

LEGISLATIVE AUDIT DIVISION

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MEMORANDUM

TO: Legislative Audit Committee Members
FROM: Hannah Nishek, Information Systems Auditor
CC: Denise Juneau, Superintendent, Office of Public Instruction
Dennis Parman, Deputy Superintendent, Office of Public Instruction
Madalyn Quinlan, Chief of Staff, Office of Public Instruction
DATE: September 2016
RE: Information Systems Audit Follow-Up (17SP-01): Data Reliability of the Montana Automated Educational Finance and Information Reporting System (MAEFAIRS) (14DP-02)
ATTACHMENTS: Original Information Systems Audit Summary

Introduction

In March 2015, the *Data Reliability of the Montana Automated Educational Finance and Information Reporting System (MAEFAIRS) (14DP-02)* report was issued to the Legislative Audit Committee. The audit included four recommendations to the Office of Public Instruction. In September 2016, we conducted follow-up work to assess the implementation of the report recommendations. This memorandum summarizes the results of our follow-up work.

Overview

We made four audit recommendations to the Office of Public Instruction. Recommendations focused on access control procedures, an information security program plan, configuration management, and the disaster recovery testing process of MAEFAIRS. The Office of Public Instruction has made progress toward three report recommendations: two recommendations are being implemented and one recommendation is partially implemented. The fourth recommendation has been fully implemented.

Background

MAEFAIRS was developed 20 years ago and is administered by the Office of Public Instruction. The system assists in calculating entitlements to school districts and special education co-ops based on reporting of enrollment, the number of educators and licensed professionals, and the number of Native American Students. Information is obtained from two other sources: the Achievement in Montana system for student enrollment and the Terms of Employment Accreditation Master Schedule system for school district employment. Additionally, users from school districts across the state enter data as part of the entitlement calculation process. Calculations are performed within MAEFAIRS, and funds are distributed by the Payment System, a separate information system also maintained by the Office of Public Instruction.

Initial audit work examined general and business process controls related to MAEFAIRS to assess the reliability of input and output data. The audit report resulted in four recommendations. To conduct our follow-up work, we collected information from the Office of Public Instruction and assessed the status of each report recommendation.

Audit Follow-Up Results

The following sections summarize the progress toward implementation of the report recommendations. The Office of Public Instruction has made progress toward the implementation of three report recommendations, and has fully implemented one report recommendation.

RECOMMENDATION #1

We recommend the Office of Public Instruction implement procedures for ensuring only authorized individuals have access to the Montana Automated Educational Finance and Information Reporting System.

Implementation Status – Partially Implemented

In response to the initial audit report, the Office of Public Instruction stated that an access review and user modification process would be developed and documented. To conduct the annual review, the agency reviews a report generated by the internal information technology department. The report lists every user and the last log-in date related to the account. Users with a last log-in date exceeding a one year time period are removed after confirming access is no longer needed. After reviewing the current access list, we found that only authorized users had access. While access to MAEFAIRS is up-to-date, a standard procedure for reviewing access has not been fully developed and documented. To fully implement the report recommendation and improve access control of MAEFAIRS, we advise the Office of Public Instruction to continue to work towards approved and documented procedures that address all aspects of access control which include adding, modifying, removing, and reviewing user access.

RECOMMENDATION #2

We recommend the Office of Public Instruction develop an Information Security Program Plan, including information security architecture and agency policies, in accordance with state law and policy.

Implementation Status – Being Implemented

Since the release of the original audit report, the Office of Public Instruction has developed an Information Security Program Plan. Goals of compliance with federal and state standards were apparent throughout the plan. The plan includes an extensive list of security control groups, the order and timeline of implementation, and an estimation of required resources. The Information Security Program Plan timeline states a beginning date of January 2016, and a completion date of January 2020. While this a realistic timeframe for the plan to be successfully executed, the implementation process could be delayed. Due to agency personnel turnover, there is concern on both our part and the agency of whether the plan can be implemented within the timeline indicated. The agency staff responsible for the execution of the plan, the security officer, has experienced significant turnover and was vacant during the follow-up process. However, the Office of Public Instruction is in the process of hiring for this position and hopes to have the position filled soon.

RECOMMENDATION #3

We recommend the Office of Public Instruction strengthen configuration management of the Montana Automated Educational Finance and Information Reporting System by documenting configuration management policies, plans, and procedures.

Implementation Status – Being Implemented

Based on initial audit work, we determined that a more definitive configuration management of MAEFAIRS would assist in the organization and maintenance of the system. While a change control and change approval process have been documented and implemented, the remaining components of configuration management have not been completed. The Office of Public Instruction's Information Security Program Plan provides a description of configuration management components. Examples include policy and procedures, baseline configuration, configuration change control, security impact analysis, access restrictions for change, and configuration settings. The plan timeline indicates that configuration management implementation will begin in September 2018. Therefore, the recommendation is currently being implemented.

RECOMMENDATION #4

We recommend the Office of Public Instruction further define the requirements of disaster recovery testing, including the frequency of tests, within its agency disaster recovery plan.

Implementation Status – Implemented

MAEFAIRS is a critical system to the Office of Public Instruction and the disaster recovery plan reflects that. The plan states the timeline in which MAEFAIRS must be brought-up and operational after a disaster-related event occurs. To ensure the timeline is met, the Office of Public Instruction has improved the disaster recovery testing process by specifying that annual testing will occur, and by documenting the steps of the process within the disaster recovery plan. Since the release of the initial audit report, a disaster recovery test was conducted as part of the annual testing process. We reviewed the results of the testing process, and we concluded that the test was successful.