



STATE OF NORTH CAROLINA

AUDIT OF THE INFORMATION SYSTEMS

APPLICATION CONTROLS

**NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN
SERVICES**

COUNTY ADMINISTRATION REIMBURSEMENT SYSTEM

SEPTEMBER 2007

OFFICE OF THE STATE AUDITOR

LESLIE MERRITT, JR., CPA, CFP

STATE AUDITOR

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Leslie Merritt, Jr.,
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State Auditor

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AUDITOR'S TRANSMITTAL

The Honorable Michael F. Easley, Governor
Members of the North Carolina General Assembly
Ms. Carmen Hooker Odom, Secretary,
North Carolina Department of Health and Human Services

Ladies and Gentlemen:

We have completed our audit of the North Carolina Department of Health and Human Services (DHHS). This audit was conducted during the period from March 13, 2007, through May 15, 2007. The audit was conducted in accordance with *Government Auditing Standards* and *Information Systems Audit Standards*.

The primary objective of this audit was to evaluate information systems (IS) application controls for the County Administration Reimbursement System at DHHS. The scope of our IS application controls audit included data completeness, data accuracy, table maintenance, user access, processing, and data backup and recovery.

This report contains an executive summary and audit results which detail the areas where DHHS has performed satisfactorily relevant to our audit scope, where improvements should be made, and where further study is necessary.

We wish to express our appreciation to the staff of DHHS for the courtesy, cooperation and assistance provided to us during this audit.

North Carolina General Statutes require the State Auditor to make audit reports available to the public. Copies of audit reports issued by the Office of the State Auditor may be obtained through one of the options listed in the back of this report.

Respectfully submitted,

A handwritten signature in cursive script that reads "Leslie W. Merritt, Jr.".

Leslie Merritt, Jr., CPA, CFP
State Auditor

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EXECUTIVE SUMMARY

We conducted an Information Systems (IS) audit at the North Carolina Department of Health and Human Services (DHHS) from March 13, 2007, through May 15, 2007. The primary objective of this audit was to evaluate the IS application controls for the County Administration Reimbursement System in place during that period. Based on our objective, we report the following conclusions:

Data completeness controls are designed to ensure that all transactions are entered into the system once and only once, that all errors are corrected without any being lost, duplicated or added, that all transactions are processed, that databases are updated completely, and that all output reports are complete. *Our audit did not identify any significant weaknesses in data completeness controls.*

Data accuracy controls ensure that the details of transactions are entered and processed correctly, and that printed output is not distributed to the user until it is checked for reasonableness. *Our audit did not identify any significant weaknesses in data accuracy controls.*

Systems use tables to make computations and to verify valid codes during data entry. **Table maintenance** controls ensure that tables used in processing include correct and timely values. *Our audit did not identify any significant weaknesses in table maintenance controls.*

User access controls ensure that only authorized persons are able to inquire about, record, change, or delete data that electronic signatures are used to approve transactions are valid, that only authorized users receive printed reports, and that blank negotiable instruments are protected. We did not identify any significant weaknesses related to user access controls.

Processing includes all of the activities associated with running productions jobs. *Our audit did not identify any significant weaknesses in processing.*

Data Backup and Recovery procedures ensure that the system can be restored if a disaster destroys the primary data files. To be effective, the backup data files must be stored in a secure offsite location, and all essential files should be included. The backup tapes should be stored in an environmentally safe facility far enough away from the computer center so that the backups and the center cannot be both destroyed by a single disaster. The County Administration Reimbursement System application runs on the state's mainframe computer. Transactions are uploaded into the system from the various counties. In the event the mainframe has a disruption in service, the Department of Health and Human Services has established alternative procedures or provisions to recover these transactions. *Our audit did not identify any significant weaknesses in data backup and recovery controls.*

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AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

Under the *North Carolina General Statutes* 147-64.6, the State Auditor is responsible for examining and evaluating the adequacy of operating and administrative procedures and practices, systems of accounting, and other elements of State agencies. IS application controls audits are examinations of controls which effect a specific application system. This IS audit was designed to ascertain the effectiveness of application controls for the County Administration Reimbursement System.

SCOPE

Application controls are those controls that are specific to a particular application system. The scope of our application controls audit was to review data completeness, data accuracy, table maintenance, user access, processing, and data backup and recovery.

METHODOLOGY

We audited policies and procedures, interviewed key administrators and other personnel, examined system configurations, toured the computer facility, tested on-line system controls, reviewed appropriate technical literature, reviewed computer generated reports, and used security evaluation software in our audit of application controls. We conducted our audit in accordance with the standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States and *Information Systems Audit Standards* issued by the Information Systems Audit and Control Association.

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BACKGROUND INFORMATION

North Carolina has a Federally Mandated, State Supervised, County Administered, Social Services System. This means the Federal Government authorizes national programs and a majority of the funding and the State Government provides oversight and support but it is the 100 local county departments of social services that deliver the services and benefits.

In North Carolina, the single administrative agency is the North Carolina Department of Health and Human Services (DHHS). This umbrella agency has evolved over time and now includes separate divisions. One of the DHHS divisions with the greatest impact on local offices is the Division of Social Services.

The Division of Social Services provides training, technical assistance, and consultation to the local staff who work in programs for families and children including Child Welfare, Family Support, Work First, Child Support, and Food Stamps.

The DHHS Controller's Office County Administration Reimbursement System tracks the total dollars spent on the delivery of services for any given month. It is responsible for the correct reimbursement to the county departments of social services for the cost of administering the many social service programs of DHHS Division of Social Services (DSS). These costs are for salary and fringe benefits of the social workers, administrative costs, and purchased services. The system accepts transmitted data from the counties. The data entered into the system for transmission is obtained from the individual counties' financial systems.

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AUDIT RESULTS AND AUDITEE RESPONSES

The following audit results reflect the areas where DHHS has performed satisfactorily and where recommendations have been made for improvement.

COUNTY ADMINISTRATION REIMBURSEMENT SYSTEM

DATA COMPLETENESS

Data controls are designed to ensure that all transactions are entered into the system once and only once, that all errors are corrected without any being lost, duplicated or added, that all transactions are processed, that databases are updated completely, and that all output reports are complete. Data completeness is the responsibility of the individual local counties. The DHHS DSS County Administration reconciles the data uploaded to the County Administration Reimbursement System to the Statement of Administrative Cost submitted by the counties. Our audit was limited to a review of the DHHS DSS County Administration's reconciliation process and did not include a review of the data completeness controls at the counties. *Our audit did not identify any significant weaknesses in data completeness controls.*

DATA ACCURACY

Data accuracy controls ensure that the details of transactions are entered and processed correctly, and that printed output is not distributed to the user until it is checked for reasonableness. Data accuracy is the responsibility of the individual local counties. The DHHS DSS County Administration reconciles the data uploaded to the County Administration Reimbursement System to the Statement of Administrative Cost submitted by the counties. Our audit was limited to a review of the DHHS DSS County Administration reconciliation's process and did not include a review of the data accuracy controls at the counties. *Our audit did not identify any significant weaknesses in data accuracy controls.*

TABLE MAINTENANCE

Systems use tables to make computations and to verify valid codes during data entry. Table maintenance controls ensure that tables used in processing include correct and timely values. *Our audit did not identify any significant weaknesses in table maintenance controls.*

USER ACCESS

User access controls ensure that only authorized persons are able to inquire about, record, change, or delete data that electronic signatures are used to approve transactions are valid, that only authorized users receive printed reports, and that blank negotiable instruments are protected. *We did not identify any significant weaknesses related to user access controls.*

AUDIT RESULTS AND AUDITEE RESPONSES (CONCLUDED)

PROCESSING

Processing includes all of the activities associated with running productions jobs. *Our audit did not identify any significant weaknesses in processing.*

DATA BACKUP AND RECOVERY

Data Backup and Recovery procedures ensure that the system can be restored if a disaster destroys the primary data files. To be effective, the backup data files must be stored in a secure offsite location, and all essential files should be included. The backup tapes should be stored in an environmentally safe facility far enough away from the computer center so that the backups and the center cannot be both destroyed by a single disaster. The County Administration Reimbursement System application runs on the state's mainframe computer. Transactions are uploaded into the system from the various counties. In the event the mainframe has a disruption in service, the Department of Health and Human Services has established alternative procedures or provisions to recover these transactions. *Our audit did not identify any significant weaknesses in data backup and recovery controls.*

ORDERING INFORMATION

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