TECHNICAL SUMMARY

FINANCIAL MANAGEMENT PROFILE
OF THE

DEPARTMENT OF HEALTH AND HUMAN
SERVICES

CENTRAL PERSONNEL/PAYROLL SYSTEM

PREPARED
BY THE STAFF
OF THE
U.S. GENERAL ACCOUNTING OFFICE
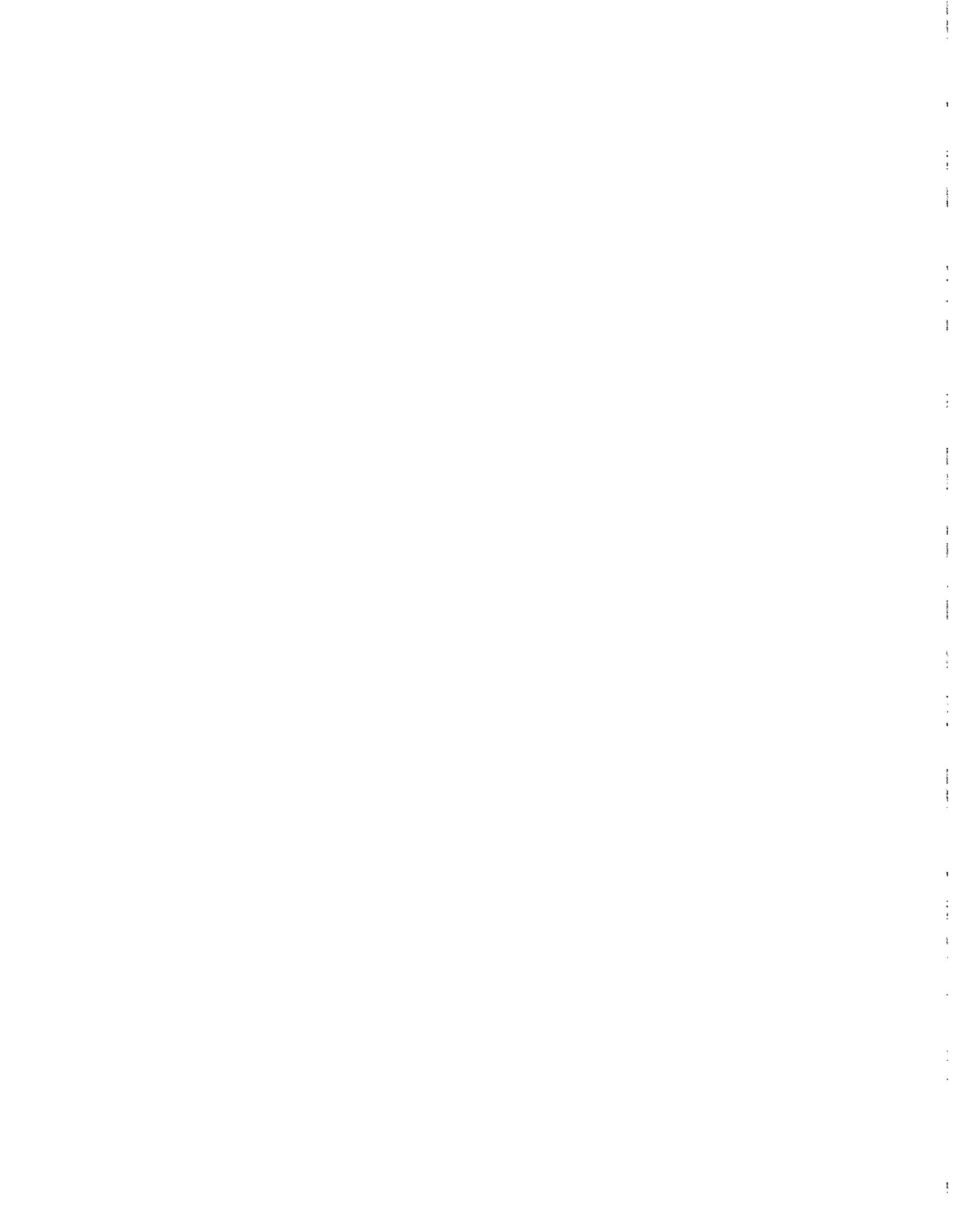
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FOREWORD

The Department of Health and Human Services, through its Employee Systems Center, operates a central, department-wide personnel/payroll system to disburse, account for, and control salary payments. In fiscal 1982 the Department employed more than 147,000 employees and made more than $4 billion in payroll disbursements.

This technical summary is one of eleven volumes of detailed information that supports the overall Financial Management Profile for the Department of Health and Human Services (AFMD 84-15, April 9, 1984). The technical summaries provide detailed information on the major organization components of the Department of Health and Human Services (the Department), their financial management systems, and major internal control strengths and weaknesses in these systems.

The financial management profile of the Department and the eleven technical summaries were prepared by GAO as a pilot test of a new audit approach--called Controls and Risk Evaluation (CARE)-- for (1) identifying and describing the financial management systems used by an agency and (2) assessing and ranking the internal control strengths and weaknesses of the systems. This analysis is based on reviews of available systems documentation, discussions with agency personnel, and reviews of prior GAO and Inspector General reports. Tests were not performed on actual information processed by and recorded in the systems, therefore, conclusions cannot be reached about whether the systems' internal controls were actually operating as designed.

The information in this technical summary is intended for use in:

--planning future tests and evaluations of the Department's Central Personnel/Payroll System,

--monitoring the Department's efforts to implement the Federal Managers' Financial Integrity Act of 1982, and

--supporting and enhancing the understanding and application of the CARE-based methodology by designers, operators, and evaluators of agency accounting and financial management systems.
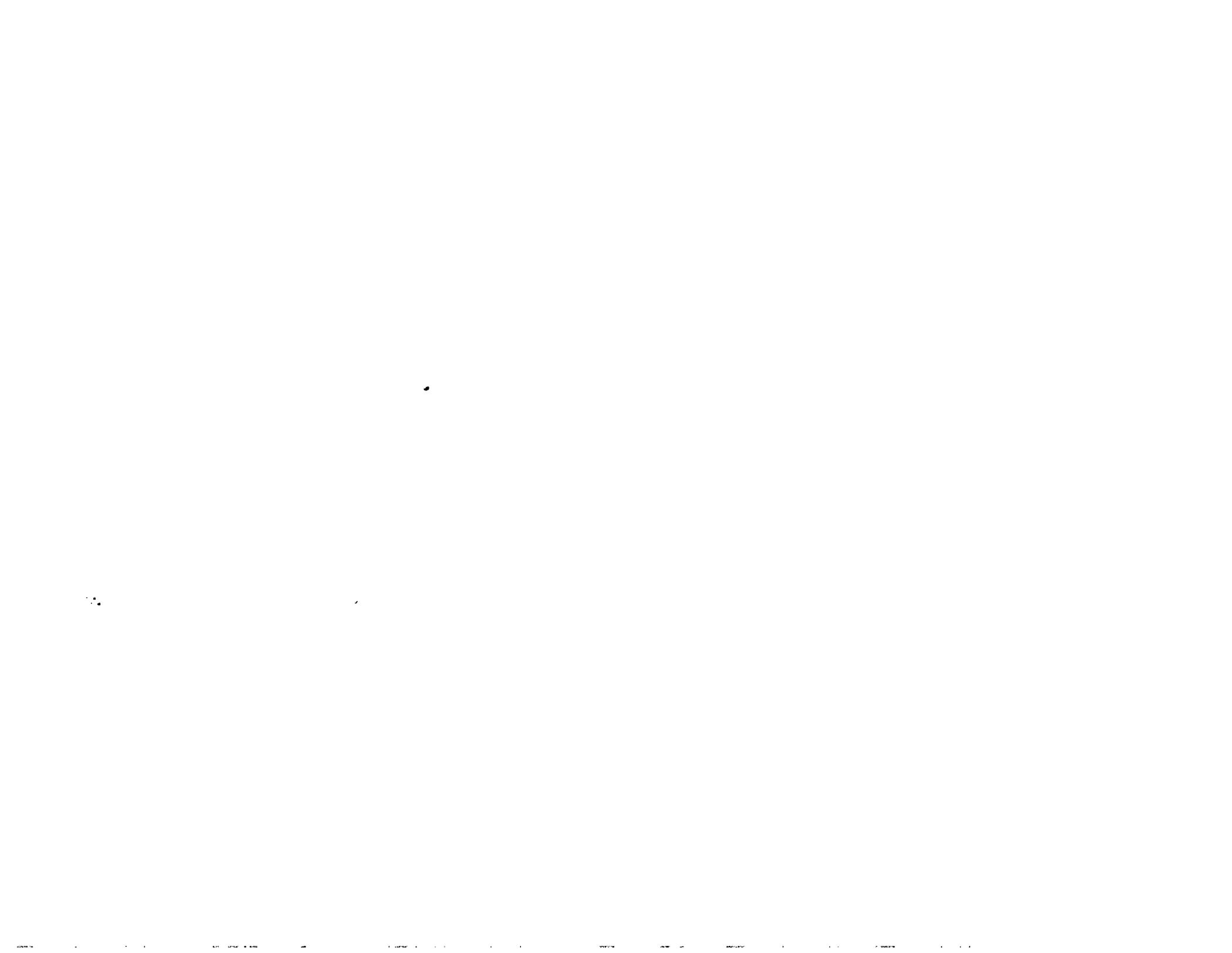
This profile provides a description of the operations of and transaction flows through the Department's central personnel/payroll system. The summary also provides a list of the major internal control strengths and weaknesses in the system.

During the course of the work, agency officials were briefed. The summary was also provided to cognizant agency officials for their review and comments. Their comments were considered and appropriate changes were made in finalizing the summary. The assistance and cooperation of agency management enhanced the successful completion of the work. The results of this survey will

be used by GAO as one of the bases for planning future reviews of the Department's financial management systems. The summary is being provided to the Department to assist it in its continuing efforts to improve financial management.

C o n t e n t s

DEPARTMENT OF HEALTH AND HUMAN SERVICES

CENTRAL PERSONNEL/PAYROLL SYSTEM

The Department of Health and Human Services uses a central, department-wide personnel/payroll system to disburse, account for, and control salary payments. In fiscal 1982 the Department employed more than 147,000 employees and made more than $4 billion in payroll disbursements. Based on our review and analysis, the Department's central personnel/payroll financial management structure is comprised of fourteen (14) automated application systems which, taken together, constitute the Department's central personnel/payroll system and process all personnel and payroll information. To facilitate discussion of internal control strengths and weaknesses in these application systems, this chapter presents these application systems as separate systems.

In assessing the internal control strengths and weaknesses over processing personnel information, we determined that the controls appear adequate to ensure the accurate, complete, and timely capturing, recording, and transmitting of pay entitlement information. However, the controls over processing of payroll information did not appear to adequately ensure that:

--Payroll transactions are completely, accurately, and timely captured and recorded in the master payroll records and used in computing paycheck amounts.

--Paychecks are issued only to entitled persons.

In addition, design and operating weaknesses in the 14 automated systems precluded these systems from efficiently using the full capabilities of available computer hardware and software resources. Further, our survey disclosed that the Department's organizational components operate 12 automated systems that recorded and reported personnel information already recorded and available in the central personnel system.

We discussed the aforementioned issues with cognizant agency officials. In our discussions, we advised the agency that we had not done any tests of personnel and payroll information to determine whether the internal control weaknesses identified during our survey had actually resulted in any erroneous salary payments. We further advised the agency that we were bringing these issues to their attention so they could be considered in any plans or projects the department has to redesign its personnel/payroll system.

Department officials generally agreed with the internal control and efficiency of operation issues we raised. They informed us that the agency is in the process of engaging a contractor to (1) perform a risk analysis of the central personnel/payroll system and (2) design a single, integrated database for the personnel/payroll system. They further informed us that they would ask their contractor to include the issues we raised in its study of the personnel/payroll system.

BACKGROUND

The Department's central personnel/payroll system cuts across the organizational boundaries of the Department's five major organizational components. The system handles two broad categories of employees: that is, civilian employees--which include General Schedule and Merit Pay employees--and Public Health Service (PHS) Commissioned Officers. PHS Commissioned Officers are doctors, dentists, nurses, and other professionals that work in PHS medical installations located throughout the world. In addition the system also processes monthly stipends paid to medical, dental, and nursing students participating in the Health Resources Services Administration's (HRSA'S) National Health Service Corp's (NHSC'S) Scholarship Program.

OVERVIEW OF HHS's CENTRAL PERSONNEL/PAYROLL SYSTEM

The Department of Health and Human Services central personnel/payroll system is comprised of fourteen (14) automated application systems. Twelve systems process pay entitlement and payroll information for civilian employees; one system processes similar information relating to PHS Commissioned Officers; and one system processes information dealing with stipends paid to participants in the NHSC Scholarship program. The 14 systems cost about $21 million to operate in fiscal 1983. See appendix II.

Civilian Employee Personnel/Payroll Financial Management Structure

Twelve automated application systems comprise the central civilian employee personnel/payroll systems. These systems are briefly described below:

--**Merit Pay System** computes the Department's annual merit pay fund, divides the merit pay fund into annual merit pay increases for individual merit pay employees, and sends the individual annual merit pay increases to the Central Personnel System.

--**Central Personnel System** receives personnel and pay entitlement information from the Merit Pay System and from personnel offices in the Department's five major organizational components, maintains the central personnel masterfile, and sends pay entitlement information to the Central Payroll System.

--**Social Security Administration's (SSA's) Cash Awards System** processes cash awards under $1,000 to SSA employees and sends information on these awards to the Central Payroll System.

--**Health Care Financing Administration's (HCFA's) Time and Attendance System**

--**National Institutes of Health's (NIH's) Time and Attendance
System**

--**Center for Disease Control's (CDC's) Time and Attendance
Accounting System**

--**Food and Drug Administration's (FDA's) Time and Attendance
Data Collection System**

--**FDA Time and Reporting System**

These systems collect and process bi-weekly time and atten-
dance information and send this information to the Central
Payroll System.

--**Central Payroll System** receives pay entitlement information
from the Central Personnel and SSA's Cash Awards systems,
receives bi-weekly time and attendance and payroll trans-
action information from Departmental components, validates
the information received, maintains the central payroll
file, prepares internal and external reports and sends
summary payroll cost information to Departmental accounting
(general ledger) systems.

In addition to the aforementioned nine systems, three other
systems are involved in processing personnel and payroll
information. These three systems are the NIH Personnel Data
System/Terminal Data Collection Service, Region II Integrated
Pay/Personnel System, and Region IV Management Information System.
These three systems use the computer terminals to transmit and
receive personnel and payroll information from the central
personnel and payroll systems.

PHS Commissioned Officer Personnel/
Payroll System

One automated application system comprises the PHS Commis-
sioned Officer Personnel/Payroll System. This system is composed
of two major segments: the Commissioned Officer Personnel Order
Subsystem and the Commissioned Officer Payroll Subsystem. Specifi-
cally, the:

--**Commissioned Officer Personnel Order Subsystem** receives per-
sonnel and pay entitlement information from PHS medical
installations, validates the information, maintains the
central personnel file, produces internal and external
reports, and sends pay entitlement information to the
Commissioned Officer Payroll Subsystem.

--**Commissioned Officer Payroll Subsystem** receives pay entitle-
ment information from the Personnel Order Subsystem,
receives payroll transaction information--like income tax
withholding exemptions--from payroll offices, receives
scholarship stipend information from HRSA's NHSC Scholarship
Payroll System, validates the information, maintains the
central automated payroll file, computes monthly paycheck

3

amounts, prepares internal and external reports and machine
media files, and sends summary payroll cost information to
the HRSA's Accounting (general ledger) system.

For use of discussion and presentation the two major segments
of the PHS Commissioned Officer Personnel/Payroll Systems will be
considered two separate systems.

HRSA'S NHSC Scholarship
Payroll Systems

HRSA's NHSC Scholarship Program pays the full cost of the
medical, dental, or nursing education for program participants in
exchange for up to 4 years service in Federally designated health
shortage areas. Tuition fees are paid directly to the health pro-
fession schools. Monies for other school and living expenses are
paid directly to program participants. HRSA's NHSC Scholarship
Payroll System receives program eligibility and cost information
from students and schools, validates the information, maintains
automated files, initiates payment of tuition fees to schools, pre-
pares internal and external reports, sends program cost information
to HRSA's Health Accounting (general ledger/administrative control
of funds) system, and sends monthly payment information for support
payments for program participants to the PHS Commissioned Officer
Payroll Subsystem.

STRUCTURE OF THE TECHNICAL SUMMARY

Detailed discussions of the inputs, processing, outputs and
related internal control strengths and weaknesses in the (1) twelve
computer systems that process civilian employee personnel/payroll
information, (2) the two computer systems that process PHS Commis-
sioned Officer personnel/payroll information, and (3) the one
computer system that processes NHSC Scholarship information are
included in the next three major sections of this chapter. Other
design and operating issues relating to the fourteen systems that
comprise HHS's financial management structure for its central per-
sonnel/payroll function are discussed in detail in the final major
section of this technical summary.

An overview flowchart for HHS's financial management structure
for civilian personnel/payroll operations appears in appendix III.
A similar overview flowchart for PHS Commissioned Officer person-
nel/payroll and NHSC Scholarship program operations appears in
appendix IV.

> --A summary of the internal control strengths and weaknesses
> in the fourteen systems that comprise HHS's financial man-
> agement structure for central personnel/payroll operations
> appears in appendix V. The internal control strengths and
> weaknesses in the fourteen systems that comprise HHS's
> financial management structure for personnel/payroll opera-
> tions are organized in appendix V according to control
> objectives. A control objective is the desired result of
> processing personnel and payroll transaction information.

4

For example, one personnel/payroll control objective is that "the appointment, change, and termination of employees should be authorized in accordance with current personnel regulations and management policy."

PERSONNEL/PAYROLL OPERATIONS
FOR CIVILIAN EMPLOYEES

The following computer systems that comprise, in part, the system structure for HHS civilian employee personnel/payroll operations were surveyed:

--Merit Pay System

--Central Personnel System

--Health Care Financing Administration's (HCFA's) Time and Attendance System

--Region IV Management Information System

--Central Payroll System.

These systems illustrate the procedures, records, and internal controls for processing pay entitlement and time and attendance information that support the preparation and issuance of paychecks to HHS civilian employees. The system processing, outputs and related internal control strengths and weaknesses for each of these systems are discussed in detail in the following sections.

We did not survey the operations of the (1) SSA Cash Awards, (2) NIH Time and Attendance, (3) CDC Time and Attendance, (4) FDA Time and Attendance Data Collection, (5) FDA Time Reporting, (6) NIH Personnel Data, and (7) Region II Integrated Pay/Personnel systems. These systems were not surveyed because they processed the same type of information processed by the five systems surveyed and because of survey time constraints.

Merit Pay System

The Merit Pay System computes HHS's annual merit pay fund, calculates individual employee annual merit pay increases, and prepares a machine media file of merit pay increases as an input to HHS's Central Personnel System. The Merit Pay System is run at HHS's Washington D.C. computer center.

Information is entered into and retrieved from the system by computer terminals located in HHS's Washington D.C. Employee Systems Center. The system inputs, processing, and outputs and related internal control strengths and weaknesses are discussed below.

System inputs

The inputs to the Merit Pay System are the annual merit pay
fund formula published each year by the Office of Personnel Manage-
ment, information on each merit pay employee extracted from the
central personnel masterfile maintained by the Central Personnel
System, and annual performance appraisals for each merit pay
employee. These inputs are the basis for the system to compute
each merit pay employee's annual within-grade pay increase. See
personnel control objective 5 in appendix V.

The Civil Service Reform Act of 1978, established the Merit
Pay System for determining the salaries of managerial and super-
visory personnel in General Schedule (GS) grades 13 through 15.
Under this system, merit pay employees are awarded annual within-
grade pay increases based on performance appraisals rather than on
length of service within a pay grade and step as is the case in the
General Schedule system. Consequently, merit pay employees of the
same grade with the same length of service will, most likely, re-
ceive different salaries.

System processing

The first step the Merit Pay System does is to compute HHS's
annual merit pay fund: that is, the pool of money that will be
divided among merit pay employees in the form of individual annual
merit pay increases. This fund totalled about $14 million for fis-
cal 1983 and covered 9,300 employees. The merit pay fund is com-
puted based on a formula developed and published annually by the
Office of Personnel Management (OPM). An agency's merit pay fund
is composed of:

--One-half of the annual comparability pay increase awarded by
the President to all Federal employees that applies to merit
pay employees.

--The total amount of within-grade pay step increases that
would have been awarded to merit pay employees had they
remained under the GS pay system.

--An estimate of the total amount of quality step increases
that would have been awarded to merit pay employees had they
remained under the GS pay system.

To accomplish this first step, the annual merit pay formula is
entered into the Merit Pay System, and the system extracts from the
central master personnel file, information relating to merit pay
employees and creates the Merit Pay Masterfile. This file includes
such information as each merit pay employee's Social Security
Number, Common Accounting Number, organization code, prior year's
pay rate, GS grade and step equivalent, and length of time in
grade. Based on OPM's formula and the information in the Merit Pay
Masterfile, the Merit Pay System (1) computes HHS's annual merit
pay fund, (2) allocates the fund to HHS's organizational
components--merit pay pools--based on the number of merit pay

employees in each organizational component and an estimate of the total number of performance appraisal points these employees will earn.

The second step the Merit Pay System does, after it computes the merit pay pools, is to divide-up the pools into individual merit pay increases for employees in each pool. In calculating individual merit pay increases, the Merit Pay System:

--Computes the dollar value for a performance appraisal point by dividing the amount of money in each merit pay pool by the total number of actual performance appraisal points earned by all merit pay employees in each merit pay pool.

--Determines the total number of performance appraisal points earned by each merit pay employee in each pool based on performance appraisals.

--Calculates each employee's annual merit pay increase based on (1) dollar value for each performance appraisal point for each pool and (2) the total number of performance appraisal points earned by each employee.

--Records the merit pay increases in the Merit Pay Masterfile.

System outputs

The Merit Pay System produces a series of hardcopy reports which are designed to provide a historical record--audit trail--for the computation of annual merit pay increases. Specifically, the system produces a:

--Listing of employees in each Merit Pay Pool.

--Report listing all employees in each Merit Pay Pool and their annual performance appraisal points.

--Report by merit pay pool of the amount of the pool, total number of merit pay points earned by pool members, and the dollar value per performance appraisal point.

--Report by merit pay pool of each employee's merit pay increase.

--Print-out of the Merit Pay Masterfile.

In addition to the above listed hardcopy reports, the Merit Pay System produces a machine media file that is an input to the Central Personnel System.

Internal control weaknesses in
the Merit Pay System

The historical evidence detailing how the almost 9,300 individual merit pay increases for fiscal 1983 were calculated for HHS

7

merit pay employees is in hardcopy (computer printout) format. In addition, the source information supporting the calculation of individual merit pay increases--that is, individual performance appraisals--is also in the form of hardcopy records. A post-award audit of individual merit pay increases would be made very difficult to accomplish given the large number of merit pay employees involved--9,300--and the fact that the audit trail is maintained on hardcopy. Further, an audit involving more than one year would be made almost impossible to accomplish. HHS should maintain magnetic tape records for each year of (1) the source data for merit pay increases--individual employee performance appraisals and (2) the details of the results of the three processing steps in the Merit Pay System that are now maintained on hardcopy records as detailed above. These magnetic tape records should be retained until an audit is performed of individual merit pay increases.

Agency Comments

The agency officials commented that they maintain hardcopy listings of the details relating to individual merit pay increases which they feel meet recordkeeping requirements. They also commented that they would study the matter of developing and maintaining machine media records relating to merit pay increases as part of their planned review of the central personnel/payroll system to be done by a contractor.

Central Personnel System

The Central Personnel System processes all personnel information for and maintains central personnel records relating to all personnel information for and maintains central personnel records relating to all HHS civilian employees. It is run at HHS's Washington, D.C. Computer Center. The system inputs, processing, outputs, and related internal control strengths and weaknesses are discussed below.

System Inputs

The Central Personnel System receives input on a daily and annual basis. On a daily basis, personnel transactions--for example, hirings, separations, within-grade increases, and transfers are received by computer terminal from about 60 Servicing Personnel Offices (SPO's) in HHS staff and operating divisions. Also, on a daily basis, assignments or changes to the Common Accounting Numbers are received from the Common Accounting Number (CAN) Collection System. The operation of this system was not surveyed. CAN's are used to (1) identify the HHS organizational component, program, and budget activity an employee is assigned to and (2) distribute payroll costs to the appropriate HHS operating and staff divisions, programs, and budget activities.

Besides daily inputs, the system also receives, on an annual basis, merit pay increases for merit pay employees. The data is transmitted in a machine media file by the Merit Pay System.

System processing

The daily personnel transactions sent in by computer ter-
minals, by the SPO's, are accumulated on a magnetic disk. The
personnel transactions sent in by the SPO's have been already
authorized, reviewed, and approved by management and personnel
officials in HHS organizational components. Entering personnel
transaction information into the Central Personnel System is
controlled by a user password, transaction code, SPO number, and
computer terminal number.

The user password is the first code entered into the terminal
by the computer terminal operator in the SPO. The password is
verified against a file of valid user passwords by the Central Per-
sonnel System. If the Central Personnel System finds the password
entered from the computer terminal on the central file, the com-
puter terminal operator is next asked for a transaction code, which
identifies the kind of personnel transaction being entered into the
system. The transaction code determines the kind of personnel
information the computer terminal operator in the SPO enters into
the system. The Central Personnel System, based on the transaction
code entered via the computer terminal, will ask/prompt the
computer terminal operator for the needed information.

After the computer terminal operator enters all required
information requested by the Central Personnel System, the computer
terminal automatically adds a SPO number and terminal number to the
transaction message. Once these are added to the personnel trans-
action record, the terminal operator cannot change or prevent their
addition. The Central Personnel System will only post personnel
transaction information to a personnel master record if the SPO and
terminal numbers in the transaction record match similar numbers in
the personnel master record.

In validating the personnel information received daily from
the SPO's, the Central Personnel System performs almost 1,000 edit
checks which use 132 computer-maintained reference tables. These
computer edit checks can be grouped into five categories;

--Alpha/numeric edits check the reasonableness of information
in a personnel transaction. For example, an alpha/numeric
edit would test whether all characters in a name field were
alphabetic or whether all characters in a Social Security
Number (SSN) field were numeric.

--Field edits verify the completeness of the information in a
personnel transaction. For example, a field edit would test
whether a personnel transaction to separate an employee also
includes the required "reason for separation code."

--Relational edits test accuracy of one item of information
against a related item of information in a personnel
transaction. For example, a relational edit checks to
determine whether the pay plan code is GS if the pay grade
is between 1 and 14 in a personnel transaction.

9

--**Transaction versus masterfile edits** verify the validity of information in a personnel transaction. For example, a transaction versus masterfile edit checks to determine whether the personnel masterfile record includes the pay plan code for a merit pay employee if the personnel transaction involves an annual merit pay increase. These edits would also include comparisons of transaction information with computer maintained reference tables like the Position Masterfile which lists all authorized HHS civilian positions along with the authorized salary for each position and a code to show whether the position is occupied. Another edit would be to compare the pay rate in the transaction record with a computer maintained reference file of Government-wide approved pay rates set annually by the President.

--**Generation edits** add standard items of information to a personnel transaction record based on other items of information in the transaction record. For example, a generation edit would add to a personnel transaction record to establish a pay allotment, the financial institution's identification number, and routing number for electronic fund transfers based on the financial institution's name and code number included in the personnel transaction record. The sources for the standard items of information are the computer maintained reference tables.

The computer edits in the Central Personnel System are further classified into critical and non-critical edits. A critical edit identifies errors in the information in a personnel transaction that would preclude further processing of a transaction. A critical error would be, for example, if the Social Security Number field in a transaction record includes an alphabetic character. A non-critical edit identifies errors in the information in a personnel transaction record that would not preclude further processing of a transaction but would be required to be corrected at a later date. A non-critical error, for example, would be an incorrect education level code. The Central Personnel System rejects from further processing transactions that fail one critical edit or nine non-critical edits. Rejected personnel transactions are sent back to the originating Servicing Personnel Office (SPO) by computer terminal along with appropriate error messages.

The Central Personnel System does not maintain a central automated file of rejected transactions as a basis to ensure the timely correction and resubmission of rejected transactions for reprocessing through the System. The Servicing Personnel offices that originated the rejected personnel transactions are responsible for establishing manual controls over these transactions to ensure that they are corrected and resubmitted for processing through the Central Personnel System.

Our survey of the Central Personnel System disclosed that the system will accept a transaction record to create a master personnel record for a newly hired employee with a "dummy SSN". The System permits this because some new hires do not have SSN's when they

10

report for work. The Central Personnel System, however, is not designed to routinely screen the personnel master file to identify and report records with "dummy SSN's" for followup and correction. Responsibility for replacing "dummy SSN's" with valid SSN's is left with the SPO that originated the transaction with the "dummy SSN".

System outputs

Each day the Central Personnel System posts validated personnel transaction information to the central personnel files. It also sends, via computer terminal, transaction registers and Notifications of Personnel Actions to the SPO's. The Notifications of Personnel Actions are sent to the (1) requesting management official and (2) the employee involved.

The Central Personnel System produces consolidated personnel reports for HHS. It produces these reports based on information in the central personnel masterfile and a machine media file received from PHS's Commissioned Officer Personnel/Payroll System. The System produces 129 regular recurring reports and can produce an additional 501 reports upon request. The Central Personnel System also produces a machine media file of pay entitlement information that is sent to the Central Payroll System.

At the end of each bi-weekly pay period, the automated personnel and payroll masterfiles are compared by computer to identify differences in pay entitlements recorded in these two files. A printed report of any differences is produced. This report is used to initiate action to investigate and correct the differences.

Internal Control Strengths and Weaknesses of the Central Personnel System

The internal controls in the Central Personnel System appear adequate to ensure that pay entitlement information is accurately, completely, and timely captured, recorded, and transmitted to the Central Payroll System. The key internal control strengths and weaknesses in the Central Personnel System follow.

The key internal control strengths in the Central Personnel System are:

--User passwords and transaction codes that (1) identify individuals authorized to enter personnel transactions information into the system and screen-out unauthorized system users and (2) limit the kinds of information that can be posted to the personnel files given the type of personnel transaction being processed. See personnel control objective 18 in appendix V.

--Terminal and SPO numbers that are automatically generated and sent along with personnel transaction information, by computer terminals, which must match terminal and SPO numbers recorded in personnel master records before

transaction information is posted to the master records.
See personnel control objective 14 in appendix V.

--Extensive computer edits of personnel transaction informa-
tion sent in by computer terminals to verify the complete-
ness, accuracy, and validity of transaction information and
to reject incomplete, inaccurate and invalid transaction in-
formation. See personnel control objective 7 in appendix V.

--Computer comparisons, on a bi-weekly basis, of the automated
central personnel and payroll masterfiles to identify dif-
ferences between the two files so they can be investigated
and corrected. See personnel control objective 17 in
appendix V.

The key internal control weaknesses in the Central Personnel
System are:

--Transactions including "dummy SSN's" are accepted by the
System and "dummy SSN's" are posted to the automated person-
nel masterfile. This is done when a new employee does not
have a valid SSN when he/she reports for work. The System,
however, does not automatically screen the personnel master-
file on a routine basis to identify for followup and correc-
tion master records with "dummy SSN's". The correction of
"dummy SSN's" is entirely the responsibility of the SPO's.
See personnel control objective 14 in appendix V.

--Rejected personnel transactions are not written on an
automated error file. Transactions rejected by computer
edits are returned to the Servicing Personnel offices for
correction and resubmission for computer processing. Conse-
quently, the Central Personnel System does not have the in-
formation needed to check to determine whether rejected per-
sonnel transactions are corrected and resubmitted for com-
puter processing in a timely manner. See personnel control
objective 8 in appendix V.

Agency Comments

Agency officials commented that:

--Current Departmental instructions to Servicing Personnel
offices direct them to monitor and correct dummy SSN's. The
agency, however, will take steps to insure that these
offices are in fact taking required corrective actions.

--Current Departmental instructions to servicing Personnel
offices direct them to maintain a manual system to control
and followup on all rejected transactions. The agency,
however, will undertake a study to see if automating this
process would be cost beneficial.

HCFA Time and Attendance System

HCFA's Time and Attendance System (1) accepts bi-weekly time and attendance information for HCFA Headquarters employees, (2) edits the time and attendance information, and (3) prepares a machine media file of edited time and attendance information for input into HHS's Central Payroll System. The HCFA Time and Attendance System is run on computer equipment located in HCFA's Headquarters in Baltimore, Maryland. Information is entered into and retrieved from the system by computer terminal. System inputs, processing and outputs and related internal control strengths and weaknesses are discussed below.

System inputs

The input to the HCFA Time and Attendance System is time and attendance cards produced each bi-weekly pay period by the Central Payroll System. These time and attendance cards are used by HCFA timekeepers to record hours worked and leave taken by employees during the subsequent pay period.

System processing

The processing in HCFA's Time and Attendance System starts with timekeepers receiving time and attendance cards from the Central Payroll System (see page 21). During the pay period, the timekeepers record hours worked and leave taken on these time and attendance cards for the employees for which they are responsible. At the end of the pay period, each timekeeper totals the hours worked and leave taken on each time and attendance record and prepares a summary report showing (1) the total number of time and attendance cards submitted for processing and (2) the total number of hours worked and leave taken for all time and attendance cards submitted for processing. The time and attendance cards and summary reports are forwarded to HCFA's payroll liaison staff.

The payroll liaison staff reviews each time and attendance card to assure that (1) each card was initialed by the employee when leave was taken, (2) each card was signed by an authorized timekeeper and by the employee's supervisor, and (3) hours worked and leave taken total 80 hours and that overtime hours were authorized in advance. Time and attendance cards with errors and omissions are returned to the timekeepers for correction. Error free and complete cards are forwarded to accounting technicians for processing through the HCFA Time and Attendance System.

Accounting technicians, via computer terminal, enter the time-keeper number and employee SSN on each time and attendance record into the HCFA Time and Attendance System. The timekeeper numbers and employee SSN's are compared against computer maintained files of valid timekeeper numbers and employee SSN's. Time and attendance records for which the timekeeper numbers and employee SSN's match related computer maintained files are forwarded for further processing. Time and attendance records for which the timekeeper numbers and employee SSN's do not match related computer-maintained

13

files are returned to the payroll liaisons for investigation, correction, and resubmission for processing.

After the timekeeper numbers and employee SSN's are verified by computer an accounting technician enters the hours worked and leave taken on the time and attendance cards submitted by each timekeeper into the HCFA Time and Attendance System. The System totals the number of time and attendance cards submitted by each timekeeper and the number of hours worked and leave taken on these cards. These computer developed totals must match similar totals manually developed and entered onto the summary time and attendance report prepared and submitted by each timekeeper along with the individual time and attendance cards. If the record count and hours worked and leave taken totals agree, the time and attendance information is posted to the HCFA Time and Attendance System's masterfile. If the totals do not agree, the entire batch of time and attendance cards are rejected from further processing and is returned to the payroll liaison staff for investigation, correction, and resubmission for processing.

After the first accounting technician enters time and attendance information into the HCFA Time and Attendance System, the time and attendance cards are forwarded to a second accounting technician who reenters hours worked and leave taken into the System. The System compares the hours worked and leave taken, as entered by the second accounting technician, with the hours worked and leave taken which were entered by the first accounting technician and which are already on the automated files. Any discrepancies noted during this verification step are resolved by the payroll liaison staff.

System outputs

After the verification steps, discussed above are completed, and all discrepancies have been resolved, the HCFA Time and Attendance System prepares a machine media file of verified time and attendance information and sends this file to HHS Washington, D.C. Computer Center for processing by the Central Payroll System. In addition to this machine media file, the HCFA Time and Attendance System produces the following hardcopy reports:

- --List of employees added to the HFCA Time and Attendance Masterfile

- --Report of Separated Employees

- --Report of Part-Time Employees

- --Listing of T&A Records Read, Errors, and Unresolved T&A Errors

- --T&A Edit Listing

- --Records added to the T&A Masterfile

14

--Records on T&A Masterfile for which a Bi-Weekly T&A Record was not Processed

--Changes to Bi-Weekly T&A Records

--Listing of T&A's By Timekeeper Number.

The hardcopy reports produced by the HCFA Time and Attendance System provide an effective audit trail for bi-weekly Time and Attendance report processing.

Internal control strengths and weaknesses

Our survey of the HCFA Time and Attendance System did not disclose any obvious internal control weaknesses. The key internal control features in HCFA's Time and Attendance System are:

--Comparison of timekeeper numbers and employee SSN's on time and attendance cards with a computer maintained list of valid timekeeper numbers and employee SSN's before the system will accept a time and attendance card for processing.

--Use of record counts and control totals of hours worked and leave taken to ensure that time and attendance records and the information they contain are accurately and completely entered into the computer.

--Use of hardcopy reports as an audit trail for all stages of time and attendance processing.

Region IV Time and Attendance System

HHS's Region IV's time and attendance system is a simple manual system. A brief description of the manual processing steps follows.

--The time and attendance process starts with timekeepers receiving time and attendance cards from the Central Payroll System (see page 21). During the pay period timekeepers record hours worked and leave taken on the time and attendance cards based on (1) employee "sign-in and sign-out sheets" and (2) employee leave requests (Standard Forms (SF)-71's).

--At the end of the bi-weekly pay period timekeepers sign-off on the time and attendance cards and forward them to a certifying official. The certifying official reviews the time and attendance cards based on (1) employee "sign-in and sign-out sheets" and SF-71's and certifies the time and attendance cards.

--After certification, the time and attendance cards are sent to Region IV's Data Center. At the Data Center, the hours worked and leave taken are keypunched on each time and attendance card. After keypunching, the time and attendance

cards are entered into the Region's computer system which checks to assure that hours worked and leave taken total 80 hours on each time and attendance card. After the edit check, the time and attendance information is transmitted by wire to HHS's Washington, D.C. Computer Center for processing through the Central Payroll System.

Central Payroll System

The Central Payroll System processes all pay entitlement, payroll transaction--like tax withholding exemptions, and time and attendance information relating to HHS civilian employees. It is run at HHS's Washington, D.C. Computer Center. The system inputs, processing, and outputs and related internal control strengths and weaknesses are discussed below.

System inputs

Inputs to the Central Payroll System come from seven sources: that is (1) the Central Personnel System, (2) the SSA Cash Awards System, (3) the NIH Time and Attendance System, (4) the HCFA Time and Attendance System, (5) time and attendance information sent in by computer terminals, (6) hard copy time and attendance cards, and (7) manually prepared payroll transactions entered into the system by central office pay clerks. Specificially, the Central Payroll System receives:

--Pay entitlement information in a machine media file prepared by the automated Central Personnel System.

--Cash awards under $1,000 each awarded to Social Security Administration employees in a machine media file prepared by SSA's automated Cash Awards System.

--Cash awards over $1,000 from SSA, all cash awards from all other HHS operating and staff divisions, bond transactions, pay and leave adjustments, manually computed pay requests on hard copy documents from payroll liaisons in HHS staff and operating divisions which are entered into the Payroll System by computer terminal by central office payclerks.

--Time and Attendance information by computer terminal from HHS regional offices, Social Security Administration, and Public Health Service.[1]

--Time and Attendance information in a machine media file prepared by the NIH Time and Attendance and Flowback Data From HEW Central Payroll System.

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[1]The Public Health Service includes (1) the Food and Drug Administration (FDA), (2) Centers for Disease Control (CDC), (3) Health Resources and Services Administration (HRSA), (4) Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA), and (5) the National Institutes of Health (NIH).

--Time and Attendance information in a machine media file prepared by the HCFA Time and Attendance System.

--Time and Attendance information on hard-copy records mailed in from HHS Headquarters staff division offices located in the Washington, D.C. metropolitan area.

In addition to the above listed inputs to the Central Payroll System, pay entitlement information can be entered into the System and the automated payroll masterfile from the computer console during bi-weekly payroll processing. In fact, an entire payroll masterfile record can be created from the computer console during bi-weekly payroll processing. Pay entitlement information entered into the Central Payroll System during bi-weekly payroll processing is not subjected to the computer edits in the Central Personnel System.

As mentioned above, the Central Personnel System provides a machine media file of pay entitlement information to the Central Payroll System. Each record in this file is 3,250 bytes long. The computer programs in the Central Payroll System cannot process a record of this size. Therefore, before the pay entitlement information from the Central Personnel System can be processed, the payroll system must breakdown the 3,250 byte record into smaller records. The payroll system breaks each 3,250 byte record down into one of 14 types of 400 character records. The type of 400 character record created depends upon the type of personnel transaction reported by the Central Personnel System.

Cash award (other than SSA cash awards under $1,000), bond transaction pay and leave adjustments, and manually computed pay request information received on hardcopy records from payroll liaisons in the operating components and staff divisions is recorded on special coding forms by the pay clerks in the Employee Systems Center. The information from the code forms is then entered by the pay clerks, via computer terminal, into the Central Payroll System.

Time and attendance information sent into the Employee Systems Center on hardcopy time and attendance records are converted to a magnetic media file at the Employee Systems Center. All other time and attendance information is received either in a magnetic media file or is entered directly into the Central Payroll System by Computer terminals in HHS's operating divisions.

In preparation for regular bi-weekly payroll processing the following machine media files are merged into a single payroll transaction file.

--The 400 character personnel transaction records created from the 3,250 byte transaction records received from the Central Personnel System.

--The magnetic tape file of SSA cash awards under $1,000.

--The payroll transactions entered by Employee System Center
pay checks into the computer by computer terminal.

--The magnetic tape files of time and attendance information
received from NIH and HCFA.

--The time and attendance information entered by operating
components into the computer by computer terminal.

--The time and attendance information converted from hardcopy
records to machine media files.

The merged payroll transaction file is the main input to bi-weekly
payroll processing.

Processing

Payroll processing consists of (1) validating the information
in the merged Payroll transaction file, (2) posting validated in-
formation to the automated payroll masterfile, (3) returning infor-
mation that did not pass validation tests to the pay clerks in the
Employee Systems Center for correction and resubmission for com-
puter processing, (4) preparing and sending machine media files to
the Treasury for preparation and issuance of paychecks, bonds and
allotments and other withholding payments, and (5) preparing inter-
nal and external payroll reports.

Central Payroll System processing steps fall into three cate-
gories: that is (1) computer edit checks of transaction informa-
tion, (2) a quality control review of payroll transactions, and (3)
a bi-weekly comparison, by computer, of the automated personnel and
payroll masterfiles to identify differences for investigation and
correction. A discussion of these processing steps follows. The
computer edits in the Central Payroll System complement and build
on edits of pay entitlement information in the Central Personnel
System. The computer edits in the Central Payroll System include:

--Record counts to assure that records are not added to or
lost during processing.

--Predetermined control totals on such items as hours worked
or leave taken, salary amounts, and employee Social Security
Numbers to assure that information in transaction records is
not lost, added to, or improperly changed during processing.

--Limit checks on pay amounts to assure, for example, that in-
dividual paycheck gross salary amounts do not exceed legally
established salary amounts for Federal employees.

--Crossfoot balancing tests to assure that computer generated
gross pay, deduction, and net pay amounts are properly cal-
culated.

In addition to the above listed tests, the Central Payroll
System also performs alpha/numeric and field edit tests of payroll

transaction information. For a discussion of these kinds of computer edits see pages 9 and 10. Payroll transactions that fail computer edits are rejected from further processing and are returned to the pay clerks in the Employee Systems Center for correction and resubmission for computer processing. The Central Payroll System, however, does not maintain an automated file of rejected transactions to help assure that rejected transactions are corrected and resubmitted for processing in a timely manner.

The Quality Assurance Unit in the Employee System Center routinely examines selected payroll transactions and records to assure that payroll information is accurately processed. Quality assurance procedures are designed to determine whether (1) all payroll transaction information is processed, (2) the results of payroll processing are accurate, and (3) unauthorized alterations have been made to payroll transaction and masterfile information.

In addition to the computer edit tests and the tests of payroll transactions and records performed by the Quality Assurance Unit, the Central Payroll System includes a third major control procedure: that is, the routine comparison, by computer, of the automated personnel and payroll masterfiles. Each bi-weekly pay period the computer compares the automated personnel and payroll masterfiles to identify for investigation and correction differences in pay entitlement information recorded in the two files. The bi-weekly comparison of the personnel and payroll masterfiles is used to help ensure that pay entitlement information passed between the central personnel and payroll systems is passed accurately and completely.

The Central Payroll System updates the central automated payroll masterfile each bi-weekly pay period. The information posted to the payroll masterfile includes (1) pay entitlement information received from the Central Personnel System, (2) payroll transaction information received from the payroll liaisons in the staff and operating component like cash awards, bond transactions, pay and leave corrections, and manually computed pays, and (3) the results of bi-weekly payroll processing: that is, each employee's gross pay, deductions, and net pay.

In addition to posting transaction information to the payroll masterfile each bi-weekly pay period, the Central Payroll System removes payroll records from the active payroll masterfile for employees who separate from Federal service with HHS and writes these records on a payroll master history file.[2] At the end of each calendar year the active and history payroll masterfiles are merged for the preparation of annual W-2 Forms. Transferring payroll masterfile records from the active payroll masterfile to a history file for separated employees is done to preclude the possibility of (1) processing transactions against a separated

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[2]Payroll records are transferred from the active payroll master-file to the history payroll masterfile after final lump sum annual leave payment has been made to the separated employee.

19

employee's masterfile record after he or she separates and (2) issuing a paycheck to a separated employee after he or she separates from service with HHS.

System outputs

The Central Payroll System produces four classes of outputs. Specifically, it produces:

--Magnetic tape files sent to the Treasury Regional Disbursing Office and state and local governments.

--Magnetic tape files for input to HHS's (accounting general ledger) systems.

--Hard copy reports sent to other Federal agencies and managers within HHS.

--Time and attendance cards.

These outputs are discussed below.

The Central Payroll System, each bi-weekly pay period, produces six magnetic tape files which are sent to the Treasury Regional Disbursing Office. These files are the:

--Check tape.

--Bond tape.

--Allotments to Financial Institutions Tape.

--Charitable Contributions Tape.

--Union Dues Tape.

--Electronic Funds Transfer Tape.

The Treasury Regional Disbursing Office uses these magnetic tapes to make the called for disbursements. In addition to the magnetic tape files sent to the Treasury Regional Disbursing Office, magnetic tape files of State and local tax withholdings are prepared and sent to the appropriate tax jurisdictions.

The Central Payroll System also produces eight magnetic tape files of the results of bi-weekly payroll processing for input into HHS's accounting (general ledger) systems to record payroll costs and record the liquidation of obligations established for payroll costs.[3] Magnetic tape files are created for the:

--Regional Accounting System.

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[3]These magnetic tapes are produced by a subsystem of the central payroll system called the Payroll Umbrella Accounting System.

--Office of Secretary Accounting System.

--FDA Umbrella Accounting System.

--NIH Umbrella Accounting System.

--SSA Accounting System.

--HCFA Umbrella Accounting System.

--CDC Umbrella Accounting System.

--Health Accounting System.

In addition to the previously discussed magnetic tape files, the Central Payroll System produces 131 internal and external hard-copy reports.

The Central Payroll System also produces time and attendance cards each bi-weekly pay period for all employees with an active record on the automated payroll masterfile. These time and attendance cards are sent to all HHS timekeepers to (1) record hours worked and leave taken by each employee during the following pay period and (2) enter hours worked and leave taken into the next bi-weekly payroll processing cycle.

Internal control strengths and weaknesses

Internal controls in the Central Payroll System do not appear adequate to insure that (1) payroll transactions are completely, accurately, and timely captured and recorded in the master payroll records and used in computing paycheck amounts and (2) paychecks are issued only to entitled persons. The key internal control strengths and weaknesses in the Central Payroll System follow.

The key internal control features included in the Central Payroll System are as follows:

--All appointment, change, and termination transactions are first processed and validated by the Central Personnel System and are passed on to the Central Payroll System in a machine media record. See payroll control objective 2 in appendix V.

--The payroll masterfile maintained by the Central Payroll System and the personnel masterfile maintained by the Central Personnel System are compared by computer each bi-weekly pay period and differences in pay entitlement information in these files are printed-out for investigation and correction. See payroll control objective 2 in appendix V.

--The Central Payroll System produces turnaround time and attendance cards each bi-weekly pay period for employees

with active records on the payroll masterfile for use by timekeepers in recording hours worked and leave taken by employees during the following pay period. See payroll control objective 8 in appendix V.

--Payroll masterfile records for employees who separate are removed from the active payroll masterfile and are written onto a history payroll masterfile when (1) the employee separates and (2) the final lump sum annual leave payment is made. See payroll control objective 2 in appendix V.

--The Quality Assurance Unit in the Employee Systems Center routinely examines selected payroll transactions and records to assure that payroll information is accurately processed. See payroll control objective 9 in appendix V.

The major internal control, design, and operating weaknesses in the Central Payroll System are as follows:

--Payroll transactions rejected from further computer processing by computer edits and returned to payroll clerks for correction and resubmission for processing through the computer are not controlled through an automated error suspense file. Consequently, the Central Payroll System does not have the information needed to check to determine whether rejected payroll transactions are corrected and resubmitted for computer processing in a timely manner. See payroll control objective 5 in appendix V.

--Manually computed pay adjustments are determined by payclerks and are entered into the Central Payroll System for posting to the automated payroll masterfile records. The Central Payroll System cannot verify the propriety of manually computed pay adjustments. The only controls over manually computed pay adjustments are (1) normal supervisory review of the work of payclerks and (2) audits. See payroll control objective 4 in appendix V.

--Manually computed paychecks are prepared by payclerks and a manually prepared voucher and Schedule of Payments SF-1166 is sent to the Treasury Regional Disbursing Office to effect the actual preparation and issuance of paychecks. Manually computed paychecks are posted to the automated payroll masterfile records during the bi-weekly payroll processing cycle for the pay period following the pay period in which the checks were issued. Consequently, the Central Payroll System cannot verify whether an employee for whom a manually computed paycheck was issued is an active employee until after the manually computed paycheck is actually issued. See payroll control objective 9 in appendix V.

--Pay entitlement information can be entered into the automated master payroll file from the computer console during bi-weekly payroll processing. In fact, an entire master

22

payroll file record can be created from the computer console during bi-weekly payroll processing. Pay entitlement information entered via the computer console during bi-weekly payroll processing circumvents the edit and validation checks in the Central Personnel System. Pay entitlement information is normally processed through the Central Personnel System before being posted to the payroll masterfile and used to support the preparation of paychecks. The capability to enter pay entitlement information directly into the payroll masterfile from the computer console provides a pathway to enter erroneous pay entitlement information into the payroll system. See payroll control objective 9 in appendix V.

--The HHS Central Personnel System maintains the central automated personnel masterfile through the use of a commercially available Database Management System (DBMS). Yet the full efficiency of data by using a DBMS is not enjoyed by HHS because a separate payroll masterfile is also maintained which contains much of the same information found on the personnel masterfile. The efficient way for HHS to use its DBMS is to have one combined personnel/payroll masterfile that would be used by both the Central Personnel and Payroll Systems. See payroll control objective 6 in appendix V.

--The Central Payroll System's computer programs cannot process the machine media file of pay entitlement information in the format prepared by the Central Personnel System. The file prepared by the Central Personnel System comprises 3,250 byte transaction records. The Central Payroll System cannot process a record of this size. The payroll system must break-down each 3,250 byte personnel transaction record into one of 14 types of 400 character transaction records before the personnel transaction information can be processed through the payroll system. The selection of the type transaction record to be created depends on the nature of the personnel action involved. The need to break-down the machine media record supplied by the Central Personnel System into smaller records (1) is an inefficient use of computer resources and (2) increases the chance of errors in pay entitlement information that is posted to the payroll masterfile. See payroll control objective 6 in appendix V.

Agency Comments

Agency officials commented that:

--Current Departmental payroll instructions require that each payroll clerk research and resubmit all rejected transactions for the block of accounts that the particular clerk is assigned. Normal supervisory controls are exercised. The agency, however, will conduct a study to determine whether an automated control system should be developed.

23

--The agency will study the area of controls over manually computed pay amounts and manually computed pay adjustments.

--The agency is in the process of engaging an outside contractor to perform an independent risk analysis of the centralized personnel/payroll operation. The contractor will be specifically asked to review the controls over entering pay entitlement information into the automated central civilian payroll system via the computer console.

--The agency is in the process of engaging a contractor to design a single integrated Database Management System (DBMS) for use by the central personnel/payroll system. The agency expects to have the single DBMS in place during 1985.

--The use of a single DBMS for the central personnel/payroll system will eliminate the need to break the personnel trans-action record down into smaller records prior to payroll processing.

PERSONNEL/PAYROLL OPERATIONS FOR PHS COMMISSIONED OFFICERS

Two computer systems comprise the financial management struc-ture for PHS Commissioned Officer personnel/payroll operations. These two systems are the:

--Commissioned Officer Personnel Order Subsystem.

--Commissioned Officer Payroll Subsystem.

The inputs, processing, outputs and related internal control strengths and weaknesses are discussed in detail in the following sections.

Commissioned Officer Personnel Order Subsystem

The Commissioned Officer Personnel Order Subsystem captures, processes, and records all personnel information relating to PHS Commissioned Officers. It sends personnel information relating to PHS Commissioned Officers to the Central Personnel System to facil-itate the preparation of Department-wide consolidated personnel reports. It also passes on pay entitlement information to the Commissioned Officer Payroll Subsystem. The system is run on com-puter equipment in PHS's Parklawn Computer Center in Rockville, Md. The system inputs, processing, outputs and related internal control strengths and weaknesses are discussed below.

System inputs

Inputs to the PHS Commissioned Officer Personnel Order Sub-system inputs are hardcopy documents requesting various personnel actions.Three documents are used, and they are the:

--PHS Form 1662 - Request For Personnel Action -
  Commissioned Corps

--PHS Form 1373 - Request For Separation Action -
  Commissioned Corps

--PHS Form 1373 - Request For Retirement Action -
  Commissioned Corps

There are 94 different types of personnel actions that can be
initiated and processed through the PHS Commissioned Officer Per-
sonnel Order Subsystem. The PHS Commissioned Officer Personnel
Manual details the levels of information needed for each of the 94
different types of personnel actions.

The documents are sent by mail to the Commissioned Personnel
Operations Division in HHS's Employee Systems Center Rockville,
Md. where they are manually reviewed and approved and entered into
the automated PHS Commissioned Officer Personnel Order Subsystem by
computer terminal. The transaction codes for the 94 different
types of personnel actions control the kinds of information that
can be entered into the system by computer terminal.

Access to the PHS Commissioned Officer Personnel Order Subsys-
tem is controlled by a system of user passwords. The computer ter-
minal operator first enters his or her password into the terminal
in order to be permitted to enter personnel transaction information
into the computer. See page 9 for a discussion of password
controls.

After the user password has been accepted, the PHS Commis-
sioned Officer Personnel Order Subsystem is designed to prompt the
computer terminal operator as to the kinds of information that
should be entered into the system based on the transaction code.
In this way the PHS Commissioned Officer Personnel Order Subsystem
controls the kind of information that can be entered into the sys-
tem and its files.

In addition to the use of transaction codes to limit the kinds
of information that can be posted to the automated files maintained
by the PHS Commissioned Officer Personnel Order Subsystem, the sys-
tem uses three items of information to identify personnel transac-
tion and master personnel records and to match the proper
transaction record with the proper masterfile record. These items
of information are:
  .
  --The Commissioned Officer's Serial number--a unique number
    assigned to each officer.

  --The Commissioned Officer's Social Security Number.

  --The Commissioned Officer's Common Accounting Number
    (CAN)--see page 9.

25

The use of these three identifying numbers helps ensure that personnel transaction information is posted to the correct automated personnel masterfile record.

System Processing

Personnel transaction input information to the PHS Commissioned Officers Personnel Order Subsystem is edited as the computer terminal operator enters the information for processing. Transactions that include information that does not pass the computer edits are rejected at the computer terminal and are not accepted for further processing. Rejected transactions are returned to the originator for correction and resubmission for processing. The system does not maintain an automated record of rejected transactions as a means of ensuring that rejected transactions are corrected and resubmitted for computer processing in a timely manner.

The computer edits in the PHS Commissioned Officer Personnel Order Subsystem check for the completeness and accuracy of information entered for processing. For example, the computer edits include alpha/numeric and field edits. See page 9 for a description of these edits. In addition to the alpha/numeric and field edits, personnel transactions are matched with (1) the automated Commissioned Officers Billet File to verify that a position is authorized and to verify the authorized rank and pay rate for the particular position and (2) the automated Commissioned Officer Applicant File to verify that a Commissioned Officer, who is called to his first active duty post, has passed all PHS qualification requirements for appointment to the PHS Commissioned Corps.

All personnel transactions that pass computer validation edits are posted on a daily basis to the (1) Commissioned Officer Personnel Masterfile and (2) Personnel Orders History File. The Personnel Orders History File provides an automated audit trail for all personnel transactions processed through the system.

System outputs

For all personnel orders posted to the automated masterfile, the PHS Commissioned Officer Personnel Order Subsystem produces (1) an automated Future Actions File, (2) Personnel Orders, (3) a series of hardcopy reports, and (4) machine media file for the HHS Central Personnel System. These outputs are discussed below.

The automated Future Actions File includes pay entitlement and related personnel information from personnel transactions. This file is updated on a daily basis. At the end of the month, it is entered into the PHS Commissioned Officers Payroll Subsystem to pass-on pay entitlement information. Quarterly, there is an automated reconciliation of the pay entitlement information in the Commissioned Officers Personnel Order and Payroll Subsystems to identify for investigation and correction discrepancies in pay entitlement information in the two systems.

Personnel Orders are printed out daily after personnel trans-
actions are posted to the Commissioned Officer Personnel Master-
file. Personnel Orders in the PHS Commissioned Corps are the
equivalent of Notifications of Personnel Actions (SP-50's) in the
federal civilian service. Personnel Orders are the basis for
effecting personnel actions requested by personnel transactions
processed through the PHS Commissioned Officer Personnel Order Sub-
system. Personnel Orders are sent to (1) the personnel offices in
PHS medical facilities that initiated the respective personnel
transactions, (2) the Commissioned Officers involved, and (3) the
Commissioned Officers' official personnel file.

The PHS Commissioned Officer Personnel Order Subsystem pro-
duces 120 hardcopy reports. These reports document all transac-
tions processed through the system and the status of the automated
masterfiles.

The PHS Commissioned Officer Personnel Order Subsystem pro-
duces a magnetic tape file of Commissioned officer personnel infor-
mation each month. This magnetic tape file is an input to the HHS
Central Personnel System. The Central Personnel System combines
the information received from the PHS Commissioned Officers Person-
nel Order Subsystem with similar information on HHS civilian em-
ployees to produce monthly personnel reports required by the Office
of Personnel Management and Equal Employment Opportunity
Commission.

Internal control strengths
and weaknesses

Overall, the internal controls in the Commissioned Officer
Personnel Order Subsystem generally appear adequate to ensure that
personnel information is properly captured, recorded, and reported.
The use, however, of the mail to transmit personnel information
from PHS medical installations to Rockville, Md. for computer pro-
cessing could cause delays in getting needed pay entitlement
information into the automated personnel and payroll files. The
internal control strengths and weaknesses in the Commissioned
Office Personnel Order Subsystem are discussed below.

The key internal control features included in the PHS
Commissioned Officer Personnel Order Subsystem are:

--User passwords and transaction codes that (1) identify
  individuals authorized to enter personnel information into
  the system and screen out unauthorized system users and (2)
  limit the kinds of information that can be posted to the
  personnel files given the type of personnel transaction
  being processed. See personnel control objective 18 in
  appendix V.

--Computer edits of personnel transaction information sent in
  by personnel offices in PHS medical facilities by mail and

27

subsequently entered into the computer via computer termi-
nal. These edits are designed to verify the completeness,
accuracy and validity of transaction information and to
reject incomplete, inaccurate, and invalid transaction
information. See personnel control objective 7 in appendix
V.

--The automated personnel and payroll masterfiles for PHS
  Commissioned Officers are routinely compared to identify
  differences in the information recorded in these two files -
  especially pay entitlement information--and differences in
  pay entitlement information in these files are printed-out
  for investigation and correction. See payroll control
  objective 2 in appendix V.

The major control weaknesses in the PHS Commissioned Officer
Personnel Order Subsystem are that:

--Mail service is used to transmit personnel transaction
  information from originating personnel offices in PHS
  medical facilities to the central personnel staff at PHS's
  Rockville, Md. Headquarters. Mail service is used instead
  of the more rapid means of using computer terminals to enter
  information directly into the computer for processing.
  Delays in the mail could cause delays in getting needed pay
  entitlement information into the automated personnel files
  which, in turn, could cause erroneous salary payments. See
  personnel control objective 4 in appendix V.

Agency Comments

Agency officials commented that the use of mail to transmit
personnel actions from Public Health Service medical facilities to
the Public Health Service computer center in Rockville, Md. has
not, to their knowledge, caused the issuance of erroneous pay
checks to PHS Commissioned Officers. We pointed out that the use
of computer terminals was a more efficient and secure means of
transmitting personnel information but that we had not done any
tests to determine if use of the mail caused the issuance of
erroneous pay checks. Agency officials agreed to study this matter
as part of the upcoming review of personnel/payroll operations to
be done by a contractor.

Commissioned Officer
Payroll Subsystem

The Commissioned Officer Payroll Subsystem processes all pay
entitlement and payroll transaction--like tax withholding exem-
ptions--information relating to PHS Commissioned Officers. It
maintains the central, automated master payroll file for PHS Com-
missioned Officers and computes monthly paycheck amounts. The
system is run on computer equipment in PHS's Parklawn Computer
Center located in Rockville, Md. System inputs, processing,
outputs and related internal control strengths and weakneses are
discussed in detail below.

System inputs

Inputs to the PHS Commissioned Officer Payroll Subsystem come from three sources: that is, the PHS Commissioned Officer Personnel Order Subsystem, (2) personnel/payroll staffs in PHS medical installations, and (3) Health Resources Services Administration's (HRSA's) National Health Service Corps (NHSC) Scholarship Payroll System. Specifically, the PHS Commissioned Officer Payroll Subsystem receives:

--Pay entitlement information in a machine media file prepared by the Commissioned Officer Personnel Order Subsystem.

--Payroll transaction information sent in on hardcopy transaction records from personnel/payroll staffs in PHS medical facilities worldwide which are subsequently entered into the computer by computer terminals.

--Monthly scholarship stipends for health professions students participating in the NHSC Scholarship program in a machine media file prepared by HRSA's automated NHSC Scholarship Payroll System.

System Processing

Pay entitlement information is entered into the PHS Commissioned Officer Personnel Subsystem on a daily basis. After pay entitlement information is validated, the Personnel Subsystem writes the validated pay entitlement information onto a machine media file called the Future Actions File. This file is used by the PHS Commissioned Officers Payroll Subsystem during regular monthly payroll processing.

Similar to pay entitlement information, payroll transaction information is processed on a daily basis. This information includes such items as allotment requests, address changes, withholding tax exemptions, uniform allowances, and variable housing allowances. These transactions are sent in on a daily basis to HHS's Employee Systems Center on hardcopy records by personnel/payroll staffs in PHS medical installations. After manual reviews to check the accuracy and completeness of transaction information, the payroll transaction information is entered into the computer, by computer terminal, and written onto a machine media file called the Payroll Holding File. This file is used by the PHS Commissioned Officer Payroll Subsystem during regular monthly payroll processing.

Monthly scholarship stipends for health profession students participating in HRSA's NHSC Scholarship Program are computed by HRSA's Automated NHSC Scholarship Payroll System. Each month the Scholarship Payroll System produces a magnetic tape file of scholarship stipends to be paid for the month and sends this tape to the PHS Commissioned Officer Payroll Subsystem. The Payroll Subsystem uses this magnetic tape to create check records for each stipend amount on the paycheck magnetic tape the Payroll Subsystem

creates and sends to the Treasury Regional Disbursing Office to effect issuance of monthly paychecks to PHS Commissioned Officers. The Payroll Subsystem does not maintain masterfile records for scholarship stipend payments. These records are maintained by the HRSA's NHSC Scholarship Payroll System.

The PHS Commissioned Officer Payroll Subsystem is not designed to use a time and attendance record as one of the bases for the computation of monthly pay amounts or for the preparation and issuance of paychecks to PHS Commissioned Officers. The Payroll Subsystem is designed to routinely compute and issue paychecks for all PHS Commissioned Officers with active records on the automated master payroll file. Processing to compute monthly paycheck amounts is done in two stages: that is, a preprocessing stage and a regular monthly processing stage.

Payroll preprocessing consists of (1) validating the information in the Future Actions and Payroll Holding files and (2) merging the information in these two files into a single payroll transaction file. In validating the information in the two files, the PHS Commissioned Officer Payroll System performs alpha/numeric and field edit tests (see page 9 and 10) and compares information in transaction records with similar information in computer maintained reference files. These reference files include the charity address, Insurance Company address, uniform allowance, and overseas housing, and cost of living allowance files. The output of preprocessing is a single file of validated pay entitlement and payroll transaction information.

The first step in regular monthly processing is further validation of information in the single payroll transaction file. This validation essentially entails further alpha/numeric and field edits and comparisons of information in the transactions records with similar information in the reference files discussed above and in the payroll masterfile.

The second step in regular monthly processing is to update the automated payroll master file. This update is based on the validated information in the payroll transaction file.

The third step in regular monthly processing is to compute monthly payroll check amounts and prepare the paycheck tapes sent to the Treasury Regional Disbursing Office to effect the actual preparation and issuance of paychecks. The computation of monthly paycheck amounts is based on the following inputs.

--The payroll transaction file.

--The payroll masterfile.

--The magnetic tape file of NHSC Scholarship stipends received from the automated NHSC Scholarship Payroll System.

--The reference files used during the preprocessing stage discussed above.

System Outputs

The PHS Commissioned Officer Payroll Subsystem produces the following magnetic tape files as a result of regular monthly processing;

--Electronic Funds Transfer Tape.

--Paycheck Tape.

--Bond Tape.

--Accounting Information--Current Month Tape.

--Accounting Information--Prior Month Tape.

--Forms W-2 and W-2P Tape.

The Electronic Funds Transfer, Paycheck, and Bond tapes are sent to the Treasury Regional Disbursing Office. The two accounting information tapes are sent to the Health Accounting System to enter the results of Payroll processing into general ledger disbursement and cost accounts. The Forms W-2 and W-2P tape is sent to the Social Security Administration.

In addition to producing the previously discussed magnetic tape files, the PHS Commissioned Officer Payroll Subsystem produces 104 hard copy reports. These reports are designed to provide an audit trail for all steps in monthly payroll processing.

Internal control strengths and weaknesses

Overall, the internal controls in the Commissioned Officer Payroll Subsystem generally seems to be adequate to ensure the proper computation of paycheck amounts. Certain design weaknesses, however, would permit the issuance of erroneous paychecks. The internal control strengths and weaknesses in the Commissioned Officers Payroll Subsystem are discussed below.

The key internal control features included in the PHS Commissioned Officer Payroll Subsystem are as follows:

--All appointment, change, and termination transactions are first processed and validated by the PHS Commissioned Officer Personnel Order Subsystem and are passed on to the PHS Commissioned Officer Payroll Subsystem. See payroll control objective 2 in appendix V.

--All pay entitlement and payroll transaction information is extensively edited by computer before being posted to the automated payroll files and used in computing monthly paychecks. See payroll control objective 3 in appendix V.

--The Commissioned Officer automated personnel and payroll
   master files are routinely compared by computer to identify
   discrepancies in pay entitlement information in the two
   files for investigation and correction.

   The major internal control and design and operating weaknesses
in the PHS Commissioned Officer Payroll Subsystem are as follows:

--Payroll transactions rejected from further processing by
   computer edits and returned to payroll clerks for correction
   and resubmission for processing are not controlled through
   an automated error suspense file. Consequently, the PHS
   Commissioned Officer Payroll Subsystem does not have the in-
   formation needed to check to determine whether rejected pay-
   roll transactions are corrected and resubmitted for computer
   processing in a timely manner. See payroll control
   objective 5 in appendix V.

--The PHS Commissioned Officer Payroll Subsystem does not use
   time and attendance information as one of the bases for
   computing and issuing paychecks. The system will prepare
   and issue monthly paychecks for all Commissioned Officers
   who have an active record on the payroll masterfile. Unlike
   the Central Payroll System (for HHS civilian employees), the
   PHS Commissioned Officer Payroll Subsystem does not receive
   evidence on a pay period basis--that is, a time and
   attendance record--that all Commissioned officers (1) worked
   the required hours or took leave during the pay period and
   (2) were still employed by PHS during the pay period before
   preparing and issuing paychecks. The only evidence that the
   System has that a Commissioned Officer is entitled to a
   paycheck is an active master payroll record which is only
   affected by pay entitlement information passed to it by the
   PHS Commissioned Officers Personnel Order Subsystem.
   Consequently, if pay entitlement information is not passed
   to the Commissioned Officer Payroll Subsystem in a timely
   manner--for example, separations--erroneous paychecks could
   be issued. See payroll control objective 8 in appendix V.

Agency Comments

Agency officials commented that:

--Current Departmental payroll instructions and procedures
   require that each payroll clerk research and resubmit all
   rejected transactions for the block of accounts that the
   particular clerk is responsible for. Normal supervisory
   controls are exercised. The agency, however, will conduct a
   study to determine whether an automated control system
   should be developed.

--None of the uniformed services (Army, Navy, and Air Force)
   use a time and attendance system. In addition, the Joint
   Uniformed Military Pay System does not call for a time and
   attendance system.

HRSA's NHSC Scholarship
Payroll System

The Health Resources and Services Administration's (HRSA'S) National Health Service Corps (NHSC) Scholarship Program is designed to encourage health professionals-- doctors, dentists, and nurses--to devote up to 4 years of service in Federally designated medical shortage areas in the United States. Under the program, the Federal Government pays the full costs of health professionals' training in exchange for 1 year of service in a medical shortage area for each year of training paid for by the Federal Government up to a maximum of 4 years.

Under the program the Federal Government pays the:

--Full tuition and fees charged by the medical, dental, or nursing school.

--Cost for all books, equipment, and other reasonable costs (these costs are computed based on the costs incurred by a typical student at each medical, dental, or nursing school.)

--Monthly stipend to students for personal expenses -- currently $556 a month.

Tuition and fees are paid directly to the school. The monthly stipend and other reasonable costs are paid to students on a monthly basis. These monthly payments to students are made throug'. the PHS Commissioned Officer Payroll Subsystem. During fiscal 1982, about 2,450 students participated in the program and progra outlays totalled about $45 million.

HRSA's automated NHSC Scholarship Payroll System (1) processes student applications for admission to the program, (2) records awarding of scholarships to program applicants, (3) maintains automated masterfiles for scholarship recipients, (4) processes changes to students status while participating in the program, '(5) computes payments to schools and students, and (6) prepares the monthly payment tapes sent to the PHS Commissioned Officer Payro'' Subsystem to pay monthly payment amounts to students.

The NHSC Scholarship Payroll Program is run on computer equipment located in PHS's Parklawn Computer Center, Rockville, Maryland. The operations of the system are fully controlled by the HRSA's headquarters staff in Rockville, Maryland. Inputs to the System are based on hardcopy documents received from schools and students and are entered into the System by HRSA's Headquarters staff by optical scanning equipment and key-to-magnetic disk equipment.

The key internal control weaknesses in the NHSC Scholarship Payroll Program are as follows:

--The system depends on voluntary reporting by schools and
  scholarship recipients of the information needed to deter-
  mine (1) payment amounts to schools and scholarship recip-
  ients and (2) scholarship recipients' eligibility for
  participation, maintenance of continued eligibility, and
  overpayments.

--The payment amounts under the program and eligibility of
  scholarship recipients to participate in the program have
  not been reviewed and evaluated by the HHS Inspector
  General.

OTHER AREAS OF
CONCERN

     In addition to the internal control weaknesses discussed in
the preceding sections, our survey disclosed two other areas of
concern. These two areas are (1) potentially duplicate personnel
systems and (2) seemingly excessive production of hardcopy reports.
These two areas of concern are discussed below.

Potentially Duplicate Personnel Systems

     HHS's inventory of automated systems lists 24 systems for the
personnel/payroll functional area with fiscal 1983 operating costs
totaling $21.7 million. These 24 systems are shown in appendix I
to this chapter. In addition to the 24 systems on HHS's inventory,
we identified the following four systems as being also involved in
processing personnel and payroll information.

  1. Social Security Administraion's (SSA's) Automated Person-
      nel System

  2. Social Security Administration's (SSA's) Cash Awards
      System

  3. National Institutes of Health (NIH) Automated Personnel
      System   •

  4. Health Resources and Services Administration's (HRSA's)
      Automated National Health Service Corps (NHSC) Scholarship
      System

Fiscal 1983 operating costs for these four systems were not ob-
tained during our survey.

     Of the 28 HHS automated systems relating to the personnel/
payroll functional area, 12 systems, with fiscal 1983 operating
costs totaling $745,000, do not directly control HHS's fiscal 1982
budget authority for personnel costs because these systems do not
process information that is used to support the preparation and
issuance of paychecks. These 12 systems, listed in appendix VI,
accept, record, and report personnel information that has already
been entered into, recorded, and processed by HHS's Central

34

Personnel System and passed on by this system to HHS's Central
Payroll System to support the preparation and issuance of
paychecks. The 12 systems maintain automated files of personnel
information that is already recorded in master files maintained by
HHS's Central Personnel System and produce a variety of management
information reports on personnel information for use by HHS
operating division managers. These reports are provided to HHS
operating division managers in addition to reports provided by
HHS's Central Personnel System. See personnel control objective 9
in appendix V.

Seemingly Excessive Production of
Hardcopy Reports

In addition to potentially duplicate personnel systems, our
survey disclosed that the four main systems in HHS's personnel/
payroll financial management structure may be producing an exces-
sive number of hardcopy reports. Taken together, the Central
Personnel, Central Payroll, Commissioned Officer Personnel Order,
and Commissioned Officer Payroll systems produce 484 recurring
reports and are designed to produce an additional 501 special
request reports.

The Central Personnel System produces 129 reports. These
reports are summarized below.

Recurring Reports Produced
By the Central Personnel
System

Type of Report	Frequency of Reports				
	Bi-weekly	Monthly	Quarterly	Semi-annually	Total
External	-	3	-	-	3
Internal	1	62	61	2	126
Total	1	65	61	2	129

In addition to recurring reports, the Central Personnel System
is designed to produce, on request, 501 non-recurring reports.
These non-recurring reports were designed to meet specific
information needs of HHS managers relating to personnel
operations. The Central Personnel System also produces seven (7)
magnetic tape files of personnel information. These files are
prepared for the Public Health Service, Health Care Financing
Administration, and personnel records.

The main weakness, from an efficiency of use of existing com-
puter, communications, and computer terminal equipment, standpoint,
in the Central Personnel System is the heavy use of hardcopy
printed reports -- especially the 501 non-recurring reports. The
system could produce special reports more efficiently by computer
terminal instead of by preparing hardcopy reports.

35

The Central Payroll System produces 131 reports. These reports are summarized below.

Summary of Reports Produced
By HHS's Central Payroll System

Type of Report	Total Reports	Bi-weekly Reports	Monthly Reports	Quarterly Reports	Annual Reports
INTERNAL	105	101	0	0	4
EXTERNAL	26	14	3	3	6
TOTAL	131	115	3	3	10

The externally issued reports are those that are required to be produced by regulation. For example reports required by Treasury and the Office of Personnel Management. The internally used reports are designed to produce a printed record of each step in bi-weekly payroll processing. For example, the Central Payroll System produces a complete print-out of the automated Payroll Masterfile and it also produces a print-out, on a bi-weekly basis, of all employees by timekeeper number. If there is a need for archival records of this nature, they could be produced more efficiently on microfiche instead of hardcopy reports.

The Commissioned Officer Personnel Order Subsystem produces 120 recurring reports. These reports are summarized below.

Summary of Reports Produced by
the PHS Commissioned Officer Personnel
Order Subsystem

Type of Report	Total Reports	Weekly Reports	Monthly Reports	Quarterly Reports	Annual Reports
Internal	114	11	92	4	7
External	6	0	6	0	0
Total	120	11	98	4	7

Overall, 276 copies of the reports summarized above are produced and distributed. The PHS Commissioned Officer Personnel Order Subsystem seems to produce an excessive number of hardcopy reports. The information on many of these reports could be retrieved from the automated files on an "as needed" basis. For example, 18 copies of a Commissioned Officer Address List are produced each month, and a listing is produced each month of all dentists on active duty.

The Commissioned Officer Payroll Subsystem produces 104 regular reports. These reports are summarized below.

SUMMARY OF REPORTS PRODUCED
BY PHS's COMMISSIONED OFFICER
PAYROLL SUBSYSTEM

TYPE OF REPORT	TOTAL REPORTS	MONTHLY REPORTS	QUARTERLY REPORTS	ANNUAL REPORTS
Internal	100	75	4	21
External	4	2	0	2
TOTAL	104	77	4	23

These reports are designed to provide a hardcopy record of the results of all the processing steps accomplished by the PHS Commissioned Officer Payroll Subsystem.

Agency Comments

Agency officials commented that a study being conducted by a contractor of weaknesses in Department ADP systems and of the Department's future needs relative to ADP systems will be expanded to include addressing the issues of potentially duplicate personnel systems and excessive production of hardcopy reports.

OBJECTIVES, SCOPE, AND METHODOLOGY

This survey viewed the Department's Central Personnel/Payroll System as a financial entity and focused on identifying its major subsystems, and internal control strengths and weaknesses in the systems. The survey applied GAO's Controls and Risk Evaluation (CARE) audit approach.

SURVEY OBJECTIVES

Our survey objectives were to (1) determine the subsystems in the overall Central Personnel/Payroll System and determine how transactions flow from the time they are authorized through final reporting of these transactions in internal and external reports, (2) identify the relationships between these subsystems, that is, the flow of information among them, and (3) identify and document internal control strengths and weaknesses in the system.

SURVEY SCOPE

This survey viewed the Department's Central Personnel/Payroll System as a single financial entity. Therefore, we identified and surveyed the personnel/payroll related systems in the various organizational components of the Department. Survey work was performed at the Headquarters, Central Personnel/Payroll Offices, Washington, D.C.

We documented the Central Personnel/Payroll System and its subsystems and identified, based on available system documentation and through discussions with agency accounting, ADP systems, program officials, and review of prior GAO, Inspector General and special system study group reports, the internal control strengths and weaknesses in these systems. We did not perform any tests of system operations or actual financial information and transactions. The following sections present the definitions of a financial management system, internal control, and an agency system of internal control used in this survey.

DEFINITION OF A FINANCIAL
MANAGEMENT SYSTEM

In consonance with GAO's Policy and Procedures Manual for Guidance for Federal Agencies (Titles 2 through 8), we defined a financial management system for this survey, as the manual and/or automated systems that capture, record, summarize, and/or report financial and related quantitative information related to the:

--Authorization of the use of resources.

--Management of liabilities.

--Control of receipts.

--Disbursement of funds.

--Control of assets.

--Control of appropriated funds.

--Development and issuance of reports on the financial status
   of assets, liabilities, and appropriated funds and the fin-
   ancial results of program and administrative operations.

In an April 18, 1983, letter to the heads of Departments and
Agencies, the Comptroller General announced changes to GAO's pro-
cedures for approving agency accounting systems. In this letter,
the Comptroller General reiterated the definition of an accounting
system in GAO's Policy and Procedures Manual for Guidance of Fed-
eral Agencies.

DEFINITION OF INTERNAL CONTROLS

On June 16, 1983, the Comptroller General issued the Standards
for Internal Controls in the Federal Government to be followed by
agencies in establishing and maintaining systems of internal con-
trols. The standards define systems of internal control as

> "The plan of organization and methods and procedures adopted
> by management to ensure that resource use is consistent with
> laws, regulations, and policies; that resources are safe-
> guarded against waste, loss, and misuse; and that reliable
> data are obtained, maintained, and fairly disclosed in
> reports."

Processing procedures are those manual and/or automated procedures
that govern capturing, recording, processing, summarizing, and
reporting of financial and related quantitative information.
Internal control procedures and independent procedures provide
evidence that processing procedures have, in fact, been followed.

DEFINITION OF AN AGENCY'S
SYSTEM OF INTERNAL CONTROL

Most agencies operate several financial management systems
that process different types of financial transactions and provide
information to each other. The individual financial management
systems--taken together--form the agency's overall financial
accounting, control, and reporting system. For example, most
agencies have a general ledger/administrative control of funds sys-
tem, and subsidiary system that, for example, process transactions
relating to personnel/payroll actions, personal property, disburse-
ments, receipts, loans, accounts receivable, and accounts payable.
These systems--taken together--are the agency's overall financial
accounting, control, and reporting system.

The financial management systems that make up an agency's
overall financial accounting, control, and reporting system include
both processing procedures and independent internal control pro-
cedures, as defined in the preceding two sections. For this sur-
vey, we defined an agency's system of internal control as all the
internal control procedures--taken together--that are included in

all the financial management systems that comprise the overall financial accounting, control, and reporting system.

DEPARTMENT'S CENTRAL PERSONNEL/PAYROLL SYSTEM INCLUDED IN OUR SURVEY

Based on the foregoing definitions, we included in our survey all manual and automated subsystems of the Central Personnel/ Payroll system that

--processed, recorded and controlled pay entitlement information,

--time and attendance information,

--payroll deduction and disbursement instructions,

--computation of pay and check preparation information,

--payroll cost information, and

--payroll obligation and expenditure information.

SURVEY METHODOLOGY

Our survey work followed the requirements of GAO's Controls and Risk Evaluation (CARE) audit approach. Accordingly, our survey included identification and documentation of the Department's:

--Central Personnel/Payroll system.

--Major subsystems, and the interrelationships between these systems.

--Internal control strengths and weaknesses in these systems based on the internal control strengths and weaknesses identified during the survey.

In consonance with the CARE survey approach our work entailed identification and documentation of the operations and related internal control strengths and weaknesses of the Central Personnel/ Payroll system based on (1) available agency system documentation, (2) discussions with cognizant agency accounting, program, and ADP systems officials, and (3) prior issued GAO, Inspector General, and special system study group reports. Our survey was made in accordance with our current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions": except that no tests were performed of system operations or of information processed by and recorded in these systems.

AUTOMATED PERSONNEL AND PAYROLL SYSTEMS THAT CONSTITUTE HHS'S ACCOUNTING AND INTERNAL CONTROL STRUCTURE FOR THE PERSONNEL AND PAYROLL FUNCTIONAL AREAS

HHS SYSTEM NUMBER	SYSTEM NAME	FISCAL 1983 A-11 SYSTEM COSTS
AHD-001	Central Personnel System[1,2]	$20,585,000[1]
N/A	Central Payroll System[1,3]	N/A
N/A	Commissioned Officer Personnel/ Payroll System[1]	N/A
N/A	Merit Pay System[1]	N/A
HNA-7020	NIH Personnel Data System/Terminal Data Collection Service[2]	50,000
AD2-001	Region II Integrated Pay/Personnel System[2]	4,000
AD4-006	Region IV Management Information System[2]	20,000
FMF-006	HCFA Time and Attendance System[3]	32,000
HFM-019	FDA Time and Reporting System[3]	56,000
HFA-203	FDA Time and Attendance Data Collection System[3]	73,000
HCA-021	CDC Time and Attendance (T&A) Accounting System[3]	1,000
HNA7-003	NIH Time and Attendance and Flowback Data From HHS Central Payroll System	9,000

[1]These four systems are all included under AHD-001 and its A-11 operating costs of $20,585,000

[2]These three systems comprise the computer terminals located in the Servicing Personnel Offices (SPO's) which the SPO's use to transmit and receive personnel information, by wire, to and from HHS Central Personnel System. The operations of these computer terminals are under the control of computer programs in the Central Personnel System.

[3]The five time and attendance systems are essentially integral parts of the central payroll system because the function of these systems are to collect, control, and transmit time and attendance information to the Central Personnel System for biweekly payroll processing.

AUTOMATED PERSONNEL AND PAYROLL SYSTEMS THAT CONSTITUTE HHS'S ACCOUNTING AND INTERNAL CONTROL STRUCTURE FOR THE PERSONNEL AND PAYROLL FUNCTIONAL AREAS

HHS SYSTEM NUMBER	SYSTEM NAME	FISCAL 1983 A-11 SYSTEM COSTS
(Not on Inventory)	SSA Automated Cash Awards System	(Not obtained)
(Not on Inventory)	HRA's NHSC Scholarship System	(Not obtained)
14 Systems	Totals	$ 20,830,000

FLOWCHART OF HHS'S FINANCIAL
MANAGEMENT STRUCTURE FOR CIVILIAN
PERSONNEL/PAYROLL OPERATIONS
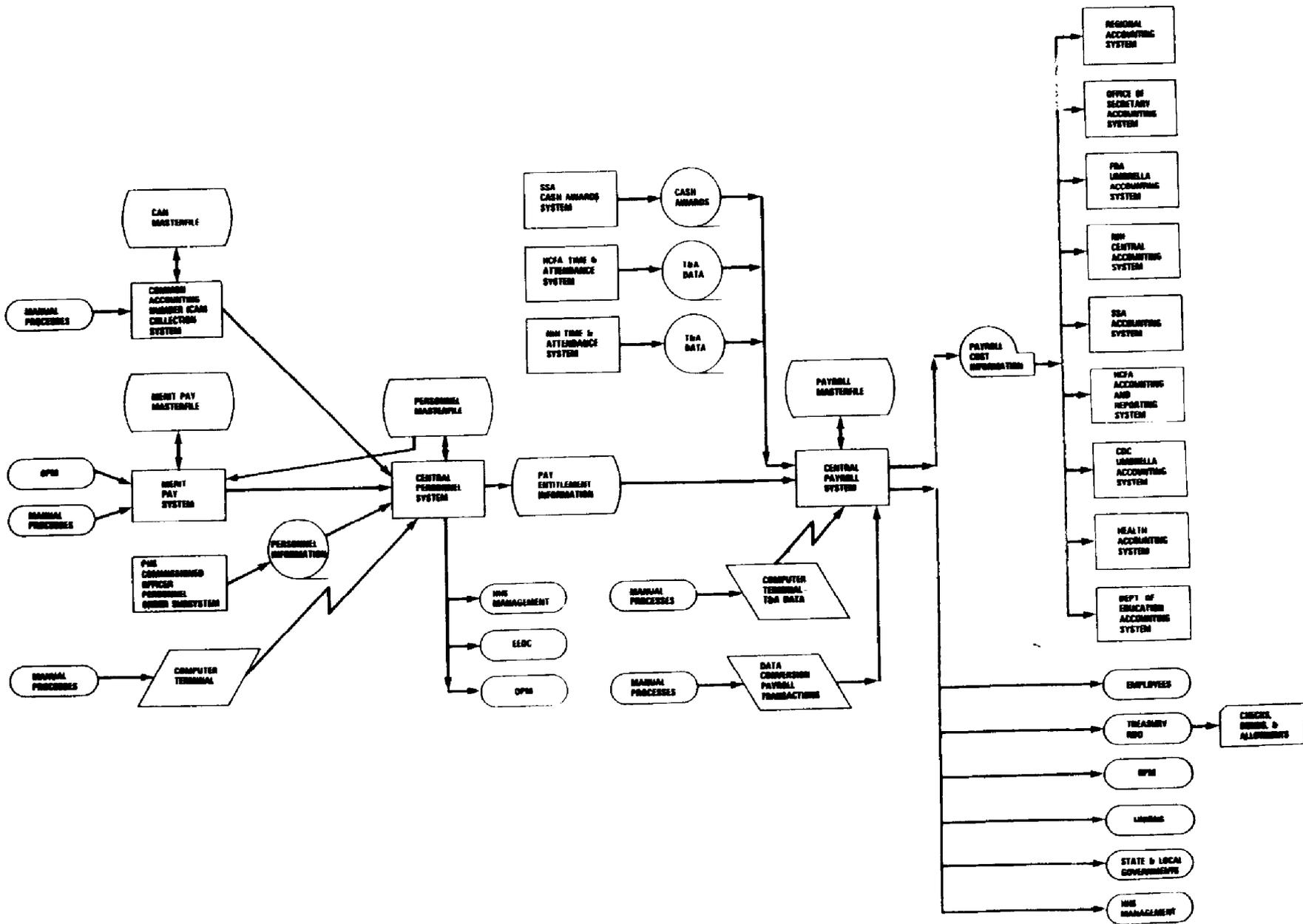
FLOWCHART OF PHS COMMISSIONED OFFICER
PERSONNEL/PAYROLL AND NHSC SCHOLARSHIP
PROGRAM OPERATIONS
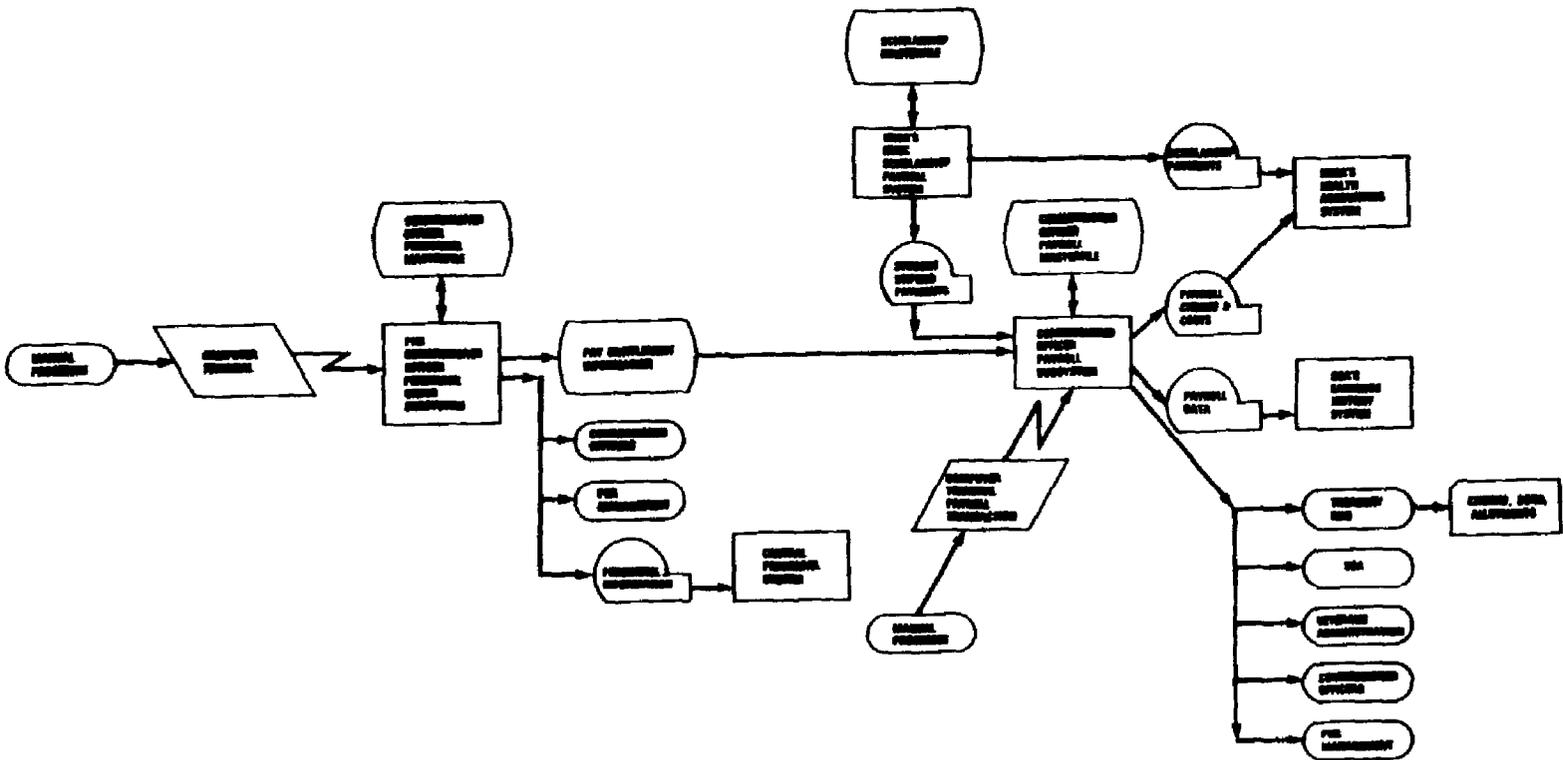
DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS)
CONTROL OBJECTIVES FOR THE PERSONNEL AND
PAYROLL CYCLES

Personnel Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
1. Personnel procedures should be established and maintained in accordance with laws, regulations, and management procedures.	This control objective was not surveyed.	
2. Positions should be identified, described and classified in accordance with laws, regulations and management's policy.	This control objective was not surveyed.	
3. Positions should be properly funded in accordance with management's policy and budget constraints.	The automated Central Personnel System (for HHS civilian employees) includes an edit table showing all authorized positions (civilian) in HHS. This table shows the authorized salary for the position and whether the position is occupied. A personnel transaction for a new hire or a promotion will be matched against the position file. If the salary rate in the transaction does not match the salary in the position file, if the position in the transaction is not on the position file, or if the position file shows that the position is occupied, the personnel transaction will be rejected. The Commissioned Officer Personnel Order Subsystem (for PHS Commissioned Officer Personnel) also includes a file of authorized (cont'd.)	

Personnel Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses

positions for commissioned officers. A personnel action to appoint or promote a Commissioned Officer will be matched against the position file. If the position in the personnel transaction does not match the position file or the position is already filled, the personnel transaction will be rejected.

4. The appointment, change, and termination of employees should be authorized in accordance with current personnel regulations and management policy.

All personnel actions involving HHS civilian employees and PHS Commissioned Officers must be first requested by appropriate management officials and reviewed and approved by personnel offices. Actions are processed through the HHS Central Personnel System and the PHS Commissioned Officer Personnel Order Subsystem.

After processing through these systems, the results of processing are reported to (1) requesting management official, (2) the cognizant personnel office, and (3) the civilian employee and Commissioned Officer affected.

5. Compensation rates should be in accordance with current established rates in accordance with pay regulations and employee authorizations.

The HHS automated Merit Pay System annually computes salary rates for all HHS Senior Executive Service (SES) employees based on (1) annual formulas received from the Office of Personnel Management and (2) annual performance appraisals for SES employees. The Merit Pay System prepares a machine media record of salary rates for all HHS SES employees which is used by the Central Personnel System to (1) update master personnel records and (2) prepare a machine Media record of SES salary rates for processing by the Central Payroll System.

Annually set Government-wide salary rates for Federal civilian and military employees are put in edit tables in the Central Personnel System and the Commissioned Officer Personnel Order Subsystem respectively and all requests for personnel actions that involve pay amounts are compared to these edit tables before being processed and posted to the personnel master records.

The historical evidence detailing how almost 9,300 individual merit pay increases for fiscal 1983 were calculated for HHS merit pay employees is in hardcopy (computer printout) format. In addition, the source information supporting, the calculation of individual merit pay increases—that is, individual performance appraisals—is also in the form of hardcopy records. A post-award audit of individual merit pay increases would be made very difficult to accomplish given its large number of merit pay employees—9,300 and the fact that the audit trail is maintained on hardcopy. Further, an audit involving more than one year would be almost impossible.

Personnel Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
6. Adjustments to personnel records should be authorized in accordance with regulations and management policy.	See Control Objective 4	
7. Personnel cycle results should be in accordance with laws, regulations, and management's policies and plans.	See Control Objectives 3, 4, and 5 Both the HHS Central Personnel System (for civilian employees) and the PHS Commissioned Officer Personnel Order Subsystem (for PHS Commissioned Officers) have extensive computer edits to validate information in personnel transactions submitted for computer processing. For example, the Central Personnel System provides for 999 separate edits and error/reject messages for personnel transaction data submitted for processing.	Both the HHS Central Personnel System (for civilian employees) and the PHS Commissioned Officer Personnel Order (for PHS Commissioned Officers) do not maintain suspense files to track rejected personnel transactions. Responsibility to ensure that rejected personnel transactions
8. Personnel cycle results should be achieved in an economical and efficient manner.	Both the HHS Central Personnel System (for civilian employees) and the PHS Commissioned Officer Personnel Order Subsystem (for PHS Commissioned Officers) accept personnel transactions, via computer terminal, on a daily basis. Personnel transaction data is edited while the terminal operator is entering the data. Transactions that fail initial edit are rejected from processing at the computer terminal. Both civilian employee and Commissioned Officer Personnel transactions that pass initial edits are processed on a daily basis. After civilian employee and Commissioned Officer Personnel transactions pass initial edits, they are subjected to further edits before being processed through the personnel systems and all passed-on to payroll processing.	are corrected and reentered for processing through the computer rests with the personnel office that originally submitted the transactions. The mail service is used to transmit personnel transaction information from originating personnel offices in PHS medical facilities to the central personnel staff in PHS's Rockville, Md. Headquarters. Mail (cont'd.)
9. Personnel procedures used should be economical and efficient.		

Personnel Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
		Service is used instead of the more rapid means of using computer terminals to enter information directly into the automated PHS Commissioned Officer Personnel Order Subsystem. Delays in the mails could cause delays in getting needed pay entitlement information into the automated personnel files which, in turn, could cause erroneous salary payments.
		Personnel transactions which fail subsequent edits are rejected from further processing through the computer and are returned to the initiating personnel office along with appropriate error messages. Data is returned to the personnel offices via computer terminal.
10. Only those requests to assign employees that are within budgetary constraints and that meet management's program criteria or other criteria should be approved.	See Control Objective 7.	The same data that is recorded in HHS's Central Personnel System is also recorded in subordinate automated personnel systems maintained by the following HHS operating divisions: (1) Social Security Administration, (2) National Institutes of Health, (3) Health Care Financing Administration (4) Public Health Service, (5) Center for Disease Control (6) Food and Drug Administration, and (7) National Cancer Institute. These systems do not control
11. Each personnel transaction should be based on properly approved records, be accurately prepared, and be appropriately authorized.	See Control Objective 7.	personnel information that is used to support preparation of paychecks.
12. Personnel transactions should be accurately classified, summarized and reported.	See Control Objective 13. Both the HHS Central Processing System (for civilian employees) and the PHS Commissioned Officer Personnel Order Subsystem (for PHS Commissioned Officers) produce a number of reports on the results of processing personnel transactions which are sent to all levels of management.	They record information already in the Central Personnel System and produce a variety of hard copy reports from the information. These systems seem to be redundant to the Central Personnel System.

48

Personnel Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
13. Personnel transactions should be accurately classified, summarized and reported in accordance with budget, program, and pay and personnel regulations.	HHS operates an automated system called the Common Accounting Number (CAN) Collection System. The CAN System develops codes (CAN's) which are changed each fiscal year, to identify all organizational components, programs, and budget areas in HHS. Each employee in HHS is assigned a CAN and this code is recorded in his or her personnel and payroll master records. The CAN is the basis for classifying, summarizing, and reporting personnel and payroll data. The CAN permits HHS's personnel and payroll system to classify, summarize, and report personnel and payroll information by HHS organizational, program, and budget components. CANs are assigned to HHS civilian and PHS Commissioned Officer personnel.	
14. Personnel transactions should be accurately applied to the proper records.	Computer terminals are used to update the automated personnel records for civilian employees maintained by the automated Central Personnel System; these computer terminals automatically generate a computer terminal number and personnel office number and send this data along with transaction data to the Central Personnel System. Before a personnel transaction is posted to a personnel master record, the terminal and personnel office numbers are compared to similar numbers recorded in each masterfile record. Update will only take place if these numbers match. In the Commission Officer Personnel Order Subsystem automated personnel records are identified by a Public Health Service Officer Number. The System will only accept and post a personnel transaction to the automated personnel records if the PHS Officer Number in the transaction record matches the similar number in a masterfile record.	The automated Central Personnel System will create master personnel file records with dummy Social Security Numbers (SSN's). Personnel offices in HHS operating and staff divisions are responsible for putting dummy SSN's on the personnel files and for replacing the dummy SSN's with valid SSN's when employees obtain valid SSN's. There is no control procedure in place to ensure that personnel offices follow-up on and promptly replace dummy SSN's on the personnel files.
15. Personnel transactions should be properly authorized and should be prepared each pay period.	Personnel actions for HHS civilian and PHS Commissioned Officer personnel must be initiated by a request for a personnel action authorized and signed-off on by appropriate management officials. The request for personnel action is submitted to the appropriate HHS or PHS personnel office for review, approval, and processing through either HHS's Central Personnel System or the PHS Commissioned Officer Personnel Order Subsystem. Personnel transactions are entered into these systems by computer terminal. Access to these systems is controlled by password. These systems prepare the personnel actions/orders requested by HHS and PHS management officials. Copies of the personnel actions/orders are (cont'd.)	

Personnel Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
	sent to: (1) the individual involved, (2) the requesting management official, and (3) the personnel offices processing the request for personnel action.	HHS operating and staff divisions are responsible for putting dummy SSN's on the personnel files and for replacing the dummy SSN's with valid SSN's when employees obtain valid SSN's. There is no control procedure in place to ensure that personnel offices follow-up on and promptly replace dummy SSN's on the personnel files.
16. Personnel transactions should be summarized and classified in accordance with budget, program and pay regulations.	See control objective 13 above.	
17. Recorded balances of personnel data, and related transaction activity, should be periodically substantiated and evaluated.	For HHS civilian employees, personnel transaction information is first processed through the Central Personnel System and posted to the automated personnel master file records. At the end of personnel processing, the Central Personnel System prepares a magnetic media transaction file to transfer personnel transaction information to the Central Payroll System. The Central Payroll System uses the magnetic media personnel transaction file created by the Central Personnel System to post personnel transaction information to the automated master payroll file. Every bi-weekly pay period, after bi-weekly payroll processing is complete, the automated personnel and payroll master files are compared and a report of differences is printed-out for management follow-up.	

For PHS Commissioned Officers, personnel transaction information is first processed through the Commissioned Officer Personnel Order Subsystem and posted to the automated personnel master file records. At the end of personnel processing, the Commissioned Officer Personnel Order Subsystem prepares a magnetic media transaction file to transfer personnel transaction information to the Commissioned Officer Payroll Subsystem. The Commissioned Officer Payroll Subsystem uses the magnetic media personnel transaction file created by the Personnel Order Subsystem to post personnel transaction information to the payroll master file records. The Commissioned Officers personnel and payroll files are routinely compared by computer to identify data discrepancies between the two files.

Personnel Cycle Control Objectives   Control Techniques In Place   Major Control Weaknesses

18. Access to and maintenance of personnel records, critical forms, processing areas, and processing procedures should be permitted only in accordance with laws, regulations and management policy.

For both HHS civilian employees and PHS Commissioned Officers, the automated personnel records are maintained on central computer facilities. For HHS civilian employees, automated personnel records are maintained on computer equipment in HHS's Washington, D.C., computer center. For PHS Commissioned Officers, the automated personnel records are maintained on computer equipment in PHS's Rockville, Maryland, computer center. Access to both computer centers is effectively restricted to authorized computer center personnel.

Personnel transaction information is entered into both sets of automated personnel masterfiles—that is, civilian and Commissioned Officer personnel masterfiles—via computer terminals. Access to the files is based on authorized passwords.

Hardcopy personnel files are maintained in HHS and PHS personnel offices in locked file cabinets in a normal office environment.

Payroll Cycle Objectives

Control Techniques In Place

1. Payroll processing procedures should
   be established and maintained in
   accordance with laws, regulations
   and management policy.

This control cycle was not surveyed.

2. The appointment, change, and
   termination of all employees should
   be in accordance with laws,
   regulations and management's
   policy.

All appointment, change, and termination actions for HHS civilian
employees and PHS Commissioned Officers are first processed and
validated by the HHS Central Personnel System and PHS Commissioned
Officer Personnel Order Subsystem respectively prior to being
processed through the HHS Central Payroll System and Commissioned
Officer Payroll Subsystem. Appointment, change and termination
information is transferred between the two personnel and two payroll
systems via machine media records and files. Each bi-weekly pay
period, the master files for the Central Personnel and Payroll
systems (for civilian employees) are compared by computer to
identify discrepancies for investigation and correction.

The masterfiles for the Commissioned Officer Personnel Order and
Payroll Subsystems are routinely compared to identify discrepancies.

3. Compensation rates should be in
   accordance with current established
   rates, and payroll deductions should
   be in accordance with pay regula-
   tions and employee authorizations.

Compensation rates in personnel actions that are in turn passed to
the PHS Central Payroll Subsystem (civilian employees) and to the
PHS Commissioned Officer Payroll Subsystem (PHS Commissioned
Officers) are matched against automated pay tables in the Central
Personnel System and PHS Commissioned Officer Personnel Order
Subsystem before being passed on to the payroll systems. Personnel
transactions that do not match the automated pay tables are rejected
from processing and are not passed on to the payroll systems. The
payroll systems compare the compensation rates in personnel actions
received for processing against automated pay tables as a double
check on the similar edit checks in the personnel systems.

Payroll Cycle Objectives

4. Adjustments to payroll disbursements, employee accounts, and account distribution should be authorized in accordance with pay regulations and management policies.

5. Payroll processing results should be in accordance with laws, regulations, and management's policy and plans.

Control Techniques In Place

Payroll masterfile records for civilian employees that separate are removed from the active master payroll file when (1) the employee separates and (2) the final lump sum annual leave payment is made. The Central Payroll System is designed to remove master records from the active master payroll file for separated employees to preclude the possibility of processing personnel, payroll, and time and attendance transactions against a separated employee's master payroll record after he or she separates. Separated employees' master payroll records are written onto a payroll history file. Annually, the active master payroll file and history file are merged to facilitate preparation of W-2 forms.

Major Control Weaknesses

In both the HHS Central Payroll System (civilian employees) and the PHS Commissioned Officer Payroll Subsystem (PHS Commissioned Officers) adjustments to master payroll records are manually determined and computed. The manually developed adjustments are entered into the automated payroll systems for posting to the employee master pay records. The two automated pay systems cannot verify the propriety of the manually computed pay adjustments. The only controls over manual payroll adjustments for civilian employees and PHS Commissioned Officers are (1) normal supervisory review of the work of pay clerks and (2) audits.

Both the HHS Central Payroll System (civilian employees) and the PHS Commissioned Officer Payroll Subsystem (PHS Commissioned Officers) produce a large number of hard copy reports on the results of payroll processing for manual review to determine the conformance of the results of payroll processing to existing laws, regulations, and management policy. Given the large number of

Payroll Cycle Objectives

Control Techniques In Place

Major Control Weaknesses

HHS employees--147,000 civilian
employees and Commissioned Officers--
manual review of hard copy reports is
not an effective control technique to
achieve this objective.

Both in the Central Payroll System
(civilian employees) and the PHS
Commissioned Officer Payroll
Subsystem, (PHS Commissioned
Officers) payroll transactions
rejected from further computer
processing by computer edits are not
written onto an automated error
suspense file. Consequently both
systems do not have the information
needed to check to determine whether
rejected payroll transactions are
corrected and resubmitted for
computer processing in a timely
manner.

The HHS Central Personnel System (for
civilian employees) maintains the
central automated personnel
masterfile through the use of a
commercially available Database
Management System (DBMS). Yet, the
full efficiency of processing data by
using a DBMS is not enjoyed by HHS
because a separate payroll masterfile
is also maintained which contains the
same information found on the
personnel masterfile. The proper way
for HHS to use its DBMS is to have
one combined personnel/payroll
masterfile that would be used by both
the Central Personnel and Payroll
systems, with access to

6. Payroll Processing should be
   completed in an economical and
   efficient manner.

The Commissioned Officer Payroll Subsystem is designed to accept
and process a machine media record from the Commissioned Officer
Personnel Subsystem on pay entitlement information. The Subsystem
is also designed to accept payroll transaction information, via
computer terminals, based on hard copy records received from
personnel/payroll offices in PHS activities.

Payroll Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
		specific data elements in the file controlled by the DBMS through the use of active data dictionary.

The Central Payroll System's computer programs cannot process the machine media file of pay entitlement information in the format prepared by the Central Personnel System. The Central Personnel System cannot process a record of this size. It must break down each 3,250 byte personnel transaction record into one of 14 types of 400 character transaction records before the personnel information can be processed through the payroll system. The selection of the type transaction record to be created depends on the nature of the personnel action involved. The need to break down the machine media record supplied by the Central Personnel System into smaller records (1) is an inefficient use of computer resources and (2) increases the chance of errors in pay entitlement information that is posted to the payroll masterfile. |
| 7. Payroll procedures used should be economical and efficient. | See Control Objective 6. | |

Payroll Cycle Objectives	Control Techniques In Place	Major Control Weaknesses
8. Attendance should be reported accurately, completely, timely and in accordance with budget, program, and pay and personnel regulations.	HHS Central Payroll System (for civilian employees) produces a turn-around time and attendance card for all employees paid during a bi-weekly pay period as part of normal bi-weekly payroll processing. These turn-around time and attendance records are sent to timekeepers to record hours worked and leave taken for civilian employees during the subsequent pay period and to submit time and attendance information for the next bi-weekly payroll processing cycle. The Central Payroll System will only compute and issue paychecks based on receipt of a time and attendance record.	The PHS Commissioned Officer Payroll Subsystem does not use time and attendance information as one of the bases for issuing paychecks. Paychecks are computed and issued for all Commissioned Officers with an active master record on the Commissioned Officers automated Master Payroll File at the time of regular payroll processing.

Commissioned Officer Paychecks are issued without evidence that Commissioned Officers actually worked the required hours during the pay period. |
| 9. Amounts due to, or on behalf of, employees, and the accounting distribution of these amounts, should be accurately computed. | The Quality Assurance Unit in the Employee Systems Center routinely examines selected payroll transactions and records (for civilian employees) to assure that payroll information is accurately processed. Quality assurance procedures are designed to determine whether (1) payroll transaction information is processed, (2) the results of payroll are accurate, and (3) unauthorized alterations have been made to payroll transaction and masterfile information. | See Control Objective 5. The HHS Central Payroll System (for civilian employees) is designed to allow the issuance of manually computed paychecks. A manually prepared Voucher and Schedule of Payments (SF-1166) is sent to the Treasury Regional Disbursing Office to effect the preparation and issuance of Paychecks. Manually computed payments are posted to the automated payroll masterfile during the bi-weekly payroll processing cycle after the pay period for which the manual paychecks were prepared. The only |

Payroll Cycle Objectives   Control Techniques In Place   Major Control Weaknesses

control over the propriety of the
amounts of manually computed
paychecks and over the posting of
these payments to the automated
files is the normal supervisory
review of the work of pay clerks.

In addition to providing for
manually computed paychecks, the
HHS Central Payroll System (for
civilian employees) is designed to
permit the entry of pay
entitlement information into the
payroll masterfile, including the
creation of an automated master
payroll record, via the computer
console, during regular bi-weekly
payroll processing. This
capability to enter information
into the automated payroll
masterfile via the computer
console circumvents all internal
controls in the automated Central
Personnel and Payroll System.

Payroll Cycle Control Objectives	Control Techniques In Place	Major Control Weaknesses
10. Each payroll-related disbursement of cash should be based on a properly approved attendance record, be accurately prepared and be appropriately authorized.	See Control Objective 8.	See Control Objective 8.
11. Amounts due to or on behalf of employees should be accurately and promptly classified, summarized and reported.	See Personnel Cycle Control Objective 13. Based on the Common Accounting Number (CAN) assigned each employee, the HHS Central Payroll System and PHS Commissioned Officer Payroll Subsystem classify amounts due employees by HHS organizational component program, and budget activity. Both payroll systems routinely produce a series of reports each pay period showing the computation of pay amounts, deductions, and net pay and the distribution of these amounts by HHS organizational component. Summary reports on the results of payroll processing are also produced for management to monitor personnel expenditures and costs.	
12. Payroll disbursements and payroll related adjustments should be accurately and promptly classified, summarized and reported in accordance with budget, program, and pay and personnel regulations.	See Personnel Cycle Control Objective 13. See Control Objective 11.	

58

Payroll Cycle Objectives	Control Techniques In Place	Major Control and Weaknesses
13. Compensation for labor services, payroll disbursements and related adjustments should be accurately applied to the proper employee accounts, program records or subsidiary ledger.	The HHS Central Payroll System (for civilian employees) maintains the automated master payroll file for all HHS civilian employees. The master payroll file is organized according to employees' Social Security Number (SSN). Each employee's master payroll file record also includes a Common Accounting Number (CAN). (See Personnel Cycle Control Objective 13 which permits the Central Payroll System to classify payroll disbursements and adjustments by HHS organizational component, program, and budget authority.) The PHS Commissioned Officer Payroll Subsystem (For PHS Commissioned Officers) maintains the automated master payroll file for all PHS Commissioned Officers. This file is organized by PHS Officer Number. Each Officer's master payroll file record includes a SSN and CAN. The CAN permits the system to classify payroll disbursements by PHS organizational component, program, and budget authority.	
14. Journal entries should summarize and classify events in accordance with budget, program and pay regulations.	See Personnel Cycle Control Objective 13. Both the HHS Central Payroll System (for civilian employees) and the PHS Commissioned Officer Payroll Subsystem (for PHS Commissioned Officers) produce magnetic media and hard copy reports of the distribution of payroll costs by HHS and PHS organizational component, program, and budget authority based on the CAN's assigned civilian employees and PHS Commissioned Officers. These magnetic media and hard copy reports are sent each pay period to the eight HHS general ledger/administrative control of fund systems to post payroll distribution and costs to the appropriate general ledger accounts.	
15. Payroll journal entries should summarize and classify events in accordance with budget, program and pay regulations.	See Control Objective 14.	

Payroll Cycle Objectives	Control Techniques In Place	Major Control and Weaknesses
16. Tax and other related information derived from payroll activities should be accurately and promptly reported to appropriate authorities.	The HHS Central Payroll System and PHS Commissioned Officer Payroll Subsystem produce each pay period magnetic media and hard copy records of all payroll deductions: that is, FICA and Civil Service Retirement, Federal Income tax, State and Local Income tax, allotments, charitable contributions, Federal Employee Government Life Insurance and Federal Employee Health benefits, and union dues deductions. These magnetic media and hard copy reports on payroll deductions are sent to the appropriate Federal and non-Federal organizations, for example, SSA and OPM for FICA, and Civil Service Retirement deductions, State and Local Governments for State and Local income tax deductions, and unions for union dues deductions. In addition to these machine media and hard copy reports, the two payroll systems generate machine media records which are sent to the Treasury Regional Disbursing Office to initiate the actual transfer of funds from HHS accounts with Treasury to the appropriate Federal and Non-Federal organizations authorized to receive amounts withheld from employees' paychecks.	
17. Recorded balances of payroll-related accounts and related transaction activity, should be periodically substantiated and evaluated including all benefits due employees.	For PHS Commissioned Officers, personnel transaction information is first processed through the Commissioned Officer Personnel Order Subsystem and posted to the automated personnel master file records. At the end of personnel processing, the Commissioned Officer Personnel Order Subsystem prepares a magnetic media transaction-file to transfer personnel transaction information to the Commissioned Officer Payroll Subsystem. The Commissioned Officer Payroll Subsystem uses the magnetic media personnel transaction file created by the Personnel Order Subsystem to post personnel transaction information to the payroll master file records. The Commissioned Officers personnel and payroll files are routinely compared by computer to identify data discrepancies between the two files.	The main procedure employed by HHS to substantiate payroll related accounts and transaction activity for civilian employees and PHS Commissioned Officers is the normal supervisory review of the work done by pay clerks and management review of the routine payroll reports produced by the HHS Central Payroll System (for civilian employees) and the PHS Commissioned Officer Payroll Subsystem (for PHS Commissioned Officers). Given the large number of employees paid—about 147,000—these reviews cannot work to effectively substantiate balance in payroll related accounts and related payroll transaction activity.

60

Payroll Cycle Objectives

Control Techniques In Place

Major Control Weaknesses

18. Access to and maintenance of personnel, payroll and disbursement records, critical forms, processing areas, and processing procedures should be permitted only in accordance with laws, regulations, and management's policy.

The HHS Central Payroll System (for civilian employees) is run at HHS's Washington, D.C., data center and the PHS Commissioned Officer Payroll Subsystem (for PHS Commissioned Officers) is run at PHS's Parklawn Computer Center, Rockville, MD. Both computer centers are secured. Access to the automated payroll files is controlled, for both payroll systems, by computer manufacturers supplied computer operating systems. Payroll and personnel transaction data is transmitted by magnetic media records prepared by other HHS computer systems, computer terminal, and hard copy documents processed centrally by the central payroll staffs for both systems. Access to the automated systems and files, by computer terminal, is controlled by user passwords and transaction codes.

Hard copy payroll files and documents are secured in locked filing cabinets in a normal office environment. Access to the central payroll offices for the HHS Central Payroll System (for civilian employees) and the PHS Commissioned Officers Payroll Subsystem (for Commissioned Officers) is controlled through a system of locked doors and receptionists and visitors logs.

Controls over access to payroll documents held in HHS operating and staff divisions and regional offices were not surveyed.

AUTOMATED PERSONNEL SYSTEMS THAT ARE NOT PART OF HHS'S DIRECT CONTROL STRUCTURE FOR THE PERSONNEL AND PAYROLL FUNCTIONAL AREAS

HHS SYSTEM NUMBER	SYSTEM NAME	FISCAL 1983 A-11 SYSTEM COSTS
Not on Inventory	Social Security Administration's (SSA's) Personnel System	(Not obtained)
Not on Inventory	NIH Personnel System	(Not obtained)
HN4-002	NIH Personnel Transaction Data System	$ 1,000
FMF-002	HCFA Personnel Reporting System	58,000
FMF-014	HCFA Comprehensive Personnel System System	363,000
HAV-014	PHS Workforce Data System	240,000
FMF-002	HCFA Personnel Ceiling Control System	18,000
HCA-013	CDC Personnel Management System	58,000
HFV-008	FDA Administration Personnel System	5,000
HNC-004	NCI Automated Personnel Data System	(Not obtained)
HCS-007	CDC Personnel Status System	2,000
HN-2-007	NIH ARMS System	(Not obtained)
12 Systems	Total	$ 745,000

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