



STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

DEBRA K. DAVENPORT, CPA
AUDITOR GENERAL

WILLIAM THOMSON
DEPUTY AUDITOR GENERAL

January 14, 2009

The Honorable Thayer Verschoor, Chair
Joint Legislative Audit Committee

The Honorable Judy Burges, Vice Chair
Joint Legislative Audit Committee

Dear Senator Verschoor and Representative Burges:

Our Office has recently completed a 24-month followup of the Arizona Department of Education—Information Management regarding the implementation status of the 32 audit recommendations (including sub-parts of the recommendations) presented in the performance audit report released in August 2006 (Auditor General Report No. 06-07). As the attached grid indicates:

- 14 have been implemented;
- 1 has been partially implemented;
- 14 are in the process of being implemented; and
- 3 have not been implemented.

Unless otherwise directed by the Joint Legislative Audit Committee, this concludes our follow-up work on the Department's efforts to implement the recommendations resulting from the August 2006 performance audit report.

Sincerely,

Melanie M. Chesney, Director
Performance Audit Division

MMC:Acm
Attachment

cc: Tom Horne, State Superintendent of Public Instruction
Arizona Department of Education

**ARIZONA DEPARTMENT OF EDUCATION
INFORMATION MANAGEMENT
Auditor General Report No. 06-07
24-Month Follow-Up Report**

Recommendation

Status/Additional Explanation

Finding 1: ADE needs to better manage security of its information technology systems and operations

1.1 ADE should develop and implement an ongoing process for addressing IT security vulnerabilities or control weaknesses when they are discovered. The process should ensure that known security concerns are evaluated and prioritized in order of risk, that specific plans to address them are developed, and that responsibility for correcting them is assigned.

Implementation in Process

ADE's Information Security Officer (ISO) is developing security-related policies and guidelines, and implementing an ADE-wide security program. As part of this effort, the ISO has been assigned the responsibility to oversee security audits and assessments to identify weaknesses. The ISO also oversees the remediation of any identified weaknesses.

1.2 ADE should identify specific security objectives, assess its current set of policies and procedures against those objectives, analyze any gaps, consider the risk associated with each, develop a plan to implement effective policies and procedures, and monitor them on a regular basis.

Implementation in Process

ADE's ISO is developing security-related policies and guidelines, and implementing an ADE-wide security program.

1.3 ADE should develop a process to identify and implement specific security guidelines for its systems, incorporate them within its systems development and testing process, and train its development and testing staff on security concerns and methods.

Implemented at 6 Months

1.4 ADE should consider creating an appropriate position to be responsible for all IT security within ADE. The reporting line of the security position should be such that it can effectively design, implement, and enforce compliance with the organization's security policies, standards, and procedures, and ensure that they are functioning effectively.

Implemented at 6 Months

Recommendation**Status/Additional Explanation****Finding 2: ADE can further enhance SAIS' reliability**

2.1 To improve SAIS data reliability, ADE should implement additional controls. Specifically, ADE should:

- a. Establish a department-wide comprehensive procedure for developing and implementing business rules;

Implementation in Process

ADE originally planned to submit a request for additional staff in fiscal year 2009 and have this recommendation completed by December 2010. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete it by December 2011.

In the interim, using the Business Analysts within the IT Project Management Office, ADE has implemented a coordinated agency-wide effort to gather, standardize, and document business rules from the various units within the agency. ADE is also working to put enforcement mechanisms in place to ensure all business rules are generated through this process. In addition, ADE is using its evolving Systems Development Life Cycle (SDLC) process and its associated tools to translate the business rules into technical specifications, and is using the newly developed Data Warehouse to test the new concepts and the new tools.

- b. Implement automated variance checks by identifying appropriate staff to determine what types of variance checks should be added, as well as assigning responsibility for following up on any data variances that appear unreasonable; and

Not Implemented

ADE originally planned to submit a request for additional staff in fiscal year 2009 and complete this recommendation by December 2011. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete it by December 2012.

Recommendation**Status/Additional Explanation**

- c. Add processing controls such as run-to-run totals and data reconciliation, and review information collected from the controls at least twice a month to help prevent potential problems with SAIS data.

Implementation in Process

ADE has worked to establish the requirements needed to enhance SAIS. However, ADE indicated that additional staff are needed to complete this recommendation. ADE planned to submit a request for additional staff in fiscal year 2009 and complete the recommendation by December 2009. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete it by December 2010.

2.2 To help improve SAIS' functionality, ADE should:

- a. Obtain user acceptance of the one report that has been developed for archiving, and

Implementation in Process

ADE indicated that the archiving report that had been developed was not meeting users' needs. Therefore, ADE plans to address archiving functionality as a part of its Education Data Warehouse project with the assistance of its ISO. ADE is currently conducting quality assurance testing on the data warehouse and its ability to produce the required reports.

- b. Develop and implement other SAIS-archived reports.

Implementation in Process

ADE plans to address report archiving functionality as a part of its Education Data Warehouse project. Phase One of the project has been released to select users for testing.

2.3 To address user concerns and identify additional ways to improve SAIS, ADE should:

- a. Establish a tactical team composed of representatives from ADE's IT section and both internal and external stakeholders to identify and prioritize its user community's needs; and

Implemented at 18 Months

- b. Establish a schedule for implementing the agreed-upon SAIS changes.

Implemented at 18 Months

2.4 To improve SMS software performance, ADE should:

- a. Ensure the SAIS SMS software test environment is up-to-date and available when needed;

Implemented at 24 Months

Recommendation	Status/Additional Explanation
<p>b. Monitor software performance and take steps to address any problems identified; and</p>	<p>Partially Implemented Although it has the capability to monitor vendor software performance, ADE reported that it continues to rely on school districts to work with vendors to address vendor software performance issues.</p>
<p>c. Consider establishing a recurring SMS software certification or rating process.</p>	<p>Not Implemented As indicated in its response to the report, ADE believes additional resources are needed to implement this recommendation. ADE originally planned to request additional resources in its fiscal year 2009 Decision Package and have the recommendation implemented around June 2009. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete the recommendation by June 2010.</p>

Finding 3: ADE needs to improve IT project management and operation oversight

<p>3.1 ADE should develop, adopt, and enforce the use of a single, effective, agency-wide SDLC process.</p>	<p>Implementation in Process ADE has developed an IT SDLC process that is being implemented in phases.</p>
<p>3.2 ADE should create a plan to review current applications' technical and user documentation:</p> <p>a. Determine what needs improvement in order to maintain the applications;</p>	<p>Implementation in Process ADE reported that it needs additional staff and resources to complete this recommendation, which it planned to request for fiscal year 2009. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete the recommendation by June 2012.</p> <p>In the meantime, ADE reported that it is trying to work with its limited resources by using the ADE executive team, which meets with the IT staff to select the systems that most need improvement. IT staff then review documentation associated with these systems.</p>

Recommendation**Status/Additional Explanation**

b. Address identified gaps; and

Implementation in Process

According to ADE, it needs additional staff and resources to complete this recommendation, which it planned to request for fiscal year 2009. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete the recommendation by June 2012.

In the meantime, ADE reported that it is trying to work with its limited resources by using the ADE executive team, which selects the systems that most need improvement. IT staff then begin reviewing documentation associated with these systems to identify and address documentation gaps.

c. Prioritize and schedule improvement activities.

Implementation in Process

According to ADE, it needs additional staff and resources to complete this recommendation, which it planned to request for fiscal year 2009. Given the current budget deficit, however, ADE withheld this request, and plans to re-evaluate the appropriateness of its submission; should it be submitted for fiscal year 2010, ADE plans to complete the recommendation by June 2012.

In the meantime, ADE reported that it is trying to work with its limited resources by using the ADE executive team, which meets with the IT staff to prioritize the systems that most need improvement. The IT team then begins working on the issues that need to be addressed.

3.3 ADE should identify, collect, and measure performance measurements for key IT functions and operations.

Implemented at 18 Months

3.4 ADE should develop a plan and address resource requirements to allow it to perform regular risk assessments of its IT systems and operations, and should develop procedures to address issues raised.

Implementation in Process

ADE has established guidelines for conducting risk assessments and the ISO has established a program to assess the security risk of ADE's IT systems. ADE planned to request additional staff for fiscal year 2009 to assist in implementing this recommendation. Given the current budget deficit, however, ADE withheld this request for fiscal year 2009, and plans to re-evaluate the appropriateness of its submission.

Recommendation**Status/Additional Explanation**

3.5 ADE should fully develop a business continuity plan and should include provisions for regularly updating and testing the plan.

Implementation in Process

ADE has participated in the state-wide design and implementation of LDRPS (Living Disaster Recovery Planning System). Within the agency, ADE has developed a business continuity plan. However, the plan focuses only on restoring information systems (commonly called an IT disaster recovery plan) and does not address the continuity of business operations, such as creating, disseminating, and testing employee procedures used to minimize the disruption in IT services. ADE planned to request additional staff for fiscal year 2009 to assist in implementing this recommendation. Given the current budget deficit, however, ADE withheld this request for FY 2009, and plans to re-evaluate the appropriateness of its submission.

Finding 4: ADE needs to ensure its information technology meets its business needs

4.1 To ensure that IT can better meet ADE's mission and business needs, ADE should establish an IT steering committee that should include representatives from senior management, user management, and the IT function, such as the superintendent, and/or deputy superintendent, the associate superintendents, the CIO, and other key ADE stakeholders as appropriate.

Implemented at 18 Months

4.2 Once established, the ADE IT steering committee should:

a. Ensure adequate IT involvement in the Department's and the divisions' planning processes;

Implemented at 12 Months

b. Provide overall IT direction for the Department; and

Implementation in Process

ADE has established an IT Advisory Group (ITAG), but this group is not at the stage where it is able to provide informed IT direction.

c. Ensure that adequate processes exist for identifying priorities and funding, and allocating department-wide IT resource costs.

Implementation in Process

ADE's Project Management Office continues to refine its processes for prioritizing, funding, and allocating IT resource costs. However, according to ADE, there has been turnover in key positions in its Project Management Office, which has delayed this recommendation's progress.

4.3 To ensure that IT can effectively meet ADE's business needs, ADE should review the IT section's organizational placement within ADE.

Implemented at 6 Months

Recommendation**Status/Additional Explanation**

- 4.4 ADE should ensure that the IT section establishes an effective planning process, which includes:
- a. Developing, with input from key stakeholders, an IT plan that defines the long-term direction that aligns with ADE's business needs; and **Implemented at 24 Months**
 - b. Developing an action plan that first formulates strategies; evaluates costs, benefits, and possible consequences of alternative courses of action; considers the resources needed; assigns responsibility for implementation; defines the steps that must be finished to complete the plan; sets a time frame for completion; and determines the resources necessary to carry it out. **Not Implemented**
Although ADE has developed a strategic plan, it has not developed an action plan.

Finding 5: ADE not in full compliance with student-level data collection notification and disposal requirements

- 5.1 ADE should finish compiling the list of data elements that it collects through SAIS and should:
- a. Include references to the statutory authority for gathering each piece of information, as required by A.R.S. §15-1042(E); **Implemented at 6 Months**
 - b. Include in its list other data elements collected for which there is no specific statutory reference and cite the reference for the process that ADE must perform, or otherwise describe how the data fills a need in the process in order to make SAIS complete; and **Implemented at 6 Months**
 - c. Establish a deadline to publish the information no later than by the end of fiscal year 2007. **Implemented at 6 Months**
-
- 5.2 ADE should adopt a retention schedule and guidelines to remove outdated student data from SAIS. **Implemented at 6 Months**
-