

STATE AUTOMATION SYSTEMS STUDY

SITE VISIT: JUNE 2-4, 1993

NORTH DAKOTA STATE REPORT

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FINAL

Prepared for:

**Diana Perez, Project Officer
Office of Analysis and Evaluation
Food and Nutrition Service
3101 Park Center Drive
Alexandria, VA 22302**

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NORTH DAKOTA STATE REPORT
Site Visit June 2-4, 1993

STATE PROFILE

System Name: Technical Eligibility Computer System (TECS)

Start Date: 1983

Completion Date: 1984

Contractor: Systemhouse, Inc.

Transfer From: Alaska (EIS)

Cost:

Actual: \$2,440,530
Projected: Not Available
FSP Share: \$1,131,000
FSP %: 46.3%

Number of Users: 475 (estimated)

Basic Architecture:

Mainframe: IBM ES9000 - 740
Workstations: 3270-type terminals
**Telecommunications
Network:** 12 - 56 KB circuits tied
to central mainframe with
CODEX 6525 multiplexors
connecting to local offices
via 9.6 KB circuits

System Profile:

Programs: Food Stamp Program (FSP), Aid to Families with
Dependent Children (AFDC), Medicaid

1.0 STATE OPERATING ENVIRONMENT

The Food Services Unit of the Division of Economic Assistance is part of the North Dakota Department of Human Services and responsible for the administration and operation of the Food Stamp Program for the State. Operations are conducted through a system of 51 local offices. North Dakota administers government services on a county basis.

The Department of Human Services contains a Management Information Services (MIS) Division which coordinates data processing operations with the State Data Center. The MIS Division does analysis and system maintenance activities, such as problem reporting and report writing, but does not perform new system development activities.

North Dakota's 51 local county offices serve a mainly rural population with 25 of the offices serving caseloads smaller than 125 people. The relatively large geographic size of the State and its basic rural nature impacts the Food Stamp Program, and the system which serves it, in a number of different ways. The staff does not believe, however, that these factors negatively impact the effectiveness or efficiency of the program itself.

The 1990 census showed a total State population of 641,364 people, with the cities of Bismark, Minot, Fargo, and Grand Forks being the largest population centers. Approximately 6.3 percent were Food Stamp Program recipients.

Between 1986 and 1990, unemployment rate fell from a high of 6.3 percent to a low of 3.9 percent. It rose slightly in 1991 to 4.1 percent.

The Fiscal Survey of States, published in October 1990, was compiled by the National Governors' Association and the National Association of State Budget Officers and presents the following information concerning North Dakota:

- North Dakota's nominal expenditure growth for Fiscal Year (FY) 1993 was in the 0.0 percent to 4.9 percent range; the national average was 2.4 percent.
- North Dakota did not reduce the 1992 State budget after it was approved.
- State government employment levels remained unchanged; the average national decrease was 0.6 percent.
- North Dakota did not implement any changes to increase or decrease revenues for FY 1993.
- The Plains region has done better than the national economy in terms of unemployment rates, with rates well below the national average of 7.8 percent. North Dakota's unemployment rate was 3.5 percent as of June 1992. The per capita personal income increase for the region (2.9 percent) was higher than the national average of 2.4 percent.

2.0 FOOD STAMP PROGRAM OPERATIONS

No substantial changes in population, unemployment, or other environmental factors were noted by Food Stamp Program staff as impacting the program's participation rate. Although North Dakota's geographical features were not cited as a barrier to the operation of the program, the basic rural nature of the State and the inherent transportation difficulties, especially during the winter months, are factors which must be considered.

2.1 FOOD STAMP PROGRAM PARTICIPATION

Food stamp households increased from 13,161 in 1988 to 18,197 in 1992. The number of individuals receiving food stamps showed a corresponding increase from 36,573 to 46,757 during the same time period. This is an increase during this time period of 38 percent and 28 percent, respectively.

Table 2.1 Average Monthly Public Assistance Participation

	1992	1991	1990	1989	1988
AFDC- Cases	6,460	5,701	5,554	5,523	5,129
AFDC- Individuals	18,507	15,872	15,423	15,423	14,160
FSP- Households	18,197	15,796	14,866	14,198	13,161
FSP- Individuals	46,757	41,206	39,293	38,680	36,573
Medicaid- Individuals	47,092	42,838	N/A	N/A	N/A
GA	N/A	N/A	N/A	N/A	N/A
Foster Care	N/A	N/A	N/A	N/A	N/A
Child Support Enforcement	34,264	30,064	N/A	N/A	N/A

2.2 FSP Benefits Issued Versus FSP Administrative Costs

The ratio of benefits issued to FSP administrative costs has improved from 9.3:1 in 1988 to 10.7 in 1992.

North Dakota's average monthly benefit issuance per household has increased over the past five years, as demonstrated in Table 2.2.¹

¹ The number of households and benefit amounts use data reported the FNS State Activity Reports each year.

Table 2.2 FSP Benefits Issued

	1992	1991	1990	1989	1988
Average Monthly Benefit Per Household	\$163.93	\$151.29	\$140.23	\$125.92	\$124.68

2.3 FSP Administrative Costs

North Dakota's Food Stamp Program administrative costs for the past five years were as follows:²

Table 2.3 FSP Federal Administrative Costs

	1992	1991	1990	1989	1988
Total FSP Federal Admin. Cost	\$3,250,330	\$2,897,359	\$2,745,323	\$2,545,031	\$2,240,017
Avg. Federal Admin. Cost Per Household Per Month	\$15.25	\$15.50	\$15.49	\$14.97	\$13.93

2.4 System Impacts on Program Performance

Food stamp systems typically have an impact in several program performance areas. This section examines the system impact in the areas of staffing, responsiveness to regulatory changes, error rates, claims collection, and certification.

2.4.1 Staffing

There are currently 264 eligibility workers (EW) and supervisory staff. This number has increased over the past five years, as has the average monthly caseload per EW and the number of case backlogs. Issuance workers are county employees (usually EWs) who perform this task on a part-time basis. There are approximately 60 persons who perform issuance functions. It is unknown if the raw number of employees, or the amount of time spent in the issuance process itself, has increased during this period.

² The number of households and FSP Federal Administrative Costs are derived from data reported in the FNS *State Activity Report* each year.

The impact of the system on controlling staffing expense is unknown since the percentage of staff increase has not been captured.

2.4.2 Responsiveness to Regulatory Change

As shown in Appendix A, Exhibit A-2.1, North Dakota personnel indicated that they did not meet the timeliness requirements for two legislative changes. These legislative provisions were for combined initial allotment under normal timeframes (274.2(b)(2)) and under expedited service timeframes (274.2(b)(3)). This circumstance was due to the fact that the North Dakota one-month retrospective budgeting system was in place at the time the legislative changes took effect. North Dakota also has a waiver in effect excluding it from compliance with the requirements of the provision to exclude job stream migrant vendor payments (274.2(c)(1)). All other regulations were supposedly implemented in a timely manner.

Legislative change 273.8(e)(17), which excludes as resources for Food Stamp purposes those household resources exempt by public assistance (PA) and SSI in mixed households, was singled out as the most difficult of the cited regulations to implement within North Dakota because of technical problems in programming the benefit calculation and eligibility determination module of TECS. Despite this fact, North Dakota personnel claim to have implemented the regulation on schedule.

2.4.3 Combined Official Payment Error Rate

North Dakota's official combined error rate increased from 1987 to 1990 and decreased in 1991.

Table 2.4 Official Combined Error Rate

	1992	1991	1990	1989	1988
Combined Error Rate	5.89	5.56	5.86	5.78	5.41

2.4.4 Claims Collection

Total claims collected increased each year and the percentage of total claims established that were collected fluctuated during the past five years as shown in Table 2.5.

2.4.5 Certification/Review

North Dakota's TECS became fully operational in September of 1984. It is Family Assistance Management Information System (FAMIS) certified and has undergone a post-implementation review by FNS.

Table 2.5 Total Claims Established/Collected

	1992	1991	1990	1989	1988
Total Claims Established	\$504,408	\$373,394	\$334,219	\$290,140	\$263,869
Total Claims Collected	\$269,983	\$241,031	\$215,230	\$199,461	\$157,460
As a % of Total Claims Established	53.5%	64.5%	64.4%	58.7%	59.7%

3.0 OVERVIEW OF THE CURRENT SYSTEM

TECS supports the Food Stamp Program, AFDC, Medicaid and Child Welfare determination processes. TECS also controls the issuance of food stamp and AFDC benefits. A separate system processes Medicaid claims and payments and all functions relating to Child Welfare case management, claiming, and tracking. The county is responsible for General Assistance/General Relief; this is not part of TECS design. The Child Support Enforcement program is not included in the basic system design but may be interfaced for inquiry purposes.

3.1 Current System Functionality

TECS is almost nine years old as of the date of this analysis. North Dakota had originally intended to transfer only the AFDC-related functions from the Alaska system chosen as the transfer model. North Dakota decided after the transfer decision was made to include the food stamp portion of the system. Medicaid was added in 1987-1988 and became fully operational in May 1988.

Enhancements to the system have been made over time to meet regulatory requirements and to accommodate new reporting requirements. All enhancements that are currently planned or under development/implementation pertain to the AFDC and Medicaid Programs. No enhancements to the Food Stamp Program are planned as of this date.

- *Registration.* The system design does not support interactive interviewing methodologies. Applicants complete an application form which is either mailed into the local office or delivered in person. Applicants complete the first page of

the official application form which is then reviewed by a clerk or EW (depending upon the procedures at the local, county-operated office) to determine if the applicant might be eligible for expedited service. If eligibility for expedited service is found, the basic information is entered into TECS via a dumb terminal and a same-day appointment is scheduled with an EW. If expedited service is not warranted, the applicant may be informed of the date and time of a scheduled interview at that time or informed later by mail.

The system maintains three data entry screens for the initial registration and 16 for the remainder of the application. Data entry screens parallel the application form.

- *Eligibility Determination.* The system automatically determines program eligibility determination; this determination is reviewed and verified by the EW. Necessary verifications are tracked by the system, which will not approve eligibility until receipt is officially noted.
- *Benefit Calculation.* The system determines benefit levels by calculating monthly gross and net income levels, utilities, and medical expenses.
- *Benefit Issuance.* Issuance is performed by the local, county-operated offices. The system prints a roster of all eligible cases and the coupon amount (including the denominations and number of coupon books) to be issued. This roster is then mailed to the local office which mails out the coupons to the client. Approximately 90 percent of benefit issuance is handled in this manner. The remaining 10 percent is accounted for via direct, over-the-counter issuance at the local offices. Issuance is performed around the 5th of each month and rosters are produced and mailed at that time. North Dakota has a waiver in effect exempting it from compliance with the ten-day staggered issuance regulation. Local offices maintain inventories of coupons which are physically inventoried on a monthly basis.
- *Notices.* Recipient notices are generated automatically by the system, which also allows the EW to generate notices upon demand. Workers can add free form text to all notices. AFDC and FSP notices are not combined and there are no current plans to do so. The system does provide notice capability for all three major program areas which it supports (FSP, AFDC, and Medicaid). Approximately 62,000 notices were generated in April 1993 and 53,000 in May of that year. It has not been determined how many of these notices were related to the Food Stamp Program.

• *Claims System.* The system has the ability to automatically calculate the amount

- *Computer Matching.* Duplicate participation checks are performed at the time of registration ("Request for Food Stamps"). Data elements used to perform this check are: name, Social Security Number, address, date of birth, sex, race, and client participation number. Subsets of this data may be used for the initial search. Initial search is performed only for the person completing the application.

Computer matching against Income and Eligibility Verification System (IVES) databases is performed monthly. "Hits" are defined as an instance when the information received on the match does not equal the information supplied by the client in regard to income or assets during the same time periods. No threshold or other delimiting criteria is currently used. The State is planning to implement this methodology in the near future.

- *Alerts.* Instances where the information supplied by the client does not match data retrieved by computer matching are reported to the EW via on-line alerts; it is the EW's responsibility to clear each noted discrepancy. Costs per case and average dollars recovered per case were not available from State staff at the time of the interview.
- *Monthly Reporting.* There is no monthly reporting in the State of North Dakota.
- *Reports Generation.* The majority of reports produced use data supplied by the system that is reformatted by the administrative staff. Workers are notified of "pending" cases (those with missing verifications) via system-generated reports.
- *Program Management and Administration.* TECS supports E-Mail for all levels of staff. On-line policy manuals, as relevant to each screen, are available as are case narratives (deleted monthly by system). On-line problem reporting and task management issues are reported via E-Mail to the Help Desk.
- *Historical Records.* The system has the ability to copy historical records into the current registration. Searches may be performed without registration data being recorded in the system.

The system maintains demographic and participation data on all household members. North Dakota does not have a purge criteria, resulting in extensive historical record availability. Computer matches against IVES databases are performed monthly for all active participants.

3.2 Level of Integration/Complexity

TECS architecture and automation approach is over 10 years old. It is, however, as fully integrated as most current system designs. It supports AFDC and Medicaid as well as the Food Stamp Program. Claims and notices are fully integrated and the network supports E-Mail for the communication of messages and other internal correspondence.

On-line policy manuals and on-line narrative features are in the planning stage and will be implemented in 1994.

The system does not support interactive interviewing techniques although some counties have been able to use the system in an interactive manner. No plans are in place to move to this level of worker/client support. An ad hoc reporting capability was viewed by the State staff as an innovative feature, however, this appears to extend only as far as the data coordinators (MIS employees) who have access to a 4th generation language for mainframe level report production. No off-loading of data subsets was noted, nor were micro-based analytical tools routinely used except for some spreadsheets and similar programs developed independently by program staff.

3.3 Workstation/Caseworker Ratio

Each EW has access to a terminal with additional terminals available for use by clerical workers and staff administrative staff. There are 231 eligibility workers, 33 supervisors and an undetermined number of clerical support employees.

3.4 Current Automation Issues

TECS is in a steady state at the present time as far as food stamp-specific developments are concerned. Enhancements are currently being planned, developed, and implemented for the AFDC and Medicaid aspects of the system and on-line case narrative and policy manuals are planned for the near future. No new system development/transfer is planned within the foreseeable future.

North and South Dakota are in the planning stage for a combined electronic benefits transfer (EBT) project for which they hope to gain Federal approval. The impact on TECS of such a project is expected to be minimal.

It would appear that all major technical issues are resolved for this mature system. Minor enhancements remain a possibility. Regular maintenance and updating will be performed as called for by State or Federal regulatory changes.

System performance, both in terms of response times and system availability, is viewed as better than satisfactory by State administrative staff and, given the relatively low volume of system processing in North Dakota, is likely to remain unchanged for the immediate future.

4.0 SYSTEM DEVELOPMENT AND IMPLEMENTATION

TECS transfer and implementation occurred in the early 1980s when North Dakota decided to implement an automated public assistance system to reduce costs and improve service. This section describes the system that TECS replaced, the reasons for developing a new system, and the planning and development activities.

4.1 Overview of the Previous System

Prior to the implementation of TECS, North Dakota relied on a manually operated system to administer its Food Stamp Program. Although several attempts were made by State Food Stamp Program staff to gain approval to automate this system, internal State approval was difficult to obtain in this county-administered State.

4.2 Justification for the New System

The original intent of the State was to transfer only the AFDC portion of the donor system. It was only after approval was won from Department of Health and Human Services (DHHS) for the transfer of the Alaska system that it was decided to transfer the complete system, including the Food Stamp Program component. North Dakota had used various justifications in attempting to gain approval of automated Food Stamp systems in the past. These included:

- Error rate reduction
- Staff and administrative cost savings
- Greater consistency in policy application

4.3 Development and Implementation Activities

North Dakota had planned to automate its AFDC system in the early 1980s. This effort was originally planned as an internal development until discussions with officials from DHHS led North Dakota to review States with existing systems that could be transferred. The Alaska, Wisconsin, and New Mexico systems were reviewed. The Alaska system was identified as the system of choice for North Dakota and funding was obtained from DHHS at a rate higher than the enhanced funding rate then allowed.

Food stamp personnel had little input into the original transfer decision. It was only after the sole source contract was signed and in-place that it was decided to include the food stamp component in the finished system. FSP management and field workers were involved in overall planning because of the impact the implementation of an automated AFDC system would have upon the local county-based offices.

Formal user groups were utilized in the planning, development, and implementation phases of the TECS project, meeting weekly during the first two phases and almost daily during implementation. MIS staff also contributed during all project phases.

The TECS project began in 1983 and the system was declared operational in early 1984. The one year project timeframe for transfer and implementation of the AFDC and FSP system (Medicaid was added in 1986/87) did not appear to strain the capacity of either the contractor or State staff.

A detailed project schedule was not available from State staff at the time of the on-site interviews.

4.4 Conversion Approach

All open cases were converted to the new system. The conversion was done manually for the 10,379 cases open at that time. The conversion schedule was based on a six-county block, predicated by a 30-person per training session limit determined by personnel, space, and equipment availability. Conversion took approximately three hours per case with the most difficult conversions being those cases with numerous updates.

Training for conversion was conducted at a central location. Staff then returned to their home counties where they reviewed manual records and filled out the combined application forms prior to data entry. Each county was scheduled for a one month conversion timeframe. Most met this schedule without any problem.

There were few reported system-related problems during the conversion process, though it is reported by State staff that there was some difficulty in maintaining normal workflows while conducting the actual conversion.

4.5 Project Management

The project manager assigned to the TECS project was organizationally housed in the Financial Services Section of the Department. The manager reported to a joint AFDC/FSP management committee. The manager had previous Medicaid Management Information System (MMIS) experience, but not in a managerial role. This individual also had very little experience with public assistance programs in general, and limited MIS-related experience, especially with projects of similar size or scope. He was, however, dedicated 100 percent of the time to the project.

Project stability was exceptional with no changes in any of the major project management/team components during the life of the project. This may be attributed to the short (one year) length of the project and the inherently stable nature of the North Dakota work force.

Program representation was achieved by the inclusion of field staff and program management from both AFDC and FS.

4.6 FSP Participation

There was a strong FSP representation in major project decisions including FSP membership in the joint AFDC and FSP steering committee and the participation of field staff from various counties and FSP program staff at the State level.

User groups were utilized from the beginning of the planning phase of the project and included FSP personnel even though food stamps was not originally intended to be a part of the transferred system. These groups met once a week on average during *all* the beginning phases of the project and met almost daily during implementation.

4.7 MIS Participation

The MIS organization contributed two members to the project team plus additional personnel as necessary for specific technical tasks. The contractor had four full-time personnel on site and another six individuals who contributed significant amounts of time during the course of the project. This contractor staff was very familiar with the transferred system since all had worked in its original design for the State of Alaska. Two of the contractors were members of the project management committee. The inclusion of data coordinators for each program area contributed to the infusion of program specific experience to the technical aspects of the project.

4.8 Problems Encountered During Development and Implementation

North Dakota decided to automate its AFDC Program during the time period when the Federal Government was just beginning to look at the transfer concept as a potential method to reduce the cost/risk factors associated with large-scale system development efforts at the State level. North Dakota originally planned to develop an AFDC-only system, excluding food stamps from the process. Verbal assurances from FNS of a 75 percent enhanced funding level, the existence of a comprehensive food stamp component in the selected system, and the realization that integrated eligibility offered positive benefits to the State and county operations induced management to change its mind and expand the original scope to include all aspects of FSP.

Transfer candidates were limited by the need to be FAMIS-certified. Of the three that were investigated, Alaska, Wisconsin, and New Mexico, only Alaska and New Mexico were considered to be feasible transfer candidates. Alaska, the system selected, had been recently developed and offered a truly integrated system for AFDC and FSP.

North Dakota obtained State funds and successfully negotiated with Federal agencies to ensure Federal Financial Participation (FFP) prior to commitment of those funds. In general, North Dakota was able to plan, develop and implement TECS without major problems due to political, managerial, and program level commitment to the project.

5.0 TRANSFERABILITY

North Dakota reviewed systems in Alaska, Wisconsin, and New Mexico as potential transfer candidates. Review criteria included hardware the same as or similar to North Dakota's, the local availability of the technical skills necessary to operate the system, the degree of application integration, FAMIS certification, and the desirability of the functions available.

The Alaska TEC system was chosen as the donor system although North Dakota State staff were aware that it presented certain problems, such as poor response time, lack of a claims collection module, inadequate editing capability, differing issuance approaches, and some performance problems.

North Dakota staff listed the following changes that were made to the transferred system:

- Response time improved
- Database management system (DBMS) capacity increased
- User screens modified
- Output report modified
- Claims collection component added
- Issuance modules modified
- Back-end interface modified
- Monthly reporting process changed
- Medicaid eligibility determination added (1990)

North Dakota staff believed that the transfer process was advantageous in that it saved time and money, reduced risks, and increased reliability. In addition, the FAMIS-certification status of the donor system enhanced the likelihood of FAMIS certification of the North Dakota system after completion of the transfer. Notwithstanding the known and discovered problems of the transferred system, North Dakota personnel felt that the process was worthwhile and was preferable to developing a new system.

North Dakota's TECS, while sound and serviceable within that State's environment, is not an attractive transfer candidate due to the technical limitations of its basic design. Larger States would have problems handling sufficient volumes of transactions given the early ADATABASE design existing in TECS and smaller States could develop much less expensive systems given the reduced costs of microcomputers and associated networks available in today's marketplace. There are newer and more efficient systems now in place in several States that would be better transfer candidates than North Dakota. These systems include later editions of the basic Alaska TECS as well as variations of the ACCESS system, both of which use similar technical tools and approaches. It should be noted, however, that even at this late date the conceptual approach used by North Dakota remains valid.

6.0 SYSTEM OPERATIONS

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

6.1 System Profile

The components supporting the current Food Stamp Program system in North Dakota are as follows:

- **Mainframe:** IBM ES 9000 - 740
MVS/ESA, CICS, ADATABASE, RACF
- **Disk:** IBM 3380/3390

- **Tape:** IBM 3480/3490 Cartridge
- **Printers:** IBM 3828 Laser
IBM 3825 Laser
IBM 3820 Laser
IBM 4245 Impact
IBM 6262 Impact
- **Front Ends:** IBM 3745
- **Workstations:** Variety of 3270-type terminals
- **Telecommunications:** 12 - 56 KB Circuits; 12 - Codex 6525 Multiplexors and 51 - 9.6 KB SDLC circuits connected to local offices

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

6.2 Description of Operating Environment

This section describes the operating environment in North Dakota. Areas addressed include operations and maintenance, telecommunications, system performance, system response, and system downtime. Current activities in the systems area and future plans are also addressed.

6.2.1 Operating Environment

TECS operates 24 hours a day, seven days a week in a data center managed by the Information Services Division (ISD). The IBM ES 9000/740 provides 129 million instruction per second (MIPS) of processing power under MVS/ESA and handles 26 customer information control system (CICS) regions (15 for production, nine for testing, and two for training).

The data center is divided into three sections:

- Mainframe and direct access storage device (DASD) - located in the Capitol Building and operated as a "lights out" environment without operators
- Input/output operations - located in the Transportation Building, adjacent to the Capitol Building, and used for computer operations, tape processing, help desk, telecommunications and technical service personnel
- Printing - the majority of output is provided directly to the user area via a fiber optic channel extender. This enables the user to control input, job scheduling, and output. The cost of the operation is paid for by the using department. Printer costs are loaded into the mainframe costs for chargeback billing.

North Dakota has completely converted all production tapes to cartridges for processing on the 3480 and 3490 tape cartridge devices. The 3480s are installed in the State-owned Bank of North Dakota. ISD runs the IBM Check Processing Control System (CPCS) on the ES 9000/740 to support the check workload. The equipment is connected via the Megabit Corporation Channel Extender link.

Both 3380 and 3390 disks, totalling 180 gigabytes, are used to support all State applications.

A single IBM 3745 Front End Processor controls the statewide communications network under NCP and VTAM.

An Uninterruptible Power System (UPS) was installed in 1992 that includes both immediate battery cutover (15 minutes) and a diesel generator. The system helps smooth out power fluctuations that have led to hardware problems in recent years.

6.2.2 State Operations and Maintenance

ISD provides the data center operators, telecommunications technicians, technical support staff, and application support personnel for all State agencies, including the Department of Human Services. A total of 65 personnel support the technical environment, with another 58 supporting the production applications. A team of 10 analysts and programmers support the TECS application.

Hardware and software maintenance on system components and software are performed on Sundays. Application changes are placed into production libraries when the development staff feels that they are ready for production. Application changes are implemented any time it is felt that the change will not adversely affect the production systems. Incremental backups are done each night and consist of three generations. Current backups are retained in the data center for one full day and then rotated to off-site storage. Tapes are returned from off-site storage just before they are to be used for the next backup cycle. Full file backups are conducted each weekend.

6.2.3 Telecommunications

North Dakota has a statewide telecommunications backbone network to support all telecommunications activities for the State. The backbone consists of T1 and T3 circuits connecting 12 nodes that support counties and local State offices throughout the State. Voice, data, and video communications are carried on the backbone.

The data portion of the network utilizes 56 KB of bandwidth to tie five of the nodes to each of two master sites located in Fargo and Bismarck. These two nodes then tie into the IBM 3745 at the Bismarck data center via 56 KB digital circuits. At each of the node sites, a Codex 6525 multiplexor is used to concentrate 9.9 KB circuits that connect to 51 local offices throughout the State.

The line protocol used in the 9.6 KB portion of the network is SDLC. The 56 KB circuits are driven under X.25 and then converted back to SDLC at the Bismarck Codex 6525 before being passed to the 3745 Front End. A parallel series of 56 KB circuits are being isolated from the T1/T3 bandwidth to develop TCP/IP support for local area networks (LAN) and wide area networks (WAN) that will be available at a to-be-determined future date.

All State agencies share the use of the network. The higher education system uses the video function to support closed-circuit telecast of college classes.

6.2.4 System Performance

The ES 9000/740 has a current utilization level of 39 percent for average first shift usage, with peak periods driving the utilization up to the 60 percent level. There are 16 ESCON channels installed but they are not used at present. Given North Dakota's use of channel extension technology, it is obvious that this ESCON technology will be useful to the State in the near future. There are no obvious performance or capacity bottlenecks and ISD estimates that there is a two to three year growth capability in the current processor before an upgrade will be needed.

DASD growth is estimated to be, approximately, 10 gigabytes per quarter. Tape utilization is relatively flat with a current library of 10,000 cartridges. Two reel tape drives are retained to support external users.

6.2.5 System Response

North Dakota maintains terminal response times reports for all counties; 90 percent of all response times are at or below four seconds. No issues were noted by either ISD or Human Services staff.

6.2.6 System Downtime

No problems or issues related to system downtime were reported by either ISD or user staff. State staff indicated that outages were rare. Neither ISD nor Department of Human Services personnel could recall the last time the system was down except for power fluctuations that have been eliminated with the implementation of the UPS system.

6.2.7 Current Activities and Future Plans

There are plans to upgrade hardware in the next two years. North Dakota plans to implement an EBT system, a Child Support Enforcement interface, and a Managed Care system in 1995.

7.0 COST AND COST ALLOCATION

This section addresses TECS development costs and approved Federal funding, on-going TECS operating costs, and cost allocation methodologies used for development and operating costs.

All TECS development information was collected from the TECS Advanced Planning Document (APD), February 1984, and the Cost Allocation Interview Guide and Survey completed by North Dakota personnel. Correspondence between North Dakota and FNS documenting the funding profile was not available. Reimbursement for the FSP share of the TECS development costs was made at the enhanced rate of 75 percent.

7.1 TECS Development Costs and Federal Funding

The estimated cost of TECS development was \$2,440,530. Development costs, excluding the \$930,895 development contract, totalled \$1,509,635. The allocation of development costs was as follows:

- The FSP share of development costs excluding the development contract was allocated at 53 percent, or \$800,106. The FNS share of contractor costs, \$330,895, increased the total FNS TECS costs to \$1,131,000. Overall, this represented a 43.6 percent FNS share of total development costs.
- The DHHS share of development costs excluding the development contract was allocated at 47 percent, or \$709,529. Contractor costs of \$600,000 increased DHHS TECS costs to \$1,309,529.

The actual costs for TECS did not vary significantly from the estimated costs.³ The DHHS Office of Family Assistance (OFA) granted written approval to the North Dakota Department of Human Services for TECS development for \$1,509,635 with the DHHS share at 47 percent, or \$709,529.⁴ No further written communications were available to document additional DHHS approval or any FNS approvals. The system became operational in November 1984 and was FAMIS certified shortly after operations began.

7.1.1 TECS System Components

TECS was conceived in 1983 to support only the AFDC Program; the original contract for TECS support was awarded in August 1983. A revised APD was prepared in February 1984 to include support for the Food Stamp Program. Because OFA and FNS were involved during the APD development process, both agencies granted timely approval of the APD in April 1984.

³Per North Dakota project personnel. Official records documenting the actual TECS costs were not available.

⁴Letter, 4/23/84.

7.1.2 Major TECS Development Cost Components

Hardware, contractor support, and State personnel represented 88 percent of total TECS development costs. Each of these cost components is described below.

7.1.2.1 Hardware

The estimated hardware cost for TECS was \$1.1 million.⁵ The actual hardware costs were reported to be \$954,000.⁶ Each county was promised at least one terminal and one printer. A single terminal was to be installed in each office where combined AFDC and food stamp caseload was less than 100. Modems and multiplexors supported hookups to the host computer in 17 counties; the other 34 counties were provided dial-up capabilities. The proposed hardware configuration required 160 terminals (\$535,000) and 157 printers (\$308,700). Controller and modem costs were estimated at \$67,200 and \$7,250, respectively. The existing mainframe was able to support TECS. This made purchase of a mainframe unnecessary.

7.1.2.2 Contractor Support

North Dakota contracted with Systemhouse, Inc. to support the TECS development effort. The total contract value was \$931,000. The original fixed price contract, with a period of performance of one year, was let in August 1983 for \$600,000 to accommodate AFDC requirements. Following the decision to integrate Food Stamp Program requirements into TECS, Systemhouse was awarded an additional \$331,000 to accommodate Food Stamp Program requirements. It is unclear from the documentation whether the \$331,000 was a modification to the August 1983 contract or a separate contract.

7.1.2.3 State Personnel

Estimated State personnel costs totalled \$256,376 with an additional \$61,416 budgeted for travel. The actual State personnel costs totalled \$266,345⁷. Actual travel costs were not provided.

⁵February 1984 APD.

⁶Cost Accounting Interview Guide and Survey, B2.f.

⁷Ibid, B2.c.1.

7.2 TECS Operational Costs

Table 7.1, TECS Operating Costs, presents the total actual operating costs for TECS for Federal fiscal year (FFY) 1991 and FFY92 as well as the FNS share of those costs. The FNS share of operating costs is subject to 50 percent FFP. For FFY93, the table shows the estimated operating costs for two quarters based on the total costs for eight months and the FNS share for two quarters. FFY90 costs are incomplete.

Table 7.1 TECS Operating Costs

Federal Fiscal Year	Total TECS Operating Costs	FNS Share of TECS Operating Costs	FNS Share
1990 (1 quarter)	N/A	\$178,209	N/A
1991	\$1,905,931	\$878,536	46%
1992	\$2,218,299	\$835,988	38%
1993 (2 quarters)	\$894,689 ⁸	\$417,161	47%

7.2.1 Cost Per Case

Annual TECS operating costs for 1992 were \$2,218,299, and the FNS share was \$835,988. On a monthly basis, the FNS share was \$69,666. The cost per case month -- based on monthly participation of 18,197 Food Stamp households -- was \$3.82.

7.2.2 ADP Operational Cost Control Measures and Practices

The Central Data Processing (CDP) Agency bills the Department of Human Services monthly for all computer support provided to DHS systems. CDP provides a hard copy cost breakout by system and all items of support provided to that system. DHS uses this report to calculate the TECS operating costs attributable to the Food Stamp Program.

The TECS operating costs charged to North Dakota Department Human Services for April 1993 were \$375,060. Table 7.2, Operating Costs Items, lists each of the major cost items and its percentage of total operating costs.

⁸Six month period calculated based on operating costs of \$1,192,919 for an eight month period beginning October 1992.

Table 7.2 Operating Costs Items

MAJOR COST COMPONENT	APRIL COST	% OF APRIL COST
System Analyst	\$68,656	18.3
Programming	\$88,209	23.5
Batch CPU	\$25,549	6.8
CICS CPU	\$43,605	11.6
ADABAS CPU	\$65,724	17.5
Total CPU	\$134,878	36.0
3380 Disk Storage	\$5,417	1.4
3390 Disk Storage	\$22,722	6.1
Total Disk Storage	\$28,139	7.5
Network Port	\$20,304	5.4
Terminal Access Charge	\$30,591	8.2
Other ⁹	\$4,283	1.1
TOTAL	\$375,060	100.0

7.3 North Dakota Cost Allocation Methodologies

The methodology used to allocate TECS development costs to FNS and DHHS is documented in the 1984 APD. The methodology for allocating operating costs is provided in the Cost Allocation Plan, effective July 1991.

7.3.1 Historical Overview of TECS Development Cost Allocation Methodology

The approved allocation of TECS development costs to FNS was 53 percent; DHHS was allocated the remaining 47 percent.¹⁰ The basis for the allocation was the *accumulated number of minutes* recorded by eligibility technicians for both AFDC and food stamp certification for a 12-month period beginning October 1, 1992.

⁹ Includes miscellaneous low cost items not detailed in the chart such as batch print costs, tape mount costs, and TSO CPU costs.

¹⁰This percentage allocated was not applied to Systemhouse support costs.

The time study accumulated a total of 36.5 million minutes of work for the eligibility technicians. AFDC activities comprised 4.3 million minutes, while 4.9 million minutes were recorded for food stamp activities. Of the 9.2 million minutes spent on AFDC and Food Stamp activities, 53 percent was spent doing food stamp certifications; 47 percent was spent doing AFDC certifications.

The 47 percent allocation was approved by DHHS in April 1984. Specific documentation addressing FNS approval was not available.

7.3.2 TECS Operations Cost Allocation Methodology and Mechanics

All TECS operating costs are allocated. Prior to June 1992, allocation was based on time studies of county office personnel including eligibility workers, secretaries, directors, and aides. Each worker completed a time sheet for each eight hour day that recorded specific programs and activities performed for those programs. These time sheets were compiled monthly and submitted to the State Research and Statistics Office for processing. TECS operating costs were allocated to supported programs based on the results of this processing.

In June 1992, North Dakota began using random moment sampling (RMS) to allocate TECS operating costs. Each of the 51 county offices are involved in the study on a monthly basis. The results are fed back to the Research and Statistics Office which, in turn, feeds computed allocation percentage figures into the State accounting system. The mainframe system is used to apply the allocation.

Charges other than those for the operational TECS are allocated to the Food Stamp Program using the State accounting system. The accounting system recognizes three types of grant charges:

- Direct charges to Federal grant programs
- Direct charges to State programs in which no Federal money is involved
- Charges that are allocated to the grant programs

The indirect cost pools that are allocated to the Food Stamp Program and subsequently reimbursed as part of the grant are allocated using a step-down allocation methodology. The pools and their sequence are presented in Exhibit A-7.1 in Appendix A.

APPENDIX A

STATE OF NORTH DAKOTA

EXHIBITS

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

Code	Regulation	Provision	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 HHS provided as vendor payments. 273.9(c)(1)(ii)(F)	8/1/91	Y	N	Y
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	Y	N	Y
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	Y	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	N	Y
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	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)	N/A	Y	N	Y
4.1	4: Issuance	1: Mail issuance must be staggered over at least ten days. 274.2(c)(1)	4/1/89	Waiver in effect	N/A	N/A
4.2	4: Issuance	2: Limitation on the number of replacement issuances. 274.6(b)(2)	10/1/89	Y	N	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 Dakota
Hardware Inventory**

Component	Make	Acquisition Method	Number/ Features
CPU			
ES 9000-740	IBM	Purchase	64 channels, 256 MB main storage, 256 MB extended storage, 129 MIPS
DISK			
3380/3390	IBM	Purchase	Controllers: 3990 (3) Drives: 3390 (5) 3380 (4)
TAPE			
Cartridge Drives	IBM	Purchase	3490 (8) 3490 (8)
Tape Reel Drives	IBM	Purchase	3420 (2)
PRINTERS			
Laser	IBM	Purchase	3828 (1) 3825 (1) 3820 (1)
Impact	IBM	Purchase	4245 (2) 6262 (5)
FRONT ENDS			
37XX	IBM	Purchase	3745 (1)
REMOTE EQUIPMENT			
3270 Type	Various	Purchase	475

Exhibit A-7.1
Non-TECS Charge Allocation

SEQUENCE 1	Copier, postage, space, telephone, motor pool, printing
↳ SEQUENCE 2	Attorney General billings; administrative hearings affairs
↳ SEQUENCE 3	Agency administrative costs including workers compensation, State fire and tornado insurance; bulk mail permit, statewide indirect
↳ SEQUENCE 4	Executive Office
↳ SEQUENCE 5	Management Support Division; Director of Field Services; Program Division; Director of Vocational Rehabilitation; Director of Economic Assistance
↳ SEQUENCE 6	Director of Economic Assistance Support
↳ SEQUENCE 7	Field Supervisors of Economic Assistance; Assistance Payments Unit; FAMIS TECS costs @ 90%; FAMIS TECS costs @ 50%; Non-FAMIS Tech costs; Quality Control Reviewers; Eligibility Technician Training; Budget Enhancement for TECS
↳	FOOD STAMP PROGRAM GRANT

APPENDIX B

STATE OF NORTH DAKOTA

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 represent the perceptions of eligibility workers (EWs) in North Dakota. In other words, these responses do not necessarily represent a "true" description of the situation in North Dakota. For example, the results presented regarding the response time of the system reflect the workers' perceptions about 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 Dakota	Number Selected to Receive Survey	Percentage Selected
269	63	23.4%
	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 Dakota. The response rate of 74.6 percent is acceptable and produces a sample large enough for the results to be representative of those selected, rather than the opinions of just a few individuals.

Summary of Findings

Respondents generally are very satisfied with the computer system in North Dakota. Most EWs think that system response time, availability, accuracy, and ease of use are acceptable. Nevertheless, workers' responses indicate that significant minorities have some problems with particular features of the system. Workers also feel that the system generally has a positive impact on job satisfaction; over 95 percent of the EWs think that the system is a great help in their jobs.

Since North Dakota's current 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 (%)
Good	20	42.6
Excellent	27	57.4

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

	Number of Respondents	Percentage of Respondents (%)
Poor	2	4.3
Good	34	72.3
Excellent	11	23.4

How often is the system response time too slow?

	Number of Respondents	Percentage of Respondents (%)
Rarely	30	63.8
Sometimes	16	34.0
Often	1	2.1

Eligibility workers in North Dakota are satisfied with system response time. All of the respondents feel that overall system response time is good or excellent, and more than 95 percent think response time during peak periods is good or excellent. A majority also believes that response time rarely is too slow.

Availability

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

	Number of Respondents	Percentage of Respondents (%)
Often	47	100.0

How often is the system down?

	Number of Respondents	Percentage of Respondents (%)
Rarely	31	66.0
Sometimes	16	34.0

All eligibility workers believe that the system often is available when they need to use it, and nearly two thirds think the system rarely is down. Among the 34 percent who feel that the system sometimes is down, the system downtime does not seem to be intrusive enough to detract from the perception that the system generally is available.

Accuracy

What is the quality of the information in the system?

	Number of Respondents	Percentage of Respondents (%)
Good	28	59.6
Excellent	19	40.4

How often is a case terminated in error?

	Number of Respondents	Percentage of Respondents (%)
Rarely	45	95.7
Sometimes	2	4.3

How often is eligibility incorrectly determined?

	Number of Respondents	Percentage of Respondents (%)
Rarely	43	91.5
Sometimes	4	8.5

How often is the system's data out-of-date?

	Number of Respondents	Percentage of Respondents (%)
Rarely	44	100.0

Most eligibility workers think the system's data and computations are very accurate. All of the workers feel that the quality of the information in the system is good or excellent, and the data rarely is obsolete. Large majorities also believe that problems related to cases terminated in error and incorrect eligibility determination are rare.

Ease of Use

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	43	91.5
Sometimes	4	8.5

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	32	68.1
Sometimes	14	29.8
Often	1	2.1

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	33	86.8
Sometimes	4	10.5
Often	1	2.6

How often do you have difficulty generating adverse action notices?

	Number of Respondents	Percentage of Respondents (%)
Rarely	41	87.2
Sometimes	6	12.8

How often do you have difficulty generating warning notices?

	Number of Respondents	Percentage of Respondents (%)
Rarely	42	91.3
Sometimes	4	8.7

How often do you have difficulty restoring benefits?

	Number of Respondents	Percentage of Respondents (%)
Rarely	42	89.4
Sometimes	5	10.6

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	45	95.7
Sometimes	2	4.3

How often do you have difficulty updating registration data?

	Number of Respondents	Percentage of Respondents (%)
Rarely	45	97.8
Sometimes	1	2.2

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	47	100.0

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	45	95.7
Sometimes	2	4.3

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	20	69.0
Sometimes	6	20.7
Often	3	10.3

How often do you have difficulty tracking outstanding verifications?

	Number of Respondents	Percentage of Respondents (%)
Rarely	35	76.1
Sometimes	10	21.7
Often	1	2.2

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	42	91.3
Sometimes	4	8.7

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	47	100.0

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	39	86.7
Sometimes	5	11.1
Often	1	2.2

How often do you have difficulty identifying error prone cases?

	Number of Respondents	Percentage of Respondents (%)
Rarely	26	65.0
Sometimes	13	32.5
Often	1	2.5

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	30	69.8
Sometimes	12	27.9
Often	1	2.3

How often do you have difficulty assigning new case numbers?

	Number of Respondents	Percentage of Respondents (%)
Rarely	46	97.9
Sometimes	1	2.1

Eligibility workers generally believe that the system is easy to use. For most functions, a large majority reports rarely having

difficulty. The areas in which the largest minorities (between 30 and 35 percent of EWs) report sometimes or often having problems include: learning to use the system, monitoring the status of hearings, tracking outstanding verifications, and identifying error prone and suspected fraud cases.

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	2	4.3
Often	45	95.7

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	24	51.1
Sometimes	20	42.6
Often	3	6.4

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

	Number of Respondents	Percentage of Respondents (%)
Rarely	44	93.6
Sometimes	3	6.4

EWs generally think that the system positively influences job satisfaction. Over 95 percent of eligibility workers feel that the system is a great help to them in their jobs. A majority also believes that the system rarely contributes to job-related stress, and nearly 94 percent believe that the system usually is more helpful than problematic.

Client Service

How often is expedited service difficult to achieve?

	Number of Respondents	Percentage of Respondents (%)
Rarely	46	97.9
Sometimes	1	2.1

How often do you have difficulty providing expedited services?

	Number of Respondents	Percentage of Respondents (%)
Rarely	46	97.9
Sometimes	1	2.1

With one exception, all EWs feel that there are few problems associated with providing expedited service to clients.

Fraud and Errors

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

APPENDIX C

STATE OF NORTH DAKOTA

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 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 Managerial Level User Satisfaction Survey are the perceptions of eligibility worker (EW) supervisors in North Dakota. In other words, these responses do not necessarily represent a "true" description of the situation in the State. 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 the final size of the sample who responded.

Number of EW Supervisors in North Dakota	Number Selected to Receive Survey	Percentage Selected
63	30	47.6%
	Number Responding to Survey	Response Rate
	7	23.3%

The supervisors selected to receive the survey were selected randomly so their perceptions would be representative of supervisors in North Dakota. The total number of respondents, however, is very low. The low response rate produces a small sample whose responses may not be representative of this random selection. Responses reflect individuals' perceptions that should not be generalized to the EW supervisor population.

Summary of Findings

Responding EW supervisors in North Dakota regard the system positively and believe that it helps them in their jobs. Most of the EW supervisors report that response time, system availability, accuracy, and ease of use are good. More than half of the EW supervisors, however, sometimes have problems learning to use the system. For the most part, EW supervisors feel that the system contributes to job satisfaction. Supervisors also believe that the system adequately supports management needs.

Since North Dakota's current 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
Good	4	57.1
Excellent	3	42.9

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

	Number of Respondents	Percentage of Respondents
Good	5	83.3
Excellent	1	16.7

How often is the system response time too slow?

	Number of Respondents	Percentage of Respondents
Rarely	4	57.1
Sometimes	2	28.6
Often	1	14.3

EW supervisors in North Dakota are very satisfied with system response time. All of the respondents feel that overall system response time and response time during peak processing periods are good or excellent.

Availability

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

	Number of Respondents	Percentage of Respondents
Often	7	100.0

How often is the system down?

	Number of Respondents	Percentage of Respondents
Rarely	4	57.1
Sometimes	3	42.9

All responding EW supervisors report that the system often is available when they need to use it, and a majority of the supervisors feels there rarely are instances of downtime. Although a significant minority thinks that the system sometimes is

Ease of Use

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

	Number of Respondents	Percentage of Respondents
Rarely	5	71.4
Sometimes	2	28.6

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

	Number of Respondents	Percentage of Respondents
Rarely	2	28.6
Sometimes	5	71.4

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

	Number of Respondents	Percentage of Respondents
Rarely	3	60.0
Sometimes	2	40.0

How often do you have difficulty generating adverse action notices?

	Number of Respondents	Percentage of Respondents
Rarely	5	83.3
Sometimes	1	16.7

How often do you have difficulty generating warning notices?

	Number of Respondents	Percentage of Respondents
Rarely	5	83.3
Sometimes	1	16.7

How often do you have difficulty restoring benefits?

	Number of Respondents	Percentage of Respondents
Rarely	4	66.7
Sometimes	2	33.3

EW supervisors generally feel that the system is easy to use. For most functions, at least 60 percent of the respondents report rarely having difficulties in these areas. There is one area, however, in which supervisors report more difficulties. Five out of seven EW supervisors sometimes have problems learning to use the system.

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
Rarely	1	14.3
Often	6	85.7

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

	Number of Respondents	Percentage of Respondents
Rarely	3	42.9
Sometimes	4	57.1

EW supervisors generally feel that the system contributes to job satisfaction. Nearly 86 percent of respondents feel that the system often is a great help, however, more than half of the EW supervisors think it sometimes creates added stress in their jobs.

Management Needs

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

	Number of Respondents	Percentage of Respondents
Good	7	100.0

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

	Number of Respondents	Percentage of Respondents
Poor	1	14.3
Good	3	42.9
Excellent	3	42.9

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

	Number of Respondents	Percentage of Respondents
Rarely	5	71.4
Sometimes	2	28.6

How often do you have difficulty meeting Federal reporting requirements?

	Number of Respondents	Percentage of Respondents
Rarely	4	66.7
Sometimes	2	33.3

EW supervisors think that the system adequately supports management needs. All responding supervisors feel that the quality of the

reports produced by the system is good, and six out of seven supervisors think that technical staff support is good or excellent. Large majorities also report rarely having difficulties making mass changes and meeting Federal reporting requirements.

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 Dakota'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 with the North Dakota system because all the questions in this category compare the current and previous systems. Since North Dakota's system was implemented more than five years ago, comparative questions are not applicable.