recommendation 10**

**We recommend that AACPS establish procedures to verify the amounts paid for health insurance and TPA administrative fees. Specifically, we recommend that AACPS**

- a. review detail claims data to support and verify TPA billings (repeat);**
- b. establish procedures to independently verify the accuracy of healthcare claim amounts paid by the TPA, administrative fees (repeat), and prescription drug rebates, at least on a test basis;**
- c. conduct or contract for periodic independent claims audits to assess the accuracy and validity of claim reimbursements billed by the TPA; and**
- d. independently verify, on an annual basis, the TPA's reported performance measure compliance levels and assess penalties as provided for in the contract when performance goals are not met (repeat).**

#### **Finding 11**

**AACPS did not independently determine if it would be cost beneficial to purchase stop-loss medical insurance coverage.**

#### **Analysis**

AACPS did not independently determine if it would be cost beneficial to purchase stop-loss medical insurance coverage. AACPS did not have stop-loss medical insurance coverage, which would indemnify AACPS against health insurance claim amounts that exceed a certain threshold for a member. The majority of Maryland's other local education agencies have stop-loss medical insurance coverage with claims amount thresholds typically in the amount of \$300,000. AACPS had not purchased a stop-loss medical insurance coverage policy based on advice received in 2011 from its consultant. The TPA reported that, during plan year 2017, there were 10 participants with paid claims that exceeded \$350,000 and totaled approximately \$3.9 million.

**Recommendation 11**

**We recommend that AACPS independently determine if it would be cost beneficial to purchase stop-loss medical insurance coverage.**

## **Audit Scope, Objectives, and Methodology**

We conducted a performance audit to evaluate the effectiveness and efficiency of the financial management practices of the Anne Arundel County Public Schools (AACPS). 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 AACPS procedures and controls were effective in accounting for and safeguarding its assets.
2. Evaluate whether the AACPS policies provided for the efficient use of financial resources.

In planning and conducting our audit of AACPS, we focused on 11 major financial-related areas of operations as approved on December 6, 2016 by the Joint Audit and Evaluation 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 AACPS dated June 25, 2014, 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 AACPS 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 AACPS. We also interviewed personnel at AACPS and the Maryland State Department of Education (MSDE), and staff at other local school systems in Maryland (as appropriate). Our audit procedures

included inspections of documents and records, and observations of AACPS operations. We also tested transactions and performed other auditing procedures that we considered necessary to achieve our objectives, generally for the period from July 1, 2015 through June 30, 2018. Generally, transactions were selected for testing based on auditor judgment, which primarily considers risk. Unless otherwise specifically indicated, neither statistical nor non-statistical audit sampling was used to select the transactions tested. Therefore, the results of the tests cannot be used to project those results to the entire population from which the test items were selected. For certain areas within the scope of the audit, we relied on the work performed by the independent accounting firm that annually audits AACPS' financial statements and conducts the federal Single Audit, as well as AACPS' internal auditor.

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 extracted data from the AACPS automated financial management system for the purpose of testing expenditure and payroll transactions. We performed various audit procedures on the relevant data and determined the data were sufficiently reliable for the purposes the data were used during the audit.

AACPS' 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 findings were communicated to AACPS that were not deemed significant and, consequently, did not warrant inclusion in this report.

We conducted our fieldwork from July 2018 to January 2019. The AACPS 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 AACPS regarding the results of our review of its response.

## APPENDIX



ANNE ARUNDEL  
COUNTY PUBLIC SCHOOLS

2644 Riva Road, Annapolis, MD 21401 | 410-222-5000 · 301-970-8644 (WASH) · 410-222-5500 (TDD) | [www.aacps.org](http://www.aacps.org)

October 22, 2019

Mr. Gregory A. Hook, CPA  
Department of Legislative Services  
Office of Legislative Audits  
301 West Preston Street, Room 1202  
Baltimore, MD 21201

Dear Mr. Hook:

We are in receipt of the September 13, 2019, draft audit report on the Financial Management Practices of Anne Arundel County Public Schools. In consultation with the Office of Legislative Audits staff, we are furnishing your office with our revised responses to each recommendation by utilizing the requisite Agency Response Forms. We have made every effort to include a brief analysis, action plan, and estimated completion date for each item enumerated within the draft report.

I wish to once again express my gratitude for the on-going professionalism and dedication displayed by the Office of Legislative Audit staff during their engagement with Anne Arundel County Public Schools. We trust that the information provided within our revised response brings us all one step closer to closing out this project. We look forward to our continued collaboration as we mutually strive to finalize the deliverable. Should you have any additional questions or concerns in the interim, please do not hesitate to contact me at 410-222-5308 or at [aszachnowicz@aacps.org](mailto:aszachnowicz@aacps.org).

Respectfully submitted,

A handwritten signature in black ink that reads "Alex L. Szachnowicz".

Alex L. Szachnowicz, P.E.  
Chief Operating Officer

ALS/kmc

Enclosure

cc: George Arlotto, Ed.D., Superintendent  
Terry Gilleland, President, Board of Education  
Matt Stanski, Director of Financial Operations  
Krishna Bappanad, Supervisor of Finance

Anne Arundel County Public Schools

Agency Response Form

**Procurement and Disbursement Cycle**

**Finding 1**  
**AACPS did not always obtain price lists from intergovernmental cooperative purchasing agreement (ICPA) vendors to verify invoices.**

**We recommend that AACPS ensure that price lists are obtained from ICPA vendors and used to verify the propriety of billed vendor costs.**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	Vendor prices are readily available to the end users. In the Financial Secretaries Desk Book, they are advised to check contract pricing and shipping costs against the invoice or online order they are placing. For District-wide contracts like certain office supplies, custodial supplies, tablets, etc. price lists are available on the AACPS Intranet under Master Agreements. Master Agreement pricing is automatically populated for direct orders (DOs) placed in the financial system. For other frequently ordered items and services like graduation supplies, agenda books, photography, and bus transportation, the contracts are also posted on the Intranet. In other instances, the end user department has a copy of the contract and is responsible for first checking the invoice against the contract and then signing to authorize approval for payment.		
Recommendation 1	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	AACPS fully agrees that it is necessary to confirm contract pricing against invoices and online orders. This has been our past practice and AACPS will continue to obtain price lists from ICPA vendors and use them to verify propriety billing changes. We will also work with the AACPS Technology Office to further consolidate the most commonly used price lists into a central online location, including the Financial Secretaries Desk Book, making it easier for end user(s).		

Agency Response Form

**Equipment Control and Accountability**

**Finding 2**  
**AACPS' equipment record keeping policies were not comprehensive, detail records were incomplete, and physical inventories were not conducted.**

**We recommend that AACPS**

- a. enhance equipment record keeping policies to require the recording of the purchase date and cost;**
- b. ensure that all equipment items are recorded in the detail records (repeat);**
- c. ensure that the detail records include required identifying bar code numbers (repeat); and**
- d. establish a comprehensive plan to ensure all equipment items are inventoried once every three years and reconciled to the detail records, as required by its policy (repeat).**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	<p>AACPS does capture purchase date and cost information because the financial system will not allow the entry to be saved without this information. Also, it should be noted that all equipment items are recorded but in different systems. Capital (costing more than \$5,000) items, sensitive, and grant items are recorded in the financial system as they are a part of the AACPS financial reporting system. Technology items such as tablets, laptops, etc. are recorded in a separate system maintained by Technology staff.</p> <p>All items, except for leased desktop computers, are bar coded. Leased desktop computers are not bar coded because they have stamped serial number labels that are readable/scannable. Bar coding leased computers would serve no purpose since the stamped serial numbers can be scanned.</p> <p>Technology conducts an annual inventory of all IT equipment. Property Control does spot check IT inventories to check the validity of their records.</p>		
Recommendation 2a	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	We will add verbiage to the Property Control Manual and to Regulation DDH-RA Property Control & Accountability confirming that this information must be captured.		

Anne Arundel County Public Schools

Agency Response Form

Recommendation 2b	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	Sensitive, capital and grant items (technology related) are recorded in the financial system. In addition, leased desktop computers are also included in the financial system. The other sensitive items such as tablets, laptops, etc. are not included in the financial system. Records for these items are in a parallel system maintained by Technology staff. Given the above, AACPS will modify the current regulations to reflect record keeping procedures.		
Recommendation 2c	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	AACPS bar codes items where required and uses the scannable serial numbers for leased desktop computers. Putting bar codes on leased computers is duplicate work which serves no purpose.  We will clarify verbiage in the Property Control Manual and in Regulation DDH-RA Property Control & Accountability stating that either bar codes or a manufacturer's scannable serial or identification number must be included in the detail record.		
Recommendation 2d	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	Technology already conducts an annual inventory of all IT equipment.  Property Control will establish a more comprehensive inventory program such that approximately one-third of AACPS capital equipment and sensitive items are inventoried each year.		

Agency Response Form

**Information Technology**

**Finding 3**  
**AACPS' procedures for logging and monitoring its critical student information system database's security events were not sufficient.**

**We recommend that AACPS log critical student information system database security and audit related events, regularly generate reports of these logged events, perform independent reviews of these reports on a timely basis, and document and retain these reviews for future reference (repeat).**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	While AAPCS already logs and analyzes critical systems for security and audit related events, we agree that this should be a continued focus of the school district.		
Recommendation 3	Agree	Estimated Completion Date:	September 2019
Please provide details of corrective action or explain disagreement.	AACPS has added audit action types to cover all event classes and developed a scheduled process to copy audit logs to an archive repository for weekly review and reporting of all security events.		

Anne Arundel County Public Schools

Agency Response Form

**Finding 4**  
**Thirty-one publicly accessible servers were improperly located within the internal network, and AACPS' network resources were not secured against improper access from high school students using school computer labs and media centers.**

We recommend that AACPS

- a. relocate all publicly accessible servers to a separate protected network zone to limit security exposures to the internal network segment (repeat), and
- b. restrict student network-level access to only authorized local school and headquarters network resources (repeat).

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	AACPS employs reverse proxy servers that proxy client requests to specific backend servers. This level of abstraction and control ensures that end user requests never actually reach the backend servers directly. By intercepting requests destined for the backend servers, the reverse proxy servers protect the server identities and act as an additional defense against security attacks.		
Recommendation 4a	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	AACPS is currently migrating to a new network architecture where all servers will be in a network zone protected by next generation firewalls and intrusion detection and protection systems. Specific application port-level access will be allowed to this network zone thus satisfying this recommendation.		
Recommendation 4b	Agree	Estimated Completion Date:	December 2019
Please provide details of corrective action or explain disagreement.	AACPS is currently implementing a network administration software product on all wireless networks. The software product's configuration includes access control lists applied to student and staff accounts. Due to fiscal constraints, AACPS is unable to expand this level of protection to all wired network devices at this time, but we will explore the feasibility of doing so in a future budget cycle. Therefore, the estimated completion date provided above pertains only to the wireless network at this time.		

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**Transportation Services**

**Finding 5**  
**AACPS had not established comprehensive bus routing procedures and did not periodically perform a system-wide analysis of routes and related bus capacities to maximize efficiency.**

**We recommend that AACPS take steps to use its buses more efficiently. Specifically, we recommend that AACPS**

- a. establish comprehensive bus routing procedures that specify target bus capacities, ridership goals, and student ride-time limits (repeat); and**
- b. use its automated bus routing software to periodically perform a system-wide analysis of bus routes to maximize the ridership on its bus routes (repeat).**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	AACPS does have established bus routing procedures, but we do not fully agree that setting universal or rigid ridership targets for individual trips based on the capacity of each bus is an effective strategy for increasing overall efficiency. That said, identifying goals, metrics and criteria reflect best practices and thus we support same.		
Recommendation 5a	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	<p>As stated above, while AACPS does have established bus routing procedures, we will analyze them for improvement opportunities. We do not believe that setting universal or rigid ridership targets for individual trips based on the capacity of each bus is an effective strategy for increasing overall efficiency.</p> <p>Sub optimization strategies such as these can and do often lead to a less efficient use of overall resources. We feel that analyzing the total daily use of each bus, as opposed to maximizing the number of students on each individual trip, using a combination of factors including student density per square mile, size of district, and length of ride as explained in the example below is a much more effective tool for maximizing overall efficiency. AACPS has a student density that ranges from 12 students per square mile in a district of 87 square miles (Southern High School) to 144 students per square mile in a district of 14 square miles (Severna Park High School). Filling buses makes more sense in high density areas but is very inefficient in low density or large expanse areas. In view of the above, AACPS will establish and document flexible efficiency</p>		

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	<p>criterion used to measure route performance. An example of the application of such criterion is shown below.</p> <p>Example: Assume that 100% efficiency for a single trip on an eleven-row bus is defined as transporting 44 students, or four students per row. With the time allotted, Bus A picks up 40 students per trip, but due to student density, is only able to complete two trips a day. Analysis would show the bus is running at 91% efficiency on each trip, but the bus only serves 80 students a day. On the other hand, Bus B, by limiting the ride time of each trip, can transport four trips averaging 25 students per trip. This bus would show a lower efficiency of 57% per trip but would transport 100 students a day, or 25% more students than Bus A. We maintain that under many circumstances, Bus B is utilized more efficiently than Bus A.</p>		
Recommendation 5b	Agree	Estimated Completion Date:	September 2020
Please provide details of corrective action or explain disagreement.	<p>We do recognize that traditional intuitive methods that have been used in the past, regardless of its actual effectiveness, do not provide the broad array of metrics necessary to conduct the recommended system-wide analysis. We are currently developing and impacting these metrics and procedures with the assistance of an external transportation consultant.</p>		

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**Finding 6**  
**AACPS did not periodically re-evaluate the cost-effectiveness of its method for procuring and paying bus contractors.**

**We recommend AACPS establish a process to periodically evaluate the comparative cost-effectiveness of a PVA payment methodology for bus contractors versus competitively bidding for bus routes.**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	AACPS Division of Transportation (DOT) has experienced years of success in managing the increasing and dynamically evolving student transportation needs through an annual competitive bid (RFB). The RFB process offers the most transparent, fair, and competitive progression for managing the District’s student transportation requirements. The result is a successful procurement of the necessary resources to service our internal and external customers at acceptable levels. By making it a competitive environment, the DOT has kept AACPS costs below the State average and garnered the most qualified local and national vendors to perform the work.		
Recommendation 6	Agree	Estimated Completion Date:	December 2020
Please provide details of corrective action or explain disagreement.	When evaluating the cost-effectiveness of using PVA payment methodology to our existing competitive bid process, AACPS cost per bus, cost per mile, and per vehicle allowance continues to decrease on an annual basis. Costs include all operating and ancillary expenses applicable for operating the school bus on an average route (5.5 Hours and 80 miles) for full 181-day school year. Cost per bus have seen a decline from \$63,541 in 2016 to \$59,578 in 2019. On an annual basis, AACPS will monitor MSDE’s KPI’s, comparing the AACPS metrics to other School Districts using a PVA payment methodology. If the critical KPI’s exceed acceptable parameters, AACPS will evaluate the cost effectiveness of using a PVA payment methodology.		

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**Finding 7**  
**Procedures and controls were not sufficient to ensure that bus contractors were paid the proper amounts.**

**We recommend that AACPS establish adequate controls over the processing of bus contractor payments to ensure their accuracy and consistency with contract terms. Specifically, we recommend that AACPS**

- a. ensure that an independent employee verifies that data entered into the contractor payment system agrees to source documents, at least on a test basis (repeat);**
- b. verify the time and mileage reports received from the contractors to actual mileage and driver hours required for the specific bus routes (repeat);**
- c. periodically review the propriety of system access; and**
- d. eliminate payment system access for individuals who do not require assigned access to perform their duties and ensure users have unique user id's (repeat).**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	AACPS is in the final stages of implementing a new automated contractor pay system. The observations identified in this audit are being addressed as a part of this implementation. The corrective processes developed as a part of this implementation will be documented in the set of contractor pay procedures.		
Recommendation 7a	Agree	Estimated Completion Date:	October 2019
Please provide details of corrective action or explain disagreement.	The Systems Analyst will enter contracted rates and the Financial Specialist will verify that the rates are entered correctly. Both will sign off once completed.		
Recommendation 7b	Agree	Estimated Completion Date:	October 2019
Please provide details of corrective action or explain disagreement.	The time and mileage reported by bus contractors listed in their manifests will be compared and crosschecked against anticipated mileage and predictive drive hours parameters developed by the new transportation routing software that AACPS is in the process of implementing.		
Recommendation 7c	Agree	Estimated Completion Date:	October 2019
Please provide details of corrective action or explain disagreement.	As a part of the software implementation, several additional AACPS and vendor employees were given access to the system for development and set-up purposes. With the system now fully implemented, the Financial Specialist will periodically review the propriety of access to the system and delete any unnecessary access rights.		
Recommendation 7d	Agree	Estimated Completion Date:	October 2019

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Please provide details of corrective action or explain disagreement.	The Financial Specialist will disable rights for terminated employees and appropriately limit the degree of access, i.e. read only or edit rights, for current employees. User IDs are managed via computer system access and passwords are updated periodically through AACPS auto requirements.
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Management of Other Risks

**Finding 8**  
**AACPS had not competitively bid its TPA services since at least 2004 and relied on a consultant to negotiate the best value for healthcare costs.**

**We recommend that AACPS ensure and document that it is obtaining the best value for its employee and retiree healthcare TPA services. For example, AACPS should periodically competitively bid for TPA services or document the justification for not obtaining such bids.**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	AACPS relied on a reputable and national level independent subject matter expert consultant to assist AACPS in negotiating the best value. AACPS also actively participated in the negotiation process. Sufficient documentation was provided to management and the Board of Education to support the decision. Evidence of our consultant’s independence can be found in the consultant’s Code of Business Conduct, the consultant’s Business Conflicts of Interest Policy, and the consultant’s Personal Conflicts of Interest Policy		
Recommendation 8	Agree	Estimated Completion Date:	December 2020
Please provide details of corrective action or explain disagreement.	<p>Our current contract term with the TPA expires December 31, 2020. The contract provides for two option years for a possible extension of the contract, exercisable at AACPS’ sole discretion. AACPS will decide as part of the rate renewal process and planning for 2020 and beyond whether we intend to proceed with competitive bidding at the expiration of the current contract or intend to exercise an option year as the contract provides.</p> <p>Additionally, AACPS will attempt to negotiate the removal of certain language in our negotiated CBAs that has proven to be a deterrent to potential bidders to a future RFP.</p>		

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**Finding 9**  
**AACPS did not maintain a current contract to support TPA payments for its healthcare services.**

**We recommend that AACPS ensure that written contracts are executed timely and clearly define all terms and conditions including the duties and responsibilities of the parties.**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	AACPS agrees that timely execution of contracts that define all terms, conditions, duties, and responsibilities of all parties to the contract should be obtained and we will work diligently to accomplish this.		
Recommendation 9	Agree	Estimated Completion Date:	September 2019
Please provide details of corrective action or explain disagreement.	AACPS will ensure that contracts are executed prior to the expiration of previous contracts and all terms are clearly defined. While from time to time, final contract terms are not communicated to us as soon as we might prefer, changes in our contract terms are fully documented in the contract extension negotiation process. When contract terms are finalized, they are reviewed by AACPS staff and by our independent subject matter expert consultants to ensure consistency with the terms that have been offered and documented during those negotiations.		

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**Finding 10**

**AACPS did not adequately monitor the TPA's performance.**

**We recommend that AACPS establish procedures to verify the amounts paid for health insurance and TPA administrative fees. Specifically, we recommend that AACPS**

- a. review detail claims data to support and verify TPA billings (repeat);**
- b. establish procedures to independently verify the accuracy of healthcare claim amounts paid by the TPA, administrative fees (repeat), and prescription drug rebates, at least on a test basis;**
- c. conduct or contract for periodic independent claims audits to assess the accuracy and validity of claim reimbursements billed by the TPA; and**
- d. independently verify, on an annual basis, the TPA's reported performance measure compliance levels and assess penalties as provided for in the contract when performance goals are not met (repeat).**

Agency Response	
Analysis	Factually Accurate (In Part)
Please provide additional comments as deemed necessary.	<p>AACPS did engage an independent subject matter expert third party to conduct a medical claims and operational audit in 2015 and has once again engaged for another such audit to be conducted this year.</p> <p>While our external auditor did not extrapolate the errors (as referred to in the discussion findings) to project potential overpayments, our audits put a greater focus on the root cause of an error. The main reason to not extrapolate is because in order to ascertain monies allocated incorrectly, actual claims would need to be identified. Extrapolating the claims would only provide an estimate of errors, not actual dollars paid.</p> <p>With that said, if a systemic error is discovered during the audit, the auditor requests the carrier to pull impact reporting to identify any potentially incorrect claims. The auditor then works with the carrier to make sure that the system is updated, and any adjustments are re-adjudicated and completed.</p> <p>For example, in the 2015 audit, an error was discovered in the processing of certain chiropractic services claims which were paying at 100%, in error. The auditor requested the vendor go back and review all chiropractic charges from 2014 to the date that the system was fixed. Overpayments were identified for 472 HMO claims (\$10,631.99) and 2,298 Traditional/Major Medical claims (\$7,518.58). The vendor provided a refund check to AACPS for the overpaid claims on 11/12/2015.</p>

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	So, while the external auditor did not extrapolate the results, the audit was not closed until any systemic errors that were identified were fully corrected and AACPS was fully compensated.		
Recommendation 10a	Agree	Estimated Completion Date:	June 2020
Please provide details of corrective action or explain disagreement.	We have requested unidentified paid claims data that can be used to compare to the claims included in the TPAs monthly invoice. We have already begun to receive detailed administration fee data and are working with our Technology team to develop an automated way to employ that data to audit invoices.		
Recommendation 10b	Agree	Estimated Completion Date:	June 2020
Please provide details of corrective action or explain disagreement.	AACPS agrees to enhanced procedures to independently verify the accuracy of healthcare claim amounts paid by the TPA, administrative fees, and prescription drug rebates. AACPS has established an ongoing schedule for independent external audits by subject matter experts which was provided to the OLS auditors.		
Recommendation 10c	Agree	Estimated Completion Date:	December 2020
Please provide details of corrective action or explain disagreement.	AACPS uses reputable subject matter expert consulting groups for a variety of professionalized benefit and actuarial consulting services to AACPS, including the claims audit referred to in 2015, the follow-up claims audit that is currently underway, as well as other audits we have planned. Our consultants operate under a contract with AACPS and have a fiduciary duty under that contract to represent solely our interests in the fulfillment of their contractual obligations. AACPS reviews the respective consulting group's Code of Business Conduct, Business Conflicts of Interest Policy, and Personal Conflicts of Interest Policy prior to contract award. We remain confident in their professionalized capacity and commitment to do so and would note that they provide similar services to many other LEAs and governmental entities in Maryland and throughout the United States. However, in order to avoid any perception of lack of independence by the consulting group, AACPS agrees to periodically perform claims audits in all categories of health care services and to assess hiring independent firms to perform these audit services.		
Recommendation 10d	Agree	Estimated Completion Date:	June 2020
Please provide details of corrective action or explain disagreement.	We will discuss with our subject matter expert consultants how, and to what extent, it is possible to independently verify the TPA's reported performance measure compliance levels and then assess additional penalties, if warranted, as provided for in the contract when performance goals are not met.		

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**Finding 11**  
**AACPS did not independently determine if it would be cost beneficial to purchase stop-loss medical insurance coverage.**

**We recommend that AACPS independently determine if it would be cost beneficial to purchase stop-loss medical insurance coverage.**

Agency Response			
Analysis	Factually Accurate		
Please provide additional comments as deemed necessary.	<p>Given the size of AACPS’ active and retiree health care population, and our annual spend for health care for our participants/subscribers and their families, our independent subject matter expert consultants have routinely advised us that it would be rare that an employer of AACPS’ size would purchase stop-loss medical insurance. We should also note that a majority of Maryland’s LEAs are much smaller than AACPS. We have also been advised by our external consultants that smaller employers should always consider purchasing stop-loss coverage to guard against unreasonably large fluctuations in year to year budgeted costs, in spite of the fact that stop loss carriers set their rates on a basis that is expected to yield incurred loss ratios across their book of business of 60% of paid premiums or less. Nonetheless, for smaller LEAs, such a purchase is prudent to avoid the potential volatility and budgeting problems that would be associated with very large individual claims in a given year. The volatility and budgeting issues diminish with increasing employer size and enhanced fund balance maintenance.</p>		
Recommendation 11	Agree	Estimated Completion Date:	July 2020
Please provide details of corrective action or explain disagreement.	<p>Nevertheless, as part of our planning process for 2020, we will revisit this issue with our independent external subject matter expert consultants and take a retrospective look at whether purchasing stop loss coverage would have been positive or negative for AACPS and also ask for a prospective review of the topic using actuarial techniques that are standard in such analyses.</p>		

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