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A Review of General Automation Controls at Selected State Agencies and Universities: Phase II

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Members of the Legislative Audit Committee:

During our review of controls over computer resources at three entities, we noted several areas that need to be improved. However, we did not find problems that currently affect the entities' overall operations. Together, these entities plan to spend over $220 million on computer-related expenditures in fiscal year 1999. (See text box for a breakdown of each entity's expenditures.)

Projected Computer-Related Expenditures for Fiscal Year 1999

- Department of Health - $80,021,583
- The University of Texas Southwestern Medical Center at Dallas - $20,186,494
- Department of Human Services - $120,242,659

Source: Self-reported Fiscal Year 1998-1999 Biennial Operating Plan, Schedule S – Plan Summary for each entity

- Department of Health — Enhance protection of computer resources and create a central oversight function.
- The University of Texas Southwestern Medical Center at Dallas — Increase preparation for disasters and make sure that unauthorized people cannot access computer systems.
- Department of Human Services — Fully develop documentation for key processes.

General Automation Controls

Access controls help prevent unauthorized changes to data and access to confidential information.

Physical security controls help ensure that computer equipment is in a secure area, free of physical hazards.

Computer operation controls help ensure that computer tasks are performed in an orderly manner. This includes a plan for recovery in the event of a disaster.

Software development controls help ensure that software meets the needs of management and users.

We provided management letters with detailed findings to each entity and requested responses. These letters and responses are available upon request.

Department of Health

During our review, we noted that the Department of Health does not always adequately safeguard its automated resources from physical hazards and unauthorized access. As a result, the risk of loss or damage to automated resources increases. In addition, a central oversight function for information resources does not exist. Software is developed independently in each program area. This practice can lead to duplicate data and software applications that cannot communicate with each other. It is also difficult to ensure that policies, procedures, and standards are consistently followed throughout the Department.

We recommend that management adequately protect the Department's automated resources. Management should also create a central oversight function for its information resources.

Responses indicate that management generally concurs with the findings and agrees to take corrective action.

SAO Report No. 99-045

The University of Texas Southwestern Medical Center at Dallas

The University has made significant progress in planning for disaster recovery. However, during our review we noted that the plan lacks some important elements to ensure successful business resumption. As a result, there is the risk of increased downtime if a disaster occurs. Also, the University does not have a formal process in place to review and monitor access logs or limit programmer access to production programs or data. Without such a process, management may not detect unauthorized changes to production programs and data.

We recommend that management ensure that strong controls exist over access to automated resources. Adequate planning should also take place to ensure that business can resume after a disaster.

Responses indicate that management generally concurs with the findings and agrees to take corrective action. Management noted that programmers need some access to production programs and that this access is logged and monitored.

Department of Human Services

During our review, we noted that the Department of Human Services lacks complete written procedures for some key processes and activities. As a result, employees may not perform these processes consistently or completely. This can lead to inefficient and/or ineffective systems. In addition, the lack of these procedures can result in loss of key knowledge when personnel leave the Department.

We recommend that management ensure that complete written procedures exist for processes and activities within Management Information Systems.

Responses indicate that management generally concurs with the findings and agrees to take corrective action.

We sent copies of this letter report to the entities' governing board chairs and members, commissioners, chancellor, president, and internal auditors.

Please contact Mary Goehring, Audit Manager, at (512) 479-4700 if you have questions about this report.

Sincerely,

Lawrence F. Alwin, CPA
State Auditor

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Objectives, Scope, and Methodology

The objectives of our work were to determine if selected state entities develop, purchase, or implement software according to standards and if automated resources are adequately protected from loss or misuse.

To obtain these objectives we performed a review of the following areas: (1) access controls, (2) physical security controls, (3) computer operation controls, and (4) system and application development controls. In the course of our work, we interviewed entity staff, performed walk-throughs, utilized questionnaires, and reviewed procedures manuals and client documentation.

We performed work at the Department of Health, The University of Texas Southwestern Medical Center at Dallas, and the Department of Human Services.

We conducted our audit work in accordance with generally accepted government auditing standards.