JOINT FINANCIAL MANAGEMENT IMPROVEMENT PROGRAM

Federal Financial Management
System Requirements

May 1990*   FFMSR-2

Personnel-Payroll
System Requirements

Joint Financial Management Improvement Program

The Joint Financial Management Improvement Program (JFMIP) is a joint cooperative undertaking of the Office of Management and Budget, the General Accounting Office, the Department of the Treasury, and the Office of Personnel Management, working with each other and with operating agencies to improve financial management practices throughout government. The Program was initiated in 1948 by the Secretary of the Treasury, the Director of the Bureau of the Budget, and the Comptroller General, and was given statutory authorization in the Budget and Accounting Procedures Act of 1950. The Civil Service Commission, now the Office of Personnel Management, joined JFMIP in 1966.

The overall objective of the JFMIP is to make improvements that contribute significantly to the effective and efficient operations of governmental programs. Activities aimed at achieving this objective include:

- Developing general objectives in those areas of common interest to the central agencies for guiding the improvement of financial management across government and promoting strategies for achieving those objectives.

- Reviewing and coordinating central agencies' activities and policy promulgations affecting financial management to avoid possible conflict, inconsistency, duplication, and confusion.

- Undertaking projects and special reviews of significant problems and new technologies in financial management and publishing the findings and conclusions.

- Acting as a catalyst and clearinghouse for sharing and disseminating financial management information about good financial management techniques and technologies.

- Reviewing the financial management efforts of the operating agencies and serving as a catalyst for further improvements.

The JFMIP plays a key role in mobilizing resources and coordinating cooperative efforts in the improvement of financial management practices, and relies on the active participation of federal agencies to be successful. The Joint Program is guided by a Steering Committee consisting of key policy officials from each of the sponsoring agencies. A key official from a program agency also serves on the Steering Committee. A small staff headed by an Executive Director provides support to the Committee.

Preface

This personnel/payroll functional requirements document for U.S. civilian personnel is the first step to expand the Core Financial Systems Requirements. Its preparation addresses the goal of the President's Council on Management Improvement (PCMI) and JFMIP to improve the efficiency and quality of payroll and personnel management in the federal government.

Agencies are to use these functional requirements in planning their financial system improvement projects. As with the Core Financial Systems Requirement, agencies will have to include their unique requirements, both technical and functional, with the requirements in this document. Further, each agency must develop its own integration strategy detailing how it will either interface or integrate with existing program and subsidiary systems and with the Core financial system.

We want to take this opportunity to thank the agency officials and others in the financial and personnel management community who contributed to the document. We value their assistance and support. With continuing support such as this we can confidently face the financial management challenges of the 1990's.

Virginia B. Robinson
Executive Director

Introduction

On July 26, 1989, the President announced a Management by Objectives Program for the federal government. This program includes a cross-cutting objective for financial management.

"To guarantee the effectiveness and integrity of programs and services for the public and the proper stewardship of public resources."

Achieving this objective will require a number of improvements in federal financial management information and systems.

This Joint Financial Management Improvement Program (JFMIP) document "Personnel/Payroll Systems Requirements" has been prepared as a continuation of the Federal Financial Management Systems series which began with the <u>Core Financial Systems Requirements</u> in January, 1988. It has been prepared in consultation with Office of Management and Budget (OMB), the General Accounting Office (GAO), the Financial Management Service (FMS) of the Treasury Department, and federal program agencies.

When implemented, by incorporation in GAO's accounting principles and standards, in Treasury's reporting requirements, and in OMB circulars, these standards will become mandatory. FMS will assist agencies in making their systems conform to these standards and in making reviews against the standards. The GAO and agency Inspectors General (IG) will independently review agency compliance.

Table of Contents

Financial Management Framework

This document is a part of a broad program to improve federal financial management. This program involves the establishment of standards for financial information, financial systems, reporting, and financial organization. The interrelationship between systems and data standards is shown in illustration 1.

In 1982, the Federal Managers' Financial Integrity Act provided the cornerstone for improved financial management. Section 4 of this legislation requires annual reports on the compliance of agency systems with GAO standards under OMB policy direction on behalf of the President.

In 1984, the GAO issued new accounting standards as Title 2 of its Policy and Procedures Manual for Guidance of Federal Agencies. In 1984, OMB established through Circular A-127, "Financial Management Systems," policy guidance for a broad program of improvement for all federal financial information and systems. In 1986, the Treasury issued new standards for improved business-type financial reporting and OMB issued the Standard General Ledger

Figure 1: Framework for the Integration of Federal Financial Systems
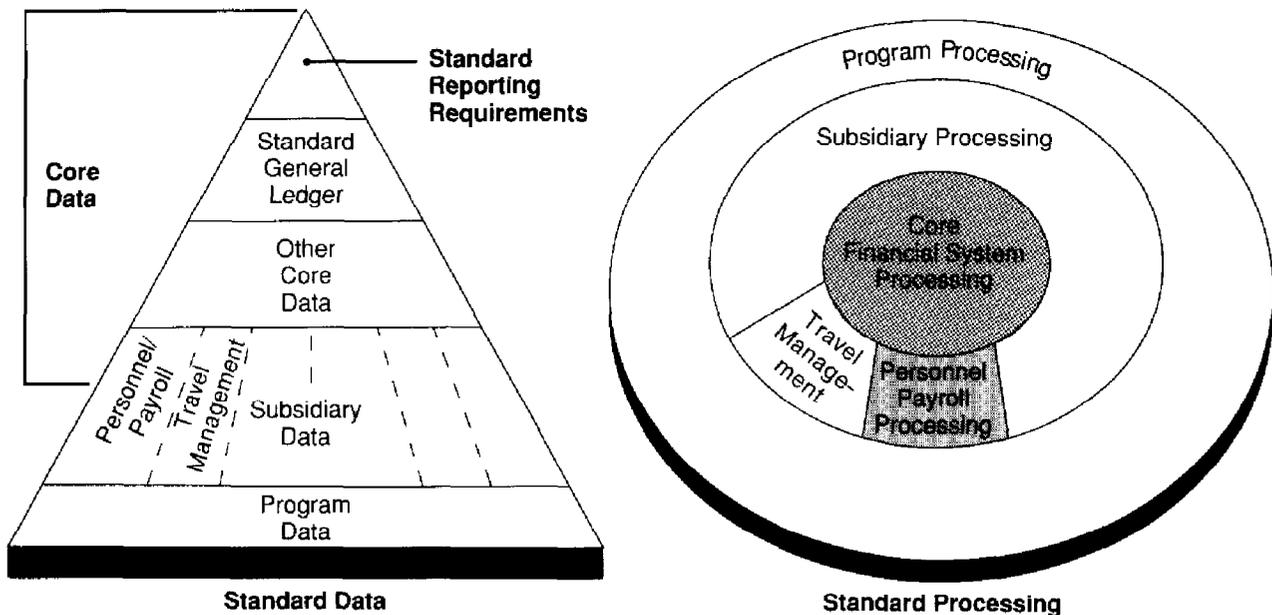
(SGL). The SGL provides for a unified chart of accounts for accounting and budgetary information. It governs the recording of transactions within every agency financial system.

In 1987, the Director of OMB administratively appointed Gerald Riso as the first Chief Financial Officer (CFO) for the United States Government and required that each major agency designate a CFO. Each agency CFO is a member of the CFO Council. In 1988, President Bush appointed Frank Hodsoll as his CFO.

In 1988, JFMIP developed new standards for agency central financial systems: the Core Financial Systems Requirements, which is a continuation of the series entitled Federal Financial Management Systems. These requirements were signed by the Comptroller General, the Secretary of the Treasury, and the Director of OMB.

At the present time additional standards are under development. JFMIP is working on data element standards, which will provide for common data element definitions for all the budget and accounting information routinely reported to OMB and Treasury. The requirements document for payroll/personnel will be supplemented by systems requirements for such activities as property, procurement, and grants.

Standards Implementation

A s shown in figure 2, establishing standards is only part of the process of improving financial management systems and information. Agencies must implement the standards.

Good governmentwide standards assist agencies in developing strong systems and information, by eliminating duplicative work among agencies and providing a common framework so that outside vendors can more economically provide systems software. However, agencies must augment these standards with their own requirements, which must be carefully designed to assure consistency with the governmentwide standards. Each agency must also integrate standard systems with existing systems and with major program systems that are unique to the agency.

Figure 2: Financial System Improvement Projects

Standards

- Standard Reporting Requirements
- U.S. Government Standard General Ledger
- Core Financial System Requirements
- Personnel Payroll Requirements
- Travel Management
- Other Standards

Agency Implementation

- Additional Agency Functional Requirements
- Additional Agency Technical Requirements
- Integration Strategy
- Software/ Hardware Evaluation

- Software Selection

- Adaptation
- Procedures
- Training
- Documentation
- Conversion
- Maintenance

Subject of this report

Overview

The complexity, diversity, and size of the employee population in federal government agencies place unique demands on managers of personnel/payroll operations. The constantly changing requirements of human resource management has led management to look not only at the functional capabilities of personnel/payroll systems, but also at the hardware/software as well as managerial environments in which these systems are supported and/or operated.

All personnel/payroll systems that are being designed and implemented or are in use must result in the following.

- Operation in accordance with laws, regulations, and judicial decisions. It is the responsibility of each agency to be familiar with the legal requirements governing its personnel/payroll operations.

- Complete, accurate, and prompt payment of pay and deductions.

- Complete, accurate, and prompt generation and maintenance of personnel/payroll records and transactions.

- Timely access to complete, correct, and accurate information, without extraneous material, to those within and without the agency who require the information.

- Timely and proper interaction of the personnel/payroll system with the Core financial systems.

- Adequate internal controls to ensure that the personnel/payroll system is operating as intended.

This document identifies the functional requirements for a personnel/payroll system. Though it may be used when developing a new personnel/payroll system or improving or evaluating a current system, it does not provide a specific model for such a system. Functional requirements not mandated by law, regulation, directive, or judicial decisions must result in cost-effective systems that are in the interest of the government. All possible alternatives for meeting the requirements should be considered.

The human resource or personnel management functional requirements presented are those required to initiate and maintain the compensation of employees. The full spectrum of personnel management functions would include planning, policy, programming, budgeting, operations, and control. The personnel management activities range from position requirements/classification and recruitment/employment to compensation/benefits and separation/retirement. The payroll function is part of the compensation activity of the personnel management function and links it to financial management systems.

4

The way in which payroll activity and personnel activity relate in the case of an individual employee illustrates the relationship of payroll activity to personnel activity. An individual's payroll record is created after Personnel has hired the individual, brought the person onto the organization's rolls and established his/her salary, grade, entitlements, etc. Any changes to the basic authorizations and entitlements must be made by Personnel activity before being reflected in the payroll system.

The operational functions of the federal government's personnel/payroll systems can be segregated into two general categories. The first category includes those mandatory functions based on federal laws and regulations; the second category includes those optional functions based on the special management requirements of the individual agencies. Mandatory functions based on law or regulations are standard across agencies and are documented in federal manuals such as the Federal Personnel Manual (FPM) Supplement 296-33, "The Guide to Processing Personnel Actions"; FPM Supplement 298-1, "The Central Personnel Data File"; Title 6, "Pay, Leave, and Allowances," of GAO's Policy and Procedures Manual for Guidance of Federal Agencies; and the Treasury Fiscal Requirements Manual. Optional functions are established by agency management based on such factors as the mission of the agency, its size, and the geographic distribution of personnel. These functions are documented in agency regulations and directives.

A large variety of these optional functions have been and will be developed to support the special requirements of an agency. These functions vary widely throughout the federal community and are required to support each agency's special personnel/payroll processing needs. The information provided in this document includes a cross section of those optional functions most often identified as being used within the federal community.

The burden of demonstrating that these optional functions are cost effective and clearly in the interest of the government rests with the agency heads. Further, each agency must develop an efficient, effective, and economical strategy for interfacing or logically integrating its personnel/payroll system (or subsystem) with other systems (or subsystems) that provide information to or utilize information from the standard personnel/payroll system.

The data in these optional processes must be consistent with the standard personnel/payroll system that contains the official records for the agency. Distributed processing and small end-user computers greatly increase the need for agency-wide strategic planning for information resources. Incompatible data in

separate files or systems can prevent, or make difficult, the integration of data to generate the information required by management.

Illustration 3 provides an overview of the functional model. This graphic definition is a logical flow of data through those functions that make up the standard personnel/payroll system. Each of the standard functions is described below.

Human Resource Data

Data collection activity

Collects and edits all employee-related and/or position-related data needed to process pay and to support personnel activities of the standard personnel/payroll system.

Maintenance Activity

Maintains current and historical personnel, pay, leave, time and attendance, and retirement data for each employee. Supports both payroll-related data and personnel-related data in a logically integrated database and/or interfaced system.

Personnel Processing

Processes personnel actions in accordance with Federal Personnel Manual (FPM) Supplement 296-33, "The Guide to Processing Personnel Actions." Provides a variety of reporting data for use in advice and consultation to line managers and employees, as well as in required external reports such as EEO compliance and training reports. Provides daily certified SF-50, Notification of Personnel Action, data for posting to the payroll master record.

Time and Attendance Processing

Collects time and attendance and labor-related data and edits these against the Master Employee Record (MER) and reference tables on a daily, weekly, and/or biweekly basis as required.

Figure 3: Personnel /Payroll System Functional Overview

```
┌─────────────────┐   ┌─────────────────┐        ┌──────────────┐        ┌──────────────────────┐
│ Human Resource  │   │ Time & Attendance│        │ Agency       │        │ Agency Payroll       │
│ Data            │   │ Processing      │        │ Level        │        │ Processing/Reporting │
│                 │   │                 │        │ Database     │        │                      │
│ Standard │Agency│   │ Data  │Time and │        └──────────────┘        └──────────────────────┘
│ Data     │Level │   │ Edits │Attendance│
│          │Data  │   │ and   │Collection│                               ┌──────────────────────┐
│          │      │   │Validations│ for  │                               │ Agency Personnel     │
└─────────────────┘   └───────┴─Agency──┘                               │ Processing/Reporting │
                                                                         │                      │
                      ┌─────────────────┐                               └──────────────────────┘
                      │ Personnel       │
                      │ Processing      │
                      │                 │
                      └─────────────────┘

        ┌──────────────┐
        │ Standard     │
        │ Personnel/   │                            ┌──────────────────────┐
        │ Payroll      │                            │ Report Processing/   │
        │ Database     │                            │ Reconciliation       │
        └──────────────┘                            │                      │
                                                    └──────────────────────┘

┌─────────────────┐   ┌─────────────────┐
│ Leave Processing│   │ Pay Processing  │
│                 │   │                 │
└─────────────────┘   └─────────────────┘
```

░░░ Agency Level Processing

Leave Processing

Processes and controls leave advances, accruals, conversions, transfers, usages, and forfeitures for each employee.

Pay Processing

Calculates gross pay and allowances, deductions, employer contributions, and net pay for each employee. Because of the sensitivity of payroll disbursements and the need for payroll certification, pay processing must be considered a standard function to be controlled in a more central manner.

Report Processing/Reconciliation

Accesses, manipulates and formats data as required to satisfy accounting, regulatory, and managerial information requirements, including required reporting to the Office of Personnel Management (OPM)--to the Central Personnel Data File (CPDF) and through the SF 113A, Monthly Employee Report, and SF 113G, Monthly Full Time Equivalent (FTE) Report. Provides payroll system data for comparison and reconciliation with disbursing and accounting systems to ensure accuracy and completeness.

Human Resource Data

E mployee and position data collection requirements provide for the collection and editing of certain employee data necessary to determine entitlement to and compute the amount of pay, leave, and allowances and determine whether agencies are operating within established personnel ceilings and dollar limitations. Data collected is passed to certain other functions, for use in processing and reporting in those functions.

The Human Resource Data function consists of two activities, data collection and maintenance.

The data collection activity is responsible for the valid entry of position or employee- and payroll-related data as required by the personnel/payroll system to satisfy an agency's requirements. The required edits (e.g., in accordance with FPM Supplement 296-33, "The Guide to Processing Personnel Actions"; the CPDF; FPM 530, "Pay Rates and Systems (General)"; and Title 5 of the U.S. Code) are to ensure the accuracy and validity of all transactions.

Once the transactions are validated, the data collection activity makes the data available, based on system design, to the Human Resource Data maintenance activity which will identify the position-related data and employee-related and payroll-related data. Update processing enables all other functions in the personnel/payroll system to perform specialized processing by providing access to the detail and summary information it maintains.

Information in the Human Resource Data function may be accessed by other functions for use in their processing. For example,

- the Personnel Processing function may access information on salary rates and the amount and nature of entitlements when updating and changing that information;

- the Leave Processing function may access information on leave balances, by type of leave, when updating that information;

- the Pay Processing function may access much of the same information as the Personnel function and, in addition, information on deductions, when processing the payroll for payment of net pay, deductions, and employer contributions; and

- the Reporting function may access such data elements as are reported when reports for internal control, other internal, and external purposes are compiled.

In addition to its custodial role, the Maintenance activity performs mass updates of employee and position records in response to reference changes, ensures proper treatment of manually calculated pay, ensures proper payment of

lump sum leave, and generates Civil Service Retirement and Federal Employee Retirement System data.

Further, certain additional historical data must be maintained to facilitate reporting and prior-period adjustment of data, for example:

- a pay history showing gross pay by type, deductions by type, and net pay for each pay period;

- a time and attendance history showing hours or days worked by type of pay for each pay period; and

- a leave history showing beginning balances, leave accruals, leave usages, and ending balance, by type for each pay period.

Optional data covering:

- awards and training information, by date;

- nature-of-action changes for each employee, by date; and

- salary charges by assignment or activity, organization, geographic location, or other cost accounting centers may also be maintained.

The data collection activities must:

- Accept and edit position-related data, if required by agency management, for use in controlling the overall agency ceilings as established by dollar, FTE, and position limitations.

- Provide for erroneous input to be corrected immediately or at a later date from a suspense file that has preserved the input as initially entered and edited.

- Accept and edit employee-related data, based on effective date and nature-of-action codes (NOAC), in accordance with FPM Supplement 296-33, FPM Supplement 298-1 (including OPM provided CPDF edit package), and FPM 530 guidelines. The effective date establishes when transactions are to be effective, including the service computation date for purposes of retirement, leave accruals, promotions, and within-grade increases, and specific dates for which changes in deductions are to be effective.

- Accept and edit payroll-related data, as required, in accordance with Title 5 and other related regulatory guidelines.

- Accommodate the entry of multiple personnel actions for an employee in one pay period, and/or on the same day.

• Accept and edit award data, EEO data, and employee training data, if required.

• Establish new, deactivate existing, and modify existing personnel actions whenever appropriate and implement FPM Supplement 296-33 and FPM Supplement 298-1 changes in a timely fashion.

• Automatically adjust date fields (e.g., service computation date, not-to-exceed dates) based on processing of personnel actions.

The maintenance activities must:

• Accept edited position-related data, as required, for use in managing the organization within established dollar, FTE, and position limitations. Post this data to the PMR.

• Accept edited employee-related data, based on NOAC and effective date, in accordance with FPM Supplement 296-33, FPM Supplement 298-1, and FPM 530 guidelines. Post this data to the MER.

• Accept edited payroll-related data in accordance with Title 5 and other related regulatory guidelines for posting to the MER.

• Update all related employee records (including salary rate, leave accrual, and expense records) based on each personnel action transaction.

• Recognize, through the use of effective dates, whether a transaction requires current, future, or retroactive processing and generate the appropriate action and payment.

• Update all affected employee records to reflect across the board entitlement and/or deduction changes.

• Generate a checklist report for each separating or transferring employee to ensure proper procedural treatment.

• Calculate projected annual leave balances.

• Store lump sum leave hours to be paid to separating employees. Reduce annual leave balances to zero after lump sum payments are made.

• Update the CPDF with both activity and status reporting.

• Update a Time History data base each pay period to include current-period and prior-period adjusted time information for each employee.

• Update a Pay History data base each pay period to include detail, pay-period, quarter-to-date, and year-to-date pay data for each employee.

- Update retirement data including name, service history, and fiscal history for each employee. Maintain separate records for military (post-1956) and civilian (re-employed annuitant) deposits. Provide cumulative agency employment totals.

- Update leave data to reflect leave wages and balances for each employee.

- Allow the payroll office to add a new payline manually or to change or delete an erroneous payline, prior to calculation and disbursement of payroll. (Each payline is identified by the pay period in which it was calculated and by the pay period to which it applies (the "effective" pay period)).

- Update appointment limitation balances, health benefit rates, and FEGLI codes.

- Maintain historical data by pay period and transactions by effective date to facilitate prior-period adjustment processing.

- Maintain "calendar year-to-date" and "fiscal year-to-date" balances for targeted deductions and payments in order to stop action when the target is realized.

Personnel

This function is comprised of features within the following personnel activities that are supported across agencies:

- Position management

- Staffing

- Personnel activities

- Employee relations

- Labor relations

- Training

- EEO support

- Retirement

Some features that are recognized as "Personnel" activities are included in other components of the standard personnel/payroll systems. The Human Resource Data collection activity is responsible for the entry of all employee- and position-related data. Data maintenance and reporting activities are performed within the Human Resource Data and Report Processing/Reconciliation functions, respectively.

This section identifies those features that are included within the standard personnel/payroll system.

Concerning position management, this function must:

- Provide information needed to establish, maintain, and abolish positions.

- Provide management information data (e.g., open positions, positions filled by part-time employees, etc.).

- Support position reviews to determine if restructuring positions could improve efficiency of operations, enhance Equal Employment Opportunities (EEO), and/or support management goals.

Concerning staffing, this function must:

- Maintain records on applicants (from both within and outside the government).

- Track internal recruitment and competitive (merit) and noncompetitive promotions and transfers.

- Track external recruitment and expert/consultant recruitment.

- Maintain current organizational component identifiers for reporting to OPM's CPDF.

Concerning personnel activities, this function must:

- Provide the capabilities to process employee-related data, based on assigned position, NOACs, and effective date, in accordance with FPM Supplements 296-33, FPM Supplement 298-1, and FPM 530 guidelines.

- Process appointments and position changes (e.g., promotions, reassignments, changes to lower grade).

- Process incentive awards as a result of personnel actions, for both current and prior-period effective dates, ensuring that duplicate awards are not processed.

- Process all suspense actions of "not-to-exceed" (NTE) appointments. Provide the capability to support (1) termination of grade retention and details and (2) conversion to lower grade after temporary promotions. Provide the data for pending NTE terminations, tenure changes, ends of probationary periods, and ends of within-grade waiting periods.

- Process completed adverse actions.

- Process resignations and retirements; generate data for SF 50, Notification of Personnel Action; SF 2806, Individual Retirement Record; SF 2807, Register of Separations and Transfers; and SF 1150, Record of Leave Data.

- Generate reemployment priority data and retained-grade program data.

Concerning employee relations, this function must:

- Provide the capability to support pending performance evaluations.

- Provide the capability to support employee benefit entitlements (life, health, and retirement) in response to employee inquiry or policy changes.

- Support retirement estimates for requesting employees.

Concerning labor relations, this function must:

- Produce union dues withholding information.

- Provide union data on retention register, merit promotion lists, and reductions-in-force.

- Produce data on union employee activity, to include union steward time and union employee time involved in adverse action, grievance, and appeals processing.

Concerning training, this function must:

- Provide the capability to compile SF 182, Request, Authorization, Agreement and Certification of Training, data for annual reporting to OPM.

- Generate training data from SF 182s for management information support.

- Generate training data related to EEO training.

Concerning EEO support, this function must:

- Provide information to support quarterly, annual, and ad hoc reporting to OPM, Equal Employment Opportunities Commission, and other reporting authorities.

- Provide information to support a wide variety of comparative studies using human resource data to identify discriminatory trends; generate data from such sources as the applicant supply file and best-qualified lists.

- Provide information to support recruitment procedures reviews to determine whether women, minorities, and handicapped individuals are included in applicant pools.

- Provide information to support position reviews.

Concerning retirement, this function must:

- Provide the capabilities to compute retirement benefits, as well as to anticipate retirements and track personnel through the process.

Time and Attendance Processing

The Time and Attendance Processing function provides information on the units of pay necessary to determine gross pay from hours worked and leave taken. The principal input for this function is the time and attendance document accounting for time in pay status. Outputs of leave taken are submitted to the Leave Processing function, and outputs of hours worked or pieces completed go to the Pay Processing function.

In the course of operating personnel/payroll systems, numerous pieces of information will be entered. Edits of this data are required, as a broad objective, at the earliest time to ensure that the data are complete, correct, accurate, and in accordance with legal requirements.

Edited and certified time and attendance reports are passed on a pay period basis to the pay processing function components for further payroll processing. The Time and Attendance function must:

- Support the collection of time and attendance data based upon an established tour of duty, including alternative work schedule/flexitime information. This requires, as a minimum, only positive acknowledgement from the timekeeper that the employee worked the established tour and that time and attendance data is available for supervisory review and approval.

- Support the collection of work hours, leave hours, and all other pay-related hours, as well as labor-related hours if required by agency management, from one source document for each employee.

- Support the collection of labor distribution hours by the classification code structure defined in the Core Requirements document.

- Provide for the collection of time and attendance data on a daily, weekly, biweekly, semimonthly, and/or monthly basis.

- Calculate and adjust weekly hours based on Fair Labor Standards Act (FLSA) requirements.

- Accept time and attendance data through various processing modes.

- Support the correction of current- and prior-pay period time and attendance records.

- Input time spent by employees who work temporarily in a higher classification (1) within the department but in different organizations or work centers or (2) in other departments.

- Provide for the capture of time and attendance data in fractions of hours.

- Generate a hardcopy time and attendance report.

- Provide the capability to receive electronic approvals from authorized supervisory personnel and release data for further system processing.

Leave Processing

The Leave Processing function performs all activities associated with determination of proper leave balances for all types of leave, leave advances, accruals, usages, forfeitures, and transfers. This involves the application of current-period leave accruals and leave charges to each employee's available leave balances, leave transfers, donations to leave banks or individuals, and adjustments to leave balances for restored leave, EEO settlements, and similar after-the-fact situations. In addition, this function processes end-of-year leave forfeitures and carryovers for each employee, based on agency-established guidelines.

The processing of leave transactions is performed for each reported leave type at the end of each effective pay period, based on entitlements established by the personnel office. Advances, accruals, and restored leave are processed before usages are applied to the appropriate available balance.

Concerning usages and accruals, this function must:

- Ensure that leave taken is supported by a sufficient balance. Insufficient leave balances are automatically converted based upon an established leave priority scheme and, when appropriate, specific management review (e.g., to determine advance leave, leave without pay, or absence without leave).

- Each pay period, accrue each type of leave which can be accrued and to which an employee is entitled, based on entitlement established in the Human Resources function, including partial accruals and carryovers.

- Process variable leave accruals for part-time employees. Leave accruals for part-time employees are based on actual hours in a pay status.

- Determine compensatory time to be forfeited or compensatory hours to be paid based on predetermined elapsed time limits for compensatory time earned and maximum earning ceiling for combined leave and earnings.

- Generate detail audit trail and control data to ensure that all reported leave hours have been processed accurately and that the hours used in pay calculation are correct.

- Track and report job-related injury time (continuation of pay).

- Interface with the Core financial system or another designated system and alert that system to establish receivables or follow up on types of leave that may carry to the government employee indebtedness, including health and life insurance premiums for employees on approved leave without pay and certain jury duty fees while on court leave.

- Provide for fiscal-year-end and calendar-year-end processing in accordance with established guidelines.

- Provide for year-end leave forfeitures processing using maximum carryover amounts maintained in the Human Resource function.

Concerning conversions, this function must:

- Modify leave accruals for employees who change either leave systems, biweekly tours-of-duty, or from full-time to part-time.

- Determine all work and leave hours to be paid for use by the Pay Processing, Report Processing/Reconciliation, and Human Resource Data maintenance functions.

Concerning prior-period retroactive adjustments, this function must:

- Process both current- and prior-period leave transactions on an effective pay period basis.

- Provide for recomputing leave balances due to prior-period hour adjustments or retroactive entitlement changes for each period subsequent to the effective period of the change in the following order: (1) retroactive entitlement changes and then (2) prior-period hour adjustments.

Pay Processing

The Pay Processing function calculates earnings, gross pay, deductions, net pay, and employer contributions for each employee on an effective pay period basis. Each pay line is identified by the pay period in which it was calculated and by the pay period to which it applies (the "effective" pay period).

This function provides for the computation and disbursement of net pay, deductions, and employer contributions by:

- computing gross pay as the sum of each rate of pay times the number of units related to it plus all appropriate allowances and/or other gross pay components,

- classifying and totalling deductions,

- subtracting the sum of deductions from gross pay, and

- applying formulas or utilizing tables to determine employer contributions required for certain payroll taxes and benefits.

Pay calculations shall be performed at the end of each pay period after properly authorized inputs have been received from the Time and Attendance Processing function.

Statutory limit and reasonableness tests are performed on gross pay, and net pay is tested to ensure that deductions do not exceed gross pay. At the end of each processing cycle detailed audit and control data are generated.

Prior-period hour adjustments, changes to an employee's entitlement (for earnings or deductions) or mass table changes will provide for retroactive calculations. The retroactive calculation of prior-period earnings is similar to current-period processing, except that time and attendance data for prior periods are obtained from adjusted hours of retroactive pay transactions rather than from the weekly time transaction.

If circumstances require it, supplemental pay actions (e.g., pay actions not processed in the normal pay cycle) are input into the system. These pay actions then serve as the basis for the computation of gross pay, deductions, net pay, and employer contributions.

Concerning gross and net pay computation, the pay processing function must:

- Process both current-period and prior-period adjustments as an integral part of the payroll cycle.

- Compute pay according to the time worked and/or leave taken, based on data approved by the relevant supervisor.

- Compute pay of various types (e.g., entitlements for employees eligible for foreign service allowances, special pay and retention pay for commissioned officers, awards for SES, merit pay, cash awards, etc.)

- Compute earnings amounts for partial pay periods when entitlement dates do not coincide with pay period beginning and ending dates. Processes earnings adjustments on a begin-date/end-date basis.

- Support adjustments and regular calculations that cross fiscal and/or calendar years, providing proper information to the Core financial system.

- Initiate the pay calculation cycle only after time and attendance data have been certified and leave has been processed.

- Calculate overtime based on FLSA and Title 5 requirements.

- Calculate premiums and differentials as a percentage of base pay, and set dollar amounts.

- Calculate shift differential amounts based on hours actually worked and certified by a supervisor.

- Accommodate processing of supplemental pay actions.

- Provide for percentage computation of deductions (e.g., 20 percent federal taxes on awards).

- Support Unemployment Compensation for Federal Employees processing and responding to 931 requests.

- Record gross pay, deductions, and net pay, generating information to update other functions and other systems, as appropriate, including the Standard General Ledger maintained in the Core financial system.

- Accept allowance and premium pay entitlement as set dollar amounts or compute them as percentages of pay without some or all of the entitlement, as defined by law and regulation.

Concerning deduction and employer contribution calculations, this function must:

- Calculate the following deduction types for each employee:

  - mandatory deductions (e.g., federal, state, local, and FICA taxes),

  - voluntary deductions (e.g., life insurance, health insurance, thrift savings deductions, allotments, and bonds), and

  - involuntary deductions (e.g., IRS levies and administrative debt collections).

- Provide the capability to handle deductions that apply in various pay periods.

- Adjust taxable gross pay by deducting untaxed items (e.g., thrift saving deductions) and civil service retirement annuity offsets.

- Support mass rate changes and individual entitlement changes for current and retroactive processing. Offset advanced sick leave balances against annual leave balances. Accommodate waivers of collections for leave advances.

- Compute the maximum variable levy deduction based on available net pay and the outstanding amount owed IRS.

- Prorate insurance deductions for part-time, seasonal, and newly hired employees using the "four-day rule."

- Accelerate deductions for employees paid an annual salary in less than one year (e.g., teachers).

- Compute deductions, employer contributions, and net pay based on manually calculated earnings amounts (e.g., supplemental pay for commission or tip earnings).

- Calculate deductions specified in chapter 5, Title 6, of GAO's <u>Policy and Procedures Manual for Guidance of Federal Agencies</u>, using tables and making such computations as necessary and providing for such things as:

  - limitations on the maximum amount of salary subject to certain deductions;

  - limitations on the maximum amount allowed for certain other deductions;

  - adjustments of taxable gross pay for certain purposes by deducting untaxed items, including penalties, before computing taxes; and

  - proration of certain deductions for part-time or seasonal employees.

- Subtract the deductions calculated in the order of precedence provided for in GAO's Title 6, while ensuring that net pay is not negative.

- Determine when a bond may be issued given its denomination per pay deduction. The process for setting bond issuance dates and issuing bonds may be accomplished by systems outside the pay system.

- Deduct some items in every pay period and others in selected pay periods only.

- Offset the dollar amount of advanced leave balances (computed at the rate of pay in effect when the leave was taken) against the dollar amount of final net pay and any unused annual leave (based on the current pay rate) on termination of an employee from federal employment.

- Offset the dollar amount of other receivables owed the agency against final net pay or, if applicable, lump sum annual leave payments on separation from the agency.

- Generate payment for severance pay.

- Accommodate various methods of payment (e.g., electronic funds transfer/ direct deposit, home leave, etc.).

- Generate supplemental payments and recertified checks.

- Generate payment to beneficiary of unpaid compensation.

- Provide for electronic fund transfers of amounts withheld to appropriate organizations.

The following are some of the outputs the Pay Processing function provides:

- Information on gross pay by type, deductions by type, and net pay by pay period, made available for retention.

- Magnetic tapes or other media to be sent, with any accompanying reports, to Treasury or other authorized disbursing officers for disbursement, with any accompanying reports, of deductions, net pay, and employer contributions to intended payees.

- Magnetic tapes or other media to be sent to Treasury for issuance of U.S. savings bonds.

- Magnetic tapes, or other media transmitting information on federal retirement thrift plan contributions and loan repayments, to be sent to the Thrift Investment Board.

- Employee earnings statements detailing the composition of gross pay, deductions, and net pay for the pay period and year to date.

- Information on the transfer of dues withheld for labor organizations.

- Information to pass to the Core financial system and cost accounting modules to update fund balances with Treasury and other assets, expense and liability accounts, appropriations and other cost centers for the payroll, including employer contributions.

- Information made available to other functions to generate internal and external payroll reports not created directly in the Pay Processing function.

Report Processing/Reconciliation

The Report Processing/Reconciliation function performs two related purposes. The report processing aspect accesses, manipulates, and formats data as required to satisfy regulatory, managerial, and accounting information requirements. User outputs produced include all vouchers and reports necessary to recognize payroll expense and authorize related disbursements. External reports include those required by Treasury, the Department of Labor, the Federal Retirement Thrift Investment Board, and others. Managerial reports include control reports used by personnel/payroll office staff members, as well as reports used by others such as work location supervisors.

The purpose of the reconciliation aspect is to provide payroll system data for comparison and reconciliation with that of disbursing, accounting, and personnel systems (or modules) to ensure accuracy and completeness.

Disbursing data are reconciled to provide assurance that all disbursements authorized for payment by the payroll certifying officer were disbursed completely and accurately. Personnel data are reconciled to provide assurance that all employees on the payroll are bona fide and that all earnings, entitlements, and benefits are being computed as authorized and recognized in the personnel system. Health insurance enrollment data are made available to carriers so that payroll and carrier records can be verified.

Concerning external reporting, the Report Processing/ Reconciliation function must:

- Produce reports required by Treasury, IRS, the Social Security Administration, the Department of Labor, OPM, and OMB. Produce reports for state and local taxing authorities at required intervals.

Concerning management reporting, this function must:

- Produce all reports and vouchers necessary to recognize payroll expenses, establish related receivables (e.g., administrative debts) and disburse all related payments. Produce supporting detail registers or subsidiary ledgers.

- Produce managerial reports to facilitate monitoring of personnel costs, leave authorization, and personnel actions by personnel/payroll staff members and by operational supervisors or managers.

- Generate, as an option, tickler reports for management (e.g., pending NTE terminations, pending performance evaluations, etc.).

Concerning user reporting, this function must:

- Generate required reports--SF 1150, Record of Leave Data; SF 2806, Individual Retirement Record; and SF 2807, Register of Separations and

Transfers—for separating or transferring employees with the next regular payroll.

- Generate Monthly Employee Report (SF 113A) and the Monthly Full-Time Equivalent (FTE) Report (SF 113G) to OPM.

- Provide for tax deduction reporting, reconciling, and correction processing for each taxing authority.

- Provide the information to analyze detail pay transactions and establish each as either a disbursement or as a debt due the government.

- Derive summary totals of earnings, deductions, contributions, and paid hours for control purposes and to facilitate reporting.

- Provide disbursement voucher data for verification and certification of the payroll process.

- Generate reports of pay and benefit transactions required by the agency Core financial system.

- Generate reports on the use of various methods of payments (e.g., check, direct deposit/electronic funds transfer, etc.).

- Generate accounting transactions for accruals of pay and benefits. This process is to provide for reversals and accruing pay and benefits on other than a monthly basis.

- Provide a means for correcting accounting transactions for an employee for one or more past pay periods generating adjusting accounting transactions to reverse the improper charges and record the correct ones.

- Notify agency payroll and personnel office staff of incorrect or missing data.

- Compile employee data related to health insurance enrollment for validation purposes.

- Store audit trail data in the standard personnel/payroll data files.

- Generate detail registers or subsidiary ledgers which support all vouchers, accounting entries, and disbursements authorized by the payroll office.

- Provide a report for health benefits deductions not taken (e.g., for an employee on leave without pay).

- Provide a report of employee debt, caused by prior-period adjustments or current-period computation, to be used in administrative collection.

- Provide an output matrix of reports that describes report by title, purpose, frequency, distribution level, and the media used to distribute.

- Generate retention records for Reduction in Force (RIF) based on competitive position, tenure, and retention requirements.

Concerning records retention, no record created within the federal government may be destroyed without the approval of the National Archives and Records Administration (NARA), per 36 C.F.R. 1228. Basic payroll records are currently authorized for disposal by General Records Schedule 2, Payrolling and Pay Administration Records, and General Records Schedule 20, Electronic Records. (Copies may be obtained from your agency's records officer or from NARA.) For payroll records not covered by this authority, or for any questions regarding the disposition of federal records, please contact:

> Office of Records Administration (NI)
> National Archives and Records Administration
> Washington, DC 20408

The phone number is (202) 501-6025.

ADP Systems Requirements

These requirements have been itemized in part IV, ADP Systems Requirements, of the <u>Core Financial Systems Requirements</u> (January 1988). Throughout the editing and processing activity of the personnel/payroll system, information must be maintained to support editing and computations. In achieving this objective, edits must be applied to assure that data and/or transactions are:

- appropriately alphabetical, numeric, or both;

- within established ranges or consistent with predefined values;

- properly authorized;

- not executed before the minimum time for execution, in accordance with legal criteria, has passed;

- not executed after the maximum time for execution, in accordance with legal criteria and agency policy, has passed;

- not otherwise executed contrary to legal criteria; and

- executed for all employees, locations, or other parameters intended.

  In addition, editing components must further provide:

- for some errors to be defined as "fatal," in which case processing stops until the problem is resolved;

- for other errors to be defined as "nonfatal," in which case processing may continue;

- easily understood messages to identify the nature of errors; and

- the capability to correct errors immediately on line or have them placed in suspense files for later correction.

Software Documentation

The requirements for software documentation are listed in appendix C of the Core Financial Systems Requirements (January 1988). As stated in this reference, the items in the appendix are meant to identify the scope and intent of the documentation requirements rather than to state them definitively.

Reporting Requirements

The reporting function must (1) support management by generating reports that provide the necessary information to ensure the system's integrity, (2) support the various legal and regulatory requirements by generating reports at regular intervals or on an as-needed basis, and (3) produce reports to meet special needs or requirements. Reporting requirements are also contained in the General Functional Requirements sections I-5 and I-6 of the Core Financial System Requirements (January 1988). Additionally, the system shall:

- Report events and transactions according to the personnel/payroll code structures.

- Generate reports at specific time intervals or upon request, including reports that span fiscal and calendar years.

- Produce transaction listings and error listings (or before and after images of the database) to validate each process.

- Provide the capability to query current, historical, and/or archived data.

- Provide the capability to produce schedules, listings, and reports to support each of the functional areas.

- Support the production of external reports in the prescribed format at the required interval. Reports for external reporting purposes include, but are not limited to:

  - reports on federal, state, and local taxes withheld and forwarded for disbursement;

  - reports on retirement, health insurance, and life insurance forwarded to OPM;

  - reports of pending payroll and personnel transactions for which the effective date has not yet been reached;

  - reports of transactions or actions for which "not-to-exceed" dates are about to be reached; and

  - reports to accompany magnetic media used for certifying and disbursing net pay and deductions.

Internal Controls

The head of each executive agency is required by 31 U.S.C. 3512 to establish, evaluate, and maintain adequate systems of accounting and control. Appendixes II and III to Title 2 of GAO's Policy and Procedures Manual for Guidance of Federal Agencies establish the standards and requirements for systems of accounting and internal controls. These requirements include the responsibility to ensure that any contractor (government or private) operating a payroll system on behalf of an agency maintains adequate systems of accounting and internal control. Some of these requirements are contained in the General Functional Requirement I-6 of the Core Financial System Requirements (January 1988).

Internal controls are to ensure that data are processed in accordance with prescribed standards and procedures and that information used to process and report personnel and payroll activities accurately reflects the results of operations. The internal control function must:

- Provide for well-defined organizational responsibilities to the data element level for the collection of, maintenance of, and access to these data-assigned elements.

- Provide audit trail reports and error listings to support data transferred from external systems to the standard personnel/payroll system.

- Ensure that transactions processed within the system accurately reflect the agencies' activities.

- Provide controls to ensure that data entered for processing is accurate and entered only once.

- Provide controls to ensure that rejected transactions are promptly analyzed and corrected.

- Provide controls to ensure that all transactions entered are completely and accurately processed in the appropriate processing period.

In addition, the personnel/payroll system must meet all federal standards for internal control. These standards are contained in Titles 2 and 6 of GAO's Policy and Procedures Manual for Guidance of Federal Agencies and in OMB Circulars A-123, "Internal Control Systems"; A-127, "Financial Management Systems"; and A-130, "Management of Federal Information Resources."

If an agency's standard personnel/payroll system is operated on contract with a cross-servicing agency or by a contractor, measures must be taken to ensure all requirements are adequately met. These operations may require:

- an audit of the contractor operations by the agency demonstrating that the operations are in accordance with Title 6 and other legal requirements,

- contractor certification of compliance with legal requirements based on a documented internal review of operations by the contractor,

- an audit of contractor operations by an independent party who certifies compliance with legal requirements, or

- other actions which demonstrate that contractor operations are in accordance with legal requirements.

A provision must be made for a single audit of the contractor to eliminate audits by each agency being supported under a cross-servicing agreement.

Interfacing Systems/Information Maintained

he personnel/payroll system, at the standard and/or agency-level, must be able to process transactions from other external systems and record and track such transactions and related information in order to provide the basis for central control. (This may require a custom interface to properly identify and format the transactions.) The system must:

- Provide system flexibility in accepting data input from multiple media that recognizes user agencies' unique data input requirements.

- Subject all transactions from interfacing systems to the standard personnel/ payroll system edits, validations, and error-correction procedures.

- Provide system capability to (1) customize data input, processing rules, and edit criteria and (2) provide agencies flexibility in defining internal operational procedures and in supporting agency requirements.

- Provide the capability to identify and process transactions from other systems that enter and update the standard personnel/payroll system.

- Use software that allows the uploading and downloading of data.

- Provide system flexibility in providing multiple-media output reports and recognize user agencies' unique data output requirements.

- Provide system capability to allow users to customize output for reporting and providing interfaces to other systems necessary to meet agency requirements for external processing (e.g., general ledger posting, budget reconciliation and execution).

Requests for copies of JFMIP reports should be sent to:

Joint Financial Management Improvement Program
666 11th Street NW, Suite 320
Washington, DC 20001-4542

Telephone (202) 376-5439
Fax (202) 376-5396