

Audit Report

---

**University System of Maryland  
Bowie State University**

February 2011

---



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

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



**Karl S. Aro**  
Executive Director

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

**Bruce A. Myers, CPA**  
Legislative Auditor

February 15, 2011

Delegate Guy J. Guzzone, Co-Chair, Joint Audit Committee  
Senator James C. Rosapepe, Co-Chair, Joint Audit Committee  
Members of Joint Audit Committee  
Annapolis, Maryland

Ladies and Gentlemen:

We have audited the University System of Maryland (USM) – Bowie State University (BSU) for the period beginning May 1, 2007 and ending April 15, 2010. BSU is a comprehensive public institution of the University System of Maryland. It is a regional university that provides a broad range of baccalaureate programs and selected professionally oriented graduate programs.

Our audit disclosed that adequate security measures and monitoring procedures were not in place to protect BSU's computer network and related administrative systems from security risks. For example, certain of BSU's firewalls allowed numerous unnecessary connections to portions of its network and adequate backup procedures were not in place.

Our audit also disclosed that BSU did not comply with USM policy when granting tuition waivers to dependents of employees from other USM institutions. For the 2009-2010 academic year, BSU improperly waived \$65,000 in tuition to 26 students. In addition, we noted that BSU did not have adequate procedures to ensure only properly supported changes were made to recorded student grades and student residency status, and did not properly reconcile the results of its physical inventory of equipment to the related detail records.

Respectfully submitted,

**Bruce A. Myers, CPA**  
Legislative Auditor



## Table of Contents

<b>Executive Summary</b>	5
<b>Background Information</b>	7
Agency Responsibilities	7
Status of Findings From Preceding Audit Report	7
<b>Findings and Recommendations</b>	9
<b>Information Systems Security and Control</b>	
* Finding 1 – BSU’s Computer Network Was Not Adequately Secured	9
* Finding 2 – Monitoring of Critical Network Devices Needs Improvement	10
Finding 3 – Controls Over Logging and Reporting of Critical Security-Related Events Were Inadequate	11
* Finding 4 – BSU’s Backup Procedures for Critical Devices and Its Disaster Recovery Plan Were Not Adequate	11
<b>Tuition Waivers</b>	
Finding 5 – BSU Granted Full Tuition Waivers to Employee Dependents in Violation of University System of Maryland Policy	12
<b>Controls Over Critical Data</b>	
Finding 6 – Sufficient Controls Were Not in Place to Ensure the Propriety of Certain Student Data	13
<b>Equipment</b>	
Finding 7 – Equipment Inventory Records Were Not Reconciled to the Detail Records	14
<b>Audit Scope, Objectives, and Methodology</b>	17
<b>Agency Response</b>	Appendix

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



## Executive Summary

**Legislative Audit Report on the University System of Maryland (USM)  
Bowie State University (BSU)  
February 2011**

- **Adequate security measures and monitoring procedures were not in place to protect BSU's network and related critical devices from security risks. For example, certain firewall rules allowed unnecessary access from external sources to critical portions of BSU's network, thereby placing various network devices at risk. In addition, logging of critical security-related events was not enabled for two essential databases and adequate back-up procedures were not in place.**

BSU should take the recommended corrective actions to improve security over its network, critical devices, and databases.

- **BSU did not comply with USM policy applicable to tuition waivers granted to employee dependents. For the 2009-2010 academic year, BSU improperly waived \$65,000 in tuition to 26 students.**

BSU should comply with related USM policy and should take appropriate action to recover owed tuition.

- **Changes made to recorded student grades and student residency status were not independently verified.**

BSU should take the recommended actions to ensure only properly supported changes are made to recorded student grades and student residency status.

- **BSU did not properly reconcile the results of its most recent physical inventory of equipment to the related detail records. The inventory disclosed that numerous items had not been recorded in its detail equipment records.**

BSU should update its equipment records for items located during the physical inventory.



## **Background Information**

### **Agency Responsibilities**

Bowie State University (BSU) is a comprehensive public institution of the University System of Maryland and operates under the jurisdiction of the System's Board of Regents. BSU is a regional university that provides a broad range of baccalaureate programs in such fields as natural and behavioral sciences, information technology, and mathematics, as well as selected professionally oriented graduate programs, including a doctoral level program in educational leadership. Student enrollment for the Spring 2010 semester totaled 5,358, including 3,860 full-time students and 1,498 part-time students.

BSU's budget is funded by unrestricted revenues, such as tuition and fees and a State general fund appropriation, and restricted revenues, such as federal grants and contracts. According to the State's accounting records, BSU's revenues for fiscal year 2009 totaled approximately \$95.3 million, including a State general fund appropriation of approximately \$32.8 million.

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

Our audit included a review to determine the status of the 15 findings contained in our preceding audit report dated January 17, 2008. We determined that BSU satisfactorily addressed 12 of the findings. The remaining 3 findings are repeated in this report.



# Findings and Recommendations

## Information Systems Security and Control

### Background

Bowie State University's (BSU) Office of Information Technology provides information technology support to BSU through the operation and maintenance of campus-wide applications, such as the student administration and human resources system and the financial system. BSU also operates an integrated administrative and academic computer network, which provides connections to multiple servers used for administrative and academic purposes. The campus network also includes separate email and file servers, Internet connectivity, and numerous firewalls. BSU also connects to the University of Maryland Academic Telecommunications System network to send and receive data to and from other University System of Maryland (USM) institutions.

### Finding 1

**BSU's computer network was not adequately secured.**

### Analysis

Adequate security measures had not been established to protect BSU's critical network devices and administrative systems from external and internal threats. Specifically, we noted the following conditions:

- Firewall rules on several firewalls allowed numerous unnecessary connections to portions of BSU's network, placing various network devices at risk. For example, we noted firewall rules that allowed unnecessary access from all external sources to a number of critical network devices. A similar condition was commented upon in our two preceding audit reports.
- Key administrative systems were not properly protected from untrusted portions of the BSU network. Specifically, numerous computer labs located throughout the campus had unnecessary network level access to critical campus administrative resources. A similar condition was commented upon in our two preceding audit reports.
- Numerous critical non-public servers were improperly placed in a network segment that contained publicly accessible servers. This unnecessarily exposed the non-public servers to security risks from the publicly accessible servers. A similar condition was commented upon in our two preceding audit reports.

- BSU used an intrusion prevention system (IPS) to monitor network traffic. However, network traffic from several untrusted BSU network segments to critical administrative network segments was not subject to IPS monitoring.

### **Recommendation 1**

**We recommend that BSU**

- a. configure its firewalls to adequately secure its network (repeat),**
- b. properly restrict key administrative systems from untrusted portions of the BSU network (repeat),**
- c. segregate publicly accessible servers from non-public servers (repeat),  
and**
- d. implement IPS coverage for all segments of its network including untrusted segments.**

### **Finding 2**

**Monitoring of critical BSU network devices needs improvement.**

### **Analysis**

To help protect the internal network from security risks, BSU monitoring needs improvement. Specifically, we noted the following conditions:

- The Internet firewall was not configured to send alerts to network administrators advising them of serious concerns detected by the firewall.
- Successful and failed attempts to connect to a firewall device and a core network device were not reported for subsequent review and follow-up. In addition, for all reported firewall device security-related events, BSU personnel advised that they did not document their reviews of the reports containing these events. Furthermore, BSU personnel advised that the reports of security-related events affecting another core network device were not regularly reviewed and these reviews were not documented.

Similar conditions were commented upon in our preceding audit report.

### **Recommendation 2**

**We recommend that BSU**

- a. configure its firewalls to send alerts to network administrators advising them of serious concerns detected by the firewalls (repeat); and**

- b. report successful and failed attempts to connect to its critical network devices, regularly review the security event reports for these devices, document its review of these reports, and retain this documentation for audit verification purposes (repeat).**

### **Finding 3**

**Controls over logging and reporting of critical security-related events were not adequate.**

#### **Analysis**

Logging of critical security-related events was not enabled for two essential databases. In addition, security reports were not generated for one significant application. These conditions could allow significant security violations to go undetected, thus permitting unauthorized or inappropriate activities to adversely affect the integrity of the databases.

#### **Recommendation 3**

**We recommend that BSU**

- a. enable logging for all critical security-related events for its essential databases, generate security reports for all critical applications and review these reports on a daily basis; and**
- b. document and retain such reviews for audit verification.**

### **Finding 4**

**Offsite backup of critical network devices and a complete and comprehensive disaster recovery plan did not exist.**

#### **Analysis**

Offsite backup for critical network devices and a complete and comprehensive disaster recovery plan did not exist. Specifically, we noted the following conditions:

- Backup configuration files for numerous critical network devices, including firewalls and routers, were located in the same room as the aforementioned devices and were not taken offsite. Accordingly, if the facility, which currently houses both the original configurations and the related backup copies, were destroyed, a prolonged interruption of computer operations could occur.

- BSU did not have a complete information technology disaster recovery plan (DRP) for recovering from disaster scenarios (for example, a fire). For example, the DRP did not address alternate site processing arrangements, prioritization of systems for recovery, and plan testing. Without a complete DRP, a disaster could cause significant delays (for an undetermined period of time) in restoring information systems operations above and beyond the expected delays that would exist in a planned recovery scenario.

Similar conditions were commented upon in our two preceding audit reports.

#### **Recommendation 4**

**We recommend that BSU**

- a. store backup files of critical network device configurations at an off-site, secure, environmentally controlled location (repeat); and**
- b. develop a DRP that, at a minimum, addresses the basic elements needed for a comprehensive disaster recovery plan (repeat).**

### **Tuition Waivers**

#### **Finding 5**

**BSU did not comply with University System of Maryland (USM) policy when granting tuition waivers to dependents of employees from other USM institutions.**

#### **Analysis**

BSU did not comply with USM policy applicable to tuition waivers granted to dependents of employees from other USM institutions. According to BSU's records of tuition waivers for the 2009-2010 school year, BSU granted tuition waivers totaling approximately \$130,000, or 100 percent of tuition, to all 26 such students; however, BSU should only have waived 50 percent of that tuition. Consequently, the tuition waived for the 26 students was incorrect resulting in approximately \$65,000 that is due BSU from those students. We determined that BSU's records of tuition waiver were sufficiently reliable for the purposes we used the data. After we brought this situation to the attention of BSU management, BSU acknowledged that it has continued to waive full tuition for dependents of employees of other USM institutions even after this policy was revised to 50 percent many years ago.

The aforementioned USM policy provides that dependents of USM employees hired on or after January 1, 1990, and who enroll in undergraduate programs at other USM institutions, may have 50 percent of the applicable tuition charges

waived. In such cases, the student is responsible for 50 percent of the tuition and BSU would be reimbursed for the remaining 50 percent from the other institution.

### **Recommendation 5**

**We recommend that BSU**

- a. comply with USM policy regarding tuition waivers;**
- b. identify all full tuition waivers granted to students in violation of USM policy; and**
- c. consult with the Office of the Attorney General to determine whether recovery of tuition waivers improperly granted should be pursued, and take appropriate action.**

## **Controls Over Critical Data**

### **Finding 6**

**Sufficient controls were not in place to ensure the propriety of certain critical student data maintained on BSU's automated systems.**

### **Analysis**

BSU did not adequately control the propriety of certain critical student data maintained on its automated systems. We noted the following conditions:

- Independent verifications of changes made to student grades in BSU's computer system were not performed. Specifically, although BSU generated a report listing grade changes made for each semester, the employee who verified the grade changes also had the capability to, and sometimes did, make such changes. In addition, this employee only reviewed the reports for changes that were made by employees other than the three that generally recorded grade changes and, after the verifications had been completed, the reports were discarded. According to a report generated by BSU at our request, BSU processed 1,463 grade changes during fiscal year 2010, of which 1,269 were made by the aforementioned three employees and would not have been subject to verification. Furthermore, our test of 15 grade changes disclosed that BSU lacked required documentation (approved grade change forms) to support the propriety of 4 of the grade changes, 2 of which were processed by employees other than the aforementioned three employees.
- In addition, we noted that not all changes made to recorded student residency status were independently verified as the employee responsible for rendering the final review and approval of student residency determinations could also change the recorded residency status. Specifically, our test of 10 residency

changes—from out-of-state status to in-State status—disclosed that 2 were made by the aforementioned employee. Based on our test, all 10 changes appeared to be properly supported. Student residency is a critical data element because of the significant differences between in-state and out-of-state student tuition rates. For example, for the Spring 2010 semester, full-time undergraduate tuition charges totaled \$3,019 for Maryland residents and \$8,239 for non-residents—a difference of \$5,220.

As a result of these conditions, errors or irregularities in recorded student grades or student residency data could occur without detection.

### **Recommendation 6**

#### **We recommend that**

- a. BSU ensure that a grade change form has been prepared and approved for each grade change;**
- b. an employee independent of BSU’s grade change processing functions, using output reports of recorded student grade changes, verify, at least on a test basis, that grade changes are supported by approved grade change forms and that these verifications be documented and retained; and**
- c. the capability to change recorded residency status be removed from the employee who renders final approval of student residency determinations.**

## **Equipment**

### **Finding 7**

**BSU did not adequately reconcile the results of its most recently completed physical inventory to the related detail equipment records.**

#### **Analysis**

BSU did not adequately reconcile the results of its most recently completed (fiscal year 2009) physical inventory to the related detail equipment records. For example, our review disclosed that during the aforementioned inventory BSU located approximately 300 equipment items (such as computer and audiovisual equipment) which, as of September 30, 2010, had not been recorded in BSU’s detail equipment records. As a result, there was a lack of accountability for such equipment and BSU would potentially be unable to identify these items in the event of loss or misappropriation. We were unable to readily determine the cost of the items and when the items were originally purchased by BSU.

BSU reported to the University System of Maryland (USM) that, as of June 30, 2009, its equipment inventory totaled approximately \$12.9 million.

BSU's *Asset Management Policy & Procedures Manual* requires that any discrepancy between its detail equipment records and physical inventory results be reported and explained by the responsible department head.

**Recommendation 7**

**We recommend that BSU reconcile its physical inventory results with its detail equipment records and immediately update its detail equipment records to include all items located during its fiscal year 2009 physical inventory.**



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

We have audited the University System of Maryland (USM) – Bowie State University (BSU) for the period beginning May 1, 2007 and ending April 15, 2010. The audit was conducted in accordance with generally accepted government auditing standards.

As prescribed by the State Government Article, Section 2-1221 of the Annotated Code of Maryland, the objectives of this audit were to examine BSU's financial transactions, records and internal control, and to evaluate its compliance with applicable State laws, rules, and regulations. We also determined the status of the findings contained in our preceding audit report.

In planning and conducting our audit, we focused on the major financial-related areas of operations based on assessments of materiality and risk. The areas addressed by the audit included, but were not limited to, purchases and disbursements of BSU's operating expenditures, student accounts receivable, cash receipts, payroll, and information technology systems. Our audit procedures included inquiries of appropriate personnel, inspections of documents and records, and observations of BSU's operations. We also tested transactions and performed other auditing procedures that we considered necessary to achieve our objectives. Data provided in this report for background or informational purposes were deemed reasonable, but were not independently verified.

Our audit did not include certain support services (such as bond financing) provided to BSU by the USM Office. These support services are included within the scope of our audits of the USM Office. In addition, our audit did not include an evaluation of internal controls for federal financial assistance programs and an assessment of BSU's compliance with federal laws and regulations pertaining to those programs, because the State of Maryland engages an independent accounting firm to annually audit such programs administered by State agencies, including the components of the USM.

BSU's 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.

Our reports are designed to assist the Maryland General Assembly in exercising its legislative oversight function and to provide constructive recommendations for improving State operations. As a result, our reports generally do not address activities we reviewed that are functioning properly.

This report includes findings relating to conditions that we consider to be significant deficiencies in the design or operation of internal control that could adversely affect BSU's ability to maintain reliable financial records, operate effectively and efficiently, and/or comply with applicable laws, rules, and regulations. Our report also includes findings of significant instances of noncompliance with applicable laws, rules, or regulations. Other less significant findings were communicated to BSU that did not warrant inclusion in this report.

The response from the USM Office, on behalf of BSU, 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 the System regarding the results of our review of its response.

## APPENDIX



OFFICE OF THE CHANCELLOR

February 10, 2011

Mr. Bruce A. Myers, CPA  
Legislative Auditor  
Office of Legislative Audits  
State Office Building, Room 1202  
301 West Preston Street  
Baltimore, MD 21201

**RE: University System of Maryland –  
Bowie State University  
Audit Period: May 1, 2007 to April 15, 2010**

Dear Mr. Myers:

I have enclosed the University System of Maryland's response to your draft report covering the examination of processes and controls of Bowie State University. Our comments refer to the individual items contained in the report.

Sincerely,

William E. Kirwan  
Chancellor

Enclosure

WEK:mpk

cc: Dr. Mickey L. Burnim, President, FSU  
Mr. Clifford M. Kendall, Chair, Board of Regents, USM  
Mr. Robert L. Page, Comptroller, USM  
Mr. Anwer Hasan, Chair, MHEC  
Ms. Elisabeth A. Sachs, Secretary of Higher Education, MHEC  
Mr. Karl Brockenbrough, Vice President of Administration and Finance, BSU  
Mr. David Mosca, Director of Internal Audit, USM

1807  
University of Maryland,  
Baltimore

1856  
University of Maryland,  
College Park

1865  
Bowie State University

1866  
Towson University

1886  
University of Maryland  
Eastern Shore

1898  
Frostburg State University

1900  
Coppin State University

1925  
Salisbury University

1925  
University of Baltimore

1925  
University of Maryland  
Center for Environmental  
Science

1947  
University of Maryland  
University College

1966  
University of Maryland,  
Baltimore County

1985  
University of Maryland  
Biotechnology Institute

**University System of Maryland**  
**Bowie State University**  
Response to the Findings and Recommendations from the  
Report of Office of Legislative Audits  
For the period beginning May 1, 2007 and ending April 15, 2010.

**Finding 1**

**BSU's computer network was not adequately secured.**

**Recommendation 1**

**We recommend that BSU**

- a. configure its firewalls to adequately secure its network (repeat),
- b. properly restrict key administrative systems from untrusted portions of the BSU network (repeat),
- c. segregate publicly accessible servers from non-public servers (repeat), and
- d. implement IPS coverage for all segments of its network including untrusted segments.

**BSU Response:** The University agrees with the recommendations. In early 2010 BSU initiated a total network refresh to revamp and renew the entire network infrastructure and to provide an available and highly secure network. The new network was planned and is being built to incorporate the recommendations made. Special considerations are given to implementing the network security devices, such as firewall configuration, access zone segregation, and IPS coverage. Upon the completion of the Network Infrastructure Refresh Project (scheduled for June 2011) and, as funding allows, BSU will contract for an independent network security assessment to verify that all these recommendations have been adequately addressed. BSU has initiated actions to implement the recommendations and will continue the effort with an anticipated September 30, 2011 completion.

**Finding 2**

**Monitoring of critical BSU network devices needs improvement.**

**Recommendation 2**

**We recommend that BSU**

- a. configure its firewalls to send alerts to network administrators advising them of serious concerns detected by the firewalls (repeat); and
- b. report successful and failed attempts to connect to its critical network devices, regularly review the security event reports for these devices, document its review of these reports, and retain this documentation for audit verification purposes (repeat).

**BSU Response:** The University agrees with the recommendations. BSU has purchased a new real-time security information management (SIEM) appliance for network and security analysis which provides for monitoring all aspects of datacenter and IT operations. The SEIM will be configured to receive alerts and reports from critical devices such as the firewall, IPS, etc and notify the network administrators in a timely manner to remediate any serious concerns. The

**University System of Maryland  
Bowie State University**

Response to the Findings and Recommendations from the  
Report of Office of Legislative Audits  
For the period beginning May 1, 2007 and ending April 15, 2010.

various security log events, including successful and failed attempts to connect to critical networks devices, will be configured to generate reports on the SEIM, which will be automatically sent to appropriate IT personal for review, follow-up, documentation and retention. BSU has initiated actions to implement the recommendations and will continue the effort with an anticipated October 31, 2011 completion

**Finding 3**  
**Controls over logging and reporting of critical security-related events were not adequate.**

**Recommendation 3**

We recommend that BSU

- a. enable logging for all critical security-related events for its essential databases, generate security reports for all critical applications and review these reports on a daily basis; and
- b. document and retain such reviews for audit verification.

**BSU Response:** The University agrees with the recommendations. BSU is in the process of remediating the deficiencies in security logging and analysis and is currently in the software testing phase to select an application to automate the database logging of all critical security-related events. Once selected and implemented, the report generated will undergo two-tier review daily and will be retained for documentation. BSU has initiated actions to implement the recommendations and will continue the effort with an anticipated September 30, 2011 completion.

**Finding 4**  
**Offsite backup of critical network devices and a complete and comprehensive disaster recovery plan did not exist.**

**Recommendation 4**

We recommend that BSU

- a. store backup files of critical network device configurations at an off-site, secure, environmentally controlled location (repeat); and
- b. develop a DRP that, at a minimum, addresses the basic elements needed for a comprehensive disaster recovery plan (repeat).

**BSU Response:**

The University agrees with the recommendations.

- a. Upon the completion of the Network Infrastructure Refresh Project (scheduled for June 2011), BSU will work on an automated method to back up network device configurations. Due to a lack of direct backup client for the University equipment, this process currently has

**University System of Maryland  
Bowie State University**

Response to the Findings and Recommendations from the  
Report of Office of Legislative Audits  
For the period beginning May 1, 2007 and ending April 15, 2010.

to be performed manually. A network partition has already been setup and BSU is working on scripts to move the configurations from these network devices. When this process is completed, the configuration files will be backed up and stored at the off-site storage facility currently used by the University. BSU has initiated actions to implement the recommendations and will continue the effort with an anticipated August 31, 2011 completion.

- b. The University has completed the business impact and risk analyses. Based on the results of this document, the University is currently developing a needs requirements and cost estimates on the various scenarios. The final review of this document is scheduled for February 14, 2011. The University will evaluate the results to determine the best fit for the institution and will implement within three years, based on funding availability.

## **Tuition Waivers**

### **Finding 5**

**BSU did not comply with University System of Maryland (USM) policy when granting tuition waivers to dependents of employees from other USM institutions.**

### **Recommendation 5**

We recommend that BSU

- a. comply with USM policy regarding tuition waivers;
- b. identify all full tuition waivers granted to students in violation of USM policy; and
- c. consult with the Office of the Attorney General to determine whether recovery of tuition waivers improperly granted should be pursued, and take appropriate action.

### **BSU Response:**

- a. The University agrees with the recommendation to comply with the USM policy. Upon notification of the errors by the auditors, the Student Account and Human Resources Offices jointly developed new procedures to clearly identify those students who were eligible for only 50% tuition remission and to ensure that the appropriate waiver was applied to those accounts. Those procedures were fully implemented for the fall 2010 term and will be followed for future terms.
- b. The students who received full tuition waiver in error have been identified.
- c. The University is consulting with the Office of the Attorney General regarding recovery. Upon receipt of the response, the University will evaluate and take appropriate action.

**University System of Maryland**  
**Bowie State University**  
Response to the Findings and Recommendations from the  
Report of Office of Legislative Audits  
For the period beginning May 1, 2007 and ending April 15, 2010.

## **Controls Over Critical Data**

### **Finding 6**

**Sufficient controls were not in place to ensure the propriety of certain critical student data maintained on BSU's automated systems.**

### **Recommendation 6**

We recommend that

- a. BSU ensure that a grade change form has been prepared and approved for each grade change;
- b. an employee independent of BSU's grade change processing functions, using output reports of recorded student grade changes, verify, at least on a test basis, that grade changes are supported by approved grade change forms and that these verifications be documented and retained; and
- c. the capability to change recorded residency status be removed from the employee who renders final approval of student residency determinations.

**BSU Response:** The University agrees with the recommendations.

- a. The Office of the Registrar will ensure that grade changes are processed using the authorized change of grade form which contains the appropriate faculty, chair and dean signatures. This will be implemented in February 2011.
- b. An employee who does not have access to enter or change grades will be responsible for the review of grade changes made by the Office of the Registrar. The grade change review will consist of the generation of the grade change audit report, the selection of random students, and verification of the grade change to the supporting documentation. The review will be documented and documentation will be maintained by the Registrar's Office. This will be implemented in March 2011.
- c. The University agrees with the finding. The individual who renders final approval of residency determinations can no longer change recorded residency status. The change in access was completed November 2010.

**University System of Maryland**  
**Bowie State University**  
Response to the Findings and Recommendations from the  
Report of Office of Legislative Audits  
For the period beginning May 1, 2007 and ending April 15, 2010.

## **Equipment**

### **Finding 7**

**BSU did not adequately reconcile the results of its most recently completed physical inventory to the related detail equipment records.**

### **Recommendation 7**

We recommend that BSU reconcile its physical inventory results with its detail equipment records and immediately update its detail equipment records to include all items located during its fiscal year 2009 physical inventory.

**BSU Response:** The University agrees with the finding. The Asset Management Department is in the process of developing a modification to the recent upgrade of the asset management software to allow upload of data from the file generated by the physical inventory software. Upon completion of the modification, the file from the physical inventory software will be uploaded and automatically reconciled to the asset management records. Necessary entries will be generated based on this reconciliation. It is anticipated that this modification will be fully implemented by April 30, 2011.

AUDIT TEAM

**Peter J. Klemans, CPA**  
Audit Manager

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

**J. Alexander Twigg**  
Senior Auditor

**Omar A. Gonzalez, CPA**  
**Albert E. Schmidt, CPA**  
Information Systems Senior Auditors

**Jason M. Goldstein**  
**Alexander F. Soutar**  
Staff Auditors

**Eric Alexander**  
**Christopher D. Jackson**  
Information Systems Staff Auditors