

**STATE AUTOMATION SYSTEMS STUDY**

**SITE VISIT SEPTEMBER 13 - 15, 1993**

**NORTH CAROLINA STATE REPORT**

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**FINAL**

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# NORTH CAROLINA STATE REPORT

Site Visit: September 13 - 15, 1993

## STATE PROFILE

**System Name:** Food Stamp Information System (FSIS)

**Start Date:** 1982

**Completion Date:** 1984

**Contractor:** None used

**Transfer From:** New Mexico

**Cost:**

**Actual:** \$2,553,001

**Projected:** \$1,239,379

**FSP Share:** \$2,553,001

**FSP %:** 100%

**Number of Users:** 720

**Basic Architecture:**

**Mainframe:** ES9000/900

**Workstations:** 3270-type terminals

**Telecommunications**

**Network:** Statewide backbone with T3/T1 and 9.6 KB circuits under SNA/SDLC

**System Profile:**

**Programs:** Food Stamp Program

## 1.0 STATE OPERATING ENVIRONMENT

The Food Stamp Program (FSP) and public assistance (PA) programs in North Carolina are administered through the Division of Social Services (DSS) of the North Carolina Department of Human Resources (DHR). North Carolina is a State-administered, county-operated environment in which local governments control the operations and staffing of the local offices.

The State Division of Social Services consists of the following line units:

- Regional Administration
- Program Administration
- Child Support Enforcement
- Disability Determination
- Budget and Planning
- Fiscal
- Information and Communications

Program Administration is responsible for administering the FSP and other assistance programs and consists of the following units:

- Employment Programs
- Family Services
- Public Assistance
- Quality Assurance

The Public Assistance Unit is responsible for making policy decisions and recommendations and contains the following sections:

- Program Integrity
- Food Stamp Operations
- Aid to Families with Dependent Children (AFDC) Coordination
- Assistance Payments

Until November 1, 1992, the Public Assistance Unit also contained the Program Automation Section, which is now included in Information and Communications, the unit responsible for the support of the automated systems that serve the various assistance programs within the State. The Information and Communications Unit consists of two sections: the Information Systems Support Branch and the Program Automation Branch. Information Systems Support is responsible for personal computer (PC) system development, software support, and data entry. The Program Automation Branch has responsibility for FSP automation, Employment Programs, services automation, and Child Support Enforcement (CSE) automation.

State staff describe North Carolina as a combination of urban and rural areas; the food stamp population resides in both urban and mainly rural areas across the State. There are 100 local county-operated welfare offices. County populations range in size from 3,586 to 524,730.

The 1990 population of North Carolina was 6,657,630. Approximately 6.3 percent of the State residents were Food Stamp recipients.

The level of unemployment in North Carolina declined from 1982 to 1989 and increased in 1990 and 1991. Between 1982 and 1989, the State's unemployment rate decreased from 9.0 percent to 3.5 percent, which was a 61 percent decrease. The State's unemployment rate increased to 4.1 percent in 1990 and 5.8 percent in 1991.

The October 1992 report, *The Fiscal Survey of States*, provides the following information compiled by the National Association of State Budget Officers:

- North Carolina's nominal expenditure growth for Fiscal Year (FY) 1993 was between 5.0 and 9.9 percent; the national average for expenditure growth was 2.4 percent.
- State government employment levels in North Carolina increased by 1.16 percent. This change differs in direction from the 0.60 percent national average decrease in state government employment.
- North Carolina's FY 1993 net revenues decreased by \$226.8 million. This reflected a \$237.8 million decrease in corporate income taxes and an \$11 million increase in fees.
- The regional outlook for the southeast indicated slow growth and an uneven recovery from the recession. The regional weighted unemployment rate of 7.6 percent was slightly lower than the national average of 7.8 percent. The region's per capita personal income increase of 3.0 percent was higher than the national average of 2.4 percent.

## **2.0 FOOD STAMP PROGRAM OPERATIONS**

As discussed in the previous section, FSP policy operations are the responsibility of the Food Stamp Operations Section of the DSS Program Administration Unit. Food Stamp Program operations are supported by the Food Stamp Information System, a non-integrated information system that supports only the Food Stamp Program.

Support for FSIS is provided at three levels. State Information Processing Services (SIPS), under the State Controllers' Office, runs the data center and operates FSIS. The DHR Division of Information Resource Management (DIRM) provides application development support. Liaison and analysis activities are conducted by the Information and Communications Section of the Division of Social Services.

### **2.1 Food Stamp Program Participation**

As indicated in Table 2.1, the number of households participating in the Food Stamp Program increased by 55.9 percent between 1988 and 1992, while the number of individuals increased by 53.7 percent during the same period.

**Table 2.1 Average Monthly Public Assistance Participation**

<b>PROGRAM</b>	<b>1992</b>	<b>1991</b>	<b>1990</b>	<b>1989</b>	<b>1988</b>
<b>AFDC</b> Cases Individuals	N/A	N/A	N/A	N/A	N/A
<b>Foster Care</b>	N/A	N/A	N/A	N/A	N/A
<b>General Assistance</b> Cases Individuals	N/A	N/A	N/A	N/A	N/A
<b>FSP</b> Households Individuals	240,436 608,639	206,501 532,781	164,734 418,483	158,974 387,923	154,213 396,086
<b>Medicaid</b>	N/A	N/A	N/A	N/A	N/A

Because FSIS is a stand-alone system that supports the FSP, State staff were unable to provide caseload data for other programs.

**2.2 FSP Benefits Issued Versus FSP Administrative Costs**

The ratio of benefits issued to FSP administrative costs has improved from 9:1 in 1988 to 15:1 in 1992.

North Carolina's average monthly benefit issuance per household over the last five years, as provided in Table 2.2, has increased.<sup>1</sup>

**Table 2.2 FSP Benefits Issued**

	<b>1992</b>	<b>1991</b>	<b>1990</b>	<b>1989</b>	<b>1988</b>
<b>Average Monthly Benefit Per Household</b>	\$162.90	\$156.47	\$142.80	\$123.41	\$120.09

<sup>1</sup> The number of households and benefit amounts use data reported in the FNS *State Activity Reports* each year.

## 2.3 FSP Administrative Costs

North Carolina's Food Stamp Program administrative costs for the past five years are provided in Table 2.3.<sup>2</sup> While total costs increased each year, average cost per household increased between 1988 and 1989 and decreased in subsequent years. Overall, the average Federal administrative cost per household decreased during the five year period.

**Table 2.3 FSP Federal Administrative Costs**

	1992	1991	1990	1989	1988
Total FSP Federal Admin. Cost	\$30,673,807	\$29,518,185	\$27,413,088	\$26,476,212	\$24,896,848
Avg. Federal Admin. Cost Per Household Per Month	\$10.83	\$12.23	\$13.87	\$14.35	\$13.50

## 2.4 System Impacts on Program Performance

Areas of Food Stamp Program performance that could potentially be affected by the automated system that supports the program include:

- Staffing
- Responsiveness to Regulatory Change
- Combined Official Payment Error Rates
- Claims Collection
- Certification/Reviews

### 2.4.1 Staffing

State staff indicated that as of June 1993, the State had 1,597 full-time equivalents (FTEs) supporting the Food Stamp Program. This total included all levels of management personnel as well as supervisory, eligibility, clerical, and support staff. North Carolina staff were unable to provide a detailed breakdown of the number of eligibility workers (EW), EW supervisors, support staff, and other personnel categories supporting the Food Stamp Program. Since personnel decisions are the responsibility of the individual counties in North Carolina, State FSP personnel have no control over and little knowledge of the number of personnel assigned to various duties at the local level.

<sup>2</sup> The number of households and FSP Federal administrative costs are derived from data reported in the FNS *State Activity Reports* each year.

## 2.4.2 Responsiveness to Regulatory Changes

As indicated in Exhibit A-2.1 in Appendix A, North Carolina implemented nine of the 14 regulatory changes in a timely manner, implemented two regulatory changes after the Federally required implementation data, and did not implement three regulations because they were not applicable in North Carolina. Regulations that were determined to be not applicable and the reasons for this determination follow:

- Code 1.1, regulation 273.9(c)(1)(ii)(F): Not applicable because the State does not have GA vendor payments
- Code 1.2, regulation 273.9(c)(5)(i)(F): Not applicable because the State does not provide school clothing allowances
- Code 1.4, regulation 273.9(d)(5)(i): Not applicable because there are not any organized shelters in North Carolina

The two regulations that were implemented late were codes 2.2 and 2.3, Administrative Improvement and Simplification Provisions of the Hunger Prevention Act, provisions 274.2(b)(2) and 274.2(b)(3). State staff indicated that it was difficult to implement these changes due to insufficient lead time for developing requirements and specifications and a lack of experienced technical staff.

## 2.4.3 Combined Official Payment Error Rate

North Carolina's official combined error rate, as indicated in Table 2.4, decreased between 1988 and 1990 and increased in 1991 and 1992.

**Table 2.4 Official Combined Error Rate**

	1992	1991	1990	1989	1988
Combined Error Rate	8.89	8.16	7.14	8.47	9.14

## 2.4.4 Claims Collection

Table 2.5 presents data indicating the total value of claims established, the value of claims collected, and the percentage of claims established that were collected. During the 1989 to 1991 period, the dollar value of claim collections increased each year; however, collections decreased in 1992. Claims established increased each year except 1991. Since 1988, there has been variation in North Carolina's claims collected as a percentage of claims established. The percentage of claims collected is affected by the total number of claims established, whether the individual is still receiving benefits, the amount of available assets, and other factors.

**Table 2.5 Total Claims Established/Collected**

	1992	1991	1990	1989	1988
<b>Total Claims Established</b>	\$2,366,987	\$1,937,358	\$2,320,818	\$2,071,169	\$1,876,600
<b>Total Claims Collected</b>	\$1,660,787	\$1,731,818	\$1,604,317	\$1,441,833	\$1,546,546
<b>As a % of Total Claims Established</b>	70.2%	89.4%	69.1%	69.6%	82.4%

**2.4.5 Certification/Reviews**

A post-implementation review was conducted by the Food and Nutrition Service (FNS) in June 1985. Details regarding the findings of the review were not available.

Since FSIS is not an integrated system with an AFDC component, Department of Health and Human Services (DHHS) Family Assistance Management Information System (FAMIS) certification was not required.

**3.0 OVERVIEW OF THE SYSTEM**

This section provides an overview of the FSIS system's functionality, complexity and level of integration.

**3.1 System Functionality**

Major areas of FSIS functionality addressed in this section include:

- **Registration.** Upon entering county offices, applicants are given application forms to complete and asked to which programs they are applying. Prior to the interview, a statewide participation search using the applicant's name and Social Security Number (SSN) is performed. The participation file contains food stamp and disqualified recipient data only. Many counties also have manual or automated systems which can be checked for duplicate participation and past activity. The system has the ability to copy historical records into the current application or case record if a match is confirmed. County personnel also have the ability to search both Department of Motor Vehicle (DMV) and Department

of Commerce, Employment Security Commission (ESC) files outside of the FSIS system.

There is one basic registration screen, and additional screens are used for other household members.

Client appointment scheduling is not supported by FSIS.

- ***Eligibility Determination.*** It is the eligibility worker's responsibility to make decisions regarding the case and determine eligibility for all applicable program areas. FSIS does not determine eligibility or determine whether an applicant qualifies for expedited benefits. The system also does not determine the people in the household who comprise relevant assistance units.

After the interview is conducted, the eligibility worker completes a coding sheet based on the information supplied during the interview and on the application form. This code sheet is then routed to a data entry operator who enters the data into the system. Print screens of the update and inquiry screens are produced and included in the case record. The screen used for data entry matches the input code sheet. On-line edits are present, but the edits primarily are limited to code value validation.

With respect to verifications, the system does not enforce verification requirements. It also does not provide batch or on-line verification reports or worker reminders regarding missing verifications.

- ***Benefit Calculation.*** Benefit calculation is conducted by the system as part of an overnight batch process that results in the creation of a turnaround document. The turnaround document is reviewed by the EW for accuracy. Supervisory approval is not required to authorize benefits.
- ***Benefit Issuance.*** FSIS creates issuance files monthly for ongoing cases and daily for new approvals and other special issuances. The system has the ability to generate authorization-to-participate (ATP) and mailing cards. Three issuance methods are used in North Carolina, and issuance is primarily a county-based function. Independent contractors frequently are used to support issuance functions in the State. The vast majority (approximately 72 percent) of coupons are issued using direct mail. Other issuance methods used include provision of ATP cards, which are exchanged for coupons, to households (22 percent of statewide issuance) and over-the-counter (OTC) issuance (6 percent of total issuance). Benefit issuance is staggered over ten days for ongoing cases. Benefits are provided daily for expedited and special issuances. Local offices may issue manual ATPs for expedited and lost or stolen replacement issuances.

The system provides controls to prevent duplicate issuances. The system blocks the establishment of a replacement issuance unless the original issuance has been

voided. Password controls are used at both the State and county levels to control access to issuance functions.

Issuance reconciliation involves the system, State personnel, and county staff. The system has the ability to reconcile expired, duplicate, altered, stolen, counterfeit, and out-of-state redeemed ATPs. FSIS provides management reports concerning unreconciled, unredeemed ATPs. Information about redeemed ATPs is available in paper format only. The State sends each county a report showing redeemed original and replacement issuances. Contractors are inventoried quarterly by State officials, and county operations are verified every three years by State regional staff.

- **Notices.** FSIS provides client notices only for the Food Stamp Program. Approximately 200,000 notices are printed each month. The system generates notices for the following purposes:

- Warning that monthly report was not received
- Provision of eligibility determination results
- Denial of eligibility
- Closure based on recertification information

EWs provide input to notices that conveys the specific reasons for program action when benefits are approved, denied, or changed. The mechanism for adding this information involves the designation of codes by EWs and the use of turnaround documents to enter codes into the system. Narrative input to notices is not supported by the system.

Two copies of each notice are printed centrally and routed to the county office responsible for the case. One copy of the notice is retained as part of the case record. The county mails the other copy to the client.

- **Claims System.** The claims system is an integrated part of FSIS. EWs may, through the use of turnaround data entry documents, enter the cause of overpayments or underpayments and whether fraud is suspected. Eligibility workers also determine the collection method. FSIS calculates the recoupment amount for claims against active cases and automatically deducts that amount from the authorized benefit level. The system also tracks the claim status, calculates and deducts from current benefits the recoupment amount, generates a notice to the household regarding overpayments or underpayments, and automatically creates a collection record.

Collection of claims is not centralized in North Carolina. Each county is responsible for collecting outstanding claims on closed cases. The amount of emphasis placed on claims collection activities varies among counties.

- **Computer Matching.** North Carolina has on-line search capabilities for the State Data Exchange (SDX), Department of Labor (both wage and unemployment benefits), DMV, and Beneficiary Data Exchange (BENDEX) databases. Duplicate participation is checked against four adjoining States via periodic exchanges of tapes, and some large employers (utilities) also are involved in computer matching.

Monthly batch matches are performed for the Income and Eligibility Verification System (IEVS) requirements, and "hits" are reported to the worker through paper printouts. "Hits" during batch matching utilize parameters provided in Federal regulations.

Discrepancies found through on-line searches are screen-printed and provided to the eligibility worker. On-line searches require the data entry operator or clerk to log on to separate systems to access various databases. All tracking of reported discrepancies (batch or on-line) is performed at the county level. FSIS does not provide a tracking mechanism. Eligibility workers do not have the authority to "delete" reported discrepancies. Clients will be included in discrepancy reports as long as the discrepancies exist and the case is active within the system.

While State-level program administrators consider on-line matching to be a function that increases overall productivity of line workers, batch match resolution is considered to be a function that slows the overall work process.

- **Alerts.** FSIS does not provide any true on-line "alerts". Paper reports are produced for some instances of work due or overdue. These include a weekly report of pending cases and a monthly listing of cases due for recertification.
- **Monthly Reporting.** FSIS and workers have roles in monthly reporting. The system automatically determines which cases are subject to monthly reporting requirements and produces the monthly report forms for mailing. The forms contain return addresses that are used to direct them back to the assigned worker. In some counties, monthly report review activities are performed by a centralized clerical group instead of the individual worker. All data entry functions are performed by clerical staff. The status of the monthly reporting form may be examined on-line through appropriate case screens.

The system generates warning notices to clients whose reports are late and automatically closes cases where the monthly reporting form is not received. Incomplete monthly reporting forms require the manual preparation of a notice to be mailed to the client.

- **Reports Generation.** The system produces reports to support State and county FSP needs, and it generates some Federally required reports. Over 100 reports are produced, and about 40 of these are available on-line at the local county offices through the Reports Management Distribution System (RMDS). FSIS automatically produces the FNS-46, Issuance Reconciliation Report, and the

Report on Untransacted and Outstanding ATPs. Other FNS required reports are produced either by the individual counties and aggregated at the State level or from raw data provided by FSIS and reformatted by State administrative and clerical staff.

Ad-hoc management reporting is not available at either the State or county level. Requests for reports are handled as part of the regular work request process and hard coded by technical staff.

- ***Program Management and Administration.*** North Carolina provides an electronic mail capability for communicating messages and memoranda. Everyone with a terminal sign-on has access to the electronic mail system, which is not part of FSIS.

FSIS does not support any of the following program management or administrative functions: on-line policy manuals, on-line organizational charts, workload allocation monitoring, and on-line problem reporting.

### **3.2 Level of Integration/Complexity**

The Food Stamp Information System is a stand-alone system devoted to FSP support. A common client index approach is utilized to conduct searches among the AFDC, Food Stamp, and CSE Programs. Access to other State databases is available, but to gain access, the user is required to sign on to the other systems directly.

development or transfer of an integrated system that would replace FSIS as well as the Eligibility Information System (EIS) used to support AFDC. Planning for the new system assumes a two to five year development cycle. Since the new system development initiative is outstanding, major enhancements to FSIS and other existing systems are not planned unless the Federal agencies reject the new system.

#### **4.0 SYSTEM DEVELOPMENT AND IMPLEMENTATION**

This section discusses the operations of the Food Stamp Program prior to the implementation of the FSIS system and the methods and procedures used to implement the FSIS system.

##### **4.1 Overview of the Previous System**

Prior to FSIS, county systems -- that operated independently from each other and State operations personnel -- supported the FSP in North Carolina. County systems generally were manual, paper forms-based systems; however, approximately 25 of the State's 100 counties had automated their FSP operations to some extent.

In 1982, when the State began planning for a new system, new Federal mandates were being implemented that placed an impossible burden upon the existing manual systems. Relevant mandates included those relating to monthly reporting, wage matching, and increased Federal reporting, such as the FNS-366B Program Activity Statement. Prior changes in Federal requirements -- changes required by the Omnibus Budget Reconciliation Act of 1981, the July 1982 change in income limit parameters, and the concurrent change in Social Security benefit limits -- also were extremely difficult to implement within the constraints of the existing manual system.

##### **4.2 Justification for the New System**

In addition to the perceived inability of the existing manual system to accommodate increased Federal operational and reporting requirements, North Carolina identified several specific weaknesses that would be eliminated with the implementation of a new system. These included the:

- Inability to effectively check for duplicate participation among all counties
- Lack of automation in reporting certified cases for quality control sampling purposes
- Current inability to utilize BENDEX or employment security files for matching purposes
- Inability to effectively control fraud and abuse due to the absence of a statewide database

- Inability to effectively forecast participation or provide analytical data regarding current participation or impact of program changes

North Carolina hoped to institute a statewide system that would eliminate these weaknesses and provide benefits inherent in statewide systems. The benefit that could be derived from a statewide system involved the consistent application of policy and regulation across the various political entities (counties) that provided the direct service interface to Food Stamp Program participants.

#### **4.3 Development and Implementation Activities**

An Advanced Planning Document (APD) for FSIS was submitted to FNS on July 30, 1982. This document outlined the steps the State had taken to that point. These steps included the determination of: initial requirements, task force makeup, relationship to the existing North Carolina EIS used to support AFDC, and the project plan for transferring an existing system. By this time, the New Mexico system had been identified as the system meeting the greatest number of North Carolina's requirements.

Prior to and concurrent with FSIS development, the State was developing another system, EIS. The EIS system was an attempt to transfer the PARIS system from Georgia. This attempt failed because the transfer system did not meet North Carolina's requirements for the AFDC and Medicaid Programs. Phase III of the EIS project was supposed to include areas such as notice generation, verifications, budgets, and system interfaces. Phase III was discontinued in March 1986, and EIS did not meet all of its goals.

The FSIS project plan consisted of the following four phases:

- Transfer an existing stand-alone Food Stamp Program system, add required features, pilot the system in two counties, and implement it statewide
- Continue Food Stamp Program participation in the planning and design of EIS Phase III
- Phase in the implementation of EIS Phase III in the AFDC, Medicaid, and other program areas according to schedule, but continue to operate a stand-alone Food Stamp Program system
- Integrate the FSP system into the operational EIS, change the data entry and application processing modules, and retain selected features of the stand-alone FSP system (e.g., issuance, reconciliation, monthly reporting, management reporting, and client notice generation)

The FSIS system became operational statewide in 1984. The basic nature of the system has not changed, however, several modules (e.g., claims/recoupment, monthly reporting, disqualified recipient tracking) have been added and functionality has been enhanced by

adding several features (e.g., file clearances on SSN, trial budget capabilities, and several alternatives for benefit issuance).

#### **4.4 Conversion Approach**

Conversion of open cases was a manual process that was conducted centrally. Data entry was performed by State staff using data from paper forms submitted by county staff. EIS was already partially implemented in the counties at the time FSIS was being installed. State staff indicated that the planned conversion time frame was adequate.

#### **4.5 Project Management**

The technical project manager was selected from the management information systems (MIS) organization. Technical support was separate from the program area, which also had a project manager. The technical project manager, whose sole responsibility was the FSIS project, was involved in day-to-day project management activities. The project manager had 10 years of MIS experience, but no public assistance program experience or previous experience with projects of this size or scope.

The project management team consisted of six FSP, six MIS, and one financial management staff. The following two sections discuss the role of FSP and MIS personnel.

#### **4.6 FSP Participation**

Food Stamp Program participation included involvement in the project management arena and in user groups. During the planning phase, FSP participation was limited to State level administrative and management personnel who were members of the project team and participated in user groups. During the development and implementation periods, county eligibility workers also participated as members of user groups for the FSIS project. User groups met monthly during the development and implementation phases.

#### **4.7 MIS Participation**

MIS involvement in the FSIS project was the driving force behind the project structure and management. The project manager reported to the MIS organization, and staff from DIRM performed application development activities.

North Carolina did not use contractors for the transfer and implementation of FSIS.

#### **4.8 Problems Encountered During Development and Implementation**

State staff indicated that there were not any schedule slippages or cost overruns during the FSIS project; however, there were other problems. Three major problem areas cited by state staff were:

- Code problems that were not identified until the system was implemented
- Scheduling complications resulting from conducting implementation county by county instead of grouping counties into regions and implementing the system to an entire region at once
- Equipment installation not being completed prior to county office implementation

Another problem cited by State staff was the need to extensively re-write both system and user documentation that came with the transferred system.

During the conversion process, the problems experienced varied by county; however, there were not any problems during this period related to system availability, downtime, or response time. Caseworker staffing problems, especially related to the lack of training for data entry workers, was a common early implementation problem.

## 5.0 TRANSFERABILITY

FSIS was transferred from New Mexico. State staff indicated that the transfer process was conducted in accordance with Federal procedures in place in the early 1980s.

The separation of the EIS and FSIS efforts hampered the creation of an integrated system and reflects the dynamics of eligibility system thinking in the late 1970s and early 1980s, when integrated systems were just beginning to be sponsored by the applicable Federal agencies. Since FSIS is a stand-alone food stamp system that is based on an outmoded turnaround document, county data entry concept and operated in a CICS/COBOL II technical environment, it is not considered to be a viable transfer candidate.

## 6.0 SYSTEM OPERATIONS

The following section provides a description of FSIS. The description includes a profile of system components and a discussion of the system operating environment.

### 6.1 System Profile

The components supporting the Food Stamp Information System are as follows:

- **Mainframe:** IBM ES9000/900  
MVS/ESA, CICS, RACF, VSAM files
- **Disk:** IBM 3380/3390  
Memorex Solid State (64 MB)  
IBM 3995 Optical Disk (180 GB)

- **Tape:** Cartridge - Memorex 6480  
Reel - Memorex 6420  
Robotic Library - Memorex 5234
- **Printers:** Impact - IBM 6262, IBM 4248  
Laser - IBM 3800
- **Front Ends:** IBM 3745
- **Workstations:** Variety of 3270-type terminals
- **Telecommunications:** Statewide backbone, eight nodes tied to Raleigh by T3 and T1 circuits; 350 to 400 9.6 KB tail circuits support the local offices under the SNA/SDLC protocol

A detailed listing is provided as Exhibit A-6.1 in Appendix A.

## 6.2 Description of Operating Environment

The operating environment consists of several components. This section describes these components, which include the current operating environment, maintenance, telecommunications, performance, response time, system downtime, and plans for future hardware and software enhancements.

### 6.2.1 Operating Environment

State Information Processing Services, under the State Controllers' Office, operates the data center and provides technical support for all North Carolina departments, including the Division of Social Services. The data center operates on a seven day, 24 hour basis, but on-line applications are normally in production only six days per week. On-line hours are from 7:00 a.m. until 5:30 p.m. The FSIS batch cycle normally runs for five hours, but it can take as long as 14 hours during peak processing periods.

The single processor environment consists of an IBM ES9000 Model 900, which runs under three partition resource system managed (PR/SM) partitions. Partition A supports the majority of the production applications, including FSIS. Partition B supports Department of Motor Vehicles, Highway, and Corrections; Partition C supports the testing environment. A fourth partition will be implemented by the end of the year to support the Department of Revenue.

SIPS runs 65 CICS regions and 22 IMS regions on the ES9000. The majority are supporting production applications. When FSIS was transferred from New Mexico in 1983, there were no CICS applications in North Carolina. Since the system was a *stand-alone* food stamp application, a database environment was not established. FSIS still operates with VSAM files and without any database support. Previous plans to

incorporate FSIS into the Eligibility Information System as an integrated function, were never completed.

The central processing unit (CPU) has both normal parallel and ESCON channels (64 of each) and shares mainframe resources via the IBM PR/SM function. North Carolina also uses a Memorex 64 megabyte solid state storage device for high access files and an IBM 3995 optical disk device to store DMV and personnel records.

Remote printing is supported through the use of Paradyne PIX II channel extension and NJE/RJE remote support facilities. Additional support can be provided to those departments or divisions that can justify their own print operation. Equipment and staffing are provided by the using department rather than SIPS.

An uninterruptible power supply (UPS) is installed to provide one hour of battery backup and full power capability with a diesel generator. The backup system is tested every two weeks.

A disaster recovery plan has been formulated using a commercial hot site agreement with IBM in Tampa, Florida. The State has tested the operating system and switched backbone functions twice. During the next scheduled test in November, the full facility, e.g. operating system, network, and applications, will be tested.

### **6.2.2 State Operations and Maintenance**

SIPS provides operations support staff for FSIS and all other North Carolina applications. The following number and types of personnel are involved: 36 computer operations personnel, seven help desk workers, 15 telephone help desk (network control) staff, and 21 systems programmers.

Application support is provided by MIS staff within DHR. Six individuals are involved: three State staff and three contractors.

DSS management believes that current MIS staffing levels are too low for State staff, but that the use of external contractors has added enough resources to provide effective support for the FSIS application. State staff also believe that the State is competitive with other industries in terms of salary and benefit levels.

Full direct access storage device (DASD) backups of all files are done each weekend and rotated to the off-site storage area. Incremental backups of application data are performed every night. Tapes are taken off-site daily.

### **6.2.3 Telecommunications**

North Carolina has a statewide backbone network that supports all of the State agency applications. The State is divided into eight local access and transport areas (LATAs), and each uses a Southern Bell D4 channel multiplexor to connect six T1 circuits and two

T3 circuits to the SIPS data center in Raleigh. From each D4, 9.6 KB circuits are used to connect each county and local office in the LATA. The State currently has between 350 and 400 circuits installed.

The network is operated under the SNA/SDLC protocol for FSIS, but it also has TCP/IP capability through routers that connect the 70 to 80 local area networks (LANs) within the State.

Backup plans call for rerouting the T3 and T1 links to the Tampa hot site if there is a declared emergency. The switching would take place in the Southern Bell Central Offices if possible. Some testing of this capability was conducted earlier this year, and further testing will be performed in November 1993.

#### **6.2.4 System Performance**

The ES9000/900 is running between 70 percent and 80 percent utilization for its current workload. FSIS uses less than 3 percent of this total. Based on expected growth, State staff anticipates that the processor will need to be upgraded within the next year.

Approximately 110,000 transactions per day are being handled by the FSIS application. Information was not available concerning the total volume processed on the CPU. Batch and on-line windows are not negatively impacted by the heavy workload, and State staff did not have any concerns about performance issues.

#### **6.2.5 System Response**

The State does not maintain timings for terminal response time, the time needed to get a response after the enter key is hit. Both SIPS and DSS staff indicated that response times averaged between two and three seconds.

#### **6.2.6 System Downtime**

Contractual commitments between SIPS and DSS, through service agreements, fix the availability or scheduled uptime at 99.5 percent of scheduled availability. During the past quarter, SIPS averaged 99.95 percent uptime. DSS staff did not express any specific concerns or problems regarding hardware or software uptime.

#### **6.2.7 Current Activities and Future Plans**

Plans are in place to make the following hardware and software changes:

- Upgrade the ES9000 memory within the next few months
- Upgrade the Model 900 within the next 12 to 18 months
- Evaluate 3490E tape devices

- Eliminate older technology 3380 disks and replace with newer 3390 DASD
- Implement more ESCON connections for I/O devices

## **7.0 COST AND COST ALLOCATION**

This section addresses the following topics: FSIS development costs and approved Federal funding, ongoing FSIS operating costs, and methodology used to allocate costs to the Food Stamp Program.

The sources of information for this section include:

- State Automation Study, Food Stamp Program, Cost Accounting Interview Guide and Survey, September 1993, completed by North Carolina staff
- State of North Carolina, Department of Human Resources, Division of Social Services, Cost Allocation Plan, revised October 1, 1992

References to these sources appear in footnotes, as appropriate.

### **7.1 FSIS Development Costs and Federal Funding**

FSIS development costs totalling \$2,553,001 were incurred from 1982 through 1984. Since FSIS supports only the Food Stamp Program, the FSP share was 100 percent.<sup>3</sup> The Federal financial participation (FFP) rate was 50 percent, and the FNS FFP totalled \$1,276,501.

The initial Advanced Planning Document for FSIS was prepared in July 1982 with a budget of \$622,250. The requested amount included \$276,850 for transferring a system and \$385,400 for future FSIS integration into the Eligibility Information System. FNS withheld full approval of this APD, citing the need for additional information.

A revised APD was prepared in February 1983 and FNS granted contingent approval. The budget was increased to \$1,239,379. The FFP, at a 50 percent rate, was \$619,690.<sup>4</sup>

FSIS was implemented in all 100 counties by June 1984. The budget was amended and resubmitted twice to reflect actual costs incurred during the development period:

- In May 1984, the budget was reduced to \$893,839. FNS approved this amount in June 1984.

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<sup>3</sup> Survey, p. 7.

<sup>4</sup> Letter, 6/3/83.

- In July 1984, the budget was increased by \$1,659,162.

These revisions increased the total budget to \$2,553,001.

### 7.1.1 FSIS System Components

FSIS supports only the Food Stamp Program.

### 7.1.2 Major Development Cost Components

Table 7.1, FSIS Costs Breakdown, presents the costs of developing FSIS by component and identifies each component's percentage of total development costs. It also shows the cost amounts and percentage of total costs for each organization. The table shows that conversion costs accounted for almost 40 percent of the total FSIS budget.

**Table 7.1 FSIS Costs Breakdown**

Organization Cost Component	1982/1983 Costs	1983/1984 Costs	Total Costs	
			Dollars	%
<b>DSS</b>	<b>195,532</b>	<b>387,845</b>	<b>583,377</b>	<b>22.85</b>
State Personnel	141,540	183,111	324,651	12.72
DP Personnel	28,750	158,587	187,337	7.34
Other	25,242	46,147	71,389	2.80
<b>DHR</b>	<b>155,650</b>	<b>186,437</b>	<b>342,087</b>	<b>13.40</b>
Personnel	150,308	178,579	328,887	12.88
Other	5,342	7,858	13,200	0.52
<b>State Computer Center</b>	<b>120,072</b>	<b>475,876</b>	<b>595,948</b>	<b>23.34</b>
Operations	55,273	243,087	298,360	11.69
DOA Contract P/A	64,799	232,789	297,588	11.66
<b>County Operations</b>	<b>422,585</b>	<b>609,004</b>	<b>1,031,589</b>	<b>40.41</b>
Equipment	15,838	13,317	29,155	1.14
Conversion	406,747	595,687	1,002,434	39.26
<b>Total</b>	<b>893,839</b>	<b>1,659,162</b>	<b>2,553,001</b>	<b>100.00</b>

Some important development cost components are discussed below.

### 7.1.2.1 Hardware

FSIS hardware costing \$1,049,576 was acquired through a third-party lease which FNS recognized as a lease-purchase agreement. The original arrangement between North Carolina and FNS was that the equipment would be depreciated over a three- year period. However, because of the lease arrangement, FNS proposed that equipment costs be amortized over a 36-month period with the majority of these costs being incorporated into ongoing operating costs. Equipment costs of \$29,155 were charged to development. The remaining costs of \$1,020,421 were charged to operations through Federal Fiscal Year (FFY) 1986.

### 7.1.2.2 Contractor Costs

FSIS was developed by State staff without contractor support; therefore, contractor costs were not incurred during system development.

### 7.1.2.3 State Personnel Costs

State personnel costs reported for the development period totalled \$840,875, which was approximately one-third of total FSIS development costs. Personnel costs by organizational unit are presented below in Table 7.2, State Personnel Costs.

**Table 7.2 State Personnel Costs**

<b>Department/Division</b>	<b>1982/1983</b>	<b>1983/1984</b>	<b>Total</b>
DSS	\$141,540	\$183,111	\$324,651
Data Processing	\$ 28,750	\$158,587	\$187,337
DHR	\$150,308	\$178,579	\$328,887
Total	\$320,598	\$520,277	\$840,875

## 7.2 FSIS Operational Costs

Operating costs for FSIS since FFY 1990 are presented in Table 7.3, FSIS Operating Costs.

**Table 7.3 FSIS Operating Costs**

<b>FFY</b>	<b>Total Cost</b>
1990	\$2,484,187
1991	\$3,242,932
1992	\$2,844,003
1993 (3 qtrs)	\$1,973,311

Three major types of costs are associated with FSIS operations: SIPS charges, Division of Information Resource Management charges for programmer/analyst support, and data telecommunications charges. The costs included in each of these categories and the percentage of total costs are as follows:

- SIPS charges accounted for almost 18 percent of FSIS charges for the third quarter of FFY 1993. These charges were for computer jobs which included, but were not limited to, production of: authorizations to issue food stamps, monthly reporting forms, claims recoupment reports, and various management reports for the Food Stamp Program. SIPS charges also included costs of testing system changes prior to incorporation into the production system.
- Division of Information Resource Management charges for programmer/analyst services for FSIS support for the third quarter of FFY 1993 was 19 percent of total FSIS operating costs.
- Data telecommunications shared lines, which include all charges billed to DSS by the State Telecommunications Network and the charges billed to DSS through DHR for data communications support between the 100 counties, accounted for one-third of total FSIS operating costs for the third quarter of FFY 1993.

Operating costs incurred for other systems and system related activities are charged to FNS operations. These include: SYA Service Information System, WCA Division of Social Services Accounting System, WRA Reports and Program Analysis, DP Operations TSO costs, DP equipment for county systems, and Services and Maintenance Contract - County Systems.<sup>5</sup>

### **7.2.1 Cost Per Case**

Average monthly operational costs for the FSP in FFY 1992 were \$237,000. Based on the 1992 average monthly Food Stamp Program caseload of 240,436 households, the monthly cost per case was \$0.99.

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<sup>5</sup> The basis for allocating these costs are described in Appendix A, Exhibit A-7.1, Allocated Cost Pools.

## **7.2.2 ADP Operational Cost Control Measures and Practices**

The Division of Social Services purchases computer services from SIPS and programmer, analyst, and coordinator services from the DHR DIRM. When DIRM receives a work request for programming services, an application code and project number are assigned according to the task to be performed. The application code identifies the benefitting program or allocation method. Application code and project numbers are used in the billing system for SIPS and DIRM. When a job reaches production status, a permanent job number is assigned.

SIPS charges are received in a series of invoices by established application codes. These invoices contain cost elements identified on the Computer Utilization Report, and include: CPU time, tape input/output (I/O), disk I/O, print lines, core storage, and SIPS overhead charges for disk storage, tape storage, and supplies. CICS and IMS charges are billed to the appropriate application code and are either allocated or charged directly to the benefitting programs.

DIRM issues a monthly billing which lists costs by project within each application code. These costs are for programmer, analyst, and coordinator time at pre-determined rates per hour for services performed in maintaining computer systems supporting DSS. The costs for programmer/analyst/coordinator time are distributed using procedures identical to those used to distribute SIPS CPU costs.

## **7.3 North Carolina Cost Allocation Methodologies**

This section addresses allocation of development costs and ongoing operational costs to FNS.

### **7.3.1 Historical Overview of FSIS Development Cost Allocation Methodology**

Since FSIS is not an integrated system, FSIS development costs were allocated 100 percent to the Food Stamp Program.

### **7.3.2 FSIS Operational Cost Allocation Methodology and Mechanics**

The DHR Controller, Office of the Chief Fiscal Office for DSS, maintains the financial records to reflect separate accountability for each type of activity administered by DSS with disbursement classifications as required by the Office of the State Controller and the

Supporting data for administrative expenditures of county departments are not submitted directly to this office. Instead they are retained in the office of the county department and audited by public accountants in accordance with OMB Circular A-128. The expenditures must be limited to those items permissible under State and Federal regulations and laws.

The following sections describe the cost pools into which costs are accumulated and allocated to the Food Stamp Program.

### 7.3.2.1 Direct Charge Pools

Table 7.4, Direct Charge Pools, lists the pools which are allocated 100 percent to the Food Stamp Program.

**Table 7.4 Direct Charge Pools**

COST POOL	COST ITEMS
SLA, TXA-Food Stamp	SIPS charges to computer jobs (See section 7.2).
DIRM SLA, TXA-Food Stamp	DIRM charges for programmer/analyst services for jobs which produce: authorizations to issue food stamps, monthly reporting forms, claims recoupment reports, and various management reports for the Food Stamp Program.
Quality Assurance-Food Stamp	Salaries and benefits of personnel assigned to this cost center who review cases selected from the State's recipient universe by random sampling to ensure that: State policy is in compliance with State and Federal laws and regulations; State policy is being correctly applied by the county administering the Program; the recipient is receiving the proper coupon allotment; detailed information for corrective action in the State and county program is provided; and data are provided to the National Program Center for statistical information.
Food Stamp Branch	Salaries and benefits of personnel in this branch who are responsible for the direction, supervision, and support of all food stamp functions.
Food Stamp Policy	Salaries and benefits of personnel who interpret Federal, and occasionally State, legislation for a thorough knowledge and understanding of how to develop and implement food stamp policy and procedures, including preparation of the State policy handbook, necessary to determine eligibility for food stamp assistance.
Food Stamp Training	Salaries and benefits of personnel responsible for developing and conducting training for a comprehensive policy and procedure training curriculum in the Food Stamp Program for caseworkers.
Food Stamp Fraud Prevention and Corrective Action	Salaries and benefits of personnel responsible for: policy review of quality control error cases and management evaluation reviews to develop Federal and State food stamp corrective action plans, and technical assistance for claims collection.
Food Stamp Income Maintenance Representatives	Salaries and benefits of personnel responsible for reviewing county operations of the Energy, Disaster, and Food Assistance Program for efficiency and effectiveness, and implementing corrective actions based on reviews, audits and Quality Control findings in the Food Stamp Program.
Food Stamp Accounting	Salaries and benefits of personnel responsible for: reconciling cash coupon value of ATP cards with Post Office sectional center records, maintaining a supply of food coupons at all issuance points in the State, and preparing required Federal reports.

### **7.3.2.2 Allocation Cost Pools**

Exhibit A-7.1, Allocated Cost Pools, in Appendix A list the pools, the costs accumulated into those pools, and the basis upon which portions of the costs in each pool are allocated to the Food Stamp Program. The percentage allocated to the Food Stamp Program in the most recent quarterly allocation is provided for those pools not associated with ADP operations.

**APPENDIX A**

**STATE OF NORTH CAROLINA**

**EXHIBITS**

**Exhibit A-2.1**  
**Response to Regulatory Changes**

Code	Regulation	Provision	Federally Required Implementation Date	Implemented on Time (Y/N)?	Computer Programming Changes Required (Y/N)?	Changes to State Policy/ Legislation Required (Y/N)?
1.1	1: Mickey Leland Memorial Domestic Hunger Relief Act	1: Excludes as income State or local GA payments to DHHS provided as vendor payments. 273.9(c)(1)(ii)(F)	8/1/91	N/A	N/A	N/A
1.2	1: Mickey Leland Memorial Domestic Hunger Relief Act	2: Excludes from income annual school clothing allowance however paid. 273.9(c)(5)(i)(F)	8/1/91	N/A	N/A	N/A
1.3	1: Mickey Leland Memorial Domestic Hunger Relief Act	3: Excludes as resource for Food Stamp purposes, household resources exempt by Public Assistance (PA) and SSI in mixed household. 273.8(e)(17)	2/1/92*	Y	N	Y
1.4	1: Mickey Leland Memorial Domestic Hunger Relief Act	4: State agency shall use a standard estimate of shelter expense for households with homeless members. 273.9(d)(5)(i)	2/1/92*	N/A	N/A	N/A
2.1	2: Administrative Improvement & Simplification Provisions of the Hunger Prevention Act	1: Extended resource exclusion of farm property and vehicles. 273.8(e)(5),etc.	7/1/89	Y	N	Y
2.2	2: Administrative Improvement & Simplification Provisions of the Hunger Prevention Act	2: Combined initial allotment under normal time frames. 274.2(b)(2)	1/1/90	N	Y	Y
2.3	2: Administrative Improvement & Simplification Provisions of the Hunger Prevention Act	3: Combined initial allotment under expedited service time frames. 274.2(b)(3)	1/1/90	N	Y	Y

**Exhibit A-2.1  
Response to Regulatory Changes**

Code	Regulation	Provision	Federally Required Implementation Date	Implemented on Time (Y/N)?	Computer Programming Changes Required (Y/N)?	Changes to State Policy/ Legislation Required (Y/N)?
3.1	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	1: Exclusion of job stream migrant vendor payments. 273.9(c)(1)(ii)	9/1/88	Y	N	Y
3.2	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	2: Exclusion of advance earned income tax credit payments. 273.9(c)(14)	1/1/89*	Y	N	Y
3.3	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	3: Increase dependent care deductions. 273.9(f)(4), etc.	10/1/88	Y	Y	Y
3.4	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	4: Eliminate migrant initial month proration. 273.10(a)(1)(ii)	9/1/88	Y	Y	Y
4.1	4: Issuance	1: Mail issuance must be staggered over at least ten days. 274.2(c)(1)	4/1/89	Y	Y	Y
4.2	4: Issuance	2: Limitation on the number of replacement issuances. 274.6(b)(2)	10/1/89	Y	Y	Y
4.3	4: Issuance	3: Destruction of unusable coupons within 30 days. 274.7(f)	4/1/89	Y	N	Y

\* These dates were changed after the State completed this form and the site visit occurred; therefore, the responses to these particular regulatory changes may be inaccurate.

**Exhibit A-6.1  
State of North Carolina Hardware Inventory**

<b>Component</b>	<b>Make</b>	<b>Acquisition Method</b>	<b>Number/ Features</b>
<b>CPU</b>			
ES9000/900	IBM	Purchase	128 channels, 768 MB main storage, 512 MB expanded storage, 232 MIPS
<b>DISK</b>			
3380/3390	IBM	Purchase	Controllers - 8 Drives - 3380 (17) 3390 (39)
Solid State	Memorex	Purchase	64 MB
Optical Disk	IBM	Purchase	3995 - 180 GB
<b>TAPE</b>			
Reel Tape Drives	Memorex	Purchase	6420 (4)
Cartridge Drives	Memorex	Purchase	6480 (16)
Robotic Library	Memorex	Purchase	5324 - Automatic Tape Libraries (4 with 52 transports)
<b>PRINTERS</b>			
Impact	IBM	Purchase	6262 (3) 4248 (1)
Laser	IBM	Purchase	3800 (2)
<b>FRONT ENDS</b>			
FEP	IBM	Purchase	3745 (10)
<b>REMOTE EQUIPMENT</b>			
Workstations	Various	Purchase	3270-type Terminals (720)

**Exhibit A-7.1  
Allocated Cost Pools**

<b>COST POOL</b>	<b>COST ITEMS</b>	<b>ALLOCATION METHODOLOGY</b>
SYA-Service Information System*	SIPS charges for computer jobs run under application code SYA which include but are not limited to the following: SIS annual report, SIS combined purchased and direct service file, SIS client ID report, and SIS service history report.	Unduplicated number of eligible clients receiving services from each program area.
WCA-DSS Accounting System*	SIPS charges for computer jobs run which include State administration cost allocation system, Departmental Accounting System (DAS) interface jobs, and monthly budget reports and related journal entries.	Number of limited FRC expenditure transactions by program for administrative reimbursements processed in a specific budget code excluding transactions generated by the Public Assistance and County Administration automated subsystems.
WRA-Reports and Program Analysis*	SIPS charges for computer jobs which include reports for EIS case and recipient count by county, applications pending reports for PA and MA cases, and other miscellaneous reports used for statistical analysis and reporting.	Percentages used to allocate RCC 2610-Planning and Information Office.
WSA-DP Operations TSO Cost*	SIPS charges to TSO sign-ons by DHR/DIRM DP Operations Section for submitting production jobs.	Computer time accumulated by each program for each application code.
Data Telecommunications Lines-Shared FSB*	All charges billed to DSS by the State Telecommunications Network (See section 7.2).	Unduplicated number of eligible clients by program as reported in the Master Client Index (MCI).
EFA, FSB-Shared Data Lines Support Costs*	DIRM billings for FSB application code and SIPS billings for EFA application code costs. DIRM billings, application code FSB, are for programmer/analyst services to provide technical assistance; receive, analyze and resolve communications equipment problems; provide assistance in general including installing/relocating terminals, printers, controller and multiplexors in the State and counties.	Percentage of the number of related transactions to the total number of transactions, as derived from the Statewide Terminal Activity Report.
DP Equipment for County Systems*	Jointly used equipment purchases of small additions and replacements that do not require APD approval but are necessary to support and maintain the existing statewide county terminal system for EIS, FSIS, and other systems.	Percentage of the number of related transactions to the total number of transactions, as derived from the Statewide Terminal Activity Report.
Services and Maintenance Contract-County Systems*	Service and maintenance contract costs for DP equipment.	Percentage of the number of related transactions to the total number of transactions, as derived from the Statewide Terminal Activity Report.
DIRM SYA-Service Information System*	DIRM charges for programmer/analyst services for jobs run to produce the SIS annual report, SIS combined purchased and direct service file, SIS clients ID report, SIS service history report, and the SIS child placement report.	Unduplicated number of eligible clients receiving services from a program.
DIRM WCA-DSS Accounting System*	DIRM charges for programmer/analyst services for jobs run to support the State administration cost allocation system, Departmental Accounting System interface jobs, and monthly budget reports and related journal entries.	Limited FRC expenditure transactions by program for administrative reimbursements processed in a particular budget code.
ESC/RS-IEVS Costs*	Contractual costs associated with the Income and Eligibility Verification System in providing DHR with wage information, unemployment compensation data, unearned income, etc., as prescribed in the Federal Register.	Unduplicated client counts in the MCI Master File of the prior month.

**Exhibit A-7.1  
Allocated Cost Pools**

COST POOL	COST ITEMS	ALLOCATION METHODOLOGY
Assistance Director for Public Administration (21%)**	Salaries and benefits for staff member(s) responsible for the supervision and direction of public assistance programs.	Position equivalents by program for paid positions under supervision.
Quality Assurance Section (48%)**	Salaries and benefits of the Quality Assurance (QA) program manager who provides direction and supervision to the Quality Assurance-Food Stamp and Quality Assurance-AFDC cost centers.	
Public Assistance Section (43%)**	Salaries and benefits of personnel assigned to supervise and direct the Food Stamp, Fraud Prevention and Corrective Action, and Assistance Payments Branches.	
Fraud Prevention and Corrective Action (50%)**	Salaries and benefits of personnel who supervise AFDC and Food Stamp Program staff in the branch.	
Region Directors	Salaries and benefits of the four regional directors who administer and supervise all personnel within the region except for Child Support Enforcement and Job Corps personnel.	
DHR Scheduling and Control Unit (24.46%)**	Billings from DHR for the DSS share of the Scheduling and Control Units costs which are based on a rate per job scheduled for DSS application codes plus an indirect rate per job for DSS application codes for this unit's DSS share of Computer Services Branch costs.	Ratio of total jobs by program to total jobs for DSS application codes.
DHR-Print Facility	Billings from DHR for the DSS share of the Print Facility costs.	Ratio of total print lines by program to total print lines for DSS application codes.
DHR-Benefits Processing Unit (19.81%)**	Billings from DHR for the costs of the benefits processing functions	Ratio of total jobs by program to total jobs for DSS, DMA and EIS application codes.

\* Included in SF-269 ADP OPER COSTS column.

\*\* Pool not associated with ADP operations; percentages indicate the most recent quarterly allocation to the FSP.

**APPENDIX B**

**STATE OF NORTH CAROLINA**

**ANALYSIS OF OPERATOR USER SATISFACTION SURVEYS**

## OVERVIEW

This appendix presents the results of the Operational Level User Satisfaction Survey. Frequency counts of responses to all applicable items on the survey are included, grouped by the topic covered by the item. The results for the items covering each topic are summarized as well.

The responses to the Operational Level User Satisfaction Survey are the perceptions of eligibility workers in North Carolina. In other words, these responses do not necessarily represent a "true" description of the situation in North Carolina. For example, the results presented regarding the response time of the system reflect the workers' perceptions about that response time, not an objective measure of the actual speed of the response.

### Description of the Sample

The following table summarizes the potential population size and the final size of the sample who responded.

Number of EWs in North Carolina	Number Selected to Receive Survey	Percentage Selected
N/A	63	N/A
	Number Responding to Survey	Response Rate
	47	74.6%

The eligibility workers selected to receive the survey were selected randomly so their perceptions should be representative of eligibility workers in North Carolina. The response rate of 75 percent is good, producing a sample whose responses should be representative of eligibility workers in North Carolina.

### Summary of Findings

Most of the eligibility workers are satisfied with the computer system in North Carolina. They generally find it responsive, accurate, and easy to learn. There is, however, some disagreement with these views; one third of the workers report problems accomplishing specific tasks. Most respondents think the computer system helps them do their jobs and makes them more efficient.

Since the current North Carolina system has been operational since 1984, comparisons between the current and previous systems would be of limited value. Responses to comparative questions, therefore, are not solicited for systems that were implemented more than five years ago.

## SYSTEM CHARACTERISTICS

### Response Time

What is the quality of overall system response time?

	Number of Respondents	Percentage of Respondents (%)
Poor	1	2.2
Good	35	76.1
Excellent	10	21.7

What is the quality of system response time during peak periods?

	Number of Respondents	Percentage of Respondents (%)
Poor	8	17.0
Good	34	72.3
Excellent	5	10.6

How often is the system response time too slow?

	Number of Respondents	Percentage of Respondents (%)
Rarely	13	27.7
Sometimes	26	55.3
Often	8	17.0

The eligibility workers who responded almost all agree that the system's response time is usually good or excellent but a majority (72 percent) agree that response time is sometimes or often slow.

### Availability

How often is the system available when you need to use it?

	Number of Respondents	Percentage of Respondents (%)
Sometimes	7	14.9
Often	40	85.1

How often is the system down?

	Number of Respondents	Percentage of Respondents (%)
Rarely	18	38.3
Sometimes	27	57.4
Often	2	4.3

A majority (85 percent) of the eligibility workers who responded think the system is often available although a smaller majority (62 percent) agrees that it is sometimes or often down.

### Accuracy

What is the quality of the information in the system?

	Number of Respondents	Percentage of Respondents (%)
Poor	6	12.8
Good	29	61.7
Excellent	12	25.5

How often is a case terminated in error?

	Number of Respondents	Percentage of Respondents (%)
Rarely	32	71.1
Sometimes	13	28.9

How often is eligibility incorrectly determined?

	Number of Respondents	Percentage of Respondents (%)
Rarely	37	82.2
Sometimes	7	15.6
Often	1	2.2

How often is the systems data out-of-date?

	Number of Respondents	Percentage of Respondents (%)
Rarely	33	70.2
Sometimes	14	29.8

The eligibility workers who responded generally feel that the operations of the system are accurate although about one third indicate problems with the system such as out-of-date data and cases erroneously terminated. A majority think the information in the system is either good or excellent.

### Ease of Use

How often do you have difficulty obtaining necessary information from the system?

	Number of Respondents	Percentage of Respondents (%)
Rarely	34	72.3
Sometimes	12	25.5
Often	1	2.1

How often do you have difficulty learning to use the system?

	Number of Respondents	Percentage of Respondents (%)
Rarely	38	84.4
Sometimes	6	13.3
Often	1	2.2

How often do you have difficulty tracking receipt of monthly reporting forms?

	Number of Respondents	Percentage of Respondents (%)
Rarely	37	86.0
Sometimes	6	14.0

How often do you have difficulty automatically terminating benefits for failure to file?

	Number of Respondents	Percentage of Respondents (%)
Rarely	37	90.2
Sometimes	4	9.8

How often do you have difficulty generating adverse action notices?

	Number of Respondents	Percentage of Respondents (%)
Rarely	20	80.0
Sometimes	4	16.0
Often	1	4.0

How often do you have difficulty generating warning notices?

	Number of Respondents	Percentage of Respondents (%)
Rarely	20	76.9
Sometimes	5	19.2
Often	1	3.8

How often do you have difficulty determining monthly reporting status?

	Number of Respondents	Percentage of Respondents (%)
Rarely	34	81.0
Sometimes	8	19.0

How often do you have difficulty restoring benefits?

	Number of Respondents	Percentage of Respondents (%)
Rarely	33	78.6
Sometimes	9	21.4

How often do you have difficulty identifying recipients already known to the State?

	Number of Respondents	Percentage of Respondents (%)
Rarely	36	76.6
Sometimes	10	21.3
Often	1	2.1

How often do you have difficulty updating registration data?

	Number of Respondents	Percentage of Respondents (%)
Rarely	30	78.9
Sometimes	7	18.4
Often	1	2.6

How often do you have difficulty updating eligibility and benefit information from recertification data?

	Number of Respondents	Percentage of Respondents (%)
Rarely	39	84.8
Sometimes	7	15.2

How often do you have difficulty identifying cases which are overdue for recertification?

	Number of Respondents	Percentage of Respondents (%)
Rarely	28	66.7
Sometimes	10	23.8
Often	4	9.5

How often do you have difficulty monitoring the status of all hearings?

	Number of Respondents	Percentage of Respondents (%)
Rarely	16	61.5
Sometimes	6	23.1
Often	4	15.4

How often do you have difficulty tracking outstanding verifications?

	Number of Respondents	Percentage of Respondents (%)
Rarely	19	65.5
Sometimes	6	20.7
Often	4	13.8

How often do you have difficulty automatically notifying households of case actions?

	Number of Respondents	Percentage of Respondents (%)
Rarely	29	72.5
Sometimes	10	25.0
Often	1	2.5

How often do you have difficulty notifying recipients that recertification is required?

	Number of Respondents	Percentage of Respondents (%)
Rarely	30	73.2
Sometimes	11	26.8

How often do you have difficulty identifying cases making payments through recoupment?

	Number of Respondents	Percentage of Respondents (%)
Rarely	35	81.4
Sometimes	7	16.3
Often	1	2.3

How often do you have difficulty identifying error prone cases?

	Number of Respondents	Percentage of Respondents (%)
Rarely	17	53.1
Sometimes	11	34.4
Often	4	12.5

How often do you have difficulty identifying cases involving suspected fraud?

	Number of Respondents	Percentage of Respondents (%)
Rarely	22	57.9
Sometimes	10	26.3
Often	6	15.8

How often do you have difficulty assigning new case numbers?

	Number of Respondents	Percentage of Respondents (%)
Rarely	34	85.0
Sometimes	4	10.0
Often	2	5.0

A majority, usually around 80 percent, of the eligibility workers responding do not have difficulty performing any of the system-specific tasks such as assigning new case numbers or generating adverse action notices but there are significant percentages, usually around 35 percent, experience some difficulty performing some of these tasks. For example, significant percentages report difficulty with cases involving fraud and error.

## FOOD STAMP PROGRAM NEEDS

### Worker Satisfaction Levels

How often is the system a great help to you in your job?

	Number of Respondents	Percentage of Respondents (%)
Sometimes	8	17.0
Often	39	83.0

How often is the system an added stress in your job?

	Number of Respondents	Percentage of Respondents (%)
Rarely	32	68.1
Sometimes	12	25.5
Often	3	6.4

How often is the system more of a problem than a help?

	Number of Respondents	Percentage of Respondents (%)
Rarely	43	91.5
Sometimes	3	6.4
Often	1	2.1

Most, 83 percent, of the eligibility workers who responded think that the current system is often a great help to them in their work although 32 percent report that it adds stress to their jobs.

**Client Service**

How often is expedited service difficult to achieve?

	Number of Respondents	Percentage of Respondents (%)
Rarely	33	73.3
Sometimes	11	24.4
Often	1	2.2

How often do you have difficulty providing expedited services?

	Number of Respondents	Percentage of Respondents (%)
Rarely	34	79.1
Sometimes	9	20.9

Most of the eligibility workers who responded agree that expedited service is rarely difficult to provide.

**Client Service**

No data are available to address client service because all the questions in this category compare the current and previous systems. Since North Carolina's system was implemented more than five years ago, comparative questions are not applicable.

**Fraud and Errors**

No data are available to address fraud and errors because all the questions in this category compare the current and previous systems. Since North Carolina's system was implemented more than five years ago, comparative questions are not applicable.

**APPENDIX C**

**STATE OF NORTH CAROLINA**

**ANALYSIS OF MANAGERIAL USER SATISFACTION SURVEYS**

## OVERVIEW

This appendix presents the results of the Managerial Level User Satisfaction Survey. Frequency counts of responses to all items on the survey are included, grouped by the topic covered by the item. The results for the items covering each topic are summarized as well.

The responses to the Managerial Level User Satisfaction Survey are the perceptions of supervisors in North Carolina. In other words, these responses do not necessarily represent a "true" description of the situation in North Carolina. For example, the results presented regarding the response time of the system reflect the managers' perceptions about that response time, not an objective measure of the actual speed of the response.

### Description of the Sample

The following table summarizes the potential population size and

Number of Supervisors in North Carolina	Number Selected to Receive Survey	Percentage Selected
N/A	30	N/A
	Number Responding to Survey	Response Rate
	16	53.3%

The supervisors selected to receive the survey were selected randomly so their perceptions should be representative of the population of supervisors in North Carolina. The total number of respondents, however, is low. The low response rate produces a sample whose responses may not be representative of this random selection.

### Summary of Findings

The supervisors who responded were nearly unanimous in feeling the

## SYSTEM CHARACTERISTICS

### Response Time

What is the quality of overall system response time?

	Number of Respondents	Percentage of Respondents
Good	7	43.8
Excellent	9	56.3

What is the quality of system response time during peak periods?

	Number of Respondents	Percentage of Respondents
Poor	2	12.5
Good	8	50.0
Excellent	6	37.5

How often is the system response time too slow?

	Number of Respondents	Percentage of Respondents
Rarely	8	50.0
Sometimes	7	43.8
Often	1	6.3

The supervisors who responded all agree that the system's response time is generally good or excellent; half also feel that the system response time is sometimes or often too slow.

**Availability**

How often is the system available when you need to use it?

	Number of Respondents	Percentage of Respondents
Sometimes	1	6.3
Often	15	93.8

How often is the system down?

	Number of Respondents	Percentage of Respondents
Rarely	9	56.3
Sometimes	7	43.8

All the supervisors who responded think the system is generally available but again about half feel that the system is down sometimes.

**Accuracy**

What is the quality of the information in the system?

	Number of Respondents	Percentage of Respondents
Poor	1	6.3
Good	9	56.3
Excellent	6	37.5

The supervisors who responded generally find the information and algorithms of the system to be accurate. Most of them think the information in the system is either good or excellent.

**Ease of Use**

How often do you have difficulty obtaining necessary information from the system?

	Number of Respondents	Percentage of Respondents
Rarely	13	81.3
Sometimes	3	18.8

How often do you have difficulty learning to use the system?

	Number of Respondents	Percentage of Respondents
Rarely	15	93.8
Sometimes	1	6.3

How often do you have difficulty tracking receipt of monthly reporting forms?

	Number of Respondents	Percentage of Respondents
Rarely	12	92.3
Sometimes	1	7.7

How often do you have difficulty automatically terminating benefits for failure to file?

	Number of Respondents	Percentage of Respondents
Rarely	14	100.0

How often do you have difficulty generating adverse action notices?

	Number of Respondents	Percentage of Respondents
Rarely	9	100.0

How often do you have difficulty generating warning notices?

	Number of Respondents	Percentage of Respondents
Rarely	9	100.0

How often do you have difficulty determining monthly reporting status?

	Number of Respondents	Percentage of Respondents
Rarely	13	86.7
Sometimes	1	6.7
Often	1	6.7

How often do you have difficulty restoring benefits?

	Number of Respondents	Percentage of Respondents
Rarely	15	100.0

Most of the supervisors responding have no difficulty obtaining information or learning the system. Those who responded almost unanimously have no difficulty performing such specific tasks as generating adverse action notices or restoring benefits.

## FOOD STAMP PROGRAM NEEDS

### Supervisor Satisfaction Levels

How often is the system a great help to you in your job?

	Number of Respondents	Percentage of Respondents
Sometimes	1	6.3
Often	15	93.8

How often is the system an added stress in your job?

	Number of Respondents	Percentage of Respondents
Rarely	14	87.5
Sometimes	2	12.5

A large majority of the supervisors who responded (94 percent) think that the current system is a great help to them in their work.

### Management Needs

What is the quality of the reports produced by the system?

	Number of Respondents	Percentage of Respondents
Good	11	68.8
Excellent	5	31.3

What is the quality of the support provided by the technical staff supporting the automated system?

	Number of Respondents	Percentage of Respondents
Good	6	40.0
Excellent	9	60.0

How often do you have difficulty making mass changes to the system?

	Number of Respondents	Percentage of Respondents
Rarely	9	75.0
Sometimes	3	25.0

How often do you have difficulty meeting Federal reporting requirements?

	Number of Respondents	Percentage of Respondents
Rarely	11	91.7
Sometimes	1	8.3

Most of the supervisors responding think the system helps them in their management tasks. Most think the reports produced by the system are good and all agree that the quality of the support provided by the technical staff is good or excellent.

#### **Client Service**

No data are available to address client service because all the questions in this category compare the current and previous systems. Since the North Carolina system was implemented more than five years ago, comparative questions are not applicable.

## **Fraud and Errors**

No data are available to address fraud and errors because all the questions in this category compare the current and previous systems. Since the North Carolina system was implemented more than five years ago, comparative questions are not applicable.