Audit Report

State Retirement Agency

March 2012

OFFICE OF LEGISLATIVE AUDITS
DEPARTMENT OF LEGISLATIVE SERVICES
MARYLAND GENERAL ASSEMBLY

- This report and any related follow-up correspondence are available to the public through the Office of Legislative Audits at 301 West Preston Street, Room 1202, Baltimore, Maryland 21201. The Office may be contacted by telephone at 410-946-5900, 301-970-5900, or 1-877-486-9964.

- Electronic copies of our audit reports can be viewed or downloaded from our website at http://www.ola.state.md.us.

- Alternate formats may be requested through the Maryland Relay Service at 1-800-735-2258.

- The Department of Legislative Services – Office of the Executive Director, 90 State Circle, Annapolis, Maryland 21401 can also assist you in obtaining copies of our reports and related correspondence. The Department may be contacted by telephone at 410-946-5400 or 301-970-5400.

DEPARTMENT OF LEGISLATIVE SERVICES
OFFICE OF LEGISLATIVE AUDITS
MARYLAND GENERAL ASSEMBLY

Karl S. Aro
Executive Director

Bruce A. Myers, CPA
Legislative Auditor

March 2, 2012

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

Ladies and Gentlemen:

We have audited the State Retirement Agency for the period beginning October 1, 2008 and ending May 19, 2011. The Agency provides administrative support services and investment functions for the State Retirement and Pension System (System) of Maryland, a cost sharing multiple-employer public employee retirement system.

Our audit disclosed that security controls over the Maryland Pension Administration System (MPAS) database were not sufficient.

The Agency's response to this audit is included as an appendix to this report. We wish to acknowledge the cooperation extended to us during this audit by the Agency.

Respectfully submitted,

Bruce A. Myers

Bruce A. Myers, CPA
Legislative Auditor

301 West Preston Street · Room 1202 · Baltimore, Maryland 21201
410-946-5900/301-970-5900 · Fax 410-946-5999/301-970-5999
Toll Free in Maryland 877-486-9964 · Fraud Hotline 877-FRAUD-11

Background Information

Agency Responsibilities

The State Retirement Agency provides administrative support services and investment functions for the State Retirement and Pension System (System) of Maryland, a cost-sharing multiple-employer public employee retirement system consisting of a State pool and a Municipal pool. The State pool includes State agencies, boards of education, community colleges, and libraries, while the Municipal pool includes participating local governmental units that elected to join the System. The System was established by the State Personnel and Pensions Article of the Annotated Code of Maryland and comprises the following individual systems: Teachers' Retirement and Pension Systems, Employees' Retirement and Pension Systems, State Police Retirement System, Judges' Retirement System, and the Law Enforcement Officers' Pension System. Responsibility for the administration and operation of the System is vested in a 14-member Board of Trustees. According to the State's records, total Agency operating expenditures were approximately $31.3 million during fiscal year 2011.

Financial Statement Audits

For fiscal years 2011, 2010, and 2009, the Agency engaged an independent accounting firm to perform the audit of the System's financial statements. The firm expressed an opinion that the System's financial statements presented fairly, in all material respects, the plan net assets of the System as of June 30, 2011, 2010, and 2009, and the changes in plan net assets for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Select System Financial Information

According to its records, as of June 30, 2011, the System had approximately 127,000 retirees and beneficiaries, and approximately 195,000 active participants. The following table provides select System financial information.

Select System Financial Information					
Fiscal Year	**Total Contributions**	**Net Investment Income (Loss)**	**Benefit Payments**	**Total Net Assets at June 30**	**Unfunded Actuarial Accrued Liability**
2011	$2.0 billion	$6.3 billion	$2.6 billion	$37.6 billion	$19.7 billion
2010	$1.8 billion	$4.0 billion	$2.4 billion	$31.9 billion	$19.4 billion
2009	$1.6 billion	($7.4 billion)	$2.3 billion	$28.5 billion	$18.4 billion

Source: Audited System Financial Statements

Note: The Unfunded Actuarial Accrued Liability is the amount by which the Actuarial Accrued Liability exceeds the Actuarial Value of Assets as determined by the System's actuary.

Maryland Pension Administration System

In June 2006, the Agency entered into a contract with a private vendor to modernize the automated system used to administer the State Retirement and Pension System of Maryland. The contract provided for the goods and services needed to define, design, develop, test, implement, and support this project, known as the Maryland Pension Administration System (MPAS). The original term of the contract was for the period from June 2006 to August 2010 and the critical software development milestones 1 through 10 were to be completed by August 2008. The contract cost was approximately $10.2 million.

An April 2008 evaluation of the project performed by a private contractor, hired by the State's Department of Information Technology (DoIT), indicated that the project was in strong need of corrective action. For example, the report cited problems with the original project schedule and the planning process, and noted a lack of properly defined deliverables and poor communication with stakeholders. According to the Agency, it could have exercised its rights under the contract to claim damages resulting from the completion delays. However, the contractor made certain claims inferring that delays were caused by project deficiencies outside of its control, and that it had become necessary to perform certain work that fell outside of the original contract scope.

According to Agency records, as of May 2009, none of the milestones 1 through 10 were completed. In order to avoid further delays and possible litigation, a negotiated settlement was reached with the contractor in May 2009 to modify the contract. Specifically, the implementation deadline for milestones 1 through 10 was extended to July 30, 2010 and the cost of the contract was increased by approximately $5 million to $15.2 million, including approved change requests of $1.4 million and $3.6 million for claims settlement. The modification was approved by the Board of Public Works in May 2009. The project was completed and accepted by the Agency as the system of record in fiscal year 2011.

Actuary Contract Claim Resolution

A former consulting actuary for the System was under contract from July 1, 1982 until August 4, 2006. On October 27, 2004, the actuary disclosed that, for 22 years, beginning with its first actuarial valuation in 1982, it understated the liabilities associated with the survivor benefits for the State Police Retirement System, Judges' Retirement System, and Law Enforcement Officers' Pension System (LEOPS). As a result, the actuary miscalculated and understated the amount of annual employer contributions required to fund the State Police and Judges Systems from July 1, 1983 through June 30, 2005, and understated the amount of annual employer contributions required to fund the LEOPS from July 1, 1992 through June 30, 2005.

On February 9, 2006, the Agency made a claim against the former consulting actuary based on the actuary's failure to detect, correct, and disclose its calculation errors in its annual actuarial valuations for 22 years. Based on information supplied by the actuary, and after consultation with an independent actuary, the Agency estimated that the affected retirement systems suffered a funding shortfall of $73 million in lost contributions and earnings on those contributions, as a result of these errors. The Agency sought to recover contributions of $34.2 million and investment income of $38.8 million to restore the affected systems to their proper positions had this error not occurred.

The actuary filed an appeal of the Agency's claim with the Maryland Board of Contract Appeals. The Board dismissed the appeal and affirmed the Agency's determination, holding the actuary in breach of contract and liable for approximately $73 million in damages. Subsequent appeals by the actuary to the Circuit Court for Baltimore City, and the Maryland Court of Appeals were also decided in favor of the Agency. In August 2011, the Agency received $74 million in payment of its claim. According to the agency, the increase from the original claim amount was the result of final negotiations regarding actual interest due.

Status of Findings From Preceding Audit Report

Our audit included a review to determine the status of the two findings contained in our preceding audit report dated April 13, 2009. We determined that the Agency satisfactorily addressed these findings

Findings and Recommendations

Information Systems Security and Control

Background
The State Retirement Agency hosts the Maryland Pension Administration System (MPAS). MPAS is a server-based application that calculates and processes retirement and pension benefits for retirees and beneficiaries and contributions for current members. The Agency's wide-area network provides employee access to various information technology services including business productivity applications, database management systems, network file and print services, email services, Internet access, and connectivity to State of Maryland hosted mainframe systems.

Finding 1
MPAS database controls were not sufficient.

Analysis
MPAS database controls were not sufficient. Specifically, we noted the following conditions:

- A default administrative database account unnecessarily had full access to the database used for MPAS. Since this account includes local server administrators by default, all local administrators on the database server had full administrative access to this database. Also, anyone able to obtain local administrator privileges would automatically have full administrative access to this database and could perform unauthorized modifications to critical data. In this regard, we noted that personnel associated with five administrator accounts were inappropriately assigned full access to the database as a result of this condition.

- Critical security and audit events (such as to modify user capabilities or to stop the audit function) on the MPAS database were not logged. As a result, an audit trail to ensure accountability of these events did not exist.

- Direct changes made to critical tables were not logged for review. As a result, there was a lack of assurance as to the propriety of any direct changes made to these critical tables.

The State of Maryland's Department of Information Technology (DoIT) *Information Security Policy* requires that access rules for critical databases use a "least privilege" security strategy that only grants database access privileges needed to perform assigned tasks. In addition, an audit trail and review process for security audit logs should be established to ensure accountability of these events.

Recommendation 1
We recommend that the Agency
a. limit access to all critical databases to personnel whose job duties require such access; and
b. log critical security and audit events and direct changes on the MPAS database, regularly review these logs, investigate unusual or questionable items, and document and retain these reviews and investigations.

Audit Scope, Objectives, and Methodology

We have audited the State Retirement Agency for the period beginning October 1, 2008 and ending May 19, 2011. The audit was conducted 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.

As prescribed by the State Government Article, Section 2-1221 of the Annotated Code of Maryland, the objectives of this audit were to examine the Agency'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 two 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 benefits paid to retirees and beneficiaries, contributions required from participating employers, and critical information systems. Our audit procedures included inquiries of appropriate personnel, inspections of documents and records, and observations of the Agency'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.

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

The Agency's 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 the Agency regarding the results of our review of its response.

APPENDIX

MARYLAND
STATE RETIREMENT
and PENSION SYSTEM

STATE RETIREMENT AGENCY
120 East Baltimore Street
Baltimore, MD 21202
Tel: 410-625-5555
1-800-492-5909
TDD/TTY 410-625-5535
sra.maryland.gov

R. Dean Kenderdine
Executive Director
Secretary To The Board

February 28, 2012

Mr. Bruce A. Myers, CPA
Legislative Auditor
State of Maryland
Office of Legislative Audits
State Office Building
301 West Preston Street, Room 1202
Baltimore, Maryland 21202

Dear Mr. Myers:

We are providing this letter in response to your letter dated February 14, 2012 addressed to the Honorable Nancy K. Kopp, Chair, Board of Trustees of the Maryland State Retirement and Pension System in connection with your fiscal/compliance audit of the Maryland State Retirement Agency for the period beginning October 1, 2008 and ending May 19, 2011. Enclosed with your letter was a draft copy of your audit report identifying one audit finding and the Office of Legislative Audits' recommendations along with your request for the Agency's response to the audit comments.

Referring to page 6 of your draft "Findings and Recommendations", the audit finding and recommendations along with the Agency response are as follows:

Finding 1
MPAS database controls were not sufficient.

Recommendation 1
We recommend that the Agency

a. limit access to all critical databases to personnel whose job duties require such access; and
b. log critical security and audit events and direct changes on the MPAS database, regularly review these logs, investigate unusual or questionable items, and document and retain these reviews and investigations.

Agency Response:

The Agency concurs with the Office of Legislative Audits finding and its recommendations, and has taken specific action to effect compliance. Specifically, corresponding to the lettering in the OLA draft report:

a. The Agency re-assessed all individuals with privileges, and access to all critical databases has been restricted to personnel whose job duties require such access. This assertion is substantiated with affirming artifacts, should further supporting evidence be required.
b. The Agency initiated a daily process to review table and schema changes to the MPAS database, beginning on 12/17/11. This assertion is substantiated with affirming artifacts, should further supporting evidence be required.

If you should have any questions regarding our response, please feel free to contact me.

Sincerely,

R. Dean Kenderdine
Executive Director

cc: Nancy K. Kopp, Chair of the Board of Trustees
Ira Greenstein, Chief Information Systems Officer
Toni Voglino, Chief Internal Auditor

AUDIT TEAM

Paul R. Denz, CPA
Audit Manager

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

Rick E. Pyles
Senior Auditor

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

Michael D. Cheese
A'knea K. Smith
Staff Auditors